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THE CITY RECORD.

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JOHN PURROY MITCHEL, MAYOR.

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BOARD OF ESTIMATE AND APPORTIONMENT.

PUBLIC HEARINGS BY COMMISSION ON BUILDING DISTRICTS AND RESTRICTIONS.

Districting the City of New York for the Purpose of Regulating the Height of Buildings, the Area of Courts and Yards, the Location of Trades and Industries and the Location of Buildings Designed for Specified Uses.

NOTICE IS HEREBY GIVEN that the Commission on Building Districts and Restrictions will hold public hearings at 10.30 A. M. in ROOM 16, CITY HALL, Borough of Manhattan, on the dates specified below on its tentative report submitted to the Board of Estimate and Apportionment on March 10, 1916, in relation to districting the City for the purpose of regulating the height of buildings, the area of courts and yards, the location of trades and industries and the location of buildings designed for specified uses.

Borough of Manhattan.

MARCH 30, 1916—All above 125th Street.

Borough of Brooklyn.

APRIL 4, 1916—All central Brooklyn within area bounded by Gowanus Bay, Butermilk Channel, East River, Bedford Avenue, Eastern Parkway, Prospect Park West and 15th Street.

APRIL 10, 1916—Greenpoint, Williamsburgh, Bushwick and all area east of Bedford Avenue and north of Malbone Street and East New York Avenue.

APRIL 11, 1916—Bay Ridge to Coney Island; all area south and west of 15th Street and Coney Island Avenue.

APRIL 17, 1916—Flatbush, Flatlands, East New York; all area east of Coney Island Avenue and south of Malbone Street, East New York Avenue and Borough Line.

Borough of The Bronx.

APRIL 3, 1916—West of the Bronx River.

APRIL 5, 1916—East of the Bronx River.

Borough of Queens.

APRIL 6, 1916—Wards 1 and 2.

APRIL 13, 1916—Ward 3.

APRIL 18, 1916—Wards 4 and 5.

Borough of Richmond.

APRIL 12, 1916.

While each hearing will be devoted particularly to the particular section above indicated, the general questions involved in the plan as a whole, or as relating to an entire Borough, will also be considered.

Dated March 21, 1916.

JOSEPH HAAG, Secretary, Municipal Building; Telephone, 4560 Worth. m21,a18

Police Department.

Report for week ended March 18th, 1916.

MARCH 13TH.

The following named persons were employed as Stenographers and Typewriters, at $780 per annum, on probation, in the Police Department of The City of New York, effective March 20th, 1916, their names appearing on eligible list dated March 6, 1916; Joseph Stern, 46 Bristol St., Brooklyn; Thomas J. Long, 353 6th Street, Brooklyn.

The appointment of Charles H. Dietsch, as Caretaker, under Paragraph 3, Rule XII, was rescinded.

Charles H. Dietsch was transferred from the position of Hostler to the position of Auto Truck Driver at $900 per annum, to take effect March 13. The Municipal Civil Service Commission having issued a certificate of transfer in accordance with clause 13 of Rule XIX, under date of March 10, 1916.

Accepted—Resignation of James D. Reilly, Automobile Machinist, to take effect 5 p. m., March 15, 1916.

The following member of the force was relieved and dismissed from the police force and service and placed on the roll of the Police Pension Fund and was awarded the following pension, to take effect 12 p. m., March 11, 1916: Patrolman James Ross, 153rd Precinct, on Police Surgeons' certificate, at $700 per annum; appointed June 7, 1907.

MARCH 14TH.

Granted—Petition for pension of Catherine Brady, widow of James Brady, pensioner; date of marriage, July 12, 1866; amount of pension awarded, $240 per annum.

Masquerade Ball Permits Granted—Arnold Kettgen, Arion Hall, Brooklyn, March 18, $10; March 17, $10; March 23, $10; Morris Cohn, Willoughby Mansion, Brooklyn, April 1, $10.

The following member of the force was relieved and dismissed from the police force and service and placed on the roll of the Police Pension Fund and was awarded the following pension, to take effect 12 p. m., March 13, 1916: Sergeant Henry B. Schilling, 160th Precinct, on his own application, at $875 per annum; appointed January 23, 1884.

MARCH 15TH.

Granted—Application of Morris Grossman, A. D. S., 2nd Grade, Detective Bureau, for permission to accept reward of $50, less the usual deduction for the Police Pension Fund, from the U. S. Naval authorities for the arrest of a deserter. Permission to A. D. S., 1st Grade, Thomas S. Hughes, Martin S. Owens, Joseph Toner, John Fitzpatrick and A. D. S., 2nd Grade, Thomas Horan and George Leavitt, to accept reward of $100, less the usual deduction for the Police Pension Fund, from the Liverpool & London & Globe Insurance Co., Ltd., 80 William St., for the recovery of automobiles. Petition for pension of Harriett A. Ryder, widow of Gerard W. Ryder, pensioner; date of marriage, Oct. 2, 1877; amount of pension awarded, $300 per annum. Petition for pension of Mary C. Dolon, widow of Michael E. Dolan, pensioner; date of marriage, June 30, 1904; amount of pension awarded, $300 per annum.

Accepted—Resignation of William H. Kirk, Deputy Clerk, to take effect March 15, 1916.

The following members of the force were relieved and dismissed from the police force and service and placed on the roll of the Police Pension Fund and were awarded the following pension, to take effect 12 p. m., March 1, 1916, on Police Surgeons' certificate: Patrolman William Drinkwater, 153rd Precinct, at $696 per annum; appointed April 20, 1896. William Hennessy, Bridge Precinct, at $678 per annum; appointed Dec. 3, 1896. Oliver A. Benson, Traffic Division, Subdivision D, at $700 per annum; appointed Oct. 2, 1895.

The following member of the force, having been tried on a charge before a Deputy Commissioner, and found guilty, was dismissed from the police force of The City of New York: to take effect 12.35 p. m., March 14, 1916: Patrolman James E. Nolan, 26th Precinct; charge (preferred while attached to 43rd Precinct), Feb. 5, 1915: neglect of duty, violation of the rules (1) absent from post and precinct, and standing in rear room of liquor saloon; (2) failed to obtain permission; (3) failed to make entry.

MARCH 16TH.

Runner License Granted—James P. Burns, 540 Henry St., Brooklyn, from March 18, 1916, to March 17, 1917; fee, $12.50; bond, $300.

The following death was reported: Patrolman Daniel M. Hogan, 10th Precinct, at 11 p. m., March 15, 1916.

The following member of the force having been tried on a charge before a Deputy Commissioner, and found guilty, was dismissed from the police force of the Police Department of The City of New York, to take effect 12.23 p. m., March 16, 1916: Patrolman Eugene H. Pulch, 169th Precinct; charge, March 11, 1916, violation of rules and conduct unbecoming an officer (1) while on vacation engaged in another business; acted as bartender and manager in liquor saloon; (2) served a Lieutenant in said saloon; (3) served a Lieutenant and Sergeant in said saloon.

MARCH 17TH.

The following named persons were restored to their former positions in the Police Department, effective 8 a. m., March 20, 1916: Albert Mosely, Steward, at $360 per annum; Charles Glifford, Cook, at $600 per annum.

Masquerade Ball Permits Granted—M. N. Koven, Brownsville Labor Lyceum, Brooklyn, March 18, $10; Mrs. E. Spiegel, Borough Park Club, Brooklyn, March 18, $10; F. Hettinger, Hettinger's Broadway Hall, Queens, March 18, $10; James C. O'Brien, St. Nicholas Rink, Manhattan, March 17, $25; Peter Pearson, Terrace Garden, Manhattan, April 1st, $25; Alexander Goldman, Grand Central Palace, Manhattan, March 18, $100.

The following member of the force was relieved and dismissed from the police force and service and placed on the roll of the Police Pension Fund and awarded the following pension, to take effect 12 p. m., March 16, 1916: Patrolman Edward Sweeney, 65th Precinct, on his own application, at $700 per annum; appointed April 3, 1886.

The following death was reported: Captain John F. O'Connor, 170th Precinct, at 3.40 a. m., March 17, 1916.

MARCH 18TH.

The following member of the force having been tried on charges before a Deputy Commissioner, and found guilty, was dismissed from the police force of the Police Department of The City of New York, to take effect 9.45 a. m., March 18, 1916: Patrolman Thomas J. Leonard, 161st Precinct; charges, March 4, 1916, violation of the rules, conduct prejudicial to good order, efficiency and discipline and conduct unbecoming an officer (1) insulted a woman both by word and action; (2) absent from post, in hallway of premises; (3) failed to obtain permission; (4) failed to make entry; not guilty of specifications 5, 6 and 7.

The following death was reported: Lieutenant William H. V. O'Rourke, 40th Precinct, at 6.15 p. m., March 17, 1916.

ARTHUR WOODS, Police Commissioner.

Board of Examiners.

March 20, 1916.

Meeting called to order at 10 a. m.

Present—Messrs. Chas. Buek, Lewis Harding, Lansing C. Holden, John Kenlon, Cecil F. Shallcross and William Crawford, Chairman.

The Chairman announced a calendar of one appeal, No. 26 of 1916, laid over at the last meeting, to be considered after examination of the premises affected. Appearance: Herbert J. Krapp.

After reviewing the plans and records brought by the Clerk, the building was examined by all the members of the Board present.

On motion, laid over.

E. V. BARTON, Clerk.

Adjourned.

THE BOARD OF ALDERMEN OF THE CITY OF NEW YORK.

STATED MEETING.

Tuesday, March 28th, 1916, 1.30 o'clock p. m.

The Board met in the Aldermanic Chamber, City Hall.

Present:

Hon. Frank L. Dowling, President of the Board of Aldermen.

Aldermen

Alexander Bassett.	Charles P. Cole.	Edward W. Curley.
Francis P. Bent.	William T. Collins.	Henry H. Curran.
James J. Browne.	William W. Colne.	William J. Daly.
Lauren Carroll.	Edward W. Cox.	Charles Delaney.
Louis F. Cardani.	S. Clinton Crane.	John Diemer.
Edward Cassidy.	Frank A. Cunningham.	Frank T. Dixson.

Bernard E. Donnelly.	Michael J. Hogan.	John J. Ryan.
Frank Dostal, Jr.	William P. Kenneally.	Frank J. Schmitz.
Charles W. Dunn.	Francis P. Kenney.	Peter Schweickert.
Alexander S. Drescher.	John F. McCourt.	Michael J. Shields.
John T. Eagan.	William P. McGarry.	Emanuel I. Silberstein.
Thomas M. Farley.	Charles J. McGillick.	Fred Smith.
James R. Ferguson.	John McKee.	Arnon L. Squiers.
August Ferrand	Thomas W. Martin.	Patrick H. Sullivan.
Samson Friedlander.	James J. Molen.	Michael Stapleton.
John S. Gaynor.	Charles J. Moore.	Frederick H. Stevenson.
Edward V. Gilmore.	Robert L. Moran.	Moritz Tolk.
George G. Goetz.	Frank Mullen.	Frederick Trau.
Isaac Gutman.	John J. O'Rourke.	William K. Walsh.
Joseph M. Hannon.	Clarence Y. Palitz.	Louis Wendel, Jr.
Charles H. Haubert.	Charles A. Post.	Thomas A. Williams.
Harry Heyman.	William F. Quinn.	John Wirth.
George Hilkemeier.	Harry Robitzek.	Augustus M. Wise.

Calvin D. Van Name, President, Borough of Richmond.

Maurice E. Connolly, President Borough of Queens, by James A. Dayton, Commissioner of Public Works.

Douglas Mathewson, President, Borough of The Bronx.

Lewis H. Pounds, President Borough of Brooklyn, by Edmund W. Voorhies, Commissioner of Public Works.

Marcus M. Marks, President, Borough of Manhattan, by Ralph Folks, Commissioner of Public Works.

The Clerk proceeded to read the Minutes of the stated meeting of March 21, 1916.

On motion of Alderman Kenney further reading was dispensed with, and the Minutes were approved as printed.

PETITIONS AND COMMUNICATIONS.

The President laid before the Board the following communication from Mr. Charles Cooper:

No. 328.

Complaint in Regard to Unnecessary Noises in City Streets.

New York City, March 24, 1916.

The Board of Aldermen:

Dear Sirs—I again take the liberty of complaining of the unbearable noise on this street. The electric pianos seem to be less numerous, but the number of brass bands seems to have increased.

Now, I wish to state that I am a musician, and that I pursue my vocation here, in my studio. The noise of these bands, as well as other noises, such as the rattling of coal on the tin chutes of unloading coal wagons, is unbearable, and I find great difficulty in pursuing my work.

Surely, the playing of brass bands in residential districts should be forbidden. Cannot something be done in the matter?

They are insolent as well, and refuse to move on when told to do so.

In regard to the unloading of coal wagons, which occurs constantly throughout the winter, making a noise like a cataract, I would like to suggest that the chutes be covered with a hood, or muffled in some way, as the noise is terrible.

Hoping that some immediate steps may be taken in the matter, I remain,

Yours sincerely, CHARLES COOPER, 7 West 92d Street.

Which was ordered on file.

COMMUNICATIONS FROM CITY, COUNTY AND BOROUGH OFFICERS.

The President laid before the Board the following communication from the Fire Commissioner:

No. 329.

Fire Commissioner—Request for Authority to Purchase Two Electric Searchlights, Without Public Letting.

Fire Department of The City of New York, March 21, 1916.

Hon. FRANK L. DOWLING, *President of Board of Aldermen:*

Sir—I have the honor to request permission to purchase, without public letting, two electric searchlights for the use of this department, at a cost of $1,600.

These searchlights are made only by the Edison Company, and their substitution for the searchlight now in use in this department will make it possible to effect an economy amounting to $7,900 per annum.

At the present time this department maintains two water towers in Brooklyn, and it is the intention to equip each with a searchlight at no extra expense beyond the purchase and installation.

The operating cost of the searchlights at the present time is as follows:

Salaries of two Engineers	$3,200 00
Keeping of two horses	600 00
Twenty-five tons of coal	150 00
Total saving for each searchlight	$3,950 00
Total saving for two searchlights	7,900 00

In addition to this, the engines used in connection with the searchlights can be returned to service and disposed of.

The light furnished by the new Edison searchlight is vastly superior to the light furnished by our old-fashioned searchlights. A demonstration of this searchlight was recently made before myself, Chief Kenlon, Deputy Chief Martin and a number of other high officers of the department, and was pronounced far more satisfactory than the present searchlight. In other words, we can effect a saving of $7,900 per annum and at the same time procure a much better searchlight for use at fires. I would greatly appreciate your favorable action upon this request as early as possible, as we would then be able to assign four engineers and four horses to other service.

On December 16, 1915, permission was requested to purchase three of these to replace three searchlights then in operation in the Borough of Manhattan. These are to be mounted on water towers. Permission to purchase these three searchlights in the open market was granted by the Board of Aldermen on December 21, 1915.

Respectfully, ROBERT ADAMSON, Fire Commissioner.

Which was referred to the Committee on Public Letting.

The President laid before the Board the following communication from the Commissioner of Street Cleaning:

No. 330.

Commissioner of Street Cleaning—Request for Extension of Time Limit on Issue of Special Revenue Bonds for the Purpose of Installing a Combined System of Hose Connection and Sprinkler Equipment at Various Dumping Boards.

Department of Street Cleaning of The City of New York, Office of the Commissioner, Municipal Building, New York City, March 24, 1916.

Hon. FRANK L. DOWLING, *President of the Board of Aldermen, City of New York:*

Sir—On October 26, 1915, the Board of Aldermen adopted a resolution authorizing the Comptroller to issue special revenue bonds to the amount of $32,738, the proceeds whereof to be used by the Department of Street Cleaning for the purpose of installing a combined system of hose connection and sprinkling equipment at various dumping boards in the Boroughs of Manhattan, The Bronx and Brooklyn, all obligations contracted for thereunder to be incurred on or before April 1, 1916. This resolution became effective November 9, 1915, without action of the Mayor. On December 10, 1915, the Board of Estimate and Apportionment approved of and concurred in the said resolution.

Owing to the pressure of other work and unavoidable delay in the preparation of plans and specifications it will not be possible to advertise and award contracts before April 1, 1916, and request is therefore made that the said resolution be amended so as to provide that obligations may be contracted for thereunder on or before July 1, 1916. Yours respectfully, J. T. FETHERSTON, Commissioner.

Which was referred to the Committee on Finance.

The President laid before the Board the following communication from the President of the Borough of Brooklyn:

No. 331.

President of the Borough of Brooklyn—Request for Special Revenue Bonds, $1,434, to Cover the Cost of Necessary Repairs to a Tunnel in Atlantic Avenue.

The City of New York, Office of the President of the Borough of Brooklyn, Brooklyn, March 27, 1916.

The Honorable Board of Aldermen, City of New York:

Gentlemen—On the lower part of Atlantic avenue, from the South Ferry northerly, there is an old subway or tunnel under the roadway which was constructed by the Long Island Railroad for the use of its trains by an ordinance of the Common Council of the City of Brooklyn adopted March 29th, 1844.

On April 28, 1860, the Long Island Railroad assigned to the Brooklyn and Jamaica Railroad Company its right, title and interest in said tunnel by deed recorded in the Kings County Register's office and on the same day the two companies entered into an agreement with Commissioners appointed under chapter 484 of the Laws of 1859, by which they agreed to close the entrance to the tunnel in Atlantic avenue (then known as Atlantic street) and restore and pave the street.

It was reported by one of the inspectors of this department that the arch at Court street is in bad condition, due to the fact that several conduits have been cut through it and a number of bricks are so loose that every once in a while some of them fall. On August 9th, 1915, we requested an opinion from the Corporation Counsel as to the responsibility for the repairs to this tunnel, i. e., whether it devolved upon the City or the Long Island Railroad Company and on November 24, 1915, the Corporation Counsel advised that, after a thorough search of the proceedings under which this tunnel was constructed and subsequently abandoned, that "The City of New York now is the owner of the tunnel in question and is charged with the duty of maintaining and keeping the same in safe condition."

If this tunnel should cave in it would cause a very serious accident and for this reason we believe that the work of repairs should be undertaken in the near future.

There are no funds available in this department for this work, and it will be necessary to secure an issue of special revenue bonds for the purpose. The estimate of the cost is as follows:

Earth fill, 954 cubic yards at $1.00	$954 00
Concrete masonry, 48 cubic yards at $10.00	480 00
Total	$1,434 00

I would therefore respectfully request that your Board of Aldermen adopt a resolution as early as possible providing for an issue of revenue bonds in the amount of $1,434, to cover the cost of necessary repairs to the tunnel in Atlantic avenue.

Yours very truly, E. W. VOORHIES, Commissioner of Public Works, and Acting Borough President.

Which was referred to the Committee on Finance.

The President laid before the Board the following communication from the Commissioner of Weights and Measures:

No. 332.

Commissioner of Weights and Measures—Communication Relative to a Presentation of Stereopticon Views Showing the Character of Work Performed by the Mayor's Bureau of Weights and Measures.

City of New York, Mayor's Bureau of Weights and Measures, Municipal Building, March 25, 1916.

Hon. FRANK L. DOWLING, *President, Board of Aldermen,* City Hall, New York City:

Dear Mr. President—Would it be in accordance with the dignity of the Members of the Board of Aldermen and in harmony with their meeting room in the Aldermanic Chamber, to present for their edification a series of stereopticon views showing the character of work performed by the Mayor's Bureau of Weights and Measures in behalf of the public? These views are actual scenes with employees of the Bureau at work in the field, covering a variety of subjects which are particularly close to the people. There isn't a topic which comes within the purview of the authority of this Bureau that is left untouched.

The pictures will convey to the Aldermen ideas of City living, with which no doubt they are familiar, disclosing, however, certain of the dishonest practices which are engaged in by dishonest traders who impose upon the people.

My proposal may be unique, but it has its justifying reasons. These reasons are to familiarize in a small way, through these pictures, the general Board, with the character of work done by this Bureau.

I trust that the opportunity will be afforded for the presentation of these pictures, and sincerely hope that your co-operation will be given and a date set convenient to the Board for the show. With kind regards, I am.

Sincerely, JOSEPH HARTIGAN, Commissioner.

Which was ordered on file.

The President laid before the Board the following communications from the Trustees of Bellevue and Allied Hospitals:

No. 333.

Trustees, Bellevue and Allied Hospitals—Request for Special Revenue Bonds, $5,000. for the Purchase of the Boat "Helen C. Juilliard" to Replace the Boat "Westfield."

Bellevue and Allied Hospitals, Office of the Board of Trustees, 1st Avenue and 26th Street, New York, March 23, 1916.

Hon. FRANK L. DOWLING, *President, Board of Aldermen,* City Hall, New York:

Sir—The Trustees of Bellevue and Allied Hospitals have the honor to request the Board of Aldermen to authorize an issue of special revenue bonds in the sum of $5,000 for the purchase of the boat "Helen C. Juilliard," now owned by St. John's Guild, to replace the boat "Westfield," formerly used as a day camp for tuberculosis patients in connection with Gouverneur Hospital. After many years of service the "Westfield" was discontinued upon the receipt of a report from the Department of Docks and Ferries that it was unsafe as a day camp, and the Trustees have since made every effort to obtain another boat or a suitable place for the patients, so that the great value of the work carried on may be conserved and to retain an effective tuberculosis control in the Gouverneur district. The department has been overwhelmed with letters of indignant protest and inquiries from residents in the vicinity of Gouverneur emphasizing the need of replacing in some way the services formerly afforded by the "Westfield." After extensive inquiries the department has learned that St. John's Guild is willing to sell the boat "Helen C. Julliard" for $5,000. A report from the Department of Finance of an examination made by the Chief Engineer reads as follows:

"The boat is 210 feet in length over all and 39 feet in width over guards, and has a tonnage of 756 tons. The type of the boat is an excursion or bay barge with half of main deck inclosed to form cabins; second deck (full span) covered by hurricane deck; hull divided into three sections to form mass hall, crew quarters and boiler and pump room.

"Boat appears sound throughout, and has the appearance that it has been well cared for since built, about 16 years ago.

"The arrangement of partitions, etc., are well adapted for a hospital ship having shower baths, toilets, examining rooms, wards, kitchen with ice box, etc.

"I am informally advised that the boat cost $35,000 to build.

"The price asked, $4,500, appears reasonable and just."

The price mentioned in the last paragraph appears to be an error, the authorities of St. John's Guild asking $5,000 for the boat, and having under consideration at the present time an offer for that amount. In view of the cost of building and the present excellent condition of the boat, there can be no doubt of the reasonableness of the price asked. In making this request, the Trustees also ask permission for the necessary authority to purchase this boat. Respectfully,

J. K. PAULDING, Secretary, Board of Trustees.

Which was referred to the Committee on Finance.

No. 334.

Trustees, Bellevue and Allied Hospitals—Request for Authority to Purchase a Motor Ambulance, Without Public Letting.

Bellevue and Allied Hospitals, Office of the Board of Trustees, 1st Avenue and 26th Street, New York, March 24, 1916.

Hon. FRANK L. DOWLING, *President, Board of Aldermen,* City Hall, New York:

Sir—The Trustees of Bellevue and Allied Hospitals have the honor to request the Board of Aldermen for permission to buy in the open market, without public letting, a motor ambulance for the psychopathic department of Bellevue and Allied Hospitals, for which special revenue bonds were authorized by the Board of Aldermen on February 23, 1916. The ambulance that is required is of a special character, and it would be difficult, if not impossible, to obtain an acceptable ambulance by advertising for bids.

Respectfully, J. K. PAULDING, Secretary, Board of Trustees.

Which was referred to the Committee on Public Letting.

No. 335.

Trustees, Bellevue and Allied Hospitals—Request for Authority to Purchase Certain Foodstuffs, Without Public Letting.

Bellevue and Allied Hospitals, Office of the Board of Trustees, 1st Avenue and 26th Street, New York, March 27th, 1916.

Hon. FRANK L. DOWLING, *President, Board of Aldermen,* City Hall, New York:

Sir—The Trustees of Bellevue and Allied Hospitals have the honor to request the

Board of Aldermen for permission to buy in the open market, without public letting, the butter, eggs, bread and rolls required in this department until the contracts for the delivery of these supplies become operative, and for which bids will be received by the Central Purchase Committee on April 3rd. It is estimated that the cost of butter, eggs, bread and rolls required for Bellevue and its allied hospitals will in each instance exceed one thousand dollars in cost.

Respectfully, J. K. PAULDING, Secretary, Board of Trustees.

Which was referred to the Committee on Public Letting.

The President laid before the Board the following communication from the Chief Justice of the City Court:

No. 336.

Chief Justice, City Court—Request for Special Revenue Bonds, $560, to Pay Salary of a Switchboard Operator from May 1 to December 31, 1916.

City Court of The City of New York, City Hall Park, Chambers of Edward F. O'Dwyer, Chief Justice, March 25, 1916.

To the Honorable the Board of Aldermen, City Hall, City Hall Park, City of New York:

Gentlemen—Owing to an immediate need for more satisfactory telephone service the Board of Justices of the City Court of the City of New York have petitioned the Board of Estimate and Apportionment to create for the said court the position of Switchboard Operator (female), to become effective May 1st, 1916, and to fix the salary therefor at the rate of $840 per annum.

The Board of Justices therefore request that, conformable with the action of the Board of Estimate and Apportionment, you issue special revenue bonds in the sum of $560 in order to pay the salary of one switchboard operator at the rate of $840 per annum for the period May 1st, 1916, to December 31st, 1916, inclusive.

Respectfully yours, EDWARD F. O'DWYER, Chief Justice of the City Court of The City of New York.

Which was referred to the Committee on Finance.

The President laid before the Board the following communication from the Board of Estimate and Apportionment:

No. 337.

Board of Estimate and Apportionment—Resolution to Amend an Issue of Corporate Stock for Construction of an Extension to Pier 43, North River.

City of New York, Board of Estimate and Apportionment, Office of the Secretary, Municipal Building, March 25, 1916.

To the Honorable the Board of Aldermen:

Gentlemen—I transmit herewith certified copy of resolution adopted by the Board of Estimate and Apportionment March 17, 1916, *amending* resolution adopted on March 6, 1913, and approved by the Board of Aldermen on March 25, 1913, which authorized the issue of $35,000 corporate stock for the construction of extension to Pier 43, North River, under the jurisdiction of the Commissioner of Docks, by reducing said amount to $22,000.

I also enclose copy of communication dated March 10, 1916, from the Commissioner of Docks relative to the rescindment of certain corporate stock authorizations in order to provide for the construction of the shed on the pier at the foot of West 46th Street, North River. Respectfully, JOSEPH, HAAG, Secretary.

"Resolved, That, in accordance with the recommendation of the Commissioners of the Sinking Fund, by resolution adopted April 22, 1914, and subject to the concurrence herewith by the Board of Aldermen, the resolution adopted by the Board of Estimate and Apportionment March 6, 1913, and approved by the Board of Aldermen on March 25, 1913, which reads as follows:

"'Resolved, That, in accordance with the recommendation of the Commissioners of the Sinking Fund, by resolution adopted February 26, 1913, and subject to the concurrence herewith by the Board of Aldermen, the resolution adopted by the Board of Estimate and Apportionment July 17, 1911, and approved by the Board of Aldermen on July 25, 1911, which reads as follows:

"'"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, and section 180 of the said Charter, and the recommendation of the Commissioners of the Sinking Fund, by resolution adopted July 12, 1911, the Board of Estimate and Apportionment hereby approves of the issue of corporate stock of The City of New York to an amount not exceeding twelve thousand dollars ($12,000) to provide means for the construction of extension to Pier 43, North River, under the jurisdiction of the Department of Docks and Ferries, and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller be and is hereby authorized to issue corporate stock of The City of New York in the manner provided by section 169 of the Greater New York Charter, the proceeds thereof to the amount of the par value of the stock to be applied to the purposes aforesaid."

"'—be and the same is hereby amended to make the amount authorized read fifteen thousand dollars ($15,000).'"

"—be and the same is hereby further amended to make the amount authorized read thirty-five thousand dollars ($35,000).

"Provided, however, that no part of the proceeds of the corporate stock herein authorized shall be available until after the Board of Estimate and Apportionment has approved forms of contracts, plans and specifications and estimate of cost pertaining to the same and that no part of such proceeds shall be used for the payment of fees of any architect, engineer or expert until after a contract with such architect, engineer or expert has been approved by the Board of Estimate and Apportionment and that no part of the proceeds of corporate stock herein authorized shall be used for the payment of any salary or wage of departmental employees, except after approval by the Board of Estimate and Apportionment and in accordance with the schedules to be adopted by said Board; and be it further

"Resolved, That the Commissioner of Docks is directed to submit to this Board, for its approval, forms of contracts, plans, specifications and estimates of cost prior to the advertising for bids for work chargeable to the proceeds of the corporate stock herein authorized, and said Commissioner is also directed to submit to this Board for its approval all preliminary and final agreements with an architect or architects, engineer or engineers, expert or experts, whenever such agreements or contracts are chargeable against corporate stock herein authorized."

—be and the same is hereby further amended by striking therefrom the words and figures thirty-five thousand dollars ($35,000) and inserting in place thereof the words and figures twenty-two thousand dollars ($22,000).

A true copy of resolution adopted by the Board of Estimate and Apportionment, March 17, 1916. JOSEPH HAAG, Secretary.

The City of New York, Department of Docks and Ferries, Office of the Commissioner, Pier A, North River, March 10, 1916.

Hon. JOHN PURROY MITCHEL, *Mayor and Chairman of the Board of Estimate and Apportionment:*

Dear Sir—At a meeting of the Commissioners of the Sinking Fund held December 8, 1915, a resolution was adopted recommending to the Board of Estimate and Apportionment that the Comptroller be authorized to issue Corporate Stock of the City of New York to an amount not exceeding $465,000, the proceeds to the par value thereof to be used by this Department for the construction of a shed on the pier at the foot of West 46th Street, North River, Borough of Manhattan.

On January 7, 1916, resolution was adopted by the Board of Estimate and Apportionment authorizing the Comptroller to issue Corporate Stock of the City of New York to an amount not exceeding $465,000, the proceeds thereof to the amount of the par value of the stock to be used by this Department for the construction of shed on the pier at the foot of West 46th street, North River, Borough of Manhattan.

At a meeting of the Board of Estimate and Apportionment held January 28, 1916, resolution was adopted as follows:

"Resolved, That the Board of Estimate and Apportionment, pursuant to its resolution of July 11, 1912, hereby approves the form of contract No. 1488, the specifications, as amended, the plans and estimate of cost in the sum of five hundred and twenty-eight thousand four hundred dollars ($528,400) for building a freight shed, with appurtenances, on the pier at the foot of West Forty-sixth street, North River, Borough of Manhattan, under the jurisdiction of the Department of Docks and Ferries, the contract to be divided into three parts, as follows:

Classes 1 and 2, general construction, (a) freight shed and appurtenances, (b) asphalt pavement for lower deck	$510,600 00
Class 3, plumbing, installation of water supply	16,000 00
Class 4, installation of steampiping	1,800 00
	$528,400 00

—said cost to be paid to the extent of four hundred and sixty-five thousand dollars ($465,000) from the corporate stock fund entitled 'C. D. D.—42, Department of Docks and Ferries, Construction of Sheds on Pier at Foot of West 46th Street,' and the balance, estimated at sixty-three thousand four hundred dollars ($63,400), to be paid from the corporate stock fund entitled 'C. D. D.—4K, Department of Docks and Ferries, Construction of New Pier at Foot of West 46th Street, and Slips Adjacent,' and be it further

"Resolved, That in the event that the aggregate sum of the lowest bids received for the three items is equal to or less than the aggregate sum of the three items herein approved (although the amount of the lowest bid for one or more items may exceed the amount approved for said item or items), then the awards for the three items, provided all are awarded, may be made without further approval by the Board of Estimate and Apportionment; and be it further

"Resolved, That, in the event that the aggregate sum of the lowest bids received for the three items exceeds the aggregate sum of the three items herein approved, no award for either item shall be made and the amount of such estimated cost upon the bids so received may be reconsidered in its discretion by the Board of Estimate and Apportionment, or by any official designated by the Board, provided that the aggregate of the bids is within the amount authorized and available for said work."

On February 11, 1916, bids were opened on this contract, the low bids on Classes 3 and 4 being as follows:

Class 3, for plumbing—John J. Kenney Co	$10,369 00
Class 4, for installation of steampiping—William Young Plumbing Co	1,335 00

Deeming it to be for the best interests of the City so to do, I rejected the bids received February 11, 1916, on Classes 1 and 2 for the construction of the shed proper and for the laying of the asphalt deck on the pier, and ordered the re-advertising of these two classes.

At the opening of bids today on Classes 1 and 2, the lowest bid received was from Post and McCord at $573,450.

The total contract cost for the construction of the shed on the pier at West 46th street, North River, as detailed above, is as follows:

Classes 1 and 2	$573,450 00
Class 3	10,369 00
Class 4	1,335 00
Total amount of contract	$585,154 00

In the resolution adopted by the Board of Estimate and Apportionment on January 28, 1916, this contract was authorized at a total estimate of $528,400, the sum of $465,000 to be charged against C. D. D.—42, and the sum of $63,400 to be charged against C. D. D.—4K.

There is now in C. D. D.—42 the sum of $465,000.

I request that the corporate stock appropriations in the following accounts be rescinded to the extent of the amount stated in each case:

C. D. D.—4D	Extension to Pier 34, North River	$13,000 00
C. D. D.—10D.	Extension to Pier 22, North River	1,500 00
C. D. D.—37.	Construction of pier foot of 30th Street, South Brooklyn	4,000 00
C. D. D.—38.	Construction of pier at 35th Street, Brooklyn	15,000 00
C. D. D.—4K.	Construction of pier at West 46th Street, North River	86,654 00
Total amount to be rescinded		$120,154 00

It is further requested that a resolution be adopted authorizing the Comptroller to issue corporate stock for the construction of the shed on the pier at West 46th Street, North River, to the amount rescinded as above, $120,154, this amount to be added to the present fund in C. D. D.—42, for the construction of the shed on the pier at West 46th Street, North River, which will make the total in that fund $585,154.

If the above requests be granted, I request that the resolution of January 28, 1916, be modified and that this contract be authorized at the estimate of $585,154 as a charge against C. D. D.—42 for the construction of the shed on the pier at West 46th Street, North River.

A letter in this matter has today been forwarded to the Commissioners of the Sinking Fund. Yours very truly, R. A. C. SMITH, Commissioner of Docks.

Which was referred to the Committee on Finance.

The President laid before the Board the following communication from the Chief Clerk of the Children's Court:

No. 338.

Children's Court—Request for Permission to Draw $150 on Account of Contingent Fund.

City of New York, Children's Court, March 27th, 1916.

P. J. SCULLY, Esq., *City Clerk*, Municipal Building, City:

My dear Mr. Scully—We most respectfully make application for the passage of a resolution by the Board of Aldermen of the City of New York authorizing this court to draw by requisition on the Comptroller for a sum of money not to exceed $150 for the purpose of meeting minor and incidental expenses, more particularly for the purchase of postage stamps, which expenses are contingent to this office and are chargeable against Code No. 2897.

Very truly yours, ADOLPHUS RAGAN, Chief Clerk.

Which was referred to the Committee on Finance.

The President laid before the Board the following communication from the Commissioner of Water Supply, Gas and Electricity:

No. 339.

An Ordinance to Amend Chapter 9 of the Code of Ordinances by Modifying Articles 2, 3, 4, 5 and 6 Thereof.

The City of New York, Department of Water Supply, Gas and Electricity, Office of the Commissioner, Municipal Building, New York City, March 28, 1916.

Hon. FRANK L. DOWLING, *President, Board of Aldermen*, City Hall, New York, N. Y.:

Dear Sir—In accordance with section 523 of the Charter I submit herewith a proposed ordinance amending chapter 9 of the Code of Ordinances (commonly known as the "Electrical Code"), by modifying articles 2, 3, 4, 5 and 6 thereof. The electrical requirements of this chapter, which was enacted in July, 1915, were based upon the 1913 edition of the National Electrical Code, which describes the standard for electrical construction throughout the United States and Canada. Since the enactment of said chapter in 1915 a later edition of the National Electrical Code has been issued containing a number of changes which represent the recent progress in the industry. The department desires that the Electrical Code for this city (said chapter 9) shall embody all such changes as are of value in this territory, also a few other changes which our experience during the last few months shows to be desirable. For this reason the department recommends the amendment of said chapter 9 hereinabove referred to. I ask that the proposed amendment be adopted at an early date.

Respectfully, WILLIAM WILLIAMS, Commissioner.

AN ORDINANCE to Amend Chapter 9 of the Code of Ordinances by Modifying Articles 2, 3, 4, 5 and 6 Thereof.

Be it Ordained by the Board of Aldermen of The City of New York, as follows:

Section 1. The Code of Ordinances of The City of New York is hereby amended by modifying articles 2, 3, 4, 5 and 6 in chapter 9 thereof, to read as follows:

§201. Generators.

a. Generators must be located in a dry place.

b. Generators 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 flyings of combustible materials.

c. Generators must, when operating at a potential in excess of 550 volts, have their base frames permanently and effectively grounded.

Generators must, when operating at a potential of 550 volts or less, [be thoroughly insulated from the ground] *have their base frames permanently and effectively grounded* wherever feasible. *Where grounding of the frame is impracticable, special permission for its omission may be given in writing, in which case the frame must be permanently and effectively insulated.* Wooden base frames used for this purpose, and wooden floors which are depended upon for insulation where, for any reason, it is necessary to omit the base frames, must be kept filled to prevent absorption of moisture, and must be kept clean and dry.

[Where frame insulation is impracticable, special permission for its omission may be given in writing, in which case the frame must be permanently and effectively grounded.]

d. Constant potential generators, except alternating current machines and their exciters, must be protected from excessive current by safety fuses or equivalent devices of approved design.

For two-wire D. C. generators, single-pole protection will be considered as satisfying the above rule, provided the safety device is so located and connected that

the means for opening same is actuated by the entire generator current, and the action thereof will completely open the generator circuit.

[For two-wire D. C. generators used in conjunction with balance sets to obtain a neutral for three-wire systems, a protective device must be installed, which in case of the excessive unbalancing of voltages will operate to disconnect the three-wire system.]

[If a generator, not electrically driven, in a two-wire system has one terminal grounded, the safety device above mentioned must be placed in the grounded lead.]

For three-wire direct-current generators compound or shunt wound, a safety device must be placed in each armature lead, and so connected as to receive the entire current from the armature. Fuses will not be acceptable. The safety device must consist of either: (1) a double pole, double coil, overload circuit breaker, or (2) a four-pole circuit breaker connected in the main and equalizer leads, and tripped by means of two overload devices, one in each armature lead.

The safety devices above required must be so interlocked that no *one* pole can be opened without simultaneously disconnecting both sides of the armature from the system.

e. Generators 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.

f. Terminal blocks when used on generators must be made of approved non-combustible, non-absorptive, insulating material, such as slate, marble or porcelain.

g. The use of soft rubber bushings to protect the lead wires coming through the frames of generators is permitted, except when installed where oils, grease, oily vapors or other substances known to have rapid deleterious effect on rubber are present in such quantities and in such proximity to [motor or dynamo] *the generator* as may cause such bushings to be liable to rapid destruction. In such cases hard wood, properly filled, or preferably porcelain or micanite bushings must be used.

§202. Conductors from generators to switchboards, rheostats or other instruments, and thence to outside lines.

a. Conductors must be in plain sight or readily accessible. Wires from generator to switchboard may, however, be placed in a run-way in the brick or cement pier on which the generator stands. When protection against moisture is necessary, [lead-covered cable or iron] *cable with grounded lead sheath or grounded* conduit must be used.

b. Conductors must have an approved insulating covering as called for [by rules] in article 4 of this chapter for similar work, except that in central stations, on exposed circuits, the wire which is used must have a heavy braided, non-combustible outer covering. Conductors used as bus bars may be made of bare metal. Wires with inflammable outer braiding, when brought close together, as in the rear of switchboards, must, when required, be each surrounded with a tight, non-combustible outer cover. Flame proofing must be stripped back on all cables a sufficient amount to give the necessary insulation distances for the voltage of the circuit on which the cable is used.

c. Conductors must, where not in a conduit, be kept so rigidly in place that they cannot come in contact.

d. Conductors must in all other respects be installed with the same precautions as required [by rules] in article 4 of this chapter for wires carrying a current of the same volume and potential.

e. In wiring switchboards, the ground detector, voltmeter, pilot lights and potential transformers must be connected to a circuit of not less than No. 14 B. & S. gage wire that is protected by [an] approved fuses[,]. *T*[t]his circuit *is* not to carry over 660 watts.

For the protection of instruments and pilot lights on switchboards, approved N. E. Code standard enclosed fuses are preferred, but approved enclosed fuses of other designs of not over two (2) amperes capacity may be used.

§203. Switchboards.

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

Switchboards must not be built up to the ceiling, a space of three feet being left, if possible, between the ceiling and the board. The space back of the board must be kept clear of rubbish and *must* not *be* used for storage purposes.

b. Switchboards must be made of non-combustible material.

c. Switchboards 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.

If the wiring is on the back, there must be a clear space of at least eighteen inches between the wall and the apparatus on the board, and even if the wiring is entirely on the face, it is much better to have the board set out from the wall.

d. Switchboards must be kept free from moisture.

e. Wires with inflammable outer braiding, when brought close together, as in the rear of switchboards, must, when required, be each surrounded with a tight, non-combustible outer cover.

Flame proofing must be stripped back on all cables a sufficient amount to give the necessary insulation distances for the voltage of the circuit on which the cable is used.

§204. Resistance devices.

a. Resistance devices must be placed on a switchboard, or at a distance of at least one foot from combustible material, or separated therefrom by a slab or panel of non-combustible, non-absorptive insulating material such as slate, soapstone or marble, somewhat larger than the rheostat, which must be secured in position independently of the rheostat supports. Bolts for supporting the rheostat shall be countersunk at least 1-8 inch below the surface at the back of the slab and the bolt heads shall be covered with insulating material. For proper mechanical strength, slab should be of a thickness consistent with the size and weight of the rheostat, [and] *but* in no case [to be] less than ½ inch.

If resistance devices are installed in rooms where dust or combustible flyings are liable to accumulate on them, they must be equipped with dust-proof face-plates.

b. Where protective resistances are necessary in connection with automatic rheostats, incandescent lamps may be used, provided that they do not carry or control the main current nor constitute the regulating resistance of the device.

When so used, lamps must be mounted in porcelain receptacles upon non-combustible supports, and must be so arranged that they cannot have impressed upon them a voltage greater than that for which they are rated. They must in all cases be provided with a name-plate, which shall be permanently attached beside the porcelain receptacle or receptacles and stamped with the [candlepower] *wattage* and voltage of the lamp or lamps to be used in each receptacle.

Under special authorization in writing, given in advance, incandescent lamps may be used for the purpose of resistances in series with other devices when mounted in porcelain receptacles upon non-combustible supports and so arranged that they cannot have impressed upon them a voltage greater than that for which they are rated.

c. Wherever insulated wire is used for connections between resistance elements and the contact device of a rheostat, the insulation must be non-combustible or slow burning. For large [field] rheostats and similar resistances, where the contact devices are not mounted upon them, the connecting wires having slow burning insulation may be so arranged in groups that the maximum difference of potential between any two wires in a group shall not exceed 75 volts. Each group of wires must either be mounted on non-combustible, non-absorptive insulators giving at least ½ inch separation from surface wired over, or, especially where it is necessary to protect same from mechanical injury, each group of wires may be encased in approved flexible tubing and placed in approved conduit, the flexible tubing to extend at least 1 inch beyond the ends of the conduit.

§205. Lightning arresters.

a. Lightning arresters must be attached to each wire of every overhead circuit connected with the station.

b. Lightning arresters 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.

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

c. Lightning arresters 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. gage copper wire, which must be run as nearly in a straight line as possible from the arresters to the ground connection.

Ground wires for lightning arresters must not be attached to gas pipes within the buildings nor be run inside of iron pipes.

d. All choke coils or other attachments, inherent to the lightning protection equipment, shall have an insulation from the ground or other conductors equal at least to the insulation demanded at other points of the circuit in the station.

§206. Care and attendance.

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

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

§207. Testing of insulation resistance.

a. All circuits except such as are permanently grounded in accordance with § 315 of this chapter 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.

§208. Motors.

a. Motors must, when operating at a potential in excess of 550 volts, have no exposed live metal parts, and *must* have their base frames permanently and effectively grounded.

Motors operating at a potential of 550 volts or less must [be thoroughly insulated from the ground] *have their base frames permanently and effectively grounded* wherever feasible. *Where grounding of the frame is impracticable, special permission for its omission may be given in writing, in which case the frame must be permanently and effectively insulated.* Wooden base frames used for this purpose, and wooden floors, which are depended upon for insulation where, for any reason, it is necessary to omit the base frames, must be kept filled to present absorption of moisture, and must be kept clean and dry. [Where frame insulation is impracticable, special permission, in writing, may be given for its omission, in which case the frame must be permanently and effectively grounded.]

b. Motors operating at a potential of 550 volts or less must be wired with the same precautions as required [by rules in] *by* article 4 of this chapter, for wires carrying a current of the same volume.

Motors operating at a potential between 550 and 3,500 volts must, *except in central or sub-stations,* be wired with approved multiple conductor, metal sheathed cable in approved [unlined] metal conduit. [firmly secured in place. The metal sheath must be permanently and effectively grounded, and the construction and installation of the conduit must conform to rules for interior conduits (see § 428 of this chapter), except that at outlets approved outlet bushings shall be used.] *.All apparatus and wiring connected to the high tension circuit must be completely enclosed in substantial grounded metal shields or casings and the conduit must enter and be properly secured to such casings or to suitable terminal boxes screwed or bolted to the casings.*

The insulation of the several conductors for high-potential motors, where leaving the metal sheath [at outlets,] *of cables,* must be thoroughly protected from moisture and mechanical injury. This may be accomplished by means of a pot head or some equivalent method. The conduit must be substantially bonded to the metal casings of all fittings and apparatus connected to the inside high-tension circuit.

Where outside wires directly enter the motor room, special permission, in writing, must be obtained to install the wires for high-potential motors according to the general rules for high-potential systems.

[The motor leads or branch circuits] *Conductors carrying the current of only one motor* must be designed to carry a current at least 25 per cent. greater than that for which the motor is rated. Where the wires under this rule would be overfused in order to provide for the starting current, as in the case of many of the alternating current motors, the [wires] *conductors* must be of such size as to be properly protected by these larger fuses.

The current used in determining the size of *the conductor carrying the current of only one* varying *(or variable)* speed [alternating current] motor [leads or branch circuits] must be the percentage of the 30-minute current rating of the motor as given for the several classifications of service in the following table:

Classification of Services.	Percentage of current rating of motor.
Operating valves, raising or lowering rolls [tool heads, etc.]	200
Rolling tables [pumps]	[120] *180*
Hoists, rolls, ore and coal-handling machines	[180] *150*
Freight *and passenger* elevators, shop cranes, *tool heads, pumps, etc*	[160] *120*
[Passenger elevators	140]

c. Each motor [and resistance box] *with its starting device* must be protected by a cut-out and controlled by a switch (see § 419a of this chapter), said switch plainly indicating whether "on" or "off" (except as provided for electric cranes, see § 443c). Small motors may be grouped under the protection of a single set of fuses, provided the rated capacity of the fuses does not exceed [6] *10* amperes, *and the total wattage of the circuit does not exceed 660.* With motors of ¼ horse power or less, on circuits where the voltage does not exceed 300, single pole switches may be used as allowed in § 424c of this chapter. The switch and rheostat must be located within sight of the motor, except in cases where special permission [in writing is given] to locate them elsewhere *is given in writing.*

Where the circuit-breaking [device] *attachment* on the motor-starting [rheostat] *device* disconects all wires of the circuit, the switch called for in this section may be omitted.

Overload-release [devices] *attachments* on motor-starting rheostats will not be considered to take the place of the cut-out required by this section.

An automatic circuit-breaker disconnecting all wires of the circuit may serve as both switch and cut-out.

[Where rubber-covered wire is used for the leads or branches of A. C. motors of the types requiring large starting currents, the wire may be protected in accordance with table B of § 418 of this chapter, except when circuit-breakers are installed which are equipped with time-element devices.]

Where a rubber-covered conductor carries the current of only one A. C. motor of a type requiring large starting current it may be protected by a fuse or an automatic circuit breaker without time limit device, rated in accordance with Table B of §418 of this chapter. The rated continuous current capacity of a time limit circuit breaker protecting a motor of the above type need not be greater than 125 per cent. of the motor current rating, providing the time limit device is capable of preventing the breaker opening during the starting period.

d. Rheostats must be so installed as to comply with all the requirements of § 204 of this chapter. Auto starters must comply with requirements of § 204c of this chapter.

Auto starters, unless equipped with tight casings enclosing all current-carrying parts, in all wet, dusty or linty places, must be enclosed in [dust-tight, fireproof] *approved cut-out boxes or* cabinets. Where there is any liability of short circuits across their exposed live parts due to accidental contacts, a railing must be erected around them.

e. Motors must not be run in series-multiple or multiple-series, except on constant-potential systems, and then only by special permission.

f. Motors must be covered with a waterproof cover when not in use, and, if deemed necessary, must be enclosed in [an] approved cases.

Such enclosures must be readily accessible, dust-proof and sufficiently ventilated to prevent an excessive rise of temperature. Where practicable the sides should be made largely of glass, so that the motor may be always plainly visible.

The use of enclosed type motors is recommended in dusty places, being preferable to wooden boxing.

Where deemed necessary, motors permanently located on wooden floors must be provided with suitable drip pans.

g. Motors 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. Motors must each be provided with a name-plate, giving the maker's name, the capacity in volts and amperes *(or watts)*, and the normal speed in revolutions per minute.

All varying (or variable) speed [alternating current] motors except those used for railway service must be marked with the maximum current which they can safely carry for 30 minutes, starting cold.

i. Terminal blocks, when used on motors, must be made of approved non-combustible, non-absorptive insulating material, such as slate, marble or porcelain.

j. Adjustable-speed motors, unless of special and appropriate design, if controlled by means of field regulation, must be so arranged and connected that they cannot be started under weakened field.

k. The use of soft rubber bushings to protect the lead wires coming through the frame of motors is permitted, except when installed where oils, grease, oily vapors or other substances known to have rapid deleterious effect on rubber are present in such quantities and in such proximity to motors as may cause such bushings to be liable to rapid destruction. In such cases hardwood properly filled, or preferably porcelain or micanite bushings must be used.

§209. Railway power plants.

a. Each feed wire before it leaves the power plant must be protected by an approved automatic circuit-breaker or other device, which will immediately cut off the current in case of an accidental ground. This device must be mounted on a fireproof base, and in full view and reach of the attendant.

§210. 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 apply to similar apparatus fed from generators developing the same difference of potential.

b. Storage battery rooms must be thoroughly ventilated.

c. Special attention is directed to the rules for wiring in rooms where acid fumes exist (see § 426 i, j, of this chapter).

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

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

§211. Transformers.

a. In central or sub-stations the transformers must 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) can do no harm.

b. In central or substations casings of all transformers must be permanently and effectively grounded.

The cases or frames of Transformers used exclusively to supply current to switchboard instruments [need not] *must* be grounded, [provided they are thoroughly insulated] *unless they are installed and guarded in all respects as required for the higher voltage circuit connected to them.*

ARTICLE 3.

Outside Work.

Section 312. Wires on outside of buildings.
313. Services.
314. Transformers.
315. Grounding low-potential circuits.

§312. Wires on outside of buildings.

a. This article shall not apply to conductors on highways.

b. Wires must, for services of No. 6 B. & S. gauge or smaller, consist of approved rubber covered multiple conductor cable and must enter the building in the manner prescribed by the second paragraph of § 312f of this chapter. *At the first point of attachment to the building multiple conductor cables must be secured to strain insulators spaced not less than one foot from any adjacent woodwork and in turn secured to petticoat or strain insulators by strain wires.* If necessary to carry the service cable [across] *upon* the face of the building before entering, it may be extended in flexible metal conduit, or a waterproof conduit system must be employed.

c. Wires must be at least [7] *8* feet above the highest point of [flat] roofs [and at least 1 foot above the ridge of pitched roofs] over which they pass or to which they are attached and roof structures must be substantially constructed. *Wherever feasible, wires crossing buildings must be supported on poles independent of the buildings.* Roof lines will be permitted only under special authorization in writing.

d. Wires extended on the exterior walls of buildings must have a rubber insulating covering, and, if not protected by fuses, must be kept at least 1 foot apart and supported on petticoat insulators of glass or porcelain placed not more than 15 feet apart, the distance between supports to be shortened if wires are liable to be disturbed.

e. Wires must be so spliced or joined as to be both mechanically and electrically secure without solder. The joints must then be soldered, to insure preservation, and covered with an insulation equal to that on the conductors.

All joints must be soldered unless made with some form of approved splicing device.

f. Wires must, where they enter buildings, have drip loops outside, and the holes through which the conductors pass must be bushed with non-combustible, non-absorptive insulating tubes, slanting upward toward the inside; or the service wires may be brought into buildings through a single iron conduit, in which case the conduit shall be equipped with an approved service-head. The inner end must extend to the service cut-out, and if a cabinet is required by this [article] *chapter* must properly enter the cabinet.

Metal conduits containing service wires must be insulated from the metal conduit, metal moulding, or armored cable system within the building and all metal work on or in the building or they must have the metal of the conduit permanently and effectually grounded to water piping, gas piping or other suitable grounds, provided that when connections are made to gas piping, they must be on the street side of the meter. This ground connection to be independent of and in addition to any other ground wire on metal conduit, metal moulding or armored cable systems within the building.

§313. Services.

a. Each building shall be supplied by a separate service.

b. Where a row of separate buildings is to receive its supply from an overhead main, one service cable shall be run from the pole to the row, and from the first attachment to the building sub-services or a service main shall extend in conduit along the face of the row. One service cable shall supply not more than five buildings, except under special permission in writing, given in advance.

The same plan of sub-services may be employed in connection with underground services, under the same restrictions.

§314. Transformers.

a. Transformers must not be attached to any building when the potential exceeds 550 volts, except by special permission, and when attached to buildings must be separated therefrom by substantial supports.

§315. Grounding low-potential circuits.

a. *Direct-current three-wire systems.* Neutral wire must (except where supplied from private industrial power or lighting plants where the [primary] voltage does not exceed 550 volts) be grounded and the following rules must be complied with:

1. The neutral wire must be permanently and effectively grounded at the central station. The ground connection must include all available underground complete metallic piping systems.

2. In underground systems the neutral wire must also be grounded at each distributing box through the box *or on the individual service as provided in paragraphs c to g inclusive of this section.*

3. In overhead systems the neutral wire must be grounded every 500 feet, as provided in paragraphs c to g of this section.

b. *Alternating-current secondary systems.* Transformer secondaries of distributing systems *(except where supplied from private industrial power or lighting plants where the primary voltage does not exceed 550 volts)* must be grounded, provided the maximum difference of potential between the grounded point and any other point in the circuit does not exceed 320 volts. The following rules must be complied with:

1. The grounding must be made at the neutral point or wire, whenever a neutral point or wire is accessible.

2. When no neutral point or wire is accessible, one side of the secondary circuit must be grounded.

3. The ground connection must be at the transformers or on the individual service as provided in paragraphs c to g of this section, and when transformers feed systems with a neutral wire, the neutral wire must also be grounded at least every 500 feet.

c. *Ground wire, in buildings.* When the ground connection is inside of any building, or the ground wire is inside of, or attached to any building (except central or sub-stations) the ground wire must be of copper and have an approved rubber insulating covering, National Electrical Code Standard, for from 0 to 600 volts.

d. *Ground wire, sizes.* The ground wire in direct-current three-wire systems must not at central stations be smaller than the neutral wire and not smaller than No. 6 B. & S. gage elsewhere. The ground wire in alternating current systems must never be less than No. 6 B. & S. gage.

On three-phase systems the ground wire must have a carrying capacity equal to that of any one of the three mains.

e. *Ground wire, installation.* The ground wire must, except for central stations and transformer sub-stations, be kept outside of buildings as far as practicable, but may be directly attached to the building or pole by cleats or straps or on porcelain knobs. Staples must never be used. The wire must be carried in as nearly a straight line as practicable, avoiding kinks, coils and sharp bends, and must be protected when exposed to mechanical injury.

f. *Ground connections, central stations.* The ground connections for central stations, transformer sub-stations, and banks of transformers must be permanent and effective and must include all available underground piping systems, including the lead sheaths of underground cables.

g. *Ground connections, generally.* For individual transformers and building services the ground connection may be made as in paragraph f of this section, or may be made to water piping systems running into buildings.

With overhead service, this connection may be made by carrying the ground wire into the cellar and connecting on the street side of meters, main cocks, etc.

Where the service enters the cellar or basement, this connection may be made by carrying the ground wire through the cellar or basement and connecting as above.

Where the ground wire is run through any part of a building, unless run in approved conduit, it shall be protected by porcelain bushings through walls or partitions and shall be run in approved moulding, except that in basements it may be supported on porcelain.

Connections should not be made to piping systems which have cement joints, but should only be made to complete metallic pipe systems.

ARTICLE 4.

Inside Work.

Section 416. Wires, general.
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§416. Wires, general.

a. Wires must not be of smaller size than No. 14 B. & S. gage, except as allowed for fixture work and pendant cord.

b. Conductors of size No. 8 B. & S. gage or over used in connection with solid knobs must be securely tied thereto. If wires are used for tying they must have an insulation of the same type as the conductors they confine. [Solid knobs or strain insulators must be used for all wires at the end of runs where conductors are terminated.] Split knobs or cleats must be used for the support of conductors smaller than No. 8 B. & S. gage [except at the end of runs].

Knobs or cleats which are arranged to grip the wire must be fastened by either screws or nails. If nails are used, they must be long enough to penetrate the woodwork not less than ½ the length of the knob and fully the thickness of the cleat, and must be provided with washers which will prevent, under reasonable usage, injury to the knobs or cleats.

c. Wires must be so spliced or joined as to be both mechanically and electrically secure without solder. The joints must then be soldered unless made with some form of approved splicing device, and covered with an insulation equal to that on the conductors.

Stranded wires (except in flexible cords) must be soldered before being fastened under clamps or binding screws, and whether stranded or solid, when they have a conductivity greater than that of No. 8 B. & S. gage they must be soldered into lugs for all terminal connections, except where an approved solderless terminal connector is used.

d. Wires must be separated from contact with walls, floors, timbers or partitions through which they may pass by non-combustible, non-absorptive insulating tubes, such as glass or porcelain, except at outlets where approved flexible tubing is required.

Bushings must be long enough to bush the entire length of the hole in one continuous piece, or else the hole must first be bushed by a continuous waterproof tube. This tube may be a conductor, such as iron pipe, but in that case an insulating bushing must be pushed into each end of it, extending far enough to keep the wire absolutely out of contact with the pipe.

e. Where not enclosed in approved conduit, moulding or armored cable, and where liable to come in contact with gas, water or other metallic piping or other conducting material, wires must be separated therefrom by some continuous and firmly fixed non-conductor creating a permanent separation. Must not come nearer than 2 inches to any other electric lighting, power or signaling wire, not enclosed as above, without being permanently separated therefrom by some continuous and firmly fixed non-conductor. The non-conductor used as a separator must be in addition to the regular insulation on the wires. Where tubes are used they must be securely fastened at the ends to prevent them from moving along the wire.

Deviations from this rule may, when necessary, be allowed by special permission.

f. Wires 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.

g. The installation of electrical conductors in [wooden] moulding, or on insulators, in elevator shafts will not be approved, but conductors may be installed in such shafts if encased in approved metal conduits or armored cables.

h. In three wire (not three-phase) systems, the neutral must be of sufficient capacity to carry the maximum current to which it may be subjected.

§417. Underground conductors.

a. Underground conductors must be protected against moisture and mechanical injury where brought into a building, and all combustible material must be kept from the immediate vicinity.

b. Underground conductors must not be so arranged as to shunt the current through a building around any catch-box.

c. Where underground service enters building through tubes, the tubes shall be tightly closed at outlets with asphaltum or other non-conductor, to prevent gases from entering the building through such channels.

d. No underground service from a subway to a building and no service from a private generating plant shall supply more than one building, except by special permission, *unless the conductors are properly protected by fuses and are carried outside all the buildings but the one served.* Where one or more buildings are supplied from another, the conductors are to be carried outside the buildings. Conductors carried under 2 inches of concrete under a building or buried back of 2 inches of concrete or brick within a wall are considered as lying outside the building. *These require-*

ments do not apply to factory yards and factory buildings under single occupancy or management.

§418. Table of allowable carrying capacities of wires.

a. The following table, showing the allowable carrying capacities of copper wires and cables of 98 per cent. conductivity, according to the standard adopted by the American Institute of Electrical Engineers, must be followed in placing interior conductors.

For insulated aluminum wire the safe carrying capacity is 84 per cent. of that given in the following table for copper wire with the same kind of insulation.

B. & S. G.	[Table A. Rubber Insulation. Amperes.	Table B. Other Insulations. Amperes.	Circular Mils.
18	3	5	1,624
16	6	10	2,583
14	15	20	4,107
12	20	25	6,530
10	25	30	10,380
8	35	50	16,510
6	50	70	26,250
5	55	80	33,100
4	70	90	41,740
3	80	100	52,630
2	90	125	66,370
1	100	150	83,690
0	125	200	105,500
00	150	225	133,100
000	175	275	167,800
0000	225	325	211,600
Circular Mils.			
200,000	200	300	
300,000	275	400	
400,000	325	500	
500,000	400	600	
600,000	450	680	
700,000	500	760	
800,000	550	840	
900,000	600	920	
1,000,000	650	1,000	
1,100,000	690	1,080	
1,200,000	730	1,150	
1,300,000	770	1,220	
1,400,000	810	1,290	
1,500,000	850	1,360	
1,600,000	890	1,430	
1,700,000	930	1,490	
1,800,000	970	1,550	
1,900,000	1,010	1,610	
2,000,000	1,050	1,670]	

B. & S. Gage Number.	*Diameter of Solid Wire in Mils.*	*Area in Circular Mils.*	*Table A. Rubber Insulation Amperes.*	*Table B. Other Insulation Amperes.*
18	*40.3*	*1,624*	*3*	*5*
16	*50.8*	*2,583*	*6*	*10*
14	*64.1*	*4,107*	*15*	*20*
12	*80.8*	*6,530*	*20*	*25*
10	*101.9*	*10,380*	*25*	*30*
8	*128.5*	*16,510*	*35*	*50*
6	*162.0*	*26,250*	*50*	*70*
5	*181.9*	*33,100*	*55*	*80*
4	*204.3*	*41,740*	*70*	*90*
3	*229.4*	*52,630*	*80*	*100*
2	*257.6*	*66,370*	*90*	*125*
1	*289.3*	*83,690*	*100*	*150*
0	*325.*	*105,500*	*125*	*200*
00	*364.8*	*133,100*	*150*	*225*
0000	*409.6*	*167,800*	*175*	*275*
		200,000	*200*	*300*
0000	*460.*	*211,600*	*225*	*325*
		300,000	*275*	*400*
		400,000	*325*	*500*
		500,000	*400*	*600*
		600,000	*450*	*680*
		700,000	*500*	*760*
		800,000	*550.*	*840*
		900,000	*600*	*920*
		1,000,000	*650*	*1,000*
		1,100,000	*690*	*1,080*
		1,200,000	*730*	*1,150*
		1,300,000	*770*	*1,220*
		1,400,000	*810*	*1,290*
		1,500,000	*850*	*1,360*
		1,600,000	*890*	*1,430*
		1,700,000	*930*	*1,490*
		1,800,000	*970*	*1,550*
		1,900,000	*1,010*	*1,610*
		2,000,000	*1,050*	*1,670*

1 Mil. = 0.001 inch.

§419. Switches, cut-outs, circuit-breakers, etc.

a. On constant-potential circuits, all service switches and all switches controlling circuits supplying current to motors or heating devices, and all fuses, unless otherwise provided (for exceptions as to switches see §§ 208c, 425a and 443c of this chapter; for exceptions as to cut-outs see § 423, a b of this chapter) must be so arranged that the fuses will protect and the opening of the switch will disconnect all of the wires; that is, in the two-wire system the two wires, and in the three-wire system the three wires, must be protected by the fuses and disconnected by the operation of the switch.

When installed without other automatic overload protective devices automatic overload circuit breakers must have the poles and trip coils so arranged as to afford complete protection against overloads and short circuits[, and if also used in place of the switch must be so arranged that no pole can be opened manually without disconnecting all the wires]. *In two or three phase three-wire circuits and two-phase four-wire circuits there must be a trip-coil in each of two phases, and in four-wire three-phase circuits there must be a trip-coil in each phase. If a circuit breaker is also used in place of the switch it must be so arranged that no one pole can be opened manually without disconnecting all the wires.*

This, of course, does not apply to the grounded circuit of street railway systems.

[b. Switches, cut-outs, circuit-breakers, etc., must not be placed where exposed to mechanical injury nor in the immediate vicinity of easily ignitable stuff or where exposed to inflammable gases or dust or to flyings of combustible material.

Where the occupancy of a building is such that switches, cut-outs, etc., cannot be located so as not to be exposed as above they must be enclosed in approved dust-proof cabinets with self-closing doors, except oil switches and circuit breakers which have dust-tight casings.

c. Switches, cut-outs, circuit-breakers, etc., must, when exposed to dampness, either be enclosed in a moisture-proof box or mounted on porcelain knobs. The cover of the box must be so made that no moisture which may collect on the top or sides of the box can enter it.

d. Time switches, sign flashers and similar appliances must be of approved design and enclosed in approved cabinets.]

b. Must, when placed where exposed to mechanical injury or in the immediate vicinity of easily ignitible stuff or where exposed to inflammable gases or dust, or flyings of combustible material, be mounted in approved cut-out boxes or cabinets, except oil switches, circuit breakers and similar devices which have approved casings.

Cabinets and cut-out boxes must be of metal when used with metal conduit, armored cable or metal moulding systems.

c. Must, when located where exposed to moisture as in basements and similar places, be mounted in approved cut-out boxes or cabinets, and when located in wet places or outside of buildings must be mounted in approved weatherproof cut-out boxes or cabinets.

d. Time switches, sign flashers and similar appliances must be of approved design and enclosed in approved cabinets, except sign flashers mounted as described in §583b of this chapter.

e. Must have the spacing within cabinets or cut-out boxes between the walls of the cabinet or cut-out box and current-carrying parts of devices as specified in §570 of this chapter.

§420. Limitation of potential.

The installation in any building, except a central station, or a sub-station, or a transformer vault, of electric light or power wiring or appliances operating at a potential in excess of 750 volts is prohibited.

§421. Arc lamps.

Arc lamps must be provided at all times with glass globes surrounding the arc and securely fastened in place. Broken or cracked globes must not be used. Globes must be provided with wire netting having a mesh not exceeding 1¼ inches. The netting may be omitted where tight inner globes are employed.

§423. Automatic cut-outs (fuses and circuit-breakers).

a. Automatic cut-outs must be placed on all service wires, either overhead or underground, in the nearest accessible place to the point where they enter the building and inside the walls, and arranged to cut off the entire current from the building. Departure from this rule may be authorized only under special permission in writing.

Where the switch required by § 424a of this chapter is inside the building, the cut-out required by this section must be placed so as to protect it, *unless the switch is of the knife-blade type and is enclosed in an approved box or cabinet, under which conditions the switch may be placed between the source of the supply and the cut-out.*

Automatic cut-outs must not be placed in any permanently grounded service wire.

[For three-wire (not three-phase) systems the fuse in the neutral wire may be omitted, provided the neutral wire is of equal carrying capacity to the larger of the outside wires, and is grounded as provided for in § 315 of this chapter.]

In risks having private plants, the yard wires running from building to building are not considered as service wires, so that cut-outs would not be required where the wires enter buildings, provided that the next fuse back is small enough to properly protect the wires inside the building in question.

b. Automatic cut-outs 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 § 418 of this chapter). *This requirement shall not apply to fixture wires and flexible cords connected to branch circuits.*

[For three-wire direct current or single phase systems the fuse in the neutral wire, except that called for under paragraph d of this section, may be omitted, provided the neutral wire is grounded as provided for in § 315 of this chapter.]

Automatic cut-outs must not be placed in any permanently grounded wire, except as provided in paragraph d of this section.

c. Automatic cut-outs must be in plain sight or enclosed in an approved cabinet, and readily accessible. They must not be placed in the canopies or shells of fixtures.

[Link fuses may be used only when mounted on approved slate or marble bases and must be enclosed in dust-tight, fire-proofed cabinets, except on switchboards.]

Link fuses may be used only when mounted on approved bases which, except on switchboards must be mounted in approved cut-out boxes or cabinets. A space of at least two inches must be provided between the open-link fuses and metal, or metal lined walls or metal, metal lined or glass paneled doors of cabinet or cut-out boxes.

d. Automatic cut-outs must be so placed that no set of small motors, small heating devices or incandescent lamps, whether grouped on one fixture or on several fixtures or pendants (nor more than 16 *medium base sockets or 25 candelabra base* sockets or *lamp* receptacles) requiring more than 660 watts will be dependent upon one cut-out.

By special permission, in cases where wiring equal in size and insulation to No. 14 B. & S. gage approved rubber-covered wire is carried direct into keyless sockets or receptacles, and where the location of sockets and receptacles is such as to render unlikely the attachment of flexible cords thereto, the circuits may be so arranged that not more than 1,320 watts (or 32 sockets or *lamp* receptacles) will be dependent upon the final cut-out.

Except for signs and outline lighting, sockets and *lamp* receptacles will be considered as requiring not less than 40 watts each *if of medium size, or 25 watts if of candelabra size.*

All branches or taps from any three-wire system which are directly connected to lamp sockets or other translating devices, must be run as two-wire circuits if the fuses are omitted in the neutral, or if the difference of potential between the two outside wires is over 250 volts, and both wires of such branch or tap circuits must be protected by proper fuses.

The above shall also apply to motors, except that small motors may be grouped under the protection of a single set of fuses, provided the rated capacity of the fuses does not exceed 10 amperes.

When 1,320 watts are dependent upon one fusible cut-out, as is allowed in theatre wiring, outline lighting, *signs* and large chandeliers, the fuses may be in accordance with the following table[s]:

125 volts or less	20 amperes
125 to 250 volts	10 amperes

e. The rated capacity of fuses must not exceed the allowable carrying capacity of the wires as given in § 418 of this chapter. Circuit-breakers must not be set more than 30 per cent. above allowable carrying capacity of the wire, unless a fusible cut-out is also installed on the circuit. [Where rubber covered wire is used for the leads or branches of A. C. motors of the types requiring large starting currents, the wire may be protected in accordance with Table B of § 418 of this chapter, except when circuit breakers are installed which are equipped with time element devices.]

[Fixture wires or flexible cord of No. 18 B. & S. gage will be considered as properly protected by 10 ampere fuses.]

Where a rubber-covered conductor carries the current of only one A. C. motor of a type requiring large starting current, it may be protected by a fuse or an automatic circuit breaker without time limit device, rated in accordance with Table B of §418 of this chapter. The rated continuous current capacity of a time limit circuit breaker protecting a motor of the above type need not be greater than 125 per cent of the motor current rating, provided the time limit device is capable of preventing the breaker opening during the starting period.

For the protection of wires having safe carrying capacities exceeding the rated capacity of the largest approved enclosed type fuses, approved enclosed fuses arranged in multiple may be used, provided as few fuses as possible are used and the fuses are of equal capacity and provided the cut-out terminals are mounted on a single continuous pair of substantial bus bars. The total capacity of the fuses should not exceed the safe carrying capacity of the wires. This does not apply to motor circuits.

f. Each wire of motor circuits except on main switchboard or when otherwise subject to competent supervision, must be protected by an approved fuse whether automatic overload circuit breakers are installed or not. Single-phase motors may have one side protected by an approved automatic overload circuit-breaker only, if the other side is protected by an approved fuse.

[For circuits having a maximum capacity greater than that for which enclosed fuses are approved circuit-breakers if used without fuses will be approved.]

Circuit breakers will be approved for circuits having a maximum capacity greater than that for which approved enclosed fuses are rated.

§424. Switches.

a. Switches must be placed on all service wires, either overhead or underground, in the nearest readily accessible place to the point where the wires enter the building, and arranged to cut off the entire current. Departure from this rule may be authorized only under special permission in writing.

Service cut-out and switch must be arranged to cut off current from all devices including meters. *Service switches must indicate plainly whether they are open or closed.*

In risks having private plans the yard wires running from building to building are

not considered as service wires, so that switches would not be required in each building if there are other switches conveniently located on the mains or if the generators are near at hand.

b. Must always be placed in dry, accessible places, and be grouped as far as possible (see § 419c of this chapter). Single-throw knife switches must be so placed that gravity will not tend to close them. Double-throw knife switches may be mounted so that the throw will be either vertical or horizontal as preferred, but if the throw be vertical a locking device must be provided, so constructed as to insure the blades remaining in the open position when so set.

When practicable, switches must be so wired that blades will be "dead" when switch is open.

When switches are used in rooms where combustible flyings would be likely to accumulate around them, they must be enclosed in dust-tight cabinets.

c. Single-pole switches must never be used as service switches, nor for the control of outdoor signs or circuits located in damp places, nor placed in the neutral wire of a three-wire system, except in the two-wire branch or tap circuit supplying not more than 660 watts.

This, of course, does not apply to the grounded circuits of street railway systems.

Three-way switches are considered as single pole switches.

d. Where flush switches or receptacles are used, whether with conduit systems or not, they must be enclosed in an approved box constructed of iron or steel, in addition to the porcelain enclosure of the switch or receptacle. Where [in] *at* floor outlets, attachment plugs are liable to mechanical injury, or the presence of moisture is probable, floor outlet boxes especially designed for this purpose must be used.

[e. Where possible, at all switch or fixture outlets, unless outlet boxes which will give proper support for fixtures are used, a ⅞ inch block must be fastened between studs or floor timbers flush with the back of lathing to hold tubing, and to support switches or fixtures. When this cannot be done, wooden base blocks, not less than ¾ inch in thickness, securely screwed to lathing, must be provided for switches, and also for fixtures which are not attached to gas pipes or conduit.]

f. Sub-bases of non-combustible, non-absorptive, insulating material, which will separate the wires at least ½ inch from the surface wired over, must be installed under all snap switches used in exposed knob and cleat work. Sub-bases must also be used in moulding work unless the switch is approved for mounting directly on the moulding.

§425. Electric heaters.

a. Each heater of more than 6 amperes or 660 watts capacity must be protected by a cut-out, and controlled by a switch or plug connector plainly indicating whether "on" or "off" and located within sight of the heater. Heaters of 6 amperes or 660 watts capacity, or less, may be grouped under the protection of a single set of fuses, provided the rated capacity of the fuses does not exceed 10 amperes or may be connected individually to lighting circuits *when the normal load on the circuit at any time will not exceed 660 watts.*

h. Flexible conductors for smoothing irons and sad irons, and for all devices requiring over 250 watts, must have an approved insulation and covering complying with the requirements of § 554[d]*l* of this chapter.

c. With portable heating devices, approved plug connectors must be used, so arranged that the plug may be pulled out to open the circuit without leaving any live parts so exposed as to render likely accidental contact therewith. The connector may be located at either end of the flexible conductor or inserted in the conductor itself

d. Smoothing irons, sad irons and other heating devices that are intended to be applied to combustible articles, must be provided with approved stands.

e. Stationary heaters, such as radiators, ranges, plate warmers, etc., must be so located as to furnish ample protection between the device and surrounding combustible material.

f. Electric heaters must each be provided with a name-plate giving the maker's name and the normal capacity in volts and amperes *or in volts and watts.*

§426. Wires, low potential systems.

1. *General Rules.*

a. Wires where entering cabinets, *cut-out boxes or junction boxes, except where they are in conduit, armored cable or metal moulding,* must be protected by approved bushings, which fit tightly the holes in the box and are well secured in place. The wires should completely fill the holes in the bushings so as to keep out the dust, tape being used to build up the wires if necessary.

b. Wires must not be laid in plaster, cement or similar finish, and must never be fastened with staples.

c. Wires 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. Wires must, where exposed to mechanical injury, be suitably protected. When crossing floor timbers in cellars, or in rooms where they might be exposed to injury, wires must be *installed in approved conduit or armored cable or be* attached by their insulating supports to the under side of a wooden strip, not less than ½ inch in thickness, and not less than 3 inches in width. Instead of the running-boards, guard strips on each side of and close to the wires will be accepted, these strips to be not less than ⅞ inch in thickness, and at least as high as the insulators.

Protection on side walls must extend not less than [5] 7 feet from the floor and must consist of substantial boxing, retaining an air space of 1 inch around the conductors, closed at the top (the wires passing through bushed holes) or *of* approved metal conduit or pipe of equivalent strength.

When metal conduit or pipe is used, the insulation of each wire must be reinforced by approved flexible tubing extending from the insulator next below the pipe to the one next above it, unless the conduit is installed according to § 428, paragraphs c and f thereof excepted, and the wire is approved for conduit use. The two or more wires of a circuit each with its flexible tubing (when required), if carrying alternating current must, or if direct current may, be placed within the same pipe.

f. When run in unfinished attics *or roof spaces,* wires will be considered as concealed, and when run in close proximity to water tanks or pipes, they will be considered as exposed to moisture.

In unfinished attics *or roof spaces* wires are considered as exposed to mechanical injury, and must not be run on knobs or upper edge of joists.

2. *Open work in dry places.*

g. Wires must have an approved rubber (type [letter] R. S.), slow-burning weatherproof (type [letter] S. B. W.), or slow-burning insulation (type [letter] S. B.). Slow-burning insulation may be used only in permanently dry locations and under special permission in writing, given in advance.

h. Wires must be rigidly supported on non-combustible, non-absorptive insulators, which will separate the wires from each other and from the surface wired over in accordance with the following table:

Voltage—0 to 300; distance from surface, ½ inch; distance between wires, 2½ inches.

Voltage—301 to 550; distance from surface, 1 inch; distance between wires, 4 inches.

Rigid supporting requires under ordinary conditions, where wiring along flat surfaces, supports at least every 4½ feet. If the wires are liable to be disturbed, the distance between supports must be shortened. In buildings of mill construction, mains of not less than No. 8 B. & S. gage, where not liable to be disturbed, may be separated about 6 inches, and run from timber to timber, not breaking around, and may be supported at each timber only.

Wires must not be "dead-ended" at a rosette, socket or receptacle unless the last support is within 12 inches of the same.

3. *Open work in damp places, or buildings specially subject to moisture or to acid or other fumes.*

i. Wires must have an approved insulating covering.

For protection against water, rubber insulation must be used. For protection against corrosive vapors, either weatherproof or rubber insulation must be used.

j. Wires must be rigidly supported on non-combustible, non-absorptive insulators, which separate the wire at least 1 inch from the surface wired over, and must be kept apart at least 2½ inches for voltages up to 300, and 4 inches for higher voltages.

Rigid supporting requires under ordinary conditions, where wiring over flat surfaces, supports at least every 4½ feet. If the wires are liable to be disturbed, the distance between supports must be shortened. In buildings of mill construction, mains of not less than No. 8 B. & S. gage, where not liable to be disturbed, may be separated about 6 inches, and run from timber to timber, not breaking around, and may be supported at each timber only.

4. *Metal moulding work.*

k. Wires must have an approved rubber insulating covering (type [letter] R. S.), and must be in continuous lengths from outlet to outlet, or from fitting to fitting, no joints or taps to be made in moulding. Where branch taps are necessary in moulding work approved fittings for this purpose must be used.

l. Wires must never be placed in moulding in damp locations; must never be placed in moulding in concealed locations or where the difference of potential between any two wires in the same system is over 300 volts. When the electrical construction is being carried out in moulding, permission will be given to extend these mouldings through walls and partitions, if the moulding and capping are in continuous lengths where passing through the walls and partitions. Mouldings must not be used for circuits requiring more than 1,320 watts of energy.

m. Wires must for alternating current systems if in metal moulding have the two or more wires of a circuit installed in the same moulding.

5. *Conduit work.*

n. Wires must have an approved rubber insulating covering (type [letter] R. D.); and must within the conduit tubing be without splices or taps, and must be provided with a lead covering if the conduit is installed in a damp place and is not watertight. *Wires must be double braided (type R. D.) for twin, twisted pair or multiple conductor cables and for all single conductors of No. 6 B. & S. gage and larger.*

Slow burning insulation may, however, be used in permanently dry locations where excessive temperatures are present, provided special permission in writing be given in advance.

o. Wires must not be drawn in until all mechanical work on the building has been, as far as possible, completed.

Conductors in vertical conduit risers must be supported within the conduit system in accordance with the following table:

No. 14 to 0 every 100 feet.
No. 00 to 0000 every 80 feet.
0000 to 350,000 C. M. every 60 feet.
350,000 C. M. to 500,000 C. M. every 50 feet.
500,000 C. M. to 750,000 C. M. every 40 feet.
750,000 C. M. every 35 feet.

The following methods of supporting cables are recommended:

1. [A turn of 90 degrees in the conduit system will constitute a satisfactory support.] *Approved clamping devices constructed of or employing insulating wedges inserted in the ends of the conduit.*

2. Junction boxes may be inserted in the conduit system at the required intervals, in which insulating supports of approved type must be installed and secured in a satisfactory manner so as to withstand the weight of the conductors attached thereto, the boxes to be provided with proper covers.

3. Cables may be supported in approved junction boxes on two or more insulating supports so placed that the conductors will be deflected at an angle of not less than 90 degrees, and carried a distance of not less than twice the diameter of the cable from its vertical position. Cables so suspended may be additionally secured to these insulators by tie wires. *Conductors larger than No. 4 B. & S. gage must not be materially deflected where they enter or leave the cabinet, and where terminating in the cabinet must be properly supported at the end of the conduit.*

Other methods may be used, if specially approved.

p. Wires must, for alternating systems, have the two or more wires of a circuit drawn in the same conduit.

Except in the case of stage pocket and border circuits the same conduit must not contain more than four two-wire, or three three-wire circuits of the same system, except by special permission, and must never contain circuits of different systems.

6. *Concealed "knob and tube" work.*

q. The installation of concealed knob and tube work is prohibited.

[7. *Fixture work.*

v. Wires must not be smaller than No. 18 B. & S. gage and must have an approved rubber insulating covering (see § 555 of this chapter).

In wiring certain designs of show-case fixtures, ceiling bulls-eyes and similar appliances in which the wiring is exposed to temperatures in excess of 120 degrees Fahrenheit (49 degrees Centigrade), from the heat of the lamps, approved slow-burning wire may be used. All such forms of fixtures must be submitted for examination, test and approval before being introduced for use.

w. Supply conductors, and especially the splices to fixture wires, must be kept clear of the grounded part of gas pipes, and, where shell or outlet boxes are used, they must be made sufficiently large to allow the fulfillment of this requirement.

x. 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.

y. Wires of different systems must never be contained in or attached to the same fixture and under no circumstances must there be a difference of potential of more than 300 volts between wires contained in or attached to the same fixture.]

§427. Armored cables.

a. Armored cables must be continuous from outlet to outlet or to junction boxes *or cabinets,* and the armor of the cable must properly enter and be secured to all fittings, and the entire system must be mechanically secured in position.

In case of service connections and main runs, this involves running such armored cables continuously into a main cut-out cabinet or gutter surrounding the panel board, as the case may be.

b. Armored cables must be equipped at every outlet with an approved outlet box or plate, as required in conduit work.

Outlet plates must not be used where it is practicable to install outlet boxes.

For concealed work in walls and ceilings composed of plaster on wooden joist or stud construction, outlet boxes or plates and also cut-out cabinets must be so installed that the front edge will not be more than ¼ inch back of the finished surface of the plaster, and if this surface is broken or incomplete it shall be repaired so that it will not show any gaps or open spaces around the edges of the outlet box or plate or of the cut-out cabinet. On wooden walls or ceilings, outlet boxes or plates and cut-out cabinets must be so installed that the front edge will either be flush with the finished surface or project therefrom. This will not apply to concealed work in walls or ceilings composed of concrete, tile or other non-combustible material.

In buildings already constructed where the conditions are such that neither outlet box nor plate can be installed, these appliances may be omitted by special permission, provided the armored cable is firmly and rigidly secured in place.

c. Armored cables must have the metal armor of cables permanently and effectually grounded to water piping, gas piping or other suitable grounds, provided that when connections are made to gas piping they must be on the street side of the meter. If the armored cable system consists of several separate sections, the sections must be bonded to each other, and the system grounded, or each section may be separately grounded, as required above.

The armor of cables and gas pipes must be securely fastened in outlet boxes, junction boxes and cabinets, so as to secure good electrical connection.

If armor of cables and metal of couplings, outlet boxes, junction boxes, cabinets or fittings, having protective coating of non-conducting material, such as enamel, are used, such coating must be thoroughly removed from threads of both couplings and the armor of cables, and from surfaces of the boxes, cabinets and fittings where the armor of cables or ground clamp is secured in order to obtain the requisite good connection. Grounded pipes must be cleaned of rust, scale, etc., at place of attachment of ground clamp.

Connections to grounded pipes and to armor of cables must be exposed to view or [readily] accessible, and must be made by means of approved ground clamps, [to which the ground wires must be soldered].

Ground wires must be of copper, at least No. 10 B. & S. gage (where largest wire contained in cable is not greater than No. 0 B. & S. gage), and need not be greater than No. 4 B. & S. gage (where largest wire contained in cable is greater than No. 0 B. & S. gage). They shall be protected from mechanical injury.

d. When installed in so-called fireproof buildings in course of construction or afterwards if exposed to moisture, or where it is exposed to the weather, or in damp places such as breweries, stables, etc., the cable must have a lead covering placed between the outer braid of the conductors and the steel armor.

The lead covering is not to be required when the cable is run against brick walls or laid in ordinary plaster walls unless same are continuously damp.

e. Where entering junction boxes, and at all other outlets, etc., armored cables must be provided with approved terminal fittings which will protect the insulation of the conductors from abrasion, unless such junction or outlet boxes are specially designed and approved for use with the cable.

f. Junction boxes must always be installed in such a manner as to be accessible.

g. For alternating current systems, armored cables must have the two or more conductors of the circuit enclosed in one metal armor.

h. All bends must be so made that the armor of the cable will not be injured. The radius of the curve of the inner edge of any bend shall not be less than 1½ inches.

§428. Interior conduits.

a. No conduit smaller than ½ inch, electrical trade size, shall be used. [Measurements are to be taken inside of metal conduits.]

b. Interior conduits must be continuous from outlet to outlet or to junction boxes or cabinets, and the conduit must properly enter, and be secured to all fittings and the entire system must be mechanically secured in position.

In case of service connections and main runs, this involves running each conduit continuously into a main cut-out cabinet or gutter surrounding the panel board, as the case may be. Departure from this rule may be authorized in case of underground services by special permission.

c. Interior conduits must be first installed as a complete conduit system, without the conductors.

d. Interior conduits must be equipped at every outlet with an approved outlet box or plate. At exposed ends of conduit (but not at fixture outlets) where wires pass from the conduit system without splice, joint or tap, an approved fitting having separately bushed holes for each conductor must be used. Departure from this rule may be authorized by special permission.

Outlet plates must not be used where it is practicable to install outlet boxes.

For concealed work in walls and ceilings composed of plaster on wooden joist or stud construction, outlet boxes or plates and also cut-out cabinets must be so installed that the front edge will not be more than ¼ inch back of the finished surface of the plaster, and if this surface is broken or incomplete it shall be repaired so that it will not show any gaps or open spaces around the edges of the outlet box or plate or of the cut-out cabinet. On wooden walls or ceilings, outlet boxes or plates and cut-out cabinets must be so installed that the front edge will either be flush with the finished surface or project therefrom. This will not apply to concealed work in walls or ceilings composed of concrete, tile or other non-combustible material.

In buildings already constructed where the conditions are such that neither outlet box nor plate can be installed, these appliances may be omitted providing the conduit ends are bushed and secured.

e. Metal conduits where they enter junction boxes, and at all other outlets, etc., must be provided with approved bushings or fastening plates fitted so as to protect wire from abrasion, except when such protection is obtained by the use of approved nipples, properly fitted in boxes or devices.

f. Interior conduits must have the metal of the conduit permanently and effectually grounded to water piping, gas piping or other suitable grounds, provided that when connections are made to gas piping, they must be on the street side of the meter. If the conduit system consists of several separate sections, the sections must be bonded to each other, and the system grounded, or each section may be separately grounded, as required above. Where short sections of conduit (or pipe of equivalent strength) is used for the protection of exposed wiring on side walls, and such conduit or pipe and wiring is installed as required by § 426e of this chapter, the conduit or pipe need not be grounded.

Conduits and gas pipes must be securely fastened in outlet boxes, junction boxes and cabinets, so as to secure good electrical connections.

If conduit couplings, outlet boxes, junction boxes, cabinets or fittings, having protective coating of non-conducting material such as enamel are used, such coating must be thoroughly removed from threads of both couplings and conduit, and such surfaces of boxes, cabinets and fittings where the conduit or ground clamp is secured in order to obtain the requisite good connection. Grounded pipes should be cleaned of rust, scale, etc., at place of attachment of ground clamp.

Connections to grounded pipes and to conduit must be exposed to view or [readily] accessible, and must be made by means of approved ground clamps [to which the ground wires must be soldered].

Ground wires must be of copper at least No. 10 B. & S. gage (where largest wire contained in conduit is not greater than No. 0 B. & S. gage), and need not be greater than No. 4 B. & S. gage (where largest wire contained in conduit is greater than No. 0 B. & S. gage). They shall be protected from mechanical injury.

g. Junction boxes must always be installed in such a manner as to be accessible. *Such boxes are considered to be accessible when installed in an attic that has sufficient head room, but which is reached only by a portable ladder and permanent hatch.*

h. All elbows or bends must be so made that the conduit will not be injured. The radius of the curve of the inner edge of any elbow shall not be less than [3¼] *3 1/2* inches. There must be not more than the equivalent of 4 quarter bends from outlet to outlet, the bends at the outlets not being counted.

i. Conduit sizes for various numbers, gauges and types of conductors must conform to the following table:

Size of Conduits for the Installation of Wires and Cables—Number of Conductors.

Size B. & S.	*One Conductor in a Conduit. Size Conduit, In. Electrical Trade Size.*	*Two Conductors in a Conduit. Size Conduit, In. Electrical Trade Size.*	*Three Conductors in a Conduit. Size Conduit, In. Electrical Trade Size.*	*Four Conductors in a Conduit. Size Conduit, In. Electrical Trade Size.*
14	*1/2*	*1/2*	*1/2*	*3/4*
12	*1/2*	*3/4*	*3/4*	*3/4*
10	*1/2*	*3/4*	*3/4*	*1*
8	*1/2*	*1*	*1*	*1*
6	*1/2*	*1*	*1 1/4*	*1 1/4*
5	*3/4*	*1 1/4*	*1 1/4*	*1 1/4*
4	*3/4*	*1 1/4*	*1 1/4*	*1 1/2*
3	*3/4*	*1 1/4*	*1 1/4*	*1 1/2*
2	*3/4*	*1 1/4*	*1 1/2*	*1 1/2*
1	*3/4*	*1 1/2*	*1 1/2*	*2*
00	*1*	*1 1/2*	*2*	*2*
00	*1*	*2*	*2*	*2 1/2*
000	*1*	*2*	*2*	*2 1/2*
0000	*1 1/4*	*2*	*2 1/2*	*2 1/2*
C M				
200000	*1 1/4*	*2*	*2 1/2*	*2 1/2*
250000	*1 1/4*	*2 1/2*	*2 1/2*	*3*
300000	*1 1/4*	*2 1/2*	*2 1/2*	*3*
400000	*1 1/4*	*3*	*3*	*3 1/2*
500000	*1 1/2*	*3*	*3*	*3 1/2*
600000	*1 1/2*	*3*	*3 1/2*	
700000	*2*	*3 1/2*	*3 1/2*	
800000	*2*	*3 1/2*	*4*	
900000	*2*	*3 1/2*	*4*	
1000000	*2*	*4*	*4*	
1250000	*2 1/2*	*4 1/2*	*4 1/2*	
1500000	*2 1/2*	*4 1/2*	*5*	
1750000	*3*	*5*	*5*	
2000000	*3*	*5*	*6*	
	Twin Conductor.			
14	*1/2*	*3/4*	*1*	*1*
12	*1/2*	*3/4*	*1*	*1 1/4*
10	*3/4*	*1*	*1 1/4*	*1 1/4*

3 Conductor Convertible System.

Size of Conductors.		*Size Conduit, In. Electrical Trade Size.*
2-Conductor. Size B. & S.	*1-Conductor. Size B. & S.*	
14	*10*	*3/4*
12	*8*	*3/4*
10	*6*	*1*
8	*4*	*1*
6	*2*	*1 1/4*
5	*1*	*1 1/4*
4	*0*	*1 1/2*
3	*00*	*1 1/2*
2	*000*	*1 1/2*
1	*0000*	*2*
0	*250000*	*2*
00	*350000*	*2 1/2*
000	*400000*	*2 1/2*
0000	*550000*	*3*
250000	*600000*	*3*
300000	*800000*	*3*
400000	*1000000*	*3 1/2*
500000	*1250000*	*4*
600000	*1500000*	*4*
700000	*1750000*	*4 1/2*
800000	*2000000*	*4 1/2*

Single Conductor Combination.

Note—Where special permission has been given in accordance with §426 of this chapter the following table to apply:

No. of Wires.	*Size Conduit, In. Electrical Trade Size.*
3 No. 14 R.C. solid	*1/2*
5 No. 14 R.C. solid	*3/4*
10 No. 14 R.C. solid	*1*
18 No. 14 R.C. solid	*1 1/4*
24 No. 14 R.C. solid	*1 1/2*
40 No. 14 R.C. solid	*2*
74 No. 14 R.C. solid	*2 1/2*
90 No. 14 R.C. solid	*3*

§429. Metal mouldings.

a. Metal moulding must be continuous from outlet to outlet, to junction boxes, or approved fittings designed especially for use with metal mouldings, and must at all outlets be provided with approved terminal fittings which will protect the insulation of conductors from abrasion, unless such protection is afforded by the construction of the boxes or fittings.

b. Such moulding where passing through a floor must be carried through an iron pipe extending from the ceiling below to a point 5 feet above the floor, which will serve as an additional mechanical protection and exclude the presence of moisture often prevalent in such locations.

Where the mechanical strength of the moulding itself is adequate, this ruling may be modified to require the protecting piping from the ceiling below to a point at least 3 inches above the flooring.

Where such mouldings pass through a partition the iron pipe required for passing through floors may be omitted and the moulding passed directly through, providing the partition is dry and the moulding is in a continuous length with no joint or couplings within the partition.

c. Backing must be secured in position by screws or bolts, the heads of which must be flush with the metal.

d. Metal moulding must be permanently and effectively grounded to water piping, gas piping, or other suitable grounds, provided that when connections are made to gas piping, they must be on the street side of the meter. If the metal moulding system consists of several separate sections, the sections must be bonded to each other and the system grounded, or each section may be separately grounded, as required above.

Metal mouldings and gas pipes must be securely fastened to outlet boxes, junction boxes and cabinets, so as to secure a good electrical connection. Moulding must be so installed that adjacent lengths of moulding will be mechanically and electrically secured at all points.

If metal moulding, couplings, outlet boxes, junction boxes, cabinets or fittings having protective coating of non-conducting material such as enamel are used, such coating must be thoroughly removed from threads of couplings and metal mouldings, and from the surfaces of boxes, cabinets and fittings, where the metal moulding or ground clamp is secured in order to obtain the requisite good connection. Grounded pipes should be cleaned of rust, scale, etc., at the place of attachment of the ground clamp.

Connection to grounded pipes and to metal mouldings must be exposed to view, or [readily] accessible, and must be made by means of approved ground clamps [to which the wires must be soldered].

Ground wires must be of copper, at least No. 10 B. & S. gage. They shall be protected from mechanical injury.

e. Must be installed so that for alternating systems the two or more wires of a circuit will be in the same metal moulding.

§430. Fixtures.

[a. When supported at outlets in metal conduit, armored cable or metal moulding systems, or from gas piping or any grounded metal work, or when installed on metal walls or ceilings, or on plaster walls or ceilings containing metal lath, or on walls or ceilings in fireproof buildings, fixtures must be insulated from such supports by approved insulating joints placed as close as possible to the ceilings or walls. The insulating joint may be omitted in conduit, armored cable or metal moulding systems with straight electric fixtures in which the insulation of conductors is the equivalent of insulation in other parts of the system, and provided that approved sockets, receptacles or wireless clusters are used, of a type having porcelain or equivalent insulation between live metal parts and outer metal shells, if any.

Gas pipes must be protected above the insulating joint by approved insulating tubing, and where outlet tubes are used they must be of sufficient length to extend below the insulating joint, and must be so secured that they will not be pushed back when the canopy is put in place.

Where insulating joints are required, fixture canopies of metal must be thoroughly and permanently insulated from walls or ceilings, or from plaster walls or ceilings on metal lathing, and from outlet boxes.

Canopy insulators must be securely fastened in place, so as to separate the canopies thoroughly and permanently from the surfaces and outlet boxes from which they are designed to be insulated.

Fixtures having so-called flat canopies, tops or backs will not be approved for installation except where outlet boxes are used.

b. Fixtures must, when installed out doors, be of watertight construction.

c. Fixtures must not, when wired on the outside, be used in show windows or in the immediate vicinity of especially inflammable stuff.

d. Fixtures must be free from short circuits between conductors and from contacts between conductors and metal parts of fixtures, and must be tested for such conditions before being connected to supply conductors.]

a. Fixtures must, except as specified in paragraph b hereof, be insulated from their supports by approved insulating joints placed as close as possible to the ceilings or walls. Where insulating joints are required, fixture canopies of metal must be thoroughly and permanently insulated from metal walls or ceilings or from plaster walls or ceilings on metal lathing and from outlet boxes. Canopy insulators must be securely fastened in place so as to separate the canopies thoroughly and permanently from the surface and outlet boxes from which they are designed to be insulated. Gas pipes must be protected above the insulating joints by approved insulating tubing, and where outlet tubes are used, they must be of sufficient length to extend below the insulating joint and must be so secured that they will not be pushed back when the canopy is put in place.

b. Insulating joints and canopy insulators may be omitted in the following cases:

1. Straight electric fixtures metallically connected in a permanent and effective manner to metal conduit, armored cable or metal molding systems or to gas piping, provided such gas piping is grounded in the manner prescribed for conduit in § 428 of this chapter.

2. Straight electric fixtures connected to knob and tube, wooden molding or open work, except on metal ceilings or on plaster walls or ceilings containing metal lathing.

3. Straight electric fixtures which are permanently and effectively grounded to a separate ground wire not smaller than No. 14 B. & S. gage.

4. By special permission in writing, straight electric fixtures may be grounded by connecting them by an approved means to one of the supply wires of the fixture, provided such wire is permanently and effectively grounded and if there is no fuse, circuit breaker or switch in that side of the circuit between the fixture and the ground connection.

5. Combination fixtures in which all wires have an approved rubber insulation not less than 3-64 inch in thickness and where gas piping is grounded, as in section 1 above.

For fixtures which are not attached to gas pipes or conduit unless outlet boxes or other approved fittings which will give proper support for fixtures are used, a seven-eighths inch block must be fastened between studs or floor timbers flush with the back of lathing to hold tubing and to support fixtures. When this cannot be done, wooden base blocks, not less than ¾ inch in thickness, securely screwed to lathing, must be provided.

Fixtures having so-called flat canopies, tops or backs, will not be approved for installation, except where outlet boxes are used.

c. When installed out of doors, fixtures must be of water-tight construction.

d. Fixture wires must be not smaller than No. 18 B. & S. gage, and must have an approved insulating covering (see § 552 of this chapter).

In wiring certain designs of show-case fixtures, ceiling bulls-eyes and similar appliances in which the wiring is exposed to temperatures in excess of 120 degrees Fahrenheit (49 degrees Centigrade), from the heat of the lamps, conductors having approved slow-burning or other heat-resisting coverings must be used. All such forms of fixtures must be submitted for examination, test and approval before being introduced for use.

e. Supply conductors, and especially the splices to fixture wires, must be kept clear of the grounded part of gas pipes, and, where shells or outlet boxes are used, they must be made sufficiently large to allow the fulfilment of this requirement.

f. Fixtures must, when wired on the outside, have the conductors so secured as not to be cut or abraded by the pressure of the fastenings or motion of the fixture.

Must not, when wired on the outside, be used in show windows or in the immediate vicinity of especially inflammable stuff.

Chain fixtures must be wired with flexible conductors.

g. Wires of different systems must never be contained in or attached to the same fixture, and under no circumstances must there be a difference of potential of more than 300 volts between wires contained in or attached to the same fixtures.

h. Fixtures must be free from short circuits between conductors and from contacts between conductors and metal parts of fixtures, and must be tested for such conditions before being connected to supply conductors.

§431. Sockets.

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 soldered directly to the circuit.

b. In damp or wet places, or where exposed to corrosive vapors, weatherproof sockets especially approved for the location must be used. Unless made up on fixtures they must be hung by [separate] stranded rubber-covered [wires] *conductors* not smaller than No. 14 B. & S. gage, which should preferably be twisted together when the pendant is over 3 feet long.

These wires must be soldered direct to the circuit wires but supported independently of them.

c. Key sockets will not be approved if installed over specially inflammable stuff, or where exposed to flyings of combustible material.

§432. Flexible cord.

a. Flexible cord must have an approved insulation and covering.

b. Flexible cord must not be used where the difference of potential between the two wires is over 300 volts.

c. Flexible cord must not be used as a support for clusters.

d. Flexible cord must not be used except for pendants, wiring of fixtures, portable lamps or motors, [and] portable heating apparatus *or other portable devices.*

For all portable work, including those pendants which are liable to be moved about sufficiently to come in contact with surrounding objects, flexible wires and cables especially designed to withstand this severe service must be used.

When necessary to prevent portable lamps from coming in contact with inflammable materials, or to protect them from breakage, they must be surrounded with a substantial [wire] guard.

e. *Unless provided with approved metal armor,* [F]flexible cord must not be used in show windows or show cases, except [when provided with an approved metal armor. Departure from this rule, in the case of chain fixtures, may be authorized only under special permission in writing] *that approved portable cord may be used for the purpose of supplying current to portable lamps and other devices for exhibition purposes.*

f. Flexible cord must be protected by [insulating] *approved* bushings where the cord enters the socket, *unless the socket is so constructed that no bushing is required.*

g. [Flexible cord must be so suspended that the entire weight of the socket and lamp will be borne by some approved method under the bushing in the socket, and above the point where the cord comes through the ceiling block or rosette, in order that the strain may be taken from the joints and binding screws.] *Must be so connected to all fittings that strain is taken from the joints and binding screws.*

h. Must where passing through covers of outlet boxes be protected by approved bushings especially designed for this purpose. So-called hard rubber composition bushings threaded into box covers must not be used.

§433. Arc lamps on constant-potential circuits.

a. There must be a cut-out (see §419 of this chapter) for each lamp or each series of lamps.

The branch conductors must have a carrying capacity about 50 per cent. in excess of the normal current required by the lamp.

b. Arc lamps must be furnished only with such resistances or regulators as are enclosed in non-combustible material, such resistances being treated as sources of heat. Incandescent lamps must not be used for this purpose.

c. Arc lamps must be supplied with globes and protected by spark arresters and wire netting around the globe, as in the case of series arc lamps (see § 421 of this chapter).

Outside arc lamps must be suspended at least 8 feet above sidewalks. Inside arc lamps must be placed out of reach or suitably protected.

d. Arc lamps, when arranged to be raised and lowered, either for carboning or other purposes, shall be connected up with stranded conductors from the last point of support to the lamp, when such conductor is larger than No. 14 B & S. gage.

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

§434. Vapor lamps.

1. *Enclosed mercury vapor lamps.*

a. Enclosed mercury vapor lamps must have a cut-out for each lamp or series of lamps except when contained in a single frame and lighted by a single operation in which case not more than 5 lamps should be dependent upon a single cut-out.

b. Enclosed mercury vapor lamps must be furnished only with such resistances or regulators as are enclosed in non-combustible cases, such resistances to be treated as sources of heat. In locations where these resistances or regulators are subject to flyings of lint or combustible material, all openings through cases must be protected by fine wire gauze.

2. *High-potential vacuum tube systems.*

c. The tube must be so installed as to be free from mechanical injury or liability to contact with inflammable material.

d. High-potential coils and regulating apparatus must be installed in approved steel cabinet not less than 1/10 inch in thickness; same to be well ventilated in such a manner as to prevent the escape of any flame or sparks, in case of burnout in the various coils. All apparatus in this box must be mounted on slate base and the enclosing case positively grounded. Supplying conductors leading into this high-potential case are to be installed in accordance with the standard requirements governing low-potential systems, where such wires do not carry a potential of over 300 volts.

§435. [Economy coils.

a. Economy and compensator coils for arc lamps must be mounted on non-combustible, non-absorptive, insulating supports, such as glass or porcelain, allowing an air space of at least 1 inch between frame and support, and must in general be treated as sources of heat.]

Gas Filled Incandescent Lamps.

a. Must be so grouped that not more than 660 watts (nor more than 16 sockets or receptacles) are to be dependent on one cutout except that in cases where wiring equal in size to No. 14 B. & S. gage is carried directly into keyless sockets or receptacles, the location of which is such as to render unlikely the attachment of flexible cords thereto, the circuits may be so arranged that not more than 1,320 watts (or 32 sockets or receptacles) will be dependent on the final cutout. Where a single socket or receptacle is used on a circuit the limitation of watts permissible on the final cutout shall be the maximum capacity for which such socket or receptacle is approved.

b. Must not be used in show windows or in other locations where inflammable material is liable to come in contact with lamp equipment except where used in connection with approved fixtures where temperature of any exposed portion of same does not exceed 200 degrees Fahr. (93 degrees Centigrade).

c. Must not be used in connection with medium-base sockets or receptacles if of above 250 watts nominal capacity nor with Mogul base sockets or receptacles if of above 1,500 watts capacity.

d. Fixtures within buildings must be wired with conductors having approved slow-burning or other heat-resisting coverings where the temperature to which wire is subjected at any point exceeds 120 degrees Fahr. (49 degrees Centigrade). Where fixtures are placed outside of buildings approved rubber insulated wire is required.

§436. Transformers, low potential.

1. *Oil transformers.*

a. Must not be placed inside of any building except central stations[,] *or* sub-stations, *unless in* [and] transformer vaults [except] *and* by special permission.

2. *Air cooled transformers.*

b. Air cooled transformers must not be placed inside of any building excepting central stations *or* sub-stations [and transformer vaults] if the highest voltage of either primary or secondary exceeds 550 volts, *unless installed in approved transformer vaults.*

c. Air cooled transformers must, with the exception of bell-ringing and other signaling transformers, be so mounted that the case shall be at a distance of at least 1 foot from combustible material or separated therefrom by *a slab or panel of* non-combustible, non-absorptive, insulating material, such as slate, marble or soapstone. [this will require the use of a slab or panel somewhat larger than the transformer.]

§437. Decorative lighting systems.

a. Special permission in writing may be given for the temporary installation of approved systems of decorative lighting, provided the difference of potential between the wires of any circuit shall not be over 150 volts and also provided that no group of lamps requiring more than 1,320 watts shall be dependent on one cut-out.

§438. Theatre and moving picture establishment wiring.

All wiring, apparatus, etc., not specifically covered by this section must conform to the general requirements of this chapter, and the term "theater" shall mean a building, or that part of a building regularly or frequently used for dramatic, operatic, moving picture or other performances or shows or which has a stage for such performances used with scenery or other stage appliances.

a. Services.

Where supply may be obtained from 2 separate street mains, 2 separate and distinct services must be installed, one service to be of sufficient capacity to supply current for the entire equipment of theater, while the other service must be at least of sufficient capacity to supply current for all emergency lights. Where supply cannot be obtained from 2 separate sources, the feed for emergency lights must be taken from a point on the street side of main service fuses. By "emergency lights" are meant exit lights and all lights in lobbies, stairways, corridors, and other portions of theater to which the public have access, which are normally kept lighted during the performance.

Where source of supply is an isolated plant within the same building, an auxiliary service of at least sufficient capacity to supply all emergency lights must be installed from some outside source, or a suitable storage battery within the premises may be considered the equivalent of such service.

b. Stage.

All permanent construction on stage side of proscenium wall, except as hereinafter provided, must be approved conduit or armored cable.

c. Switchboards must be of the dead front type and made of non-combustible, non-absorptive insulating material, plans of each board to be approved before installation. *Dimmers must be dead when the switch controlling circuit of which dimmer forms a part is open.*

d. Footlights must be wired in approved conduit or armored cable, each lamp receptacle being enclosed within an approved outlet box, or the lamp receptacles may be mounted in an iron or steel box, metal to be of a thickness not less than No. 20 U. S. sheet metal gage, treated to prevent oxidation, so constructed as to enclose all the wires *and providing at least one-half inch separation between the metal of the box and receptacle terminals*; wires to be soldered to lugs of receptacles.

Footlights must be so wired that no set of lamps requiring more than 1,320 watts nor more than 32 receptacles shall be dependent upon one cut-out.

e. Borders and proscenium sidelights.

1. Borders and proscenium sidelights must be constructed of steel of a thickness not less than No. 20 U. S. sheet metal gage, treated to prevent oxidation, be suitably stayed and supported, and so designed that flanges of reflectors will protect lamps.

2. Borders and proscenium sidelights must be so wired that no set of lamps requiring more than 1,320 watts nor more than 32 receptacles shall be dependent upon one cut-out.

3. Borders and proscenium sidelights must be wired in approved conduit or armored cable, each lamp receptacle to be enclosed within an approved outlet box, or the lamp receptacles may be mounted in an iron or steel box, metal to be of a thickness not less than No. 20 U. S. sheet metal gage, treated to prevent oxidation, so constructed as to enclose all wires *and providing at least one-half inch separation between the metal of the box and receptacle terminals;* the wires to be soldered to lugs of receptacles.

4. Borders and proscenium sidelights must be provided with suitable guards to prevent scenery or other combustible material coming in contact with lamps.

5. Cables for borders must be of approved type and suitably supported; conduit construction must be used from switchboard to point where cables must be flexible to permit of the raising and lowering of border.

6. For the wiring of the border proper, wire with approved slow-burning insulation must be used.

7. Borders must be suitably suspended, and if a wire rope is used same must be insulated by at least one strain insulator inserted at the border.

f. Stage and gallery pockets must be of approved type, insulated from ground and controlled from switchboard, each receptacle to be not less than 35 amperes rating for arc lamps nor 15 amperes for incandescent lamps, and each receptacle to be wired to its full capacity. Arc pockets must be wired with wire not smaller than No. 6 B. & S. gage and incandescent pockets with not less than No. 12 B. & S. gage.

Plugs for arc and incandescent pockets must not be interchangeable.

g. Scene docks.

Where lamps are installed in scene docks, they must be so located and installed that they will not be liable to mechanical injury.

h. Curtain motors must be of [ironclad] *enclosed* type and installed so as to conform to the requirements of this chapter (see § 208).

i. Control for stage flues.

In cases where dampers are released by an electric device, the electric circuit operating same must be normally closed.

Magnet operating damper must be wound to take full voltage of circuit by which it is supplied, using no resistance device, and must not heat more than normal for apparatus of similar construction. It must be located in loft above scenery and be installed in a suitable iron box with a tight self-closing door.

Such dampers must be controlled by at least 2 standard single pole switches mounted within approved iron boxes provided with self-closing doors, without lock or latch, and located, one at the electrician's station and others as designated.

j. Dressing rooms must be wired in approved conduit or armored cable.

All pendant lights must be equipped with approved reinforced cord, armored cable or steel armored flexible cord.

All lamps must be provided with approved guards *which are sealed or locked in place.*

k. Portable equipment.

Arc lamps used for stage effects must conform to the following requirements:

1. Must be construted entirely of metal *of a thickness not less than No. 20 U. S. sheet metal gage* except where the use of approved insulating material is necessary.

2. Must be substantially constructed, and so designed as to provide for proper ventilation, and to prevent sparks being emitted from lamps when same are in operation, and mica must be used for frame insulation.

3. Front opening must be provided with a self-closing hinged door frame, in which wire gauze or glass must be inserted, except in the case of lens lamps, where the front may be stationary, and a solid door be provided on back or side.

4. Must be so constructed that neither carbons nor live parts will be brought into contact with metal of hood during operation, and arc lamp frames and standards must be so installed and protected as to prevent the liability of their being grounded.

5. Switch on standard must be so constructed that accidental contact with any live portion of same will be impossible.

6. All stranded connections in lamps and at switch and rheostat must be provided with approved lugs.

7. Rheostats must be plainly marked with their rated capacity in volts and amperes, and, if mounted on standards, must be raised to a height of at least 3 inches above floor. Resistance must be enclosed in a substantial and properly ventilated metal case which affords a clearance of at least 1 inch between case and resistance element.

8. A competent operator must be in charge of each arc lamp, except that 1 operator may have charge of 2 lamps when they are not more than 10 feet apart, and are so located that he can properly watch and care for both lamps.

l. Bunches must be substantially constructed of metal and must not contain any exposed wiring; cable feeding bunches must be bushed in an approved manner where passing through the metal, and must be properly secured to prevent any mechanical strain from coming on the connection.

m. Strips must be constructed of steel of a thickness not less than No. 20 U. S. sheet metal gage, treated to prevent oxidation, and suitably stayed and supported and so designed that flanges will protect lamps. Cable must be bushed in a suitable manner where passing through the metal, and must be properly secured to prevent serious mechanical strain from coming on the connections. Strips must be wired in approved conduit or armored cable, each lamp receptacle being enclosed within an approved outlet box or the lamp receptacles may be mounted in an iron or steel box, metal to be of a thickness not less than No. 20 U. S. sheet metal gage, treated to prevent oxidation, so constructed as to enclose all wires, the wires to be soldered to lugs of receptacles.

n. Portable plugging boxes must be so constructed that no current carrying part will be exposed, and each receptacle must be protected by approved fuses mounted on slate or marble bases and enclosed in a fireproof cabinet equipped with self-closing doors. Each receptacle must be constructed to carry 30 amperes without undue heating, and the busbars must have a carrying capacity equivalent to the current required for the total number of receptacles, and approved lugs must be provided for the connection of the master cable.

o. Pin plug connectors must be of an approved type, so installed that the female part of plug will be on live end of cable, and must be so constructed that tension on the cable will not cause [any] serious mechanical strain on the connections.

p. Portable [conductors. Flexible] conductors used [for] *from* receptacles to arc lamps, bunches and other portable equipments must be approved stage cable, except that for the purpose of feeding a stand lamp under conditions where conductors are not liable to severe mechanical injury an approved reinforced cord may be used, provided cut-out designed to protect same is not fused over [6] *10* amperes capacity.

q. [Lights on scenery. Where b]*B*rackets [are] used *on scenery* [they] must be wired entirely on the inside, fixture stem must come through to the back of the scenery and end of stem be properly bushed. *Fixtures must be securely fastened in place.*

r. String or festooned light wiring must be of approved type, joints to be properly made, soldered and taped, and staggered where practicable.

Where lamps are used in lanterns or similar devices, approved guards must be employed.

s. Special electrical effects. Where devices are used for producing special effects such as lightning, waterfalls, etc., the apparatus must be so constructed and located that flames, sparks, etc., resulting from the operation cannot come in contact with combustible material.

t. Auditorium wiring must be installed in approved conduit, metal moulding or armored cable. Where receptacles are used, they must be enclosed in approved boxes.

Exit lights must not have more than 1 set of fuses between same and service fuses. Exit lights and all lights in halls, corridors or any other part of the building used by audience, except the general auditorum lighting, must be fed independently of the stage lighting, and must be controlled only from the lobby or other convenient place in front of the house. All fuses must be enclosed in approved cabinets.

u. Moving picture equipments other than those of approved miniature type.

1. The arc lamp used as a part of a moving picture machine must be constructed, so far as practicable, similar to arc lamps of theatres, and wiring to same must not be of less capacity than No. 6 B. &. S. gage. The leads to the lamp and its rheostat or equivalent device must be protected by a plug cutout or open link fuses, the latter enclosed in an approved cabinet with self-closing door. Cartridge fuses will not be permitted.

2. Rheostats, transforming devices or any substitute therefor must be of types expressly designed and approved for the purpose. Their installation and location must be subject to approval as parts of the moving picture machine.

3. Top and bottom reels must be enclosed in steel boxes or magazines, each with an opening of approved construction at bottom or top, so arranged as not to permit entrance of flame to magazine. No solder is to be used in the construction of these magazines. The front side of each magazine must consist of a door swinging horizontally and be provided with a substantial latch.

4. An automatic shutter must be provided and must be so constructed as to shield the film from the beam of light whenever the film is not running at operating speed. Shutter must be permanently attached to the gate frame.

5. Extra films must be kept in individual metal boxes equipped with tight-fitting covers.

6. Machine operation must be of an approved type. If driven by a motor, the latter must be of a type expressly designed and approved for such operations, and when so approved, motor driven machines, when in charge of a skilled operator, may be authorized under special permission in writing, given in advance.

7. Machine must be placed in an enclosure or house made of suitable fireproof material; must be properly ventilated, properly lighted and large enough for operator to walk freely on either side of or back of machine. All openings into this booth must be arranged so as to be entirely closed by doors or shutters constructed of the same or equally good fire-resisting material as the booth itself. Doors or covers must be arranged so as to be held normally closed by spring hinges or equivalent devices.

8. Reels containing films under examination or in process of rewinding must be enclosed in magazines or approved metal boxes, similar to those required for films in operation, and not more than 2 feet of film shall be exposed in booth.

v. Moving picture equipments of approved miniature type for home, lecture and similar purposes.

[1. Arc lamp used as a part of machine must be constructed so far as practicable similar to arc lamps of theatres, and must not require more than 350 watts to operate same.

2. The rheostat or other current controlling device must conform to the requirements for similar devices for theatre work, and must be attached to and form a part of the machine.

3. Films must be of the non-inflammable type.

4. Such miniature machine shall be operated in an approved box of fireproof material constructed with a fusible link or other approved releasing device to close instantaneously and completely in case of combustion within the box. The light in said miniature machine shall be completely enclosed in a metal lantern box covered with an unremovable roof.]

1. All equipments must be expressly approved, and such approval must cover the entire machine including all attachments, current-controlling devices and other parts employed, including also the film.

2. The entire equipment must consume not more than 660 watts.

3. Arc lamps must be constructed so far as practicable in accordance with the requirements of § 38 k, 1, 2, 3, 4 and 6, and incandescent lamps must be suitably enclosed.

4. Rheostats, transformers, switches and other similar current-controlling devices must be attached to and form a part of the machine, must have no live parts exposed, and must comply with the requirements of § 65 and § 78 or § 81 a, b, c.

5. Films must be of an approved slow-burning type having a permanent distinctive marker.

6. Machines must be so constructed that they cannot be used with films employed on the full-sized commercial moving picture machine. This may be accomplished by using a film of special width or with special perforations or by any other approved means.

7. Machines must be marked with the name or trade-mark of the maker, and with the voltage and current rating for which they are designed, and be plainly marked, "For use with slow-burning films only."

§439. Outline lighting.

a. Outline lighting must be connected only to low-potential systems.

b. Open or conduit work or metal trough construction may be used, but moulding will not be permitted.

c. Where flexible tubing is required, the ends must be sealed and painted with moisture repellent and kept at least [¼] *1-2* inch from surface wired over.

d. Wires for use in rigid or flexible steel conduit must comply with requirements for conduit work. Where armored cable is used, the conductors must be protected from moisture by lead sheath between armor and insulation.

e. Outline lighting must be protected by its own cut-out, and controlled by its own switch; single pole switches must not be used. Cut-outs, switches, flashers and similar appliances must be of approved types and be installed as required by this chapter for such appliances, and, if outside the building, must, with the exception of transformers of weatherproof type, be installed in approved weatherproof cabinets.

f. Circuits must be so arranged that not more than 1,320 watts will be dependent upon one cut-out.

g. Sockets and receptacles must be of the keyless porcelain type and wires must be soldered to lugs on same. Miniature receptacles will not be approved for outdoor work.

h. For open work, wires must be approved rubber covered, not less than No. 14 B. & S. gage and must be rigidly supported on non-combustible, non-absorptive insulators, which separate the wires at least 1 inch from the surface wired over. Rigid supporting requires, under ordinary conditions where wiring over flat surfaces, supports at least every 4½ feet. If the wires are liable to be disturbed, the distance between supports should be shortened. In those parts of circuits where wires are connected to approved receptacles which hold them at least 1 inch from surface wired over, and which are placed not over 1 foot apart, such receptacles will be considered to afford the necessary support and spacing of the wires. Between receptacles more than 1 foot, but less than 2 feet, apart an additional non-combustible, non-absorptive insulator maintaining a separation and spacing equivalent to the receptacles must be used. Except as above specified, wires must be kept apart at least 2½ inches for voltages up to 300, and 4 inches for higher voltages.

i. For metal trough construction, the troughs and other details must comply with the requirements of § 583 a to f, hereof.

[§442.] *§441.* Lighting and power from railway wires.

Lighting and power from railway wires 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, power houses, passenger and freight stations connected with the operation of electric railways.

[§439a.] *§442.* Garages.

1. *Definition.* A garage is that portion of a building in which any automobile carrying volatile inflammable liquid is kept, whether such automobile be kept for use, for sale, for rental, for exhibition or for demonstrating purposes; and all that portion of a building that is on or below the floor or floors on which an automobile carrying volatile inflammable liquid is kept and is not separated therefrom by tight unpierced fire walls and floors.

2. *Wiring and appliances.* [a. Approved metal conduit or approved armored cable must be employed, except in offices and show rooms, where approved metal moulding may be used.

b. Cutouts, switches, receptacles and sockets which are permanently located must be placed at least 4 feet above the floor.

c. Switchboards and charging panels, if not placed 4 feet above the floor must be located in a fireproof enclosure provided with a self-closing door.

d. For portable lights, flexible cable designed for rough usage must be employed, this cable carrying the male end of a pin plug connector or equivalent of at least 3 amperes capacity, the female end being of such design or so hung that the connector will break apart readily at any position of the cable. The connector must be kept at least 4 feet above the floor. For all portable lights, keyless molded-mica or metal sheathed porcelain sockets equipped with handle, hook and guard must be employed.

e. For charging, theater stage cable must be employed, this cable carrying the female end of a pin plug connector or equivalent of a capacity of at least 50 amperes, the male end being of such design or so hung that the connector will break apart readily at any position of the cable. The connector must be kept at least 4 feet above the floor, and the male end, if not located on a switchboard or charging panel, must be shielded against accidental contact.

f. Motors, if not located at least 4 feet above the floor, must be of the fully enclosed type.] *a. All conductors except those required for pendant lamps or portable connections must be installed in approved metal conduit or approved armored cable, except that approved metal moulding may be used only in offices and showrooms. Metal conduit, armored cable or metal moulding must be so installed that all outlet and junction boxes shall be located at least four feet above the floor.*

b. Flexible cord for pendant lights must be approved reinforced cord.

c. Flexible cords for portable lamps, motors or other apparatus must be approved cord designed for rough usage. The portable cord must carry the male end of an approved pin plug connector or equivalent, the female end being of such design or so hung that the connector will break apart readily at any position of the cable. The connector must be kept at least four feet above the floor.

d. Flexible cable for charging must be of approved theatre stage type, this cable carrying parts of approved connectors of at least fifty amperes capacity. The connectors must be of such design or so hung that at least one will break apart readily at any position of the cable. Current-carrying parts of connectors must be shielded to prevent accidental contact. The fixed, or wall connector, must be kept at least four feet above the floor, and if not located on switchboard or charging panel, must be protected against accidental contact.

e. Cut-outs, switches and receptacles must be placed at least four feet above the floor, except as provided in paragraph g below.

f. All portable lights must be equipped with approved keyless sockets of moulded composition or metal-sheathed porcelain type. These sockets must be equipped with handle, hook and substantial guard.

g. Switchboards and charging panels, at or upon which are mounted devices which in operation may produce a spark, must be located in a room or enclosure provided for the purpose unless all such spark producing devices are at least four feet above the floor or surrounded by vapor proof enclosures.

h. Motors or dynamos, not actually a part of a vehicle, if not located at least four feet above the floor must be of the fully enclosed type. Motors located four feet or more above the floor, if not of the fully enclosed type, must be provided with wire screen of not less than No. 14 mesh over openings at commutator end.

§443. Electric cranes.

All wiring, apparatus, etc., not specifically covered by special rules herein given, must conform to the general requirements of this [*Code,] *chapter* except that the switch required by § 208c of this chapter for each motor may be omitted.

a. Wiring.

1. All wires except bare collector wires, those between resistances and contact plates of rheostats and those subjected to severe external heat, must be approved

rubber-covered and not smaller in size than No. 12 B. & S. gage. Insulation on wires between resistances and contact plates of rheostats must conform to paragraph d hereof, while wires subjected to severe external heat must have approved slow-burning insulation.

2. All wires excepting collector wires and those run in metal conduit or approved flexible cable must be supported by knobs or cleats which separate them at least 1 inch from the surface wired over, but in dry places, where space is limited and the distance between wires as required by § 426h of this chapter cannot be obtained, each wire must be separately encased in approved flexible tubing securely fastened in place.

Collector wires must be supported by approved insulators so mounted that even with the extreme movement permitted the wires will be separated at all times at least 1½ inches from the surface wired over. Collector wires must be held at the ends by approved strain insulators.

3. Main collector wires carried along the runways must be rigidly and securely attached to their insulating supports at least every 20 feet, and separated at least 6 inches when run in a horizontal plane; if not run in a horizontal plane, they must be separated at least 8 inches. If spans longer than 20 feet are necessary the distance between wires must be increased proportionately, but in no case shall the span exceed 40 feet.

4. Where bridge collector wires are over 80 feet long, insulating supports on which the wires may loosely lie must be provided at least every 50 feet.

Bridge collector wires must be kept at least 2½ inches apart, but a greater spacing should be used whenever it may be obtained.

5. Collector wires must not be smaller in size than specified in the following table for the various spans:

Distance between rigid supports, feet.	Size wire required B. & S.
0 to 30	6
31 to 60	4
Over 60	2

b. Collectors must be so designed that sparking between them and collector wires will be reduced to a minimum.

c. Switches and cut-outs.

1. The main collector wires must be protected by a cut-out and the circuit controlled by a switch. Cut-out and switch shall be so located as to be easy of access from the floor.

2. Cranes operated from cabs must have a cut-out and switch connected into the leads from the main collector wires and so located in the cab as to be readily accessible to the operator.

3. Where there is more than one motor on a single crane, each motor lead must be protected by a cut-out located in the cab if there is one.

d. Controllers must be installed according to § 204 of this chapter, except that if the crane is located out doors the insulation on wires between resistances and contact plates of rheostats must be rubber where the wires are exposed to moisture and insulation is necessary and also where they are grouped. If the crane operates over readily combustible material the resistances must be placed in an enclosure made of non-combustible material, thoroughly ventilated and so constructed that it will not permit any flame or molten metal to escape in the event of burning out the resistances. If the resistances are located in the cab, this result may be obtained by constructing the cab of non-combustible material and providing sides which enclose the cab from its floor to a height of at least 6 inches above the top of the resistances.

e. The motor frames, the entire frame of the crane and the tracks must be permanently and effectively grounded.

§444. Wires, high potential systems *in central stations, substations and transformer vaults.*

[a. High potential wires must have an approved rubber-insulating covering.

b. High potential wires must be always in plain sight and never encased, except as provided for in § 208b of this chapter, or where specially required.

c. High potential wires must, except as provided for in § 208 of this chapter, be rigidly supported on glass or porcelain insulators, which raise the wire at least 1 inch from the surface wired over, and must be kept about 8 inches apart.

Rigid supporting requires, under ordinary conditions, where wiring along flat surfaces, supports at least about every 4½ feet. If the wires are unusually liable to be disturbed, the distance between supports must be shortened.

In buildings of mill construction, mains of not less than No. 8 B. & S. gage, where not liable to be disturbed, may be separated about 10 inches and run from timber to timber, not breaking around, and may be supported at each timber only.

d. High potential wires must be protected on side walls from mechanical injury by a substantial boxing, retaining an air space of 1 inch around the conductors, closed at the top (the wires passing through bushed holes) and extending not less than 7 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 ½ inch in thickness.]

Special permission in writing may be given for the installation of wires of high potential systems under such restrictions as the commissioner may prescribe.

§445. Transformers, high potential.

a. Transformers must [not be placed inside buildings without special permission, and must] be located as near as possible to the point at which the primary wires enter the building.

b. Transformers must be placed in an enclosure constructed of fire-resisting material [the enclosure to be used only for this purpose, and to be kept securely locked, and access to the same allowed only to responsible parties.] *The enclosure shall have no opening to the building except through an approved tight-fitting fire door. It shall be ventilated in some approved manner, be used only to contain the transformers and other high potential regulating devices, and be kept securely locked to prevent access by other than responsible persons. Suitable oil drains and guard sills shall be provided, as may be required by the commissioner.*

c. The transformer case must be permanently and effectually grounded. [and the enclosure in which the transformers are placed must be practically air-tight, except that it must be thoroughly ventilated to the outdoor air, if possible, through a chimney or flue. There should be at least 6 inches air space on all sides of the transformer.]

§447. [Primary w]*Wires, extra high potential.*

Primary wires must not be brought into or over buildings, except power stations, sub-stations and transformer vaults.

[§448. Secondary wires.]

Secondary wires must be installed under rules for high-potential systems when their immediate primary wires carry a current at a potential of over 3,500 volts, unless the primary wires are installed in accordance with the requirements of article 3 of this chapter or are entirely underground.

ARTICLE 5.

Fittings, Materials and Details of Construction.

Section 549. Insulated wires, general rules.
550. Rubber-covered wire.
551. Slowburning weatherproof wire.
552. Slowburning wire.
553. Weatherproof wire.
554. Flexible cords.
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561. Tubes and bushings.
562. Cleats.
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569. Panel boards.
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574. Arc lamps.
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577. Fixtures.
578. Rheostats, resistance boxes and equalizers.
579. Auto-starters.
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581. Transformers.
582. Lightning arresters.
583 Electric signs (for low potential systems only).
584.

§548. Fittings, materials and details of construction.

The requirements and provisions of this article prescribe the general characteristics and classifications of fittings, materials and details of construction. Specifications for performance of fittings and materials, both under test and in service, shall be as prescribed from time to time by the commissioner. All fittings, materials and details of construction must be approved by the commissioner before being placed in service.

§549. Insulated wires, general rules.

[a. Copper for insulated solid conductors of No. 4 B & S. gage and smaller must not vary in diameter more than .002 inch from the standard. On solid sizes larger than No. 4 B. & S. gage the diameter shall not vary more than 1 per cent. from the specified standard. The conductivity of solid conductors shall not be less than 97 per cent. of that of pure copper of the specified size. In all stranded conductors the sum of the circular mils of the individual wires shall not be less than the nominal circular mils of the strand by more than 1½ per cent. The conductivity of the individual wires in a strand shall not be less than is given in the following table, which applies to tinned conductors (B. & S. gage):

No. 14 B. & S. gage and larger	97.0 per cent.
No. 15	96.8 per cent.
No. 16	96.6 per cent.
No. 17	96.4 per cent.
No. 18	96.2 per cent.
No. 19	96.0 per cent.
No. 20	95.8 per cent.
No. 21	95.6 per cent.
No. 22	95.4 per cent.
No. 23	95.2 per cent.
No. 24	95.0 per cent.
No. 25	94.8 per cent.
No. 26	94.6 per cent.
No. 27	94.4 per cent.
No. 28	94.2 per cent.
No. 29	94.0 per cent.
No. 30	93.8 per cent.

The standard for diameters and milages shall be that adopted by the American Institute of Electrical Engineers. If splices are made in solid conductors or in the individual wires of stranded conductors, they must be made in a workmanlike manner and so as not to increase the diameter of the conductor or individual wire or lessen the mechanical strength thereof. Joints or splices in stranded conductors, as a whole, must be made only by separately joining each individual wire as described above, and the overall diameter of the entire stranded conductor must not be increased thereby.

b. Wires and cables of all kinds designed to meet the following specifications must have a distinctive marking the entire length of the coil so that they may be readily identified in the field. They must also be plainly tagged or marked as follows:

1. The maximum voltage at which the wire is designed to be used;
2. The words "National Electrical Code Standard";
3. Name of the manufacturing company and, if desired, trade name of the wire;
4. Month and year when manufactured;
5. The proper type letter for the particular style of wire or cable as given for each type of insulation in §§ 550 to 557 of this chapter, inclusive.

Wires described under § 553 of this chapter need not have the distinctive marking, but are to be tagged.]

§549. Wires, general.

a. Wires, cables and cords of all kinds designed to meet the following specifications must have a distinctive marking the entire length of the coil so that they may be readily identified in the field. They must also be plainly tagged or marked as follows:

Wires described under §557 need not have the distinctive marking but are to be tagged.

1. The maximum working pressure or voltage for which the wire was tested or approved. This may be omitted for the wires described under §§555, 556 and 557.

2. The words "National Electrical Code Standard."

3. Name of the manufacturing company and, if desired, trade name of the wire.

4. Month and year when manufactured.

5. The proper type letter for the particular style of wire or cable as given in the following schedule for each type of insulation.

R S—Rubber coated single braided for voltage	*0–600*
R S-15—Rubber covered single braided for maximum voltage	*1500*
R S-25—Rubber covered single braided for maximum voltage	*2500*
R S-35—Rubber covered single braided for maximum voltage	*3500*
R S-50—Rubber covered single braided for maximum voltage	*5000*
R S-70—Rubber covered single braided for maximum voltage	*7000*

R D, R D-15—Rubber covered double braided, etc.
R S L—Rubber covered, single braided, leaded.
R D L—Rubber covered, double braided, leaded.
A C—Wires for use in armored cable.
A C L—Leaded wires for use in armored cable.

b. Conductors or the strands of conductors must not vary in either diameter or in conductivity more than an approved per cent. from the standards adopted by the American Institute of Electrical Engineers.

[§550. Rubber-covered wire.

a. Copper for conductors must be thoroughly tinned.

b. The insulation must consist of a rubber compound, homogeneous in character, adhering to the conductor or to the separator, if one is used, and of a thickness not less than that given in the tables of paragraphs e and f of this section. Measurements of insulating wall are to be made at the thinnest portion of the dielectric.

c. Any 1 foot sample of completed covering must show a dielectric strength sufficient to resist throughout 5 minutes the application of an electro-motive force proportionate to the thickness of insulation in accordance with the following table:

Thickness in 64ths inch.	Breakdown test on 1 foot.
1	3,000 volts A. C.
2	6,000 volts A. C.
3	9,000 volts A. C.
4	11,000 volts A. C.
5	13,000 volts A. C.
6	15,000 volts A. C.
7	16,500 volts A. C.
8	18,000 volts A. C.
10	21,000 volts A. C.
12	23,500 volts A. C.
14	26,000 volts A. C.
16	28,000 volts A. C.

The source of alternating electro-motive force shall be a transformer of at least 1 kilowatt capacity. The application of the electro-motive force shall first be made at 3,000 volts for 5 minutes, then the voltage increased by steps of not over 3,000 volts, each held for 5 minutes, until the rupture of the insulation occurs. The tests for dielectric strength shall be made on a sample wire which has been immersed in water for 72 hours. One foot of the wire under test is to be submerged in a con-

ducting liquid held in a metal trough, one of the transformer terminals being connected to the copper of the wire and the other to the metal of the trough.

d. Every length of completed wire or cable must be tested after not less than 12 hours, immersion in water and while still immersed by the application for 1 minute of an alternating current voltage derived from apparatus of ample capacity, the test voltages to be those given in the tables of paragraphs e and f of this section.

After this voltage test every length of completed wire or cable while still immersed must show an insulation resistance after 1 minute electrification not less than the values given in paragraphs e and f of this section.

Any length of completed wire or cable may be tested during 30 days' immersion in water and must show not less than 50 per cent. of the insulation resistance required after the 12 hours' immersion.

The results of insulation test at different temperatures to be reduced to a basis of 60 degrees F. (15.5 degrees C.) by using the multipliers in the following table:

Temp., degs. Fahr.	Multiplier.
50-52	.63
53-55	.75
56-58	.86
59-61	1.00
62-64	1.16
65-67	1.34
68-70	1.55
71-73	1.80
74-76	2.08
77-79	2.40
80-82	2.78
83-85	3.22

e. Thickness of insulation, voltage tests and minimum insulation resistance to be in accordance with the following tables. The voltage tests are to be for 1 minute. The insulation resistances are after 1 minute electrification and at 60 degrees Fahr. (15.5C.).

Tests on completed lengths 0 to 600 volt classes. Type letters R. S.

Size.	Thickness in 64ths inch.	Megohms per mile after 12 hrs. immersion.	Voltage test, one minute.
14	3-64	300	1,500
12	3-64	250	"
10	3-64	225	"
8	3-64	200	"
6	1-16	200	2,000
4	1-16	150	"
2	1-16	125	"
1	5-64	150	2,500
0	5-64	125	"
00	5-64	125	"
000	5-64	100	"
225,000 c. m.	3-32	100	3,000
0000	5-64	100	"
300,000 "	3-32	100	"
400,000 "	3-32	100	"
500,000 "	3-32	100	"
600,000 "	7-64	100	3,500
700,000 "	7-64	100	"
800,000 "	7-64	100	"
900,000 "	7-64	100	"
1,000,000 "	7-64	100	"
1,250,000 "	1-8	100	"
1,500,000 "	1-8	75	"
1,750,000 "	1-8	60	"
2,000,000 "	1-8	50	"

f. Tests on completed lengths, 601 to 7,000 volt classes.

Max. operating voltage, 1,500. Type letters R. S.—15.

Size.	Thick. ins.	Ins. res. meg.	Volts test.
B. & S. gage.			
14-8	1-16	600	4,000
7-2	5-64	300	"
1-0000	3-32	200	"
C.M.			
225,000-500,000	7-64	175	"
525,000-1,000,000	1-8	150	"
Over 1,000,000	9-64	100	"

Max. operating voltage, 2,500. Type letters R. S.—25.

Size.	Thick. ins.	Ins. res. meg.	Volts test.
B. & S. gage.			
14-8	3-32	700	6,250
7-2	3-32	350	"
1-0000	7-64	250	"
C.M.			
225,000-500,000	1-8	200	"
525,000-1,000,000	9-64	175	"
Over 1,000,000	10-64	125	"

Max. operating voltage, 3,500. Type letter R. S.—35.

Size.	Thick. ins.	Ins. res. meg.	Volts test.
B. & S. gage.			
14-8	4-32	850	8,750
7-2	4-32	450	"
1-0000	4-32	300	"
C.M.			
225,000-500,000	9-64	225	"
525,000-1,000,000	10-64	200	"
Over 1,000,000	11-64	150	"

Max. operating voltage, 5,000. Type letter R. S.—50.

Size.	Thick. ins.	Ins. res. meg.	Volts test.
B. & S. gage.			
14-8	6-32	1,000	12,500
7-2	6-32	650	"
1-0000	6-32	450	"
C.M.			
225,000-500,000	6-32	300	"
525,000-1,000,000	6-32	225	"
Over 1,000,000	7-32	175	"

Max. operating voltage, 7,000. Type letter R. S.—70.

Size.	Thick. ins.	Ins. res. meg.	Volts test.
B. & S. gage.			
14-8	8-32	1,200	17,500
7-2	8-32	800	"
1-0000	8-32	550	"
C.M.			
225,000-500,000	8-32	400	"
525,000-1,000,000	8-32	275	"
Over 1,000,000	9-32	200	"

g. All physical tests to be made at a temperature between 60 degrees and 90 degrees Fahrenheit. All test samples to be kept at a temperature within this range for at least 2 hours before the tests are made.

1. The rubber compound or other approved insulation must be sufficiently elastic to comply with a test made as follows:

A sample of wire about 20 inches long shall have the braid and insulation removed for about 2 inches at each end, leaving the braid and insulation on balance of sample. One end of the bare copper should be fastened to a clamp on a shaft of the diameter given below, and a weight as given below attached to the other end of the bare copper wire. The shaft shall then be revolved 10 times in 10 seconds, wrapping the sample in a close wind around the shaft. With the tension left on the sample, it should then be immersed in water for 24 hours, immediately after which it should, while still immersed, be subjected to 1,500 volts alternating current for 1 minute.

	B. & S.	Mils.	Lbs.
Diam. of shaft	No. 14 wire	170	weight 10
" "	12 "	190	" 10
" "	10 "	275	" 12
" "	8 "	375	" 15

2. Any rubber compound used as insulation shall be tested for permanent set, elongation and tensile strength as follows:

New wire.—A test piece taken from the wire, having insulation less than 5-64 inch thick, shall have marks placed 2 inches apart, and shall be stretched longitudinally at the rate of 12 inches per minute till the marks are 5 inches apart, and then be immediately released and a measurement taken 30 seconds thereafter, when the distance between the marks must not exceed 2.5 inches. The test piece shall then be stretched until the marks are 6 inches apart before rupture. The tensile strength shall not be less than 400 lbs. per square inch, calculated upon the original cross section of the test piece before stretching. Test pieces from wire having insulation 5-64 inch thick or over shall be tested in a similar manner, but shall be stretched to 4 inches instead of 5 inches, and must not break until stretched 5 inches, and shall have a tensile strength of 400 lbs. per square inch.

Wire tested at any time up to one year from date of manufacture or to time of installation.—A test piece taken from wire having insulation less than 5-64 inch thick shall have marks placed 2 inches apart, and shall be stretched longitudinally at the rate of 12 inches per minute till the marks are 4 inches apart, and then be immediately released and a measurement taken 30 seconds thereafter, when the distance between the marks must not exceed 2.5 inches. Test pieces from wire having insulation 5-64 inch or over shall be stretched to 3½ inches instead of four inches.

h. All of the above insulations must be protected by a substantial braided covering, properly saturated with a preservative compound. This covering must be sufficiently strong to withstand all the abrasions likely to be met with in practice, and all wire must substantially conform to approved samples submitted by the manufacturer.

j. Lead covered wires and cables for interior work only. (Type letters R. S. L.) Except for armored cables. (Type letter A. C.) The thickness of insulating wall of lead sheath rubber insulated conductors, 0-600 volts, to be the same as for braided cables, all cables to be covered with a compound filled tape or braid over the insulating wall. There shall be a tape or braid over the bunched conductors except where the conductors are laid parallel and not twisted. If braid is used, it shall be of such a thickness as to increase the required diameter over the insulating wall by at least 1-32 inch, and must comply with the requirements for braid on braided conductors.

If tape is used it must not be less than 1-64 inch thick and must lap at least ¼ of its width. The width of the tape used should not exceed twice the square root of the diameter of the conductor over the insulating wall; i. e., 500,000 c. m. 3-32 rubber, tape not to exceed 2 inches in width; No. 14, 3-64 rubber, tape should not exceed 0.8 inch in width.

The lead on single conductor cables, 0-600 volt class, sizes 2 B. & S. and smaller, both solid and stranded, to be not less than the thickness of rubber called for by paragraph e of this section. On larger sizes the thickness of lead to be not less than the thickness of insulating wall called for, less 1-64 inch; i. e., thickness of lead on No. 2, 1-16 inch; on 1,000,000 c. m., 3-32 inch. On multiple conductor cables, thickness of lead to be that called for by single conductor, having same diameter over the insulation as the multiple conductor cable has over the bunched insulated conductors.

Rubber insulated and lead sheathed cables, 601 to 7,000 volt classes inclusive (Type letters R. S. L. 15, R. S. L. 25, etc.) shall comply with paragraph f of this section and the lead sheath shall be the same as called for in 0-600 volt class, having same diameter under the lead as 601-7,000 volt conductor. The electrical test on finished cables shall be the same as on braided cables.]

§550. Rubber-covered wire.

a. Conductors.

No individual conductor, whether solid or stranded, shall be less than No. 14 B. & S. gage in nominal size.

All conductors and the individual wires of stranded conductors shall be tinned.

b. Insulation.

Conductors shall be insulated for their entire length with a properly applied and properly vulcanized rubber compound.

The insulation must be of the nominal thickness given in the following table, the requirements of which vary according to the sizes of conductors and the maximum working pressure.

Table of Thickness of Rubber Insulation for Rubber-Covered Wires and Cables in 64th Inches.

	Type Letters.					
	RS.	*RS-15.*	*RS-25.*	*RS-35.*	*RS-50.*	*RS-70.*
Size of Conductor.	*For Working Pressures Not Over*					
	600 Volts.	*1500 Volts.*	*2500 Volts.*	*3500 Volts.*	*5000 Volts.*	*7000 Volts.*
American or B. & S. Gage—						
14 to 8	*3*	*4*	*6*	*8*	*12*	*16*
7 to 2	*4*	*5*	*6*	*8*	*12*	*16*
1 to 0000 C. M.	*5*	*6*	*7*	*8*	*12*	*16*
225,000 to 500,000	*6*	*7*	*8*	*9*	*12*	*16*
525,000 to 1,000,000	*7*	*8*	*9*	*10*	*12*	*16*
Over 1,000,000	*8*	*9*	*10*	*11*	*14*	*18*

c. Coverings.

All single conductor rubber-insulated wires and cables must have a covering of fibrous material applied directly to the surface of the insulating wall.

For any single conductor wire there shall be at least one braid for sizes from No. 14 to and including No. 8. For all single conductor cables larger than No. 8 there must be at least two braids or a tape and a braid.

For twin wires and twisted pair wires and for all multiple conductor cables there shall be a fibrous covering on each individual wire and in addition a braid enclosing the bunched conductors.

For certain special service conditions, one or more additional coverings of fibrous material or of lead are required.

Fibrous coverings may be either braid or tape, but tape shall not be used for the outer covering. All braids must be impregnated with a moisture-proof compound.

Lead coverings may be applied to single or multiple conductors. Lead covered multiple conductor cable with more than two conductors must, in all cases, have the conductors spirally laid.

In all cases, the individual conductors in lead covered cable must have a fibrous covering and, except for two conductor cables, with conductors parallel, there must be a fibrous covering over bunched conductors.

The thickness of lead covering shall, in all cases, be that specified for cables for the various sizes and forms.

[§551. Slow-burning waterproof wire. (Type letters, S. B. W.)

a. The insulation must consist of two coatings, one to be fireproof in character and the other to be weatherproof. The fireproof coating must be on the outside and must comprise about 6-10 of the total thickness of the wall. The completed covering must be of a thickness not less than that given in the following table:—

B. & S. Gage.	Thickness.
14 to 8	3-64 inch.
7 to 2	1-16 "
1 to 0000	5-64 "
Circular Mils.	
250,000 to 500,000	3-32 "
500,000 to 1,000,000	7-64 "
Over 1,000,000	1-8 "

Measurements of insulating wall are to be made at the thinnest portion.

b. The fireproof coating shall be of the same kind as that required for slow-burning wire, and must be finished with a hard, smooth surface.

c. The weatherproof coating shall consist of a stout braid, applied and treated as required for weatherproof wire.]

§551. Flexible cords—for pendant lamps and for portable use, including elevator lighting and control cables, and theatre stage and border-light cables.

(a) These cords and cables must comply with the requirements of § 549 a and b.

b. Conductors.

Each conductor must have a carrying capacity not less than that of a No. 18 B. & S. gauge wire and be built up from wires of approved sizes.

c. Insulation.

The insulation must consist of properly applied and properly vulcanized rubber compound complying with approved physical and chemical tests.

The insulation must be of the nominal thickness given in the following table:

	Thickness Inches
B. & S. Gage 18 and 16	1/32
B. & S. Gage, 14 to 8	3/64

For exception see Type PS below (§551f).

d. Coverings.

Each conductor must be covered with a tight, close wind of fine cotton or some other method must be employed to prevent a broken strand puncturing the insulation.

Cords of the several types must comply with the specifications of the following table with respect to their outer protective coverings, and the special rules indicated in the last column of the table.

Use.	Type letter.	Trade name.	Braid on each conductor.	Reinforcement or filler.	Outer cover.	For additional rules see
Pendants—Dry places	C	Lamp cord	Glazed cotton or silk			51e
Pendants—Damp places	CB	Brewery cord	Cotton Wp.			51e
	CC	Canvasite cord	Cotton Wp.		Cotton Wp	51e
Portable—Dry places	P	Reinforced cord	Cotton	Rubber jacket.	Glazed cotton or silk	...
	PO	Parallel cord	Cotton		Glazed cotton or silk	51f
	PS	Special reinf. cord	Cotton	Rubber jacket.	Glazed cotton or silk	51f
	CA	Armored cord	Cotton		Armor	...
	PA	Armored reinf. cord	Cotton	Rubber jacket.	Glazed cotton and armor	...
Portable—Damp places	PWp	Reinforced cord Wp	Cotton	Rubber jacket.	Cotton Wp	...
	PkWp	Packinghouse cord	Cotton	Filler	2 cotton both Wp	51g
	PAWp	Armored reinf. cord Ww	Cotton	Rubber jacket.	Cotton Wp. and armor	...
Theatre stages	T	Stage cable	Cotton Wp.	Filler	2 cotton both Wp	51g&h
Theatre borders	B	Border light cable	Cotton Wp.		2 cotton both Wp	51g&i
Elevator lighting and control	E	Elevator cable	Cotton	Rubber jacket. and or	1 or more cotton, both Wp	51g&j
					3 cotton, outer one Wp	...

e. (Types C. CB and CC.) In these classes are included flexible cords which under usual conditions hang freely in air.

f. (Types PO and PS.) These cords are for use only in offices, dwellings or similar places where not liable to rough usage.

For Type PO the conductors may be either laid parallel or twisted together.

Type PS cord may be made only with conductors of No. 18 or No. 16 B. & S. gage and may have insulation only one-sixty-fourth inch in thickness.

g. In the outer cover tape may be substituted for an inner braid.

h. (Type T.) Shall consist of not more than three conductors, each not exceeding No. 4 B. & S. gage, twisted together and with a filler. The insulation on each conductor of No. 6 to No. 4 B. & S. gage shall be one-sixteenth inch in thickness.

i. (Type B.) The conductors must be cabled.

j. (Type E.) Conductors for elevator lighting cables shall not be smaller than No. 14 and for elevator control cables not smaller than No. 16 B. & S. gage.

k. For portable heating apparatus (Type H.):

This cord is for use with all smoothing and sad irons and with other heating devices requiring over 250 watts.

1. Must comply with the requirements of §549 a, b and §551 b.

2. The covering may consist of a layer of rubber or other approved material at least one-sixty-fourth inch thick (the rubber is not subject to the tests specified for other rubber compounds), a braided covering of asbestos one-thirty-second inch thick and of approved quality, an outer braid one-sixty-fourth inch thick enclosing either all the conductors as a whole or each conductor separately.

[§552. Slow-burning wire. (Type letters, S. B.)

a. The insulation must consist of 3 braids of cotton or other thread, all the interstices of which must be filled with the fireproofing compound or with material having equivalent resisting and insulating properties. The outer braid must be specially designed to withstand abrasion, and its surface must be finished smooth and hard. The compound covering must be of a thickness not less than given in the table in §551a of this chapter.]

3. Other types of covering must be submitted for special examination and approval before being used.

§552. Fixture wire.

a. Fixtures may be wired with approved flexible cord or approved rubber-covered wire.

In wiring certain fixtures (see §§30s and 35d of this chapter) conductors having approved slow-burning or other heat-resisting coverings must be used.

b. Other wires for use in fixtures (Types F-64 and F-32) must comply with the requirements of §549 a and b, and with the requirements of paragraphs c to e inclusive of this section.

c. Conductors.

May be either solid or stranded in an approved manner and must not be smaller than No. 18 B. & S. gage.

If stranded conductor is used each conductor must be covered with a tight close wind of fine cotton or some other method must be used to prevent a broken strand puncturing the insulation. Solid conductors must be tinned.

d. Insulation.

The insulation must consist of properly applied and properly vulcanized rubber compound complying with approved physical and chemical tests.

The thickness of insulation shall not be less than one-sixty-fourth inch for No. 18 B. & S. gage wire and not less than one-thirty-second inch for No. 16 B. & S. gage.

e. Coverings.

Must be a braid which if of cotton must be at least one-sixty-fourth inch in thickness.

[§553. Weatherproof wire. (Type letters, W. P.)

a. The insulating covering shall consist of at least 3 braids, all of which must be thoroughly saturated with a dense moisture-proof compound, applied in such a manner as to drive any atmospheric moisture from the cotton braiding, thereby securing a covering to a great degree waterproof and of high insulating power. This compound must not drip at 160 degrees Fahrenheit (71 degrees Centigrade). The thickness of insulation must not be less than that given in the table in § 551a of this chapter, and the outer surface must be thoroughly slicked down.]

§553. Conduit wire.

For conduit work wires of either Types RS (No. 14 to No. 8, incl.), RD, RSL or RDL must be used.

[§554. Flexible cords.

a. Cords for pendant lamps and for portable use, including elevator, lighting and control cables, and theater stage and border cable, must be made of copper conductors, each built up from wires not larger than No. 26, or smaller than No. 36 B. & S. gage. Each conductor must have a carrying capacity not less than that of a No. 18 B. & S. gage wire, and must be covered by an approved insulation and protected from mechanical injury according to the specifications of paragraph c of this section, for the several types of cord or cable. Each conductor must be covered with a tight, close wind of fine cotton, or some other approved method must be employed to prevent a broken strand puncturing the insulation, and must comply with the requirements of § 549 of this chapter.

b. The insulating covering on each conductor must be of a rubber compound, homogeneous in character, and must comply with § 550, c and g of this chapter and must have a thickness of wall not less than that given in the following table:—

B. & S. gage.	Thickness in inches.
18 and 16	1-32
14	3-64

For exception for special reinforced cord (Type letters P. S.) see paragraph f of this section.

The completed cord shall be subject to a 1 minute test between conductors of 1,000 volts for 1-64 inch insulation, 2,000 volts for 1-32 inch insulation and 2,500 volts for 3-64 inch insulation.

The insulating coverings in the above tests shall be sufficient to resist puncture or breakdown. The source of electro-motive force shall be the same as that specified in § 550 c of this chapter.]

[c. Cords of the several types must comply with the specifications of the following table with respect to their outer protective coverings and must comply with the special rules indicated in the last column of the table.

Use.	Type letter.	Trade name.	Braid on each conductor.	Reinforcement or filler.	Outer cover.	For additional rules in this chapter see
Pendants—dry places	C	Lamp cord	Glazed cotton or silk			§ 554d
Pendants—damp places	CB	Brewery cord	Cotton Wp.			§ 554d
Portable—dry places	CC	Canvasite cord	Cotton Wp.		Cotton Wp	§ 554d
	P	Reinforced cord	Cotton	Rubber jacket.	Glazed cotton or silk	....
	PO	Parallel cord	Cotton		Glazed cotton or silk	§ 554e
	PS	Special reinf. cord	Cotton	Rubber jacket.	Glazed cotton or silk	§ 554f
	CA	Armored cord	Cotton		Armor	§ 554g
	PA	Armored reinf. cord	Cotton	Rubber jacket.	Glazed cotton and armor	§ 554g
Portable—damp places	PWp	Reinforced cord Wp.	Cotton	Rubber jacket.	Cotton Wp	....
	PkWp	Packinghouse cord	Cotton	Filler	2 Cotton, both Wp	§ 554h
	PAWp	Armored reinf. cord Wp	Cotton	Rubber jacket.	Cotton Wp. and armor	§ 554g
Theatre stages	T	Stage cable	Cotton Wp.	Filler	2 Cotton, both Wp	§ 554i
Theatre borders	B	Border light cable	Cotton Wp.		2 Cotton, both Wp	§ 554j
Elevator lighting and control	E	Elevator cable	Cotton	Rubber jacket. and or	1 or more cotton, both Wp	§ 554k
					3 Cotton, outer one Wp	....

d. (Type letters C, CB and CC.) In these classes are to be included all flexible cords, which under usual conditions hang freely, and which are not likely to be moved sufficiently to come in contact with surrounding objects.

It should be noted that pendant lamps provided with long cords so that they can be carried about or hung over nails, or on machinery, etc., are not included in this class, even though they are usually allowed to hang freely in air.

e. (Type letters PO.) These cords are for use only in offices, dwellings or similar places, where cord is not liable to rough usage and where appearance is an essential feature.

The conductors may be either laid parallel or twisted together.

f. (Type letters PS.) These cords are for use only in offices, dwellings or similar places, where cord is not liable to rough usage and where appearance is an essential feature.

These cords may be made only with conductors of No. 18 or No. 16 B. & S. gage and may have the insulating covering on each conductor not less than 1-64 inch in thickness.

g. (Type letters CA, PA, PAWp.) For the construction of the armor see § 557 of this chapter.

h. (Type letters PkWp.) In the outer cover tape may be substituted for the inner braid.

i. (Type letter T.) Theatre cables shall consist of not more than 3 conductors, each of a capacity not exceeding No. 4 B. & S. gage. These conductors must be twisted together and a filler of approved material must be used to make the cable round and to act as a cushion.

In the outer covering tape may be substituted for the inner braid.

The insulating covering on each conductor of No. 6 to No. 4 B. & S. gage must be not less than 1-16 inch in thickness.

The completed cable must be of such a flexible nature as to be readily handled and, when laid on the floor, must align itself to the floor level.

j. (Type letter B.) In the outer cover tape may be substituted for the inner braid.

The conductors must be cabled together.

k. (Type letter E.) Conductors for elevator lighting cables shall not be smaller than No. 14 B. & S. gage and for elevator control cables not smaller than No. 16 B. & S. gage.

In the outer cover tape may be substituted for one of the inner braids.

L. For portable heating apparatus.—(Type letter H.) Applies to all smoothing and sad irons and to any other heating device requiring over 250 watts. The flexible conductors must be made up as follows:

1. Conductors must comply with paragraph a of this section, or may be of braided copper. If braided, each wire to be not larger than No. 30 or smaller than No. 36 B. & S. gage, except for conductors having a greater carrying capacity than No. 12 B. & S. gage, when each wire may be as large as No. 28 B. & S. gage.

2. An insulating covering of rubber or other approved material not less than 1-64 inch in thickness.

3. A braided covering not less than 1-32 inch thick, composed of long fibre asbestos and having not over 10 per cent. of carbon by weight.

4. An outer reinforcing covering not less than 1-64 inch thick, especially designed to resist abrasion, must enclose either all the conductors as a whole or each conductor separately.

5. The completed cord shall be subjected to a 1 minute test between conductors of 1,500 volts, and must resist puncture or breakdown when so tested, the source of electro-motive force to be the same as that specified in § 550 of this chapter.

g. Elevator lighting and control cables (Type letter E).—Must comply with the requirements for theatre cable as regards insulation proper and the construction and covering of the individual conductors, except that none of these conductors shall be smaller than No. 14 B. & S. gage for elevator lighting cables, or No. 16 for elevator control cables. The outer covering shall consist either of 3 braids or of an extra layer of rubber and one or more outer braids. All braids must be properly treated with a preservative compound.]

§554. Armored cable and cord.

a. The armored cable or cord must comply with approved tests for flexibility and for resistance to withdrawal of the conductors from the armor. The armor must comply with approved tests for weight, tensile strength and elongation.

b. Strips if used in forming the armor must be of approved thickness and if of steel must be protected against corrosion in an approved manner.

c. The conductors must comply with the requirements for rubber-covered wires or cords of the specified types and construction.

d. The cable or cord must have a distinctive marker its entire length.

[§555. Fixture wire.

a. Fixtures may be wired with approved flexible cord (see § 554, a to c, of this chapter) or with approved rubber covered wire No. 14 B. & S. gage, or larger (see § 550 of this chapter).

In wiring certain designs of show-case fixtures, ceiling bulls-eyes and similar appliances in which the wiring is exposed to temperatures in excess of 120 degrees Fahrenheit (49 degrees Centigrade) from the heat of the lamps, slow-burning wire must be used (see § 552 of this chapter). All such forms of fixtures must be submitted for examination, test and approval before being introduced for use.

For other wires for use in fixtures the following rules apply (Type letters F-64 and F-32):

b. Copper may be made of solid or stranded conductors, with no strands smaller than No. 30 B. & S. gage, and must have a carrying capacity not less than that of a No. 18 B. & S. gage wire.

c. Solid conductors must be thoroughly tinned. If a stranded conductor is used, it must be covered by a tight, close wind of fine cotton, or some other approved method must be employed to prevent a broken strand puncturing the insulation, and must comply with the requirements of § 549 of this chapter.

d. The insulation on each conductor must consist of a rubber compound, homogeneous in character, adhering to the conductor or to the separator, if one is used, and not less than 1-64 inch in thickness for No. 18 B. & S. gage wire and not less than 1-32 inch for No. 16 B. & S. gage.

e. The insulation must be protected with a covering or braid at least 1-64 inch in thickness, sufficiently tenacious to withstand the abrasion of being pulled into the fixture, and sufficiently elastic to permit the wire to be bent around a cylinder of twice the diameter of the wire without injury to the braid.

f. Fixture wire must successfully withstand the tests specified in § 550, c and g, of this chapter.]

§555. Slow-burning weatherproof wire.

a. The insulation must consist of two coatings, one to be fireproof and the other weather-proof. The fireproof coating must be on the outside and must comprise about six-tenths of the total thickness of the wall.

The thickness of the completed covering shall be not less than that specified for rubber insulation of 0-600 volt rubber-covered wires. (See §550b.)

b. Must comply with the requirements of §549 a and b.

[§556. Conduit wire. (Type letters R. D.)

a. Single wire for conduits must comply with the requirements of § 550 of this chapter (except that tape may be substituted for braid), and in addition there must be a second outer fibrous covering at least 1-32 inch in thickness for wires larger than No. 10 B. & S. gage and at least 1-64 inch in thickness for wires No. 10 B. & S. gage or less in size; this fibrous covering to be sufficiently tenacious to withstand the abrasion of being hauled through the metal conduit.

b. For twin or duplex wires in conduit, each conductor must comply with the requirements of § 550 of this chapter (except that tape may be substituted for braid), and in addition there must be a second outer fibrous covering, at least 1-32 of an inch in thickness for wires larger than No. 10 B. & S. gage and at least 1-64 of an inch in thickness for wires No. 10 B. & S. gage or less in size; this fibrous covering to be sufficiently tenacious to withstand the abrasion of being hauled through the metal conduit.

c. For concentric wire, the inner conductor must comply with the requirements of § 550 of this chapter (except that tape may be substituted for braid), and there must be outside the outer conductor the same insulation as on the inner, the whole to be covered with a substantial braid, which must be at least 1-32 of an inch in thickness and sufficiently tenacious to withstand the abrasion of being hauled through the metal conduit.

d. The braids or tapes called for in paragraphs a, b and c of this section must be properly saturated with a preservative compound.]

§556. Slow-burning wire.

a. The insulation must consist of three braids of cotton or other thread, all the interstices of which must be filled with the fireproofing compound or with material having equivalent fire resisting and insulating properties. The outer braid must be specially designed to withstand abrasion, and its surface must be finished smooth and hard.

The thickness of the completed covering shall be not less than that specified for the rubber insulation of 0-600 volt rubber covered wires. (See §550b.)

b. Must comply with requirements of §549 a and b.

c. Slow-burning wires especially designed and approved for use in fixtures (see §552 of this chapter) need not necessarily comply with the requirements of paragraphs a and b of this section.

[§557. Armored cable and cord. (Type letters AC, CA, PA and PAWp.)

a. The armored cable or cord must be so flexible that it may be bent in a curve, the inner edge of which has a radius equal to 4 times the outside diameter of the armor, without injury to the cable or cord contained therein, and without opening up the armor at any point sufficiently to expose the cable or cord.

The armored cable or cord must be of such design that after a 3-foot sample has been subjected to a tension of 100 pounds for 1 minute the armor will not be permanently elongated more than 3 inches, and after a 3-foot sample with conductor removed has been subjected to a tension of 150 pounds for 1 minute the armor will not be opened up at any point.

Strips, if used in forming the armor, must have a thickness at least as great as is given in the following table. For armors of other forms an equivalent wall construction must be provided.

Thickness of strip	Type letter of wire.	Size of conductors B and S gage. Single cond. cable.	Double cond. cable.	Triple cond. cable.	Test voltage.
Armored cord—					
.025	C	.....	18 16 14	.....	500
.025	P or PWp	.....	18 16	.....	
.034	P or PWp	.....	14	.....	
Armored cable—					
.025	RD	14, 12, 10, 8	.....	.....	1000
	RSL	14, 12, 10, 8	.....	.....	
.034	RD	6, 4, 2,	14, 12, 10	14, 12, 10	1000
	RSL	6, 4	14, 12	14	
.040	RD	1	8, 6, 4	8, 6	1000
	RSL	2, 1	10, 8, 6	12, 10, 8	

The weight of the single strip armor, if of steel, must be not less than 87 per cent. of the weight of a solid-walled steel tube of the same internal diameter and of a wall thickness equal to twice the thickness of the strip. The weight of double strip armor must be at least 10 per cent. greater than that of single strip. For other types of armor an equivalent construction must be provided.

b. If of steel, the metal of armor must be thoroughly galvanized or coated with an approved rust preventive.

The internal diameter of the armor must be such that it will not be materially embedded in the cable or cord coverings. It must not be possible to withdraw the cable from the armor of a 15-foot sample of armored cable by the application of a force of 90 pounds, or from the armor of a 10-foot sample of armored cord by the application of a force of 25 pounds. Interior surfaces of the armor must be free from burrs or sharp edges which might cause abrasion of the cable or cord coverings.

c. The cable in the armor must have an insulating covering as required by § 550j or § 556 of this chapter, excepting that the lead covering may be only 1-32 inch thick. If multiple conductor cable (not lead covered) is used the conductors must be twisted together. The cord in the armor must have an insulating covering as required by § 554 of this chapter.

d. Every coil of completed armored cable or cord must be tested by the application of an alternating current voltage, derived from apparatus of not less than 1,500 watts capacity, the test voltages to be those given in the table of paragraph a of this section. Tests to be made between each conductor and every conductor comprising the cable or cord and between the several conductors and the armor.

e. There must be a distinctive marker the entire length, so that the armored cable or cord may be readily identified in the field. Coils of armored cable or cord must also be plainly tagged or marked as follows:

1. The maximum voltage at which the wire is designed to be used.
2. The words "National Electrical Code Standard."
3. Name or trade mark of the manufacturing company.
4. Month and year when manufactured.
5. The proper type letters for the particular style of material as given for each type in §554 and §557 of this chapter.]

§557. Weatherproof wire.

a. The insulating covering shall consist of at least three braids, all of which must be thoroughly saturated with a dense moisture-proof compound.

The thickness of the completed covering shall be not less than that specified for the rubber insulation of 0-600 volt rubber-covered wires. (See §550b.)

b. Must comply with requirements of §549 a and b.

[§558. Metal conduits.

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

1. *Rigid conduit.*

b. The tube used in the manufacture of rigid conduit must be of mild steel; and must be of sufficiently true, circular section to admit of cutting true, clean threads; it must be very closely the same in wall thickness at all points. Welds must be thoroughly well made.

c. The tube must be thoroughly cleaned to remove all scale and rust from both the inside and the outside surfaces by some process, mechanical or otherwise, which will permit the protecting coating to take a smooth finish and which will not reduce the weight of the tube sufficiently to cause the finished rigid conduit to weigh less than is given in paragraph i of this section. The surface of the tube intended for enameled conduit must be thoroughly washed or otherwise treated to remove all acid left by the pickling solutions, if they are used as a part of the cleaning process.

d. All surfaces of the tube must be protected against corrosion by one of the methods prescribed in sub-divisions 2 and 3 of this section or by some other approved methods.

2. *Enameled conduit.*

e. The enamel coating on either the inside or the outside surface of the finished conduit must not soften at ordinary temperatures; it must have an even and smooth appearance and must be of a uniform quality at all points of the length of the tube. It must be of sufficient weight and toughness to resist smashing or flaking and must be of sufficient elasticity to prevent its cracking or flaking at any time up to 1 year from month of manufacture when ½-inch conduit is bent in a curve, the inner edge of which has a radius of 3½ inches. The enamel coating must not be seriously affected by soaking at 70 degrees Fahrenheit for 24 hours in any of the following aqueous solutions:

1. Sulphuric acid of 1.3 specific gravity containing 40 per cent. by weight of anhydrous sulphuric acid.
2. Commercial strong hydrochloric acid containing 20 per cent. by weight of anhydrous hydrochloric acid.
3. Acetic acid containing 20 per cent. by weight of anhydrous acetic acid.
4. Saturated solution of carbonate of soda, containing 20 per cent. by weight of anhydrous carbonate of soda.

3. *Conduit with metallic coatings.*

f. The metallic coating on either the inside or the outside surface of the finished conduit must not soften at ordinary temperatures, and must be of uniform quality at all points of the length of the tube. It must be of sufficient elasticity to prevent its cracking or flaking at any time up to one year from the month of manufacture when ½-inch conduit is bent in a curve, the inner edge of which has a radius of 3½ inches.

All metallic protective coatings on either interior or exterior surfaces must be of an approved weight and quality to afford protection against corrosion. If the interior surface is not given a metallic protective coating it must be coated with an approved enamel.

g. Elbows, bends and similar fittings must be made of full-weight material, such as is specified for the conduit proper, and must be treated, coated, threaded, etc., in every way corresponding to the specifications for conduit so far as they apply.

h. Threads upon conduits, couplings, elbows and bends must be full and clean cut. Their pitch and form must conform to the Briggs' standard for pipe threads. The taper of threads on conduit must not exceed ¾ inch per foot. The perfect thread must be tapered for its entire length. Couplings must be tapped straight. If threads are cut after the protective coatings are applied they must be treated to prevent corrosion taking place before the conduit is actually installed. The number of threads and the length of the threaded portion must be approximately in accordance with the following table:

Electrical trade size, inches.	Number of threads per inch.	Length of perfect thread, inches.	Total length of thread, inches.
1-4	18	0.29	0.57
3-8	18	0.30	0.57
1-2	14	0.39	0.75
3-4	14	0.40	0.76
1	11 1-2	0.51	0.94
1 1-4	11 1-2	0.53	0.97
1 1-2	11 1-2	0.55	0.98
2	11 1-2	0.58	1.12
2 1-2	8	0.89	1.51
3	8	0.95	1.57
3 1-2	8	1.00	1.62
4	8	1.05	1.67
4 1-2	8	1.10	1.72
5	8	1.16	1.78
6	8	1.26	1.89

i. The finished conduit as shipped must be in 10-foot lengths, with each end reamed and threaded. For each length at least 1 coupling must be furnished. The finished conduit with coupling must not weigh less than is given in the following table. All finished conduit must be inspected visually, both inside and out, for poor coatings, hard scale or other similar defects. It must have an approved interior coating of a character and appearance which will readily distinguish it from ordinary commercial pipe commonly used for other than electrical purposes.

Electrical trade size, inches.	Minimum weight of finished conduit ten, 10 foot lengths with couplings.
1-4	38.5 pounds
3-8	51.5 pounds
1-2	79.0 pounds
3-4	105 pounds
1	153 pounds
1 1-4	201 pounds
1 1-2	249 pounds
2	334 pounds
2 1-2	527 pounds
3	690 pounds
3 1-2	831 pounds
4	982 pounds
4 1-2	1150 pounds
5	1344 pounds
6	1770 pounds

4. *Flexible conduit.*

j. Flexible conduit must be so flexible that the conduit may be bent in a curve, the inner edge of which has a radius equal to that specified in the following table, without opening up the tube at any point.

k. Flexible conduit must be of such design that after a 3-foot sample has been subjected to a tension of 200 lbs. for 1 minute, the conduit will not be opened up at any point.

l. For steel conduits the internal diameter, the thickness of the strip and the weight of the finished conduit must be not less than the values given in the following table. For flexible conduit of other than the strip type an equivalent construction must be provided.

Electrical trade size, inches.	Internal diameter, inches.	Thickness of strip, inches.	Weight in pounds per 100 feet. Single strip.	Weight in pounds per 100 feet. Double strip.	Radius of curvature, inches.
5-16	5-16	.025	17 3-4	20 1-2	2 1-4
3-8	3-8	.034	29	33 1-2	2 1-2
1-2	5-8	.040	54	62	3 1-2
3-4	13-16	.040	68	78 1-2	4 1-2
1	1	.055	108	129 1-2	5
1 1-4	1 1-4	.055	132	158	5 1-2
1 1-2	1 1-2	.060	171	205	6
2	2	.060	224	269	8
2 1-2	2 1-2	.060	277	332	10 1-2

m. If of steel, the metal of the flexible conduit must be thoroughly galvanized or coated with an approved rust preventive. Interior surfaces of the conduit must be free from burrs or sharp edges which might cause abrasion of the wire coverings.

n. Flexible conduit must have a distinctive marking its entire length so that it may be readily identified in the field. Coils must also be plainly tagged or marked with the name or trade mark of the manufacturing company.]

§558. *Metal conduits.*

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

Rigid.

b. The tube used in the manufacture of the conduit must be of mild steel; and must be of sufficiently true, circular section to admit of cutting true, clean threads; it must be very closely the same in wall thickness at all points. Welds must be thoroughly well made.

c. The tube must be thoroughly cleaned to remove all scale and rust from both inside and the outside surfaces by some process, mechanical or otherwise, which will permit the protecting coating to take a smooth finish and which will not reduce the weight of the tube sufficiently to cause the finished conduit to weigh less than is given in §558i.

d. All surfaces of the tube must be protected against corrosion by an approved method.

e. Elbows, bends and similar fittings must be made of full-weight material, such as is specified for the conduit proper, and must be treated, coated, threaded, etc., in every way corresponding to the specifications for conduit so far as they apply.

f. Threads upon conduits, couplings, elbows and bends must be full and clean cut. Their pitch and form must conform to the Briggs' standard for pipe threads.

The taper of threads on conduit must not exceed three-quarter inches per foot. The perfect thread must be tapered for its entire length. Couplings must be tapped straight. If threads are cut after the protective coatings are applied they must be treated to prevent corrosion taking place before the conduit is actually installed.

g. The finished conduit as shipped must be in ten-foot lengths, with each end reamed and threaded. For each length at least one coupling must be furnished. The finished conduit with coupling must not weigh less than is given in the following table. All finished conduit must be inspected visually, both inside and out, for poor coatings, hard scale or other similar defects. It must have an approved interior coating of a character and appearance which will readily distinguish it from ordinary commercial pipe commonly used for other than electrical purposes.

Electrical Trade Size.	*Minimum Weight of 10-foot Lengths of Finished Conduit with Couplings.*
Inches.	*Pounds.*
1/4	*38.5*
3/8	*51.5*
1/2	*79.0*
3/4	*105*
1	*153*
1 1/4	*201*
1 1/2	*249*
2	*334*
2 1/2	*527*
3	*690*
3 1/2	*831*
4	*982*
4 1/2	*1150*
5	*1344*
6	*1770*

Flexible Conduit.

h. Must be so flexible that the conduit may be bent in a curve, the inner edge of which has a radius equal to that specified in the following table, without opening up the tube at any point:

Electrical Trade Size, Inches.	*Internal Diameter, Inches.*	*Thickness of Strip, Inches.*	*Weight in Pounds Per 100 Feet. Single Strip.*	*Weight in Pounds Per 100 Feet. Double Strip.*	*Radius of Curvatures, Inches.*
5/16	*5/16*	*.025*	*17 3/4*	*20 1/2*	*2 1/4*
3/8	*3/8*	*.034*	*29*	*33 1/2*	*2 1/2*
1/2	*5/8*	*.040*	*54*	*62*	*3 1/2*
3/4	*13/16*	*.040*	*68*	*78 1/2*	*4 1/2*
1	*1*	*.055*	*108*	*129 1/2*	*5*
1 1/4	*1 1/4*	*.055*	*132*	*158*	*5 1/2*
1 1/2	*1 1/2*	*.060*	*171*	*205*	*6*
2	*2*	*.060*	*224*	*269*	*8*
2 1/2	*2 1/2*	*.060*	*277*	*332*	*10 1/2*

i. Must be of such design that after a 3-foot sample has been subjected to a tension of 200 lbs. for one minute, the conduit will not be opened up at any point.

j. For steel conduits the internal diameter, the thickness of the strip and the weight of the finished conduit must be not less than the values given in the following table. For flexible conduit of other than the strip type an equivalent construction must be provided.

k. If of steel the metal must be thoroughly galvanized or coated with an approved rust preventive. Interior surfaces of the conduit must be free from burrs or sharp edges which might cause abrasion of the wire coverings.

l. Must have a distinctive marking its entire length so that the flexible conduit may be readily identified in the field. Coils must also be plainly tagged or marked with the name or trade mark of the manufacturing company.

§559. Outlet, junction and flush switch boxes.

a. Boxes must be of pressed steel having wall thickness of not less than .078 inch (No. 14 U. S. metal gage), or of cast metal having wall thickness not less than 1-8 inch. Junction boxes of larger sizes must comply with requirements of § 570 of this chapter, but must in all cases be of metal.

b. Boxes must be well galvanized, enameled or otherwise properly coated, inside and out, to prevent oxidation.

c. Boxes must be so made that all openings not in use will be effectively closed by metal which will afford protection substantially equivalent to the walls of the box.

[Fittings which are designed for bringing conductors from metal conduits to exposed wiring must be provided with non-absorptive, non-combustible, insulating bushings, which, except with flexible cord, must separately insulate each conductor.]

Fittings which are designed for bringing conductors other than flexible cords from metal conduits to exposed wiring must be provided with non-absorptive, non-combustible insulating bushings which must separately insulate each conductor. For flexible cords, such fittings, including covers of outlet boxes, must either be provided with approved bushings or have smooth, well-rounded surfaces for the cord to bear upon.

d. Boxes must be plainly marked, where the marking may readily be seen when installed, with the name or trade mark of the manufacturer.

e. Boxes must, in case of combination gas and electric outlets, be so arranged that connection with gas pipe at outlet may be made by means of an approved device. Fixture studs, where not a part of the box, must be made of malleable iron or other approved material. Boxes must be arranged to secure in position the conduit or flexible tubing protecting the wire.

f. Switch and outlet boxes must be so arranged that they can be securely fastened in place independently of the support afforded by the conduit piping, except that when entirely exposed, approved boxes, which are threaded so as to be firmly supported by screwing on to the conduit, may be used.

g. Switch and receptacle boxes must completely enclose the switch or receptacle on sides and back, and must provide a thoroughly substantial support for it. The retaining screws for the box must not be used to secure the switch in position. Boxes for floor outlets shall be designed to completely enclose the receptacle and attachment plugs, if any, to protect them from mechanical injury and to exclude moisture.

h. Covers for outlet boxes if made of metal must be equal in thickness to that specified for the walls of the box, or must be of metal lined with an insulating material not less than 1-32 inch in thickness, firmly and permanently secured to the metal. Covers may also be made of porcelain or other approved material, provided they are of such form and thickness as to afford suitable protection and strength.

§560. Metal moulding.

a.

b. The installation of wooden moulding is prohibited.

c. Each length of metal moulding must have maker's name or trade mark stamped in the metal, or in some manner permanently attached thereto, in order that it may be readily identified in the field.

d. Metal moulding must be constructed of iron or steel with backing at least .050 inch in thickness, and with capping not less than .040 inch in thickness, and so constructed that when in place the raceway will be entirely closed; must be thoroughly galvanized or coated with an approved rust preventative both inside and out to prevent oxidation.

e. Elbows, couplings and all other similar fittings must be constructed of at least the same thickness and quality of metal as the moulding itself, and so designed that they will both electrically and mechanically secure the different sections together and maintain the continuity of the raceway. The interior surfaces must be free from burrs or sharp corners which might cause abrasion of the wire coverings.

f. Metal moulding must at all outlets be so arranged that the conductors cannot come in contact with the edges of the metal, either of capping or backing. Specially designed fittings which will interpose substantial barriers between conductors and the edges of metal are recommended.

g. When backing is secured in position by screws or bolts from the inside of the raceway, depressions must be provided to render the heads of the fastenings flush with the moulding.

h. Metal mouldings must be used for exposed work only and must be so constructed as to form an open raceway to be closed by the capping or cover after the wires are laid in.

§561. Tubes and bushings.

a. Tubes and bushings must be made straight and free from checks or rough projections, with ends smooth and rounded to facilitate the drawing in of the wire and prevent abrasion of its covering.

b. Tubes and bushings must be made of *approved* non-combustible, *non-absorptive* insulating material, [which when broken and submerged for 100 hours in pure water at 70 degrees Fahrenheit (21 degrees Centigrade), will not absorb over ½ of one per cent. of its weight.

c. Tubes and bushings must have the name, initials or trade-mark of the manufacturer stamped in the ware.

d. Dimensions of walls and heads of tubes and bushings must be at least as great as those given in the following table:

Diameter of hole.	External diameter.	Thickness of wall.	External diameter of head.	Length of head.
5-16 in.	9-16 in.	1-8 in.	13-16 in.	1-2 in.
3-8	11-16	5-32	15-16	1-2
1-2	13-16	5-32	1 3-16	1-2
5-8	15-16	5-32	1 5-16	1-2
3-4	1 3-16	7-32	1 11-16	5-8
1	1 7-16	7-32	1 15-16	5-8
1 1-4	1 13-16	9-32	2 5-16	5-8
1 1-2	2 3-16	11-32	2 11-16	3-4
1 3-4	2 9-16	13-32	3 1-16	3-4
2	2 15-16	15-32	3 7-16	3-4
2 1-4	3 5-16	17-32	3 13-16	1
2 1-2	3 11-16	19-32	4 3-16	1

An allowance of 1-64 inch for variation in manufacturing will be permitted, except in the thickness of the wall].

§562. Cleats.

a. Cleats must hold the wire firmly in place without injury to its covering.

b. Bearing points on the surface of cleats must be made by ridges or rings about the holes for supporting screws, in order to avoid cracking and breaking when screwed tight.

c. Cleats must be made of *approved* non-combustible, *non-absorptive* insulating material [which, when broken and submerged for 100 hours in pure water at 70 degrees Fahrenheit (21 degrees Centigrade), will not absorb over ½ of one per cent. of its weight.

d. Cleats must have the name, initials or trade-mark of the manufacturer stamped in the ware.]

e. Cleats must conform to the spacings given in the following table:

Voltage, 0-300. Distance from wire to surface, ½ inch. Distance between wires, 2½ inches.

§563. Flexible tubing.

a. Flexible tubing must have a sufficiently smooth interior surface to allow the ready introduction of the wire.

b. Flexible tubing must be constructed of or treated with materials which will serve as moisture repellents.

c. The tube must be so designed that it will withstand all the abrasion likely to be met with in practice.

d. The linings, if any, must not be removable in lengths of over 3 feet.

e. [The ¼-inch tube must be so flexible that it will not crack or break when bent in a circle with 6-inch radius at 50 degrees Fahrenheit (10 degrees Centigrade), and the covering must be thoroughly saturated with a dense moisture-proof compound which will not slide at 150 degrees Fahrenheit (65 degrees Centigrade). Other sizes must be as well made.

f. Flexible tubing must not convey fire on the application of a flame from Bunsen burner to the exterior of the tube when held in a vertical position.

g. Flexible tubing must be sufficiently tough and tenacious to withstand severe tension without injury; the interior diameter must not be diminished or the tube opened up at any point by the application of a reasonable stretching force.]

[h.] Flexible tubing must not close to prevent the insertion of the wire after the tube has been kinked or flattened and straightened out.

f. [i.] Flexible tubing must have a distinctive marking the entire length of the tube, so that the tubing may be readily identified in the field.

§564. Knobs.

a. Split knobs must be constructed in 2 parts, a base and a cap, arranged to hold the wire firmly in place without injury to its covering. Sharp edges must be avoided. Solid knobs must be constructed with smooth groove. to contain wire.

b. Bearing points on the surface of knobs must be made by a ring or by ridges on the outside edge of the base. to provide for stability. At least ¼ inch surface separation must be maintained between the supporting screw or nail and the conductor. and the knob must be so constructed that the supporting screw or nail cannot come in contact with the conductor. For wires larger than No. 4 B. & S. gage, split knobs (or single wire cleats) must be so constructed as to require the use of 2 supporting screws.

c. Knobs must be made of *approved* non-combustible, *non-absorptive* insulating material, [which, when broken, and submerged for 100 hours in pure water at 70 degrees Fahrenheit (21 degrees Centigrade) will not absorb over ½ of 1 per cent. of its weight.

d. Knobs must have the name, initials or trade-mark of the manufacturer stamped in the ware.]

e. Knobs must be so constructed as to separate the wire at least 1 inch from the surface wired over [and also conform to the following minimum dimensions:

Sizes of wire, inclusive.	Size of base, inches. Circular knobs, diameter.	Square knobs or single wire cleats. Width.	Length.	Solid knobs, groove, inches. Depth.	Diameter.	Split knobs, thickness of cap, inches from top of wire groove.
14–10	1 1-8	3-4	1 3-4	3-16	1-4	3-8
8–4	1 1-2	7-8	2	5-16	5-16	5-8
2–00	2	1	2 1-4	7-16	5-8	5-8
000–300,000 c. m.	2 1-2	1 1-8	2 3-4	7-16	25-32	7-8
400,000–1,000,000 c. m.	3	1 3-8	3 3-4	5-8	1 1-4	1]

§565. Switches.

1. *General Rules.*

a. Switches must, when used for service switches, indicate, on inspection, whether the current be "on" or "off."

b. [Switches 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 whether the current be "on" or "off."]

2. *Knife switches.*

c. Knife switches must be mounted on non-combustible, non-absorptive, insulating bases. Other materials than slate, marble or porcelain must be submitted for special examination before being used. Bases with an area of over 25 square inches must have at least 4 supporting screws. Holes for the supporting screws must be so located or countersunk that there will be at least ½ inch space measured over the surface, between the head of the screw or washer and the nearest live metal part, and in all cases when between parts of opposite polarity must be countersunk.

d. Pieces carrying the contact jaws and hinge clips must be secured to the base by at least 2 screws, or else made with a square shoulder, or provided with dowel pins, to prevent possible turnings, and the nuts or screw-heads on the under side of the base must be countersunk not less than ⅛ inch and covered with a waterproof compound which will not melt below 150 degrees Fahrenheit (65 degrees Centigrade).

e. Hinges of knife switches must not be used to carry current unless they are equipped with spring washers, held by lock-nuts or pins, or their equivalent, so arranged that a firm and secure connection will be maintained at all positions of the switch blades.

f. All switches must have ample metal for stiffness and to prevent rise in temperature of any part of over 50 degrees Fahrenheit (28 degrees Centigrade) at full load, the contacts being arranged so that a thoroughly good bearing at every point is obtained with contact surfaces advised for pure copper blades of about 1 square inch for each 75 amperes; the whole device must be mechanically well made throughout.

g. All cross-bars less than 3 inches in length must be made of insulating material. Bars of 3 inches and over, which are made of metal to insure greater mechanical strength, must be sufficiently separated from the jaws of the switch to prevent arcs following from the contacts to the bar on the opening of the switch under any circumstances. Metal bars should preferably be covered with insulating material. To prevent possible turning or twisting the cross-bar must be secured to each blade by 2 screws, or the joints made with square shoulders or provided with dowel-pins.

h. Switches for currents of over 30 amperes must be equipped with lugs, firmly screwed or bolted to the switch, and into which the conducting wires shall be soldered. [For the smaller sized switches simple clamps can be employed, provided they are heavy enough to stand considerable hard usage.] *For switches designed for currents of 30 amperes or less, heavy clamps or screw and washer connections with upturned lugs may be used.*

i. Knife switches must operate successfully at 50 per cent. overload in amperes and [25 per cent. excess] *at rated* voltage, under the most severe conditions with which they are liable to meet in practice.

j. Knife switches must be plainly marked where the marking can be read when the switch is installed, with the name of the maker and the current and the voltage for which the switch is designed. Switches designed for 250 volts D. C. or 500 volts A. C. circuits, without fuses on the switch base, must be marked 250 V., D. C., 500 V., A. C. When 250-volt fuse terminals are mounted on the switch base, the marking of the switch must be 250 V., D. C. and A. C. When 600-volt fuse terminals are mounted on the switch base, the terminals must be spaced for 600-volt fuses and the switches marked 500 V., A. C. Triple pole switches designed with 125-volt spacings, between adjacent blades, must be marked 125 volts, and may be used on 3-wire D. C. or single phase systems having not more than 125 volts between adjacent wires and not more than 250 volts between the two outside wires. When designed with 250-volt spacings between adjacent blades triple pole switches must be marked 250 volts and may be used on 3-wire D. C. or single phase systems having not more than 250 volts between adjacent wires and not more than 500 volts between the two outside wires.

k. Spacings and dimensions must be at least as great as those given in the following tables:

Table 1. *For switchboards and panel boards;* not over 125 volts D. C. and A. C.:

	Width and thickness. Blades.	Clips and hinges.	Minimum separation of nearest metal parts of opposite polarity.	Minimum break distance.
30 amp.	1-2x5-64 in.	1-2x3-64 in.	1 in.	3-4 in.
60 amp.			1 1-4 in.	1 in.

Table 2. *For individual switches;* not over 125 volts D. C. and A. C.:

	Inch.	Inch.	Inch.	Inch.
30 amp.	1-2x5-64	1-2x3-64	1 1-4	1
60 and 100 amp.			1 1-2	1 1-4
200 amp.			2 1-4	2
400 and 600 amp.			2 3-4	2 1-2
800 and 1000 amp.			3	2 3-4

A 300-ampere switch with the spacings of the 200-ampere switch above may be used on switchboards.

Table 3. *For all switches;* 250 volts only D. C. and A. C.:

	Inch.	Inch.	Inch.	Inch.
30 amp.	1-2x5-64	1-2x3-64	1 3-4	1 1-2

Table 4. *For all switches;* not over 250 volts D. C. nor over 500 volts A. C.:

	Inch.	Inch.	Inch.	Inch.
30 amp.	5-8x1-8	5-8x1-16	2 1-4	2
60 and 100 amp.			2 1-4	2
200 amp.			2 1-2	2 1-4
400 and 600 amp.			2 3-4	2 1-2
800 and 1000 amp.			3	2 3-4

A 300-ampere switch with the spacings of the 200-ampere switch above may be used on switchboards. Cut-out terminals on switches for over 250 volts must be designed and spaced for 600-volt fuses.

Table 5. *For all switches;* not over 600 volts D. C. and A. C.:

	Inch.	Inch.	Inch.	Inch.
30 amp.	5-8x1-8	5-8x1-16	4	3 1-2
60 "			4	3 1-2
100 "			4 1-2	4

Where barriers of approved design and made of suitable non-absorptive, non-combustible, insulating material or of impregnated hard wood are placed between parts of opposite polarity, the minimum separation of these parts on switches described in Table 5 may be that given in Table 4.

Auxiliary contacts of either a readily renewable or a quick-break type or the equivalent are recommended for D. C. switches, designed for over 250 volts, and must be provided on D. C. switches designed for use in breaking currents greater than 100 amperes at a voltage of over 250. For 3-wire direct current and 3-wire single phase systems the separation and break distances for plain 3-pole knife switches must not be less than those required in the above table for switches designed for the voltage between neutral and outside wires.

3. *Snap switches.*

l. Current-carrying parts must be mounted on non-combustible, non-absorptive, insulating bases, such as slate or porcelain, and the holes for supporting screws should be countersunk not less than ⅛ inch. There must in no case be less than 3-64 inch space between supporting screws and current-carrying parts.

[Sub-bases of non-combustible, non-absorptive, insulating material, which will separate the wires at least ½-inch from the surface wired over, must be furnished with all snap switches used in exposed or moulding work.] *Sub-bases must be so designed as to separate the wires at least one-half inch from the surface wired over. They must be of a non-combustible, non-absorptive insulating material.*

m. Pieces carrying contact jaws must be [screwed] *secured* to the base by at least 2 screws, or else made with a square shoulder, or provided with dowel-pins or otherwise arranged, to prevent possible turnings; and the nuts or screw heads on the under side of the base must be countersunk not less than ⅛ inch and covered with a waterproof compound which will not melt below 150 degrees Fahrenheit (65 degrees Centigrade).

n. [All switches must have ample metal for stiffness and to prevent rise in temperature of any part of over 50 degrees Fahrenheit (28 degrees Centigrade) at full load. The whole device must be mechanically well made throughout.]

o. [Any material used for insulating current-carrying parts must retain its insulating and mechanical strength when subject to continued use, and must not soften at a temperature of 212 degrees Fahrenheit (100 degrees Centigrade).]

p. Binding posts must be substantially made, and the screws must be of such size that the threads will not strip when set up tight. Switches with the set-screw form of contact will not be approved.

q. Covers made of conducting material, except face plates for flush switches, must be lined on sides and top with insulating, tough and tenacious material at least 1-32 inch in thickness, firmly secured so that it will not fall out with ordinary handling. The side lining must extend slightly beyond the lower edge of the cover.

r. The handle or button or any exposed parts must not be in electrical connection with the circuit.

s. Snap switches must "make" and "break" with a quick snap, and must not stop when motion has once been imparted by the button or handle. [Snap switches of the spring break pattern, normally complying with the above requirements, but with movement of the contact carrier under control of the operator at any point in the operation of the device, must be considered in a class with switches of the regular knife blade pattern and conform to the specifications of paragraph k of this section.

Snap switches must operate successfully at 50 per cent. overload in amperes and at 125 volt direct current, for all 125 volt or less switches, and at 250 volts direct current, for all 126 to 250 volt switches under the most severe conditions which they are liable to meet in practice. For switches rated higher than 10 amperes, this test shall be at 25 per cent. overload instead of 50 per cent. When slowly turned "on" and "off" at the rate not to exceed 10 times per minute, while carrying the rated current at rated voltage, snap switches must "make" and "break" the circuit 6,000 times before failing.]

t. Snap switches must be plainly marked, where the marking may be readily seen after the device is installed] with the name or trade-mark of the maker and the current and voltage for which the switch is designed. [On flush switches these markings may be placed on the sub-plate. On other types they must be placed on the front of the cap, cover or plate. Switches which indicate whether the current is "on" or "off" are recommended.] *On flush switches these markings may be placed on the sub-plate. On surface switches with covers constructed of porcelain or other moulded insulating material the marking may be on the inside of the cover. On all other types they must be placed on the front of the cap, cover or plate.*

§566. Circuit breakers.

1. *Generally.*

Circuit breakers for operation on circuits of 550 volts or less must be made to comply with the following specifications, except in those few cases where peculiar design allows the breaker to fulfill the general requirements in some other way, and where it can successfully withstand the [test of paragraph d of this section] *prescribed tests.* In such cases the breakers should be submitted for special examination and approval before being used.

2. *Details of construction.*

a. Circuit breakers must be mounted on non-combustible, non-absorptive, insulating bases, such as slate or marble. Bases with an area of over 25 square inches must have at least 4 supporting screws. Holes for the supporting screws must be so located or countersunk that there will be at least ½ inch space measured over the surface between the head of the screw or washer and the nearest live metal part, and in cases when between parts of opposite polarity must be countersunk.

b. Pieces carrying contact parts must be [screwed] *secured* to the base by at least 2 screws, or else made with a square shoulder, dowel pin, or equivalent device, to prevent possible turning, and the nuts or screw heads on the under side of the base of front-connected breakers must be countersunk not less than ⅛ inch, and covered with a waterproof compound which will not melt below 150 degrees Fahrenheit (65 degrees Centigrade). All breakers must be provided with easily accessible means of tripping them by hand without injury to the operator.

c. [Circuit Breakers must successfully operate 3 times with 2-minute intervals intervening without incapacitating the breaker, the conditions of the testing current to be as given in the following table:

Current rating of breakers.	Per cent of voltage drop in test circuit with rated current flowing.	Minimum available capacity of supply system not including overload capac'y.
0 to 100 amp.	2	1,000 amp.
101 to 300 amp.	3	3,000 amp.
400 amp.	4	4,000 amp.
500 amp.	5	5,000 amp.

No filing of contacts or other repairing of the breaker to be made during the test. Multiple breakers must comply with above requirements whether the test is on all poles at once or on one pole individually.]

d. [Circuit breakers must successfully withstand 2,000 volts A. C. for 1 minute between live metal and ground, between poles in multi-polar breaker and between terminals with breaker open.]

e. [The maximum rise in temperature at rated current must not exceed 90 degrees Fahrenheit (50 degrees Centigrade) for coils, or 54 degrees Fahrenheit (30 degrees Centigrade) for other parts.]

f. [Circuit breakers must not have a plus or minus error greater than 10 per cent. at any point of its calibration.]

g. Metal work of automatic overload circuit breakers must be substantial in construction, and must have ample metal for stiffness. The contact parts shall be arranged so that thoroughly good bearings are obtained; the entire device must be mechanically well made throughout.

h. Must be plainly marked, where it will be visible when installed, with the name of the maker and the current and voltage for which the device is designed.

§567. *Cut-outs.*

1. *General rules.*

a. Cut-outs must be supported on bases of non-combustible, non-absorptive, insulating material.

b. [Cut-outs must be of the enclosed type, 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.] *The design of the base must be such that, considering the material used, the base will withstand the most severe conditions liable to be met in practice.*

c. [Cut-outs must operate successfully on short-circuits, under the most severe conditions with which they are liable to meet in practice at 25 per cent. above their rated voltage, and, for link fuse cut-outs, with fuses rated at 50 per cent. above the current for which the cut-out is designed, and for enclosed fuse cut-outs with the largest fuses for which the cut-out is designed.] *Bases with an area of over twenty-five square inches must have at least four supporting screws. Holes for supporting screws must be so located or countersunk that there will be at least one-half inch space, measured over the surface, between the screw-head or washer and the nearest live metal part, and in all cases where between parts of opposite polarity must be countersunk.*

d. [Cut-outs must be marked, where the marking will be plainly visible when installed, with the name of the maker, and current and voltage for which the device is designed.] *Nuts or screw heads on the under side of the base must be countersunk not less than one-eighth inch, and covered with a waterproof compound which will not melt below 150 degrees Fahrenheit (65 degrees Centigrade).*

e. Cut-outs must be marked, where the marking will be plainly visible when installed, with the name of the maker, and current and voltage for which the device is designed.

2. *Link fuse cut-outs.*

[e. Link-fuse cut-outs must be mounted on bases made of strong, non-combustible non-absorptive, insulating material. The design of the base must be such that, considering the material used, the base will withstand the most severe conditions liable to be met in practice. Bases with an area of over 25 square inches must have at least 4 supporting screws. Holes for supporting screws must be kept outside of the area included by the outside edges of the fuse-block terminals, and must be so located or countersunk that there will be at least ½ inch space, measured over the surface, between the head of the screw or washer and the nearest live metal part.]

[f. Nuts or screw heads on the under side of the base must be countersunk not less than ⅛ inch, and covered with a waterproof compound which will not melt below 150 degrees Fahrenheit (65 degrees Centigrade).]

[g. All fuse-block terminals must have ample metal for stiffness and to prevent rise in temperature of any part of over 50 degrees Fahrenheit (28 degrees Centigrade) at full load. Terminals, as far as practicable, should be made of compact form instead of being rolled out in thin strips; and sharp edges of thin projecting pieces, as on wing thumb nuts and the like, should be avoided. Thin metal, sharp edges and projecting pieces are much more likely to cause an arc to start than a more solid mass of metal. It is a good plan to round all corners of the terminals and to chamfer the edges.]

[h. Clamps for connecting the wires to the fuse-block terminals must be of solid, rugged construction, so as to insure a thoroughly good connection and to withstand considerable hard usage. For fuses rated at over 30 amperes, lugs firmly screwed or bolted to the terminals and into which the conducting wires are soldered must be used.]

[i. Link fuse cut-outs must operate successfully when blowing only 1 fuse at a time on short-circuits with fuses rated at 50 per cent. above and within a voltage 25 per cent. above the current and voltage for which the cut-out is designed.]

[j.] *f.* Spacings must be at least as great as those given in the following table, which applies only to plain, open-link fuses mounted on slate or marble bases. The spaces given are correct for fuse-blocks to be used on direct current systems, and can therefore be safely followed in devices designed for alternating currents. If the copper fuse-tips overhang the edges of the fuse-block terminals, the spacing should be measured between the nearest edges of the tips.

	Minimum separation of nearest metal parts of opposite polarity.	Minimum break-distance.
Not Over 125 volts:		
10 amperes or less	3-4 inch	3-4 inch
11-100 amperes	1 inch	3-4 inch
101-300 amperes	1 inch	1 inch
301-1000 amperes	1 1-4 inch	1 1-4 inch
Not Over 250 Volts:		
10 amperes or less	1 1-2 inch	1 1-4 inch
11-100 amperes	1 3-4 inch	1 1-4 inch
101-300 amperes	2 inch	1 1-2 inch
301-1000 amperes	2 1-2 inch	2 inch

A space must be maintained between fuse terminals of the same polarity of at least one-half inch for voltages up to 125 and of at least three-quarter inch for voltages from 126 to 250. This is the minimum distance allowable, and greater separation should be provided when practicable. For three-wire systems cut-outs must have the break-distance required for circuits of the potential of the outside wires, except that in 125-250 systems with grounded neutral the cut-outs in two-wire, 125 volt branch circuits may have the spacings specified for not over 125 volts.

g. All fuse-block terminals must have ample metal for stiffness and to prevent rise in temperature of any part of over 50 degrees Fahrenheit (28 degrees Centigrade) at full load. Terminals, as far as practicable, should be made of compact form instead of being rolled out in thin strips; and sharp edges of thin projecting pieces, as on wing thumb nuts and the like, should be avoided. Thin metal, sharp edges and projecting pieces are much more likely to cause an arc to start than a more solid mass of metal. It is a good plan to round all corners of the terminals and to chamfer the edges.

3. *Enclosed-fuse cut-outs—plug and cartridge type.*

[k. The base must be made of non-combustible, non-absorptive, insulating material. Blocks with an area of over 25 square inches must have at least 4 supporting screws. Holes for supporting screws must be so located or countersunk that there will be at least ½ inch space, measured over the surface, between the screw-head or washer and the nearest live metal part, and in all cases when between parts of opposite polarity must be countersunk.]

[l. Nuts or screw-heads on the under side of the base must be countersunk at least ⅛ inch and covered with a waterproof compound which will not melt below 150 degrees Fahrenheit (65 degrees Centigrade).]

[m. Except for sealable service and meter cut-outs, terminals must be of either the Edison plug, spring clip or knife blade type, of approved design, to take the corresponding standard enclosed fuses. They must be secured to the base by 2 screws or the equivalent, so as to prevent them from turning, and must be so made as to secure a thoroughly good contact with the fuse. End stops must be provided to insure the proper location of the cartridge fuse in the cut-out.]

[n. Clamps for connecting wires to the terminals must be of a design which will insure a thoroughly good connection, and must be sufficiently strong and heavy to withstand considerable hard usage. For fuses rated to carry over 30 amperes, lugs firmly screwed or bolted to the terminals and into which the connecting wires shall be soldered must be used.]

[o.] *h.* Enclosed fuse cut-outs must be classified as regards both current and voltage as given in the following table, and must be so designed that the bases of one class cannot be used with fuses of another class rated for a higher current or voltage:

Standard plug or cartridge cut-outs.

Not Over 250 Volts.	Not Over 600 Volts.
0- 30 amperes.	0- 30 amperes.
31- 60 "	31- 60 "
61-100 "	61-100 "
101-200 "	101-200 "
201-400 "	201-400 "
401-600 "	

Sealable service and meter cut-outs.

Not Over 250 Volts.	Not Over 600 Volts.
0- 30 amperes.	0- 30 amperes.
31- 60 "	31- 60 "
61-100 "	61-100 "
101-200 "	101-200 "

p. [Enclosed-fuse cut-outs must be of such a design that it will not be easy to form accidental short circuits across live metal parts of opposite polarity on the block or on the fuses in the block.]

4. *Exceptions.*

The foregoing requirements of this section shall not apply to rosettes, attachment plugs, car-lighting cut-outs and protective devices for signalling systems.

§568. Fuses.

1. *Link fuses.*

a. Terminals must have contact surfaces or tips of harder metal, having perfect electrical connections with the fusible part of the strip.

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

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

2. *Enclosed fuses—plug and cartridge type; except for rosettes, attachment plugs, car-lighting cut-outs and protective devices for signal systems.*

d. The fuse casing must be sufficiently dust-tight so that lint and dust cannot collect around the fusible wire and become ignited when the fuse is blown.

[The fusible wire must be attached to the terminals in such a way as to secure a thoroughly good connection and to make it difficult for it to be replaced when melted.]

e. Enclosed fuses must be classified to correspond with the different classes of cut-out blocks, and must be so designed that it will be impossible to put any fuse of a given class into a cut-out block which is designed for a current or voltage lower than that of the class to which the fuse belongs.

f. The fuse terminals must be sufficiently heavy to insure mechanical strength and rigidity. The styles of terminals, except for use in sealable service and meter cut-outs, must be as follows:

Not over 250 volts—

0-30 amps. { A. Cartridge fuse (ferrule contact).
B. Approved plug[s] or cartridge fuses in approved casings for Edison *plug* cut-outs not exceeding 125 volts, but including [in] *any circuit of a* 3-wire 125-250 volt systems, with grounded neutral [3-wire circuits and 2-wire 125-volt or 250-volt circuits.]

31-60 " Cartridge fuse (ferrule contact) for use also in approved casings for large size Edison plug type 250-volt cut-outs.

61-100 "
101-200 "
201-400 "
401-600 " } Cartridge fuse (knife blade contact).

Not over 600 volts—

0-30 amps.
31-60 " } Cartridge fuse (ferrule contact).

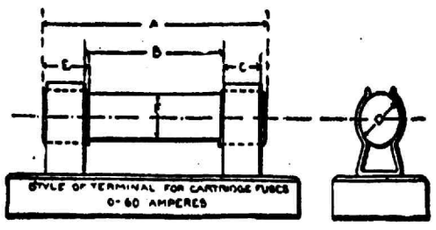
61-100 "
101-200 "
201-400 " } Cartridge fuse (knife blade contact).

3. *Exceptions.*

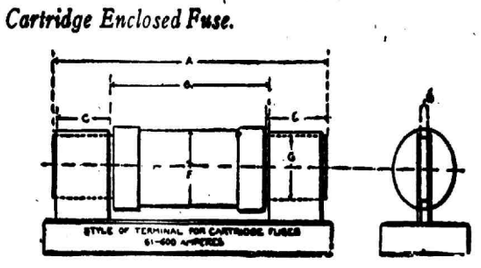
The requirements of subdivision 2 of this section shall not apply to fuses for rosettes, attachment plugs, car-lighting cut-outs and protective devices for signaling systems.

g. Cartridge enclosed fuses and corresponding cut-out blocks, except for sealable service and meter cut-outs, must conform to the dimensions given in the following table:

Table of Dimensions of the National Electrical Code Standard Cartridge Enclosed Fuse.



Form 1. Cartridge fuse—ferrule contact.



Form 2. Cartridge fuse—knife blade contact.

Voltage.	Rated capacity, amperes.	A. Length over terminals, inches.	B. Distance between contact clips, inches.	C. Width of contact clips, inches.	D. Diameter of ferrules or thickness of terminal blades, inches.	E. Minimum length of ferrules or of terminal blades outside of tube, inches.	F. Diameter of tube, inches.	G. Width of terminal blades, inches.	Rated capacity, amperes.
Not over 250.....	0-30	Form 1.... 2	1	1-2	9-16	1-2	1-2	....	Form 1..... 0-30
	31-60	Form 1.... 3	1 3-4	5-8	13-16	5-8	3-4	....	Form 1..... 31-60
	61-100	Form 2.... 5 7-8	4	7-8	1-8	1	1	3-4	Form 2..... 61-100
	101-200	Form 2.... 7 1-8	4 1-2	1 1-4	3-16	1 3-8	1 1-2	1 1-8	Form 2..... 101-200
	201-400	Form 2.... 8 5-8	5	1 3-4	1-4	1 7-8	2	1 5-8	Form 2..... 201-400
	401-600	Form 2.... 10 3-8	6	2 1-8	1-4	2 1-4	2 1-2	2	Form 2..... 401-600
Not over 600.....	0-30	Form 1.... 5	4	1-2	13-16	1-2	3-4	....	Form 1..... 0-30
	31-60	Form 1.... 5 1-2	4 1-4	5-8	1 1-16	5-8	1	....	Form 1..... 31-60
	61-100	Form 2.... 7 7-8	6	7-8	1-8	1	1 1-4	3-4	Form 2..... 61-100
	101-200	Form 2.... 9 5-8	7	1 1-4	3-16	1 3-8	1 3-4	1 1-8	Form 2..... 101-200
	201-400	Form 2.... 11 5-8	8	1 3-4	1-4	1 7-8	2 1-2	1 5-8	Form 2..... 201-400

h. [Fuses must be so constructed that with the surrounding atmosphere at a temperature of 75 degrees Fahrenheit (24 degrees Centrigrade) they will carry indefinitely a current 10 per cent. greater than that at which they are rated, and at a current 25 per cent. greater than the rating, they will open the circuit without reaching a temperature which will injure the fuse tube or terminals of the fuse block. With a current 50 per cent. greater than the rating and at room temperature of 75 degrees Fahrenheit (24 degrees Centigrade), the fuses starting cold, must blow within the time specified below:

0- 30	amperes.....	1 minute.
31- 60	"	2 minutes.
61-100	"	4 "
101-200	"	6 "
201-400	"	12 "
401-600	"	15 "]

i. Enclosed fuses must be marked, where the marking will be plainly visible, with the name or trade-mark of the maker, the voltage and current for which the fuse is designed, and the words "National Electrical Code Standard." Each fuse must have a label, the color of which must be green for 250-volt fuses and red for 600-volt fuses.

j. [The temperature of the exterior of the fuse enclosure must not rise more than 125 degrees Fahrenheit (70 degrees Centigrade) above that of the surrounding air when the fuse is carrying the current for which it is rated.]

k. Enclosed fuses must not hold an arc or throw out melted metal or sufficient flame to ignite easily inflammable material on or near the cut-out when only one fuse is blown at a time on a short circuit on a system of the voltage for which the fuse is rated.

[The normal capacity of the system must be in excess of the load on it just previous to the test by at least 5 times the rated capacity of the fuse under test. The resistance of the circuit up to the cut-out terminals must be such that the impressed voltage at the terminals will be decreased 1 per cent. when a current of 100 amperes is pased between them.]

§569. Panel boards.

a. The specifications for construction of switches and cut-outs (see § 565 and § 567 of this chapter) must be followed as far as they apply.

In the relative arrangement of fuses and switches, the fuses may be placed between the bus-bars and the switches, or between the switches and the circuits, except in the case of service switches, when § 423a of this chapter must be complied with. When the branch switches are between the fuses and bus-bars, the connections must be so arranged that the blades will be dead when the switches are open. When there are exposed live metal parts on the back of a board, or where the board will be subject to moisture, a space of at least ½ inch must be provided between such live metal parts and the cabinet in which *the* board is mounted.

b. The following minimum distance between bare live metal parts (bus-bars, etc.) must be maintained:—

[Between parts of opposite polarity, except at switches and link fuses, when mounted on the same surface.		Between parts of same polarity. When held free in air.	Between parts of same polarity. At link fuses.
Not over 125 volts	3-4 inch.....	1-2 inch.	1-2 inch.
Not over 250 "	1 1-4 "	3-4 "	3-4 "
Not over 600 "	2 "	1 3-4 "	]

	Between parts of opposite polarity except at switches and link fuses. When mounted on the same surface.	*When held free in air.*	*Between parts of same polarity. At link fuses.*
Not over 125 volts.....	*3-4 inch*	*1-2 inch*	*1-2 inch*
Not over 250 volts.....	*1 1-4 inch*	*3-4 inch*	*3-4 inch*
Not over 600 volts.....	*2 inch*	*1 3-4 inch*	.....

At switches or enclosed fuses parts of the same polarity may be placed as close together as convenience in handling will allow.

The spacings given in the first column apply to the branch conductors where enclosed fuses are used. Where link fuses or knife switches are used, the spacings must be at least as great as those required by Nos. 65 and 67.

The spacings given in the second column apply to the distance between the raised main bars and between these bars and the branch bars over which they pass.

Panel boards of special design in which the insulation and separation between bus bars and between other current carrying parts is secured by means of barriers or insulating materials instead of by the spacings given above, must be submitted for special examination and approval before being used.

c. Panel boards must be marked where the marking can be plainly seen when installed, with the name or trade-mark of the manufacturer and the maximum capacity in amperes and the voltage for which the board is designed.

§570. Cabinets *and cut-out boxes.*

[a. Cabinets must in all cases be so constructed as to insure ample strength and rigidity and be dust-tight. When doors are of metal, and less than 0.109 inch (No. 12 U. S. sheet metal gage) in thickness and are not lined with insulating material, there must be a space of at least 1 inch between the door and an enclosed fuse or any live metal part. A space of at least 2 inches must be provided between open-link fuses and metal, metal-lined or glass-paneled doors of cabinets. Except as above specified, there must be a space of at least ½ inch between the walls, back or door of any cabinet and any exposed live metal part. Cabinets must be deep enough to allow the door to be closed when 30 ampere branch circuit switches are in any position, and when larger single throw switches are thrown open as far as their construction and installation will permit. There must be a space of at least ½ inch between the walls, the gutter partition, if of metal, and back of any cabinet and the nearest exposed current-carrying part of devices mounted within the cabinet. Where branch and feeder circuit wires are led around the inside of the cabinet from terminals of panel-boards, ample space must be provided within the cabinet so that it will not be necessary to run the wires upon the face of the panel-board. This space or gutter must be partitioned off from the panel-board face by a barrier extending from the base of the panel-board to the front of the cabinet and firmly secured in position. These barriers if of metal must be of a thickness at least that of the walls of the box and must have bushed holes for wires. If barriers are of slate or marble they must be at least ½ inch in thickness and if of approved composition they must be at least ¼ inch in thickness.

b. Cabinets may be made of either cast or sheet metal, wood or approved composition. Wooden or composition cabinets must not be used on metal conduit, armored cable or metal moulding systems. All metal used in construction of cabinets, including linings, if any, must be thoroughly painted or otherwise treated to prevent corrosion.

c. Wood must be well seasoned and at least ¾ inch thick and be thoroughly filled and painted, and must be lined with a non-combustible material.

d. In all cabinets, linings of slate, marble or approved composition must be at least ¼ inch thick and firmly secured in place; when metal is used for the lining it must be at least No. 16 U. S. sheet metal gage in thickness. For lining wooden cabinets ⅛ inch rigid asbestos board may be used when firmly secured in place by screws or tacks.

e. Only approved material [should] *may* be used in composition cabinets, and in no case shall it be less than ¾ inch in thickness.

f. If cast metal is used a thickness of at least ⅛ inch must be provided. Sheet metal must not be less than .0625 inch thick (No. 16 U. S. sheet metal gage), and must in every case be of sufficient thickness or so reinforced as to comply with paragraph a of this section. In steel cabinets having an area of more than 360 square inches for any surface or having a single dimension greater than 2 feet, sheet metal must be used at least No. 14 U. S. sheet metal gage in thickness; in those having an area of more than 1,200 square inches for any surface or having a single dimension greater than 4½ feet, the sheet metal must be at least No. 12 U. S. sheet metal gage in thickness.

g. Doors must shut closely at all edges against a rabbet formed as a part of the door or trim or must have turned flanges at all edges. Hinges must be of strong and durable design. A substantial latch or catch must be provided so as to keep the door closed, and a lock may be used in addition to the catch if desired. When doors have glass panels the glass must be at least ⅛ inch thick (commercial thickness), and must not have a greater area than 450 square inches unless plate glass at least ¼ inch in thickness is used.

h. Cabinets must be marked with manufacturer's name where the name can be plainly seen when the cabinet is installed.]

a. Cabinets are intended for enclosing feeder and circuit branch panelboards and similar devices. They may be designed for either surface or flush mounting and are usually provided with removable frames or matts, trims, etc., in which the swinging doors are hung; when for the enclosure of apparatus connected within the cabinet to the wires of more than four circuits they shall have a back wiring space or one or more side wiring spaces, side gutters or wiring compartments unless the wires leave the cabinet directly opposite their terminal connections. When intended for installation out-of-doors they must be of the "weatherproof" pattern.

b. Cut-out boxes are intended for enclosing single devices or combinations of devices connected within the cut-out box to the wires of not more than four circuits and usually are designed for surface mounting having swinging doors or covers secured directly to the wall of the box. When intended for installation out-of-doors they must be of the "weatherproof" pattern.

c. Design and construction of all cabinets and cut-out boxes must be such as to insure ample strength and rigidity.

d. The spacing within cabinets and cut-out boxes must be sufficient to provide ample room for the distribution of wires and cables placed in them, and for a separation between metal parts of cabinets or cut-out boxes and current carrying parts of devices and apparatus mounted within them as follows:

1. There must be an air space of at least 1-16 inch, except at points of support, between the base of the device and the wall of any metal cabinet or cut-out box on which the device is mounted.

2. There must be an air space of at least one inch between any enclosed fuse or current-carrying part and the door, unless the door is lined with an approved insulating material or is of a thickness at least that of No. 12 U. S. gauge when the air space must be not less than one-half inch.

3. There must be a space of at least two inches between open link fuses and metal or glass of walls or doors.

4. Except as noted above there must be an air space of at least one-half inch between the walls, back, gutter partition, if of metal, or door of any cabinet or cut-out box and the nearest exposed current-carrying part of devices mounted within the cabinet where the potentials do not exceed 250 volts. This spacing must be increased to at least one inch where the potentials exceed 250 volts.

5. Cabinets and cut-out boxes must be deep enough to allow the doors to be closed when 30-ampere branch circuit panelboard switches having spool or composition handles or when switches of combination cut-outs are in any position, and when other single throw switches are thrown open as far as their construction and installation will permit.

6. Cabinets having one or more side wiring spaces, side gutters or side wiring compartments must be furnished with covers, barriers or partitions extending around or from the side or sides of all bases or groups of bases of the switches, cut-outs, circuit breakers or feeder and circuit branch panelboards within the cabinet and providing a close fit with the door, frame or sides of the cabinet so as to enclose these spaces,

gutters or compartments and the wires stowed within them. At sides where wires or cables are led from the cabinet at points directly opposite their terminal connections to devices or apparatus within the cabinet, and other wires or cables are not placed, these covers, barriers or partitions may be omitted.

When cabinets have back wiring spaces which are not entirely enclosed, covers must be furnished to provide equivalent enclosure.

§571. Rosettes.

a. Current-carrying parts of rosettes must be mounted on non-combustible, non-absorptive, insulating bases. There should be no openings through the rosette base except those for the supporting screws and in the concealed type for the conductors also, and these openings should not be made any larger than necessary. There must be at least ¼ inch space, measured over the surface, between supporting screws and current-carrying parts. The supporting screws must be so located or countersunk that the flexible cord cannot come in contact with them. Bases for the knob and cleat type must have at least 2 holes for supporting screws; must be high enough to keep the wires and terminals at least ½ inch from the surface to which the rosette is attached and must have a porcelain lug under each terminal to prevent the rosette from being placed over projections which would reduce the separation to less than ½ inch. Bases for the moulding and conduit box types must be high enough to keep the wires and terminals at least ⅜ inch from the surface wired over.

b. Contact pieces and terminals must be secured in position by at least 2 screws, or made with a square shoulder, or otherwise arranged to prevent turning. The nuts or screw heads on the under side of the base must be countersunk not less than ⅛ inch and covered with a waterproof compound which will not melt below 150 degrees Fahrenheit (65 degrees Centigrade).

c. Line terminal plates must be at least .06 inch in thickness, and terminal screws must not be smaller than No. 6 standard screw with about 32 threads per inch. Terminal plates for the flexible cord [and for fuses] must be at least .06 inch in thickness. The connection to these plates shall be by binding screws not smaller than No. 5 standard screw with about 40 threads per inch. At all binding screws for line wires and for flexible cord, upturned lugs, or some equivalent arrangement, must be provided which will secure the wires [being held] under the screw heads.

d. The diameter of the cord inlet hole should measure 13-32 inch in order that standard portable cord may be used.

e. Ample space must be provided for a substantial knot tied in the cord as a whole. All parts of the rosette upon which the knot is likely to bear must be smooth and well rounded.

f. When the rosette is made in 2 parts, the cover must be secured to the base so that it will not work loose. [In fused rosettes, the cover must fit closely over the base so as to prevent the accumulation of dust or dirt on the inside, and also to prevent any flash or melted metal from being thrown out when the fuses melt.]

g. Rosettes must be plainly marked where the marking may readily be seen after the rosette has been installed, with the name or trade mark of the manufacturer, and the rating in amperes and volts. Fuseless rosettes may be rated 3 amperes, 250 volts [fused rosettes, with link fuses, not over 2 amperes, 125 volts].

h. [Fused rosettes must have a fuse in each pole and must operate successfully when short-circuited on the voltage for which they are designed, the test being made with the 2 fuses in circuit.]

§572. Sockets, *including lamp receptacles.*

a. Sockets shall be classed according to diameters of lamp bases as candelabra, medium and mogul base, to be known respectively as ½ inch, 1 inch and 1½ inch nominal sizes, with ratings as specified in the following table:

	Ratings.					
		Key.			Keyless.	
Class.	Nominal diam.	Watts.	Volts.	Max. amp. at any voltage.	Watts.	Volts.	Max. amp. at any voltage.
Candelabra	1-2 in.	75	125	3-4	75	125	1
Medium	1 in.	250	250	2 1-2	660	250	6
		*660	250	6	660	600	
Mogul	1 1-2 in.				1500	250	
		†			1500	600	

*This rating may be given only to sockets having a switch mechanism which produces both a quick "make" and a quick "break" action.

† Ratings to be assigned later, pending further discussion with manufacturers.

Miniature sockets [and receptacles] having screw shells smaller than the candelabra size may be used for decorative lighting systems, Christmas tree lighting outfits and similar purposes.

b. All sockets [and receptacles] must be marked with the name or trade-mark of the manufacturer and with the watts and volts which apply to the class. The rating marks may be abbreviated, as, for example, "250 W., 250 V." Each lamp holder of double-ended sockets must be rated as specified above, the device being marked with a single marking applying to each end.

c. Metal used for shells must be moderately hard, but not hard enough to be brittle or so soft as to be easily dented or knocked out of shape. Brass shells must be at least [.13] *.013* inch in thickness and for mogul sockets not less than .025 inch, and shells of any other material must be thick enough to give the equivalent stiffness and strength.

d. The inside of metal shells must be lined with insulating material, which must absolutely prevent the shell from becoming a part of the circuit, even though the wires inside the sockets should become loosened or detached from their position under the terminal screws. The material used for lining must be at least 1-32 inch in thickness, and must be firm, compact, tough and tenacious. It must not be injuriously affected by the heat from the largest lamp permitted in the socket, [and must leave water in which it is boiled practically neutral]. It is preferable to have the lining in one piece. The lining must not extend beyond the metal shell more than ⅛ inch but must prevent any current-carrying part of the lamp base from being exposed when a lamp is in the socket. The cap must also be lined, and this lining must comply with the requirements for shell linings.

e. Caps when made of sheet brass must be at least .013 inch in thickness and .025 *inch* for mogul sockets, and when cast or made of other metals must be of equivalent strength.

The inlet piece must contain sufficient metal for 5 full threads, and when not in one piece with the cap must be riveted or otherwise secured to give the strength of a single piece. There must be sufficient room in the cap to enable the ordinary wireman to easily and quickly make a knot in the cord and to push it into place in the cap without crowding. All parts of the cap upon which the knot is likely to bear must be smooth and well insulated.

f. The frame which holds the moving parts must be sufficiently heavy to give ample strength and stiffness. Brass pieces containing terminal screws must be sufficiently heavy to give ample strength and stiffness, and have at least .06 inch of thread for terminal screws. Terminal post screws must not be smaller than No. 5 standard screw, with about 40 threads per inch.

g. For candelabra [sockets] and medium sized sockets rated at 250 volts, points of opposite polarity must everywhere be kept not less than 3-64 inch apart, and for mogul sockets and sockets rated at 600 volts not less than ⅛ inch apart, provided, however, if substantial barriers of approved insulating material are used to separate such parts, these distances may be correspondingly reduced, but in no event must the separation distances measured over the surfaces of the barriers be less than those specified above.

h. [The connecting points for the flexible cord must be made to very securely grip a No. 16 or 18 B. & S. gage conductor. An upturned lug, arranged so that the cord may be gripped between the screw and the lug in such a way that it cannot possibly come out, is strongly advised.] *The parts to which wiring connections are made must be designed to securely grip the conductors. An upturned lug or some equivalent arrangement must be provided to hold the wires under the screw heads.*

i. The socket must firmly hold the lamp in place so that it cannot be easily jarred out and must provide a contact good enough to prevent undue heating with the maximum current allowed. The holding pieces, springs and the like, if a part of the circuit, must not be sufficiently exposed to allow them to be brought in contact with anything outside of the lamp and socket.

j. The base on which current carrying parts are mounted must be of porcelain or other non-combustible, non-absorptive, insulating material approved for such use.

k. The key handle must not soften or become injured when used to operate the socket at a temperature of 150 degrees Fahrenheit. The handle should be thoroughly substantial and securely, but not necessarily rigidly, attached to the spindle or lever which it is designed to control.

l. All screws in porcelain pieces, which can be firmly sealed in place, must be so sealed by a waterproof compound which will not melt below 200 degrees Fahrenheit (93 degrees Centigrade).

m. The socket as a whole must be so put together that parts will not [rattle or fall apart] *loosen* under the most severe conditions they are likely to meet with in practice. The base [of the socket] must be [secured or] held in [the shell in] such a manner as to prevent turning or displacement relative to the shell.

n. [Sockets when slowly turned "on" and "off" at a rate of approximately 10 times per minute, while carrying a load of .6 of an ampere at 125 volts for candelabra, and 1 ampere and 3 amperes at 250 volts for medium sized 250-watt and 660-watt sockets, respectively, must "make" and "break" the circuit 6,000 times before failing, and when new must operate successfully at least 50 times at 50 per cent. in excess of the above currents, based on either 125 and 250 volts direct current and except for pull sockets when operated in either direction in any position.]

o. Keyless sockets of all kinds must comply with the requirements for key sockets as far as they apply.

p. Sockets made of porcelain or other insulating material must conform to the above requirements as far as they apply, and all parts must be strong enough to withstand a moderate amount of hard usage without breaking. Lead wires permanently attached to sockets and sealed in place must have separate outlets or be separated not less than ¾ inch in the clear. The wires must be stranded and have approved insulating coverings.

q. [When the socket is not attached to a fixture, the threaded inlet must be provided with a strong insulating bushing having a smooth hole at least 9-32 inch in diameter. The edges of the bushing must be rounded and all inside fins removed, so that in no place will the cord be subjected to the cutting or wearing action of a sharp edge.] *Where a socket is not attached to a fixture, the inlet must be provided with an approved insulating bushing which, if threaded, must be not less than 9-32 inch pipe size. The edges of bushings must be rounded and all inside fins removed so that in no case will the cord be subjected to the cutting or wearing action of a sharp edge.*

Bushings should have holes not less than 9-32 inch in diameter for plain pendant cord, and 13-32 inch in diameter for reinforced cord.

§573.

§574. Arc lamps.

a. Arc lamps must be provided with reliable stops to prevent carbons from falling out in case the clamps become loose.

b. All exposed parts must be carefully insulated from the circuit.

c. [Arc lamps must, for constant current systems, be provided with an approved hand switch, and an automatic switch that will shunt the current around the carbons, should they fail to feed properly.]

d. Terminals must be designed to secure a thoroughly good and permanent contact with supply wires, which contact must not become loosened by motion of the lamp during trimming.

§575. [Spark arresters.

a. Spark arresters must so close the upper orifice of the globe that it will be impossible for any sparks, thrown off by the carbons, to escape.]

§576. Insulating joints.

[a. Insulating joints must, with the exception of exterior finishing or waterproofing material, be made entirely of material that will resist the action of illuminating gases, and that will not give way or soften under the heat of an ordinary gas flame.

b. Insulating joints must, with the exception of insulating studs designed to be mounted with screws or bolts, have a substantial exterior metal casing insulated from both screw connections. All exposed surfaces of insulating material must be smooth, hard and waterproof.

c. Insulating joints must show a dielectric strength between pipe attachments and between either pipe attachment separately and the exterior metal casing sufficient to resist throughout 5 minutes the application of an A. C. electro-motive force of 4,000 volts.

d. Insulating joints must be sufficiently strong to resist the strain to which they are liable to be subjected during the installation. Joints made for attachment to pipes of nominal 3-4 inch diameter or smaller must be able to withstand, without injury, a twisting effect at least as great as that required to cause the threads to give way on ordinary commercial iron gas pipe of the largest size upon which the joint can be threaded. This test need not be applied to insulating studs designed to be mounted with screws or bolts.

e. Insulating joints must be threaded for standard iron pipe (Briggs' standard thread) or for brass tube pipe standard thread as given in the following table:

Standard Iron Pipe.

Trade size.	Actual outside diameter, inches.	No. of threads to the inch.
1-8	.405	27
1-4	.540	18
3-8	.675	18
1-2	.840	14
3-4	1.050	14
1	1.315	11 1-2
1 1-4	1.660	11 1-2
1 1-2	1.900	11 1-2
2	2.375	11 1-2
2 1-2	2.875	8
3	3.500	8

Joints to fit standard brass tubing having outside diameters or trade name sizes from 1-4 inch to 3-4 inch must be threaded with 27 threads to the inch.]

a. Insulating joints must be made of approved materials both for metal and other parts, including the finishing materials for exterior and interior surfaces. Except for studs designed to be mounted with screws or bolts, they must have a substantial exterior metal casing insulated from both screw connections; they must be threaded in an approved manner; and they must comply with the prescribed tests for heat, leakage, dielectric strength, torsion and bending.

b. Each joint and stud must be marked with the name or trade-mark of the manufacturer.

§577. Fixtures.

a. Fixtures must be made of metal or hard wood, except that other approved material may be used if reinforced by metal or otherwise constructed to secure requisite mechanical strength. In all cases mechanical strength must be secured practically equivalent to an all-metal fixture of similar size and form.

In all fixtures not made entirely of metal, wire-ways must be metal lined unless approved armored conductors with suitable fittings are used. An exception is made in the case of wireways in glass, marble or similar non-absorptive, non-combustible insulating materials.

All arms must be reliably secured, to prevent turning by threading and soldering, brazing, threading locked by set screw or an equivalent method.

With screw joints of arms and stems there must be not less than five threads all engaging at fixture supports, fixture bodies, etc.

All methods of fastening arms or making joints between metal parts by threading, brazing or otherwise, must be such as to secure in every case ample strength and reliability.

Sockets must, except on pendant cords, be attached to the metal of the fixtures and must be secured in a reliable and permanent manner by threading locked by set-screws or brazing or an equivalent method.

All burrs and fins in wireways must be removed and all sharp edges at points where wires emerge from arms, stems, chains, etc., must, when practicable, be removed or rounded, but in every case it must be possible to pull in and also to withdraw the wires without injuring them.

Where supply wires enter casings of fixture stems in either straight electric or combination gas and electric fixtures, there must be suitable fittings having smooth, rounded edges to prevent injury to the wire coverings and to prevent the wires from coming into contact with the edges of the ends of casings.

Fixtures for installation outdoors or where exposed to moisture must be so constructed that water cannot enter the wireways, sockets or other electrical parts.

[b. All arms must be reliably secured to prevent turning. Arms of threaded tubing must not be lighter than No. 18 B. & S. gage and with screw joints of arms there must be not less than 5 threads, all engaging. All methods of fastening arms or making joints between metal parts by soldering, brazing or otherwise, must be such as to secure in every case ample strength and reliability. Must be so assembled as to furnish accessibility for inspection, or in lieu thereof must be inspected at the factory.

c. Sockets must, except on pendant cords, be attached to the metal of the fixtures and must be secured in a reliable and permanent manner. Receptacles having exposed terminals must not be used in canopies or in any part of fixtures unless completely enclosed in metal.

d. All burrs, fins and sharp edges liable to injure wire coverings must, where practicable, be removed or rounded, but in every case it must be possible to pull in and also to withdraw the wires without injuring them. Where supply wires enter fixture stems or casings there must be suitable fittings having smooth rounded edges to prevent injury to the wire coverings. In non-metallic fixtures wireways must be metal-lined, unless approved armored conductors with suitable fittings are used. On chains or similar parts, where conductors are not completely enclosed in metal, wires must be stranded and must have rubber insulation not less than 1-32 inch in thickness, or approved pendant or portable cord may be used.

e. Fixtures must be marked with the manufacturer's name or trade-mark.

f. Fixtures must be tested in an approved manner for short circuits between conductors and for contacts between conductors and metal parts of fixtures.

g. Showcase fixtures, ceiling bulls-eyes, dome fixtures and similar types must be sufficiently ventilated, where possible, to avoid exposing the wiring to high temperatures and the wiring at such fixtures should be so disposed as to be kept as free as possible from excessive temperatures.]

b. Conductors must be not smaller than No. 18 B. & S. gage.

On chains or similar parts where conductors are not completely enclosed in metal, the conductors must be stranded and must have rubber insulation not less than 1-32 inch in thickness. Wires and flexible cords must when fixtures are externally wired, be so secured as not to be cut or abraded by the pressure of the fastenings or motion of the fixture, and must be protected against abrasion where they pass through sheet metal pans, canopies, etc.

Conductors must be so spliced or joined as to be both mechanically and electrically secure without solder. The joints must then be soldered (unless made with some form of approved splicing device) and covered with an insulation equal to that on the conductors, i. e., with both rubber and friction tape. Wires must, within the arms and stems, be without splices and taps, i. e., it should not be necessary to withdraw the wires to inspect splices and taps.

Receptacles must be so installed as to afford permanent and reliable means to prevent possible turning relative to the surfaces on which they are mounted.

Receptacles having exposed terminals must not be used in canopies unless completely enclosed in metal.

c. Tubing used in threaded arms and stems must not be lighter than No. 18 B. & S. gage. The thickness of unthreaded arms will depend largely upon the method used, and all methods of fastening arms or stems must be such as to secure in every case strength equivalent to that of a threaded connection. Such methods must be submitted for examination, test and approval. Tubing should not be kinked, flattened or cracked.

Canopies must be made sufficiently large, except where outlet boxes are used, to permit the stowing away of splices to fixture leads and to allow supply conductors, and especially the splices to be kept clear of the grounded part of gas pipes.

All methods of fastening arms or stems to fixture supports must be such as to secure in every case strength equivalent to that of a threaded connection.

Conductors used in wiring fixtures must be of approved fixture wire, approved flexible cord, or approved rubber-covered wire, excepting that conductors having approved slow-burning or other heat-resisting coverings must be used in wiring fixtures in which the wiring is exposed, from the heat of lamps to temperatures in excess of 120 degrees Fahr. (49 degrees Centigrade). All such forms of fixtures must be submitted for examination, test and approval before being introduced for use.

All fixtures should, where possible, be sufficiently ventilated to avoid exposing the wiring to high temperatures, and the wiring of fixtures should be so disposed as to be kept as free as possible from excessive temperatures.

All electrical fittings (including insulating joints, sockets, receptacles, switches, attachment plugs, etc.) must be of approved types.

Canopy insulators must be of approved types. They must be securely fastened in place so as to separate the canopies thoroughly and permanently from the surfaces and outlet boxes from which they are designed to be insulated. A strip, of a good grade of hard fibre 1-16 inch thick, permanently attached to the canopy at the ends, and at intermediate points in such a manner that the strip will permanently extend at least 3-16 inch beyond the entire upper edge of the canopy rim will be acceptable. Where the above construction is impracticable a sheet of a good grade of hard fibre 1-16 inch thick, permanently attached to the canopy and cut to conform to the general outline of the canopy and with the edges of the sheet at least flush with the edges of the canopy will be acceptable. The insulating strip or sheet must be secured by rivets or screws and the rivets or screws must be so located or countersunk that the desired effective insulation distance is obtained.

d. Tests.

Each fixture (after wiring and assembly) must be tested with a magneto which will ring through a resistance of at least 50,000 ohms and show no short circuits between conductors or contacts between conductors and metal parts of fixtures.

e. Markings.

Each fixture must be marked with the manufacturer's name or trade-mark.

§578. Rheostats, resistance boxes and equalizers.

a. Rheostats, resistance boxes and equalizers must be made entirely of non-combustible materials, except such minor parts as handles, magnet insulation, etc. All segments, lever arms, etc., must be mounted on non-combustible, non-absorptive isulating material. *Holes for the supporting screws which secure this material in position must be so located or countersunk that there will be at least one-half inch space, measured over the surface, between the head of the screw or washer and the nearest live metal part.*

b. Rheostats, resistance boxes and equalizers must be so constructed that when mounted on a plane surface the casing will make contact with such surface only at the points of support. An air space of at least 1-4 inch between the rheostat casing and the supporting surface will be required. The construction throughout must be heavy, rugged and thoroughly workmanlike.

c. Clamps for connecting wires to the terminals must be so designed as to insure a thoroughly good connection, and must be sufficiently strong and heavy to withstand [considerable] hard usage. For currents above 30 amperes, lugs into which the connecting wires may be soldered, or approved solderless connectors, must be used. Clamps or lugs will not be required when leads are provided as a part of the device.

d. Rheostats, resistance boxes and equalizers must be plainly marked, where the marking may be readily seen after the device is installed, with the rating and the name of the maker; and the terminals of motor-starting rheostats must be marked to indicate to what part of the circuit each is to be connected, as "line," "armature" and "field."

e. The design of the fixed and movable contacts and the resistance in each section must be such as to secure the least tendency toward arcing and roughening of the contacts, even with careless handling or the presence of dirt. In motor-starting rheostats, the contact at which the circuit is broken by the lever arm when moving from the running to the starting position must be so designed that there will be no detrimental arcing. The final contact, if any, on which the arm is brought to rest in the starting position must have no electrical connection.

f. Motor-starting rheostats must be so designed that the contact *arm* cannot be left on intermediate segments, and for direct current circuits must be provided with an automatic device which will interrupt the supply circuit before the speed of the motor falls to less than ⅓ of its normal value. In motor-starting rheostats for alternating current circuits the automatic interrupting device may be omitted.

g. Overload-release devices which are inoperative during the process of starting a motor will not be approved, unless other circuit breakers or fuses are installed in connection with them.

[h. Rheostats, resistance boxes and equalizers must, after 100 operations under the most severe normal conditions for which the device is designed, show no serious burning of the contacts or other faults, and the release mechanism of motor-starting rheostats must not be impaired by such a test. Field rheostats, or main-line regulators intended for continuous use, must not be burned out or depreciated by carrying the full normal current on any step for an indefinite period. Resistances intended for intermittent use (such as on electric cranes, elevators, etc.) must be able to carry their rated current on any step for as long a time as the character of the apparatus which they control will permit them to be used continuously. Starting duty resistances for direct current motors shall be so constructed that when the voltage marked on the name plate or not more than 10 per cent. in excess thereof is applied to the main line terminals, and the starting arm or other starting mechanism is operated at such a rate that the current through the resistance does not fall below the rated full load current, and this test is continued for not more than 3 minutes, there shall be no resultant flaming or molten droppings; or if the resistance conductor is fused, the arc or any attendant flame or molten droppings shall be confined within the rheostat. Starting duty resistances for alternating current motors shall be tested as specified above for direct current starting resistances, except that for starters especially designed for squirrel cage or single phase motors the test conditions shall be so modified either by reduction in the applied voltage or by the use of supplementary resistances as to produce approximately the same current conditions as will be met with in service. Continuous duty resistances shall either be so constructed that if the resistive conductor be fused the arc or any attendant flame or molten droppings shall be confined within the rheostat or they shall be constructed with such capacity that if subjected to a current flow throughout the entire rheostat, 25 per cent. in excess of that at which they are rated, for a period of 2 hours, there shall be no resultant flaming or molten droppings.]

§579. Auto-starters.

a. Coils and switches of auto-starters used in dusty and linty places or where exposed to flyings of combustible material, must be completely enclosed in substantial metal cases so constructed as to effectually exclude ordinary dust, lint or flyings of combustible material.

Auto-starters used in places where the above conditions do not exist, may be of any approved type. Cases for either transformer coils or switches must provide for access to the interior for inspection and for renewal of oil, and must be so constructed that when mounted on a plain surface the casing will make contact with such surface only at points of support. An air space *of* at least ¼ inch between the casing and supporting surface will be required. The oil tank shall be marked in a suitable manner to indicate the proper oil level. *When such device carries a visual oil indicator, the marking shall be for the proper oil level with the starter assembled. If the visual indicator is not used, markings shall indicate the oil level prior to assemblying.* The switch must provide an off position, a runnig position and at least one starting position. It must be so arranged that it will be held in off and running positions but cannot be left in a starting position or without the proper running overload protective devices in the circuit. The construction throughout must be thoroughly substantial.

b. Clamps for connecting wires to the terminals [boards] must be so designed as to insure a thoroughly good connection and must be sufficiently strong and heavy to withstand [considerable] hard usage. For currents above 30 amperes, lugs into which the connecting wires may be soldered, or approved solderless connectors, must be used. Clamps or lugs will not be required when leads are provided as a part of the device.

c. Auto-starters must be plainly marked, where the marking may be readily seen after the device is installed, with the rating and name of the maker; terminals to be so marked as to indicate to what part of the circuit each is to be connected.

[d. The insulation of the completely assembled apparatus must withstand for 1 minute a potential test between live metal parts and frame, core and case as follows:

Rated terminal voltage of circuit.	Testing voltage.
Not exceeding 400 volts	1500 volts
401-800	2000 "
801-1200	3500 "
1201-2500	5000 "
2500 up	Double normal rated voltages

e. With full line voltage applied to line terminals and current taken from taps giving between 40 and 60 per cent. of the normal line voltage, 300 per cent. of full load current of the motor applied for the first 15 seconds of each 4-minute period for not more than 1 hour, auto-starters must show no resultant flaming or molten droppings. The oil, if any, in which the transformer windings are immersed shall not overflow the containing case.]

§580. Reactive coils and condensers.

a. Reactive coils must be made of non-combustible material, mounted on non-combustible bases and treated, in general, as sources of heat.

b. Condensers must be treated like other apparatus operating with equivalent voltage and currents. They must have non-combustible cases and supports, and must be isolated from all combustible materials and, in general, treated as sources of heat.

§581. Transformers, low potential.

1. *Air cooled transformers.*

[a. Air cooled transformers must be placed in substantial metallic or other non-combustible cases, which completely enclose all current-carrying parts, with the exception of the terminals of the secondary winding of bell or other signaling transformers which may be mounted outside the casing. Air cooled transformers must be so constructed that when mounted on a plane surface the casing will make contact with such surface only at the points of support. An air space of at least ¼ inch between the transformer casing and the supporting surface will be required. The construction throughout must be substantial and thoroughly workmanlike.]

a. Air cooled transformers must be placed in substantial metallic or other non-combustible cases, which completely enclose all current-carrying parts, with the exception of the terminals of the low voltage windings as specified below. Sheet metal cases must be not less than 1-32 inch in thickness, and cast iron must be not less than 1-8 inch in thickness. Such transformers must be so constructed that when mounted on a plane surface the casing will make contact with such surface only at the points of support.. An air space of at least one-fourth of an inch between the transformer casing and the supporting surface will be required.

Leads of approved cable at least 6 inches in length and so secured as to prevent strain coming on the connections to the coils, must be brought out of the case through approved insulating bushings, except for bell-ringing and toy transformers, the low voltage terminals of which may be binding posts mounted on the case.

The construction throughout must be substantial and thoroughly workmanlike.

b. Air cooled transformers must be plainly marked, where the marking will be readily seen after the transformer is installed, with the name of maker, with the frequency, the [primary] *high voltage* and all [secondary] *low* voltages, and the rated capacity in kilo-volt-amperes.

c. [Air cooled transformers must be constructed to comply with the following tests:

1. The secondary winding shall be short circuited and normal voltage shall be applied to the primary winding for a period sufficiently long either to cause a burnout or to cause the casing to attain a constant temperature. If the transformers when so tested burn out there shall be no escape of flames or molten metal.

2. When heated to normal full load operating temperature the insulation of the transformer shall withstand continuously for 1 minute a difference of potential (alternating), between high voltage coils and between the high voltage coils and the core, in accordance with the standardization rules of the American Institute of Electrical Engineers.]

2. *Bell ringing or other signaling transformers.*

d. Transformers for bell-ringing or other signaling service only must be constructed in accordance with the [following specifications] *requirements of paragraph a of this section,* and may be approved for use when all wiring on the [primary] *high voltage* side is in accordance with the requirements of article 4 of this chapter.

e. [Must comply with the requirements of paragraphs a and b of this section and also with the following specifications:—

1. Provision shall be made for connecting the primary winding to the supply circuit by leads of approved rubber-covered wire not smaller than No. 14 B. & S. gage, which must be securely soldered within the case to the ends of the primary coil.

These leads must pass through the walls of the case through insulating bushings which must separately insulate each conductor. The leads must extend at least 6 inches outside the case and provision must be made to prevent strain coming on the points where the leads are attached to the primary winding.

2. The primary voltage rating shall not be over 125 volts.

3. The design of the transformer shall be such that when any 2 secondary terminals are short-circuited, while 110 volts (60 cycles) are impressed on the primary, the input measured by a watt meter in the primary circuit shall not be more than 25 watts.

4. In addition to the test prescribed in paragraph c of this section, the transformers shall be run at normal primary voltage and with secondary short circuited until a constant temperature is reached as indicated by a mercury thermometer on the outside of the case. The rise in temperature so measured shall not exceed 50 degrees Centigrade. At the end of the heating test above, the insulation shall withstand for 1 minute the application of 2,500 volts A. C. between primary and secondary coils and between primary and the core or case.

5. The proper terminals must be marked "Line" and "Bell."]

e. Such transformers must be plainly marked where it can be seen after installation, with the name of the manufacturer, the frequency, the high voltage and all low voltages, and the proper terminals must be marked "Line" and "Bell." The rating of high voltage winding must not be over 125 volts.

f. The design of the transformer must be such that when any two low voltage terminals are short circuited while the rated voltage is impressed on the high voltage coil, the input measured by a wattmeter in the high voltage circuit will not be more than 25 watts.

3. Toy transformers.

g. Transformers for operating toys must be constructed in accordance with the requirements of paragraph a of this section.

h. Such transformers must be marked with the name of the manufacturer, high and all low voltages, the frequency and the rated capacity in volt-amperes.

The high voltage rating must not exceed 125 volts, nor the low voltage rating exceed 25 volts.

i. Such transformers must be so constructed as to stand the following test:

With the high voltage coil connected to a circuit of the rated voltage and frequency and with the low voltage coils short circuited, the input as measured by wattmeter must not exceed 250 watts. When so connected, and run until constant temperature is reached or until burnout occurs, the case must not be injured and there must be no escape of flames or molten metal.

§582. Lightning arresters.

a. Lightning arresters must be of approved construction.

§583. Electric signs (for low potential systems only).

a. Electric signs shall be constructed entirely of metal, or other incombustible material, except the insulation [thereof] *on the wires.* Sheet metal must be not less than 28 U. S. sheet metal gage. All metal must be galvanized, enameled, treated with at least 3 coats of anti-corrosive paint, or otherwise protected in an approved manner against corrosion.

b. Electric signs must be so constructed as to secure ample strength and rigidity

Electric signs must be so constructed as to be practically weatherproof [so as] *and* to enclose all terminals and wiring other than the supply leads, except that open work will be permitted for signs on roofs or open ground where not subject to mechanical injury, provided the wiring is in accordance with paragraph e of this section. [Cut-outs] transformers unless of weatherproof type, *cut-outs,* flashers and other similar devices on or within the sign structure, must be *enclosed in approved cut-out boxes or cabinets, except that if on or within the sign structure they may be placed* in a separate, completely enclosed [accessible and weatherproof] compartment, or in a substantial weatherproof box or cabinet of metal of thickness not less than that of the metal of the sign itself. Each compartment must have suitable provision for drainage through one or more holes each not less than ¼ inch in diameter.

c. Electric signs must have the maker's name or trade-mark permanently attached to the exterior.

d. Receptacles must be so designed as to afford permanent and reliable means to prevent possible turning; must be so designed and placed that terminals will be at least ½ inch from other terminals and from metal of the sign, except that where open work is permitted this separation must be 1 inch. Miniature receptacles will not be approved for use in outdoor signs.

e. Wiring must be approved rubber covered, not less than No. 14 B. & S. gage, [and, except where open work is permitted, must be double braided]. Wiring must be neatly run and so disposed and fastened as to be mechanically secure. Wires must be soldered to terminals, and exposed parts of wires and terminals must be treated to prevent corrosion. Wires must, where they pass through walls or partitions of the sign be protected by approved bushings. On outside of sign structure, except where open work is permitted, wires must be in approved metal conduit or in approved lead sheathed armored cable. For open work, wires must be rigidly supported on non-combustible non-absorptive insulators which separate the wires at least 1 inch from the surface wired over. Rigid supporting requires, under ordinary conditions where wiring over flat surfaces, supports at least every 4½ feet. If the wires are liable to be disturbed the distances between supports should be shortened. In those parts of circuits where wires are connected to approved receptacles which hold them at least 1 inch from surface wired over, and which are placed not over 1 foot apart, such receptacles will be considered to afford the necessary support and spacing of the wires. Between receptacles more than 1 foot, but less than 2 feet, apart an additional non-combustible, non-absorptive insulator maintaining separation and spacing equivalent to the receptacles, must be used. Except as above specified wires must be kept apart at least 2½ inches for voltages up to 300, and 4 inches for higher voltages.

f. Leads from signs must pass through the walls of the sign either through approved metal conduit or armored cable, or must be neatly cabled and pass through one or more bushings of approved non-combustible, non-absorptive insulated [bushings] *material.*

g. Not over 1,320 watts shall be dependent upon final cutout.

ARTICLE 6.

Miscellaneous.

Section 685. Signaling systems.
686. Wireless telegraph apparatus.
687. Electric gas lighting.
688. Insulation resistance.

§685. Signaling system.

1. *Outside wires.*

a. Outside wires must be run in underground ducts or strung on poles, and kept off the roofs of buildings, except by special permission, and must not be placed on the same cross-arm with electric light or power wires. They must not occupy the same duct, manhole or handhole of conduit systems with electric light or power wires. Single manholes, or handholes separated into sections by means of partitions of brick or tile will be considered as conforming with the above requirement. When the entire circuit from central station to building is run in underground conduits, paragraphs b to m inclusive of this section do not apply.

b. When outside wires are run on same pole with electric light or power wires, the distance between the two inside pins of each cross-arm must not be less than 24 inches. When the wires are carried in approved cables, paragraphs c, d and e of this section do not apply.

c. Where wires are attached to the outside walls of buildings, they must have an approved rubber insulating covering, and on frame buildings or frame portions of other buildings shall be supported on glass or porcelain insulators, or knobs.

d. The wires from last outside support to the cut-outs or protectors must be of copper, and must have an approved rubber insulation; must be provided with drip loops immediately outside the building and at entrance.

e. Wires must enter building through approved non-combustible, non-absorptive insulating bushings sloping upward from the outside, and both wires may enter through the same bushing, if desired.

2. *Ten ampere installations.*

f. An all-metallic circuit shall be provided, except in telegraph systems.

g. At the entrance of wires to building, approved single pole cut-outs, designed for 251-600 volts potential and containing fuses rated at not over 10 amperes capacity, shall be provided for each wire. These cut-outs must not be placed in the immediate vicinity of easily ignitable stuff, or where exposed to inflammable gases, or dust or to flyings of combustible material.

h. The wires inside building shall be of copper not less than No. 16 B. & S. gage, and must have insulation and be supported, the same as would be required for an installation of electric light or power wiring, 0-600 volts potential.

i. The instruments shall be mounted on bases constructed of non-combustible, non-absorptive insulating material. Holes for the supporting screws must be so located, or counter-sunk, that there will be at least 1-2 inch space, measured over the surface, between the head of the screw and the nearest live metal part.

3. *Less than 10 ampere installations.*

j. Wires must be provided with an approved protective device located as near as possible to the entrance of wires to building. The protector must not be placed in the immediate vicinity of easily ignitable stuff, or where exposed to inflammable gases or dust or flyings of combustible materials.

k. Wires from entrance to building to protector must be supported on porcelain insulators, so that they will come in contact with nothing except their designed supports.

l. The ground wire of the protective device shall be run in accordance with the following requirements:—

1. Shall be of copper and not smaller than No. 18 B. & S. gage.

2. Must have an insulating covering approved for voltages from 0 to 600, except that the preservative compound may be omitted.

3. Must run in as straight a line as possible to a good permanent ground. This may be obtained by connecting to a water or gas pipe connected to the street mains or to a ground rod or pipe driven in permanently damp earth. When connections are made to pipes, preference shall be given to water pipes. If attachment is made to gas pipe, the connection in all cases must be made between the meter and the street mains. In every case the connection shall be made as near as possible to the earth. When the ground wire is attached to a water pipe or a gas pipe, it may be connected by means of an approved ground clamp fastened to a thoroughly clean portion of said pipe, or the pipe shall be thoroughly cleaned and tinned with rosin flux solder, and the ground wire shall then be wrapped tightly around the pipe and thoroughly soldered to it. When the ground wire is attached to a ground rod driven into the earth, the ground wire shall be soldered to the rod in a similar manner. Steam or hot-water pipes must not be used for a protector ground.

m. The protector to be approved must comply with the following requirements:

1. For instrument circuits of telegraph systems, an approved single pole cut-out in each wire, designed for 2,000 volts potential, and containing fuses rated at not over 1 ampere capacity. When main line cut-outs are installed as called for in paragraph g of this section the instrument cut-outs may be placed between the switchboard and the instrument as near the switchboard as possible;

2. In all other systems the protector must be mounted on non-combustible, non-absorptive insulating bases, so designed that when the protector is in place, all parts which may be alive will be thoroughly insulated from the wall to which the protector is attached. The protector must have the following parts:

A lightning arrester which will operate with a difference of potential between wires of not over 500 volts, and so arranged that the chance of accidental grounding is reduced to a minimum;

A fuse designed to open the circuit in case the wires become crossed with light or power circuits. The fuse must be able to open the circuit without arcing or serious flashing when crossed with any ordinary commercial light or power circuit.

A heat coil, if the sensitiveness of the instrument demands it, which will operate before a sneak current can damage the instrument the protector is guarding;

Heat coils are necessary in all circuits normally closed through magnet windings, which cannot indefinitely carry a current of at least 5 amperes;

The heat coil is designed to warm up and melt out with a current large enough to endanger the instruments if continued for a long time, but so small that it would not blow the fuses ordinarily found necessary for such instruments.

3. The fuses must be so placed as to protect the arrester and heat coils, and the protector terminals must be plainly marked "line," "instrument," "ground." An easily read abbreviation of the above words will be allowed.

4. *Generally.*

The following rules apply to all systems whether the wires from the central office to the building are overhead or underground:

n. Wires beyond the protector, or wires inside buildings where no protector is used, must be neatly arranged and securely fastened in place in some convenient, workmanlike manner. They must not come nearer than 2 inches to any electric light or power wire in the building, unless separated therefrom by some continuous and firmly fixed non-conductor creating a permanent separation; this non-conductor to be in addition to the regular insulation on the wire.

o. Wires where bunched together in a vertical run within any building must have a fire-resisting covering sufficient to prevent the wires from carrying fire from floor to floor unless they are run either in non-combustible tubing or in a fireproof shaft, which shaft must be provided with fire stops at each floor. Signaling wires and electric light or power wires may be run in the same shaft, provided that one of these classes of wires is run in non-combustible tubing, or provided that when run otherwise these two classes of wires shall be separated from each other by at least 2 inches. In no case shall signaling wires be run in the same tube with electric light or power wires.

p. Transformers or other devices for supplying current to signaling systems from light, heat or power circuits must be of a design expressly approved for this purpose. The primary wiring must be installed in accordance with the requirements of article 4 of this chapter, and the secondary wiring in accordance with this article.

§686. Wireless telegraph apparatus.

In setting up wireless telegraph apparatus, all wiring within the building must conform to the requirements of this chapter for the class of work installed and *to* the following additional specifications:

a. Aerial conductors must be permanently and effectively grounded at all times when station is not in operation by a conductor not smaller than No. 4 B. & S. gage copper wire, run in as direct line as possible to water pipe at a point on the street side of all connections to said water pipe within the premises, or to some other equally satisfactory earth connection.

b. Aerial conductors when grounded as above specified must be effectually cut off from all apparatus within the building.

c. Or the aerial must be permanently connected at all times to earth in the manner specified above, through a short-gap lightning arrester, said arrester to have a gap of not over .015 inch between brass or copper plates not less than 2½ inches in length parallel to the gap, and 1½ inches the other way with a thickness of not less than ⅛ inch mounted upon non-combustible, non-absorptive insulating material of such dimensions as to give ample strengh. Other approved arresters of equally low resistance and equally substantial construction may be used.

d. In cases where the aerial is grounded as specified in paragraph a of this section, the switch employed to join the aerial to the ground connection shall not be smaller than a standard 100 ampere knife switch.

e. Where supply is obtained direct from the street service the circuit must be installed in approved metal conduits or armored cable. In order to protect the supply system from high potential surges, there must be inserted in circuit either a transformer having a ratio which will give a potential on the secondary leads not to exceed 550 volts, or two condensers in series across the line, the connection between said condensers to be permanently and effectually grounded. These condensers should have capacity of not less than ½ micro-farad.

§687. Electric gas lighting.

a. Electrical gas lighting, unless it is the frictional system, must not be used on the same fixture with the electric light.

§688. Insulation resistance.

The wiring in any building must comply with the following requirements: The complete installation must have a resistance between conductors and between all conductors and the ground (not including attachments, sockets, receptacles, etc.) not less than that given in the following table:

Up to 5 amperes	4,000,000 ohms
Up to 10 amperes	2,000,000 ohms
Up to 25 amperes	800,000 ohms
Up to 50 amperes	400,000 ohms
Up to 100 amperes	200,000 ohms
Up to 200 amperes	100,000 ohms
Up to 400 amperes	50,000 ohms

Up to 800 amperes..... 25,000 ohms
Up to 1,600 amperes ..... 12,500 ohms

The test must be made with all cut-outs and safety devices in place. If the lamp sockets, receptacles, electroliers, etc., are also connected, only ½ the resistance specified in the table will be required.

Section 2. This ordinance shall take effect immediately.

Note—New matter in *italics*; old matter in brackets [] to be omitted.

Which was referred to the Committee on General Welfare.

ORDINANCES AND RESOLUTIONS.

No. 340.

Resolution Appointing Various Persons Commissioners of Deeds.

By the President—

Resolved, That the following named persons be and they are hereby appointed Commissioners of Deeds:

By President Dowling—
William Beatty, Jr., 361 W. 25th St., Manhattan.
Endorsed by J. J. Dyer and N. Gluck.

By Alderman Bent—
Thomas A. Baffa, 1053 Hancock St., Brooklyn, N. Y.
Endorsed by J. Treiber and John D. Dixm.
Freda Clara Scheick, 143 Palmetto St., Brooklyn, N. Y.
Endorsed by J. W. Wolf and Charles Froelich.

By Alderman Browne—
Eugene V. Diamond, 33 Duffield St., Brooklyn.
Endorsed by C. W. Dunn and M. J. Schields.

By Alderman Carroll—
Benjamin F. Kraft, 15 East 93d St., Manhattan.
Endorsed by R. D. Germein and A. W. Venino.
David Sydney Myers, 59 East 93d St., Manhattan.
Endorsed by H. Asher and Henry Flugenon.
Robert E. Willis, 708 Lexington Ave., Manhattan.
Endorsed by T. F. Sheehan and Geo. Wilkes.
Emanuel Bleyer, 1326 Madison Ave., Manhattan.
Endorsed by D. F. Mayer and L. Steckler.
Clarence Lipnik, 64 East 94th St., Manhattan.
Endorsed by B. Straus and M. Korngold.

By Alderman Cole—
Wm. J. Dempsey, 121 Wood Ave., Richmond.
Endorsed by Adolph W. Eim and Rudolf Sichel.

By Alderman Colne—
John J. Walker, 13 St. Francis Pl., Brooklyn.
Endorsed by T. E. Brownlee and H. C. Eldert.
Samuel J. Belfer, 652 St. Johns Pl., Brooklyn.
Endorsed by I. H. Klein and H. Soseolon.
Lewis Joseph, 333 Lafayette Ave., Brooklyn.
Endorsed by L. E. Goldstein and S. Ehrenberg.

By Alderman Cox—
Frank William Eckelsbecker, 25 South Lincoln Ave., Queens.
Endorsed by H. M. Eggers and F. Eller.

By Alderman Crane—
G. F. J. Neumann, Bolton Road and W. 205th St., Manhattan.
Endorsed by O. R. Tudd and S. M. Spedon.
Arthur Edwin Clarke, 155 Audubon Ave., Manhattan.
Endorsed by E. M. Stanton and Charles Fredericks.
Louis Goldstein, 460 W. 149th St., Manhattan.
Endorsed by T. A. Newton and W. H. Brown.
Joseph C. Kadane, 3675 Broadway, Manhattan.
Endorsed by I. Guttman and H. Waldman.
Albert A. Miller, 512 W. 186th St., Manhattan.
Endorsed by S. Jacbert and N. Natelson.
Henry H. Hess, 75-77 Northern Ave., Manhattan.
Endorsed by M. J. Van Kleeck and W. F. Bell, Manhattan.
Joseph Strauss, 515 W. 170th St., Manhattan.
Endorsed by Louis Fishel and Myron Rosner.

By Alderman Curran—
Edward A. Le Pard, 270 W. 11th St., Manhattan.
Endorsed by C. H. Fay and Ed. Bodine.
Herman C. Storck, 80 Washington Square East, Manhattan.
Endorsed by L. L. Gilbert and R. A. Burbank.
Thos. H. Smith, 105 W. 10th St., Manhattan.
Endorsed by James H. Cross and Patrick F. McSorley.

By Alderman Curley—
Thomas Joseph Erb, Betts Ave., Maspeth, Queens.
Endorsed by T. J. Lanigan and G. Hoffman.
David Scheer, 472 E. 146th St., Bronx.
Endorsed by J. F. Geraghty and C. Kuntze.
Jacob Last, 435 E. 138th St., Bronx.
Endorsed by J. Davidson and J. W. Brown.
Charles E. Reid, 424 E 141st St., Bronx.
Endorsed by W. I. K. Kendrick and J. A. Hall.
Morris Goldeier, 600 Prospect Ave., Bronx.
Endorsed by Sol. Cohen and J. Silberstein.

By Alderman Daly—
Charles Lloyd Killeen, 361 E. 188th St., Bronx.
Endorsed by C. S. Comerford and J. H. Malone.
Charles W. Cowles, 1821 Morris Ave., Bronx.
Endorsed by Charles B. Feessel and A. W. Hagrefe.

By Alderman Daly—
Blanche B. Calhoun, 601 West 136th St., Manhattan.
Endorsed by J. T. Bunt and J. E. Dwron.
Viola Zorn, 411 E. 180th St., Bronx.
Endorsed by C. J. Brady and J. J. Dillon.

By Alderman Diemer—
Simon C. Weinberg, 171 Vernon Ave., Brooklyn.
Endorsed by R. E. Jackson and J. J. McQuade.
Jacob Sachs, 40 Bartlett St., Brooklyn.
Endorsed by M. Hirsch and A. Brook.

By Alderman Drescher—
Benjamin Feitelowitz, 390 Watkin St., Brooklyn.
Endorsed by B. L. Palleyesch and M. H. Davis.
James McCormack, 1700 Carroll St., Brooklyn.
Endorsed by J. McGough and W. J. Hanigan.
Samuel M. Brettler, 134 Chester St., Brooklyn.
Endorsed by S. Beig and J. Abramovitz.
Melchiore Livote, 2415 Dean St., Brooklyn.
Endorsed by T. F. Barry and G. P. Baroni.

By Alderman Dunn—
Walter L. Durack, 143 81st St., Brooklyn.
Endorsed by W. L. Durack, Jr., and H. P. Danil.
Louis Cahn, 619 80th St., Brooklyn.
Endorsed by R. Watson and R. D. Miller.
Mark Frackman, 1255 51st St., Brooklyn.
Endorsed by J. H. Robins and S. Ullman.

By Alderman Ferguson—
Edward A. Hannan, 533 Tinton Ave., Bronx.
Endorsed by F. E. Brady and L. O. Timberlake.
William J. Veit, 368 East 156th St., Bronx.
Endorsed by W. M. Wrist and Wm. Menke.
Thomas Cornell Christianson, 643 Cauldwell Ave., Bronx.
Endorsed by C. B. Lawson and H. W. Harvest.

By Alderman Friedlander—
Louis Pariser, 128 W. 117th St., Manhattan.
Endorsed by P. D. Wechsler and S. Geded.
Louis B. Franklin, 145 W. 111th St.
Endorsed by J. Goode and M. Branigan.
Samuel Tanz, 165 Lenox Ave., Manhattan.
Endorsed by T. M. Farley and A. M. Wise.

By Alderman Gilmore—
Edward Heyman, 225 E. 83d St., Manhattan.
Endorsed by M. Block and J. A. Muller.

By Alderman Gutman—
Morris L. Fried, 7 E. 108th St., Manhattan.
Endorsed by M. Kaufman and N. Stone.

By Alderman Haubert—
Birdella E. Wolfe, 69 Pilling St., Brooklyn.
Endorsed by C. L. Wise and C. A. Hazen.
John Philip Kissling, 1412 Jefferson Ave., Brooklyn.
Endorsed by W. J. Pape and J. J. Kavanagh.
William Edward Schlener, 153 Buffalo Ave., Brooklyn.
Endorsed by A. A. Kansinster and F. W. Weyer.

By Alderman Hilkemeier—
William Albert Kolbe, 39 Troutman St., Brooklyn.
Endorsed by F. Engelhardt and J. W. Lind.
Joseph Kalsch, 962 Willoughby Ave., Brooklyn.
Endorsed by J. Bartscherer and F. A. Keimer.
Jacob Reichle, 367 Suydam St., Brooklyn.
Endorsed by E. Bick and J. G. Kromer.

By Alderman Hogan—
Arthur F. Terry, 236 Schermerhorn St., Brooklyn.
Endorsed by F. A. Duffy and L. Spencer.
John J. O'Regan, 289 Fulton St., Brooklyn.
Endorsed by F. S. Chilton and T. McArdle.

By Alderman McGillick—
Hyman Lapidus, 22-24 East 105th St., Manhattan.
Endorsed by Jos. Sookne and I. M. Levy.
Michael C. Balsam, 55 East 100th St., Manhattan.
Endorsed by N. Marks and C. J. White.

By Alderman McKee—
John T. Lacy, 110 East 128th St., Manhattan.
Endorsed by F. J. Hendrick and J. C. Magee.

By Alderman Moore—
Egbert L. Wheeler, 101 Miller Ave., Brooklyn.
Endorsed by H. Guth and E. B. Conisel, Jr.
John P. Coulon, 445 Ridgewood Ave., Brooklyn.
Endorsed by A. Walker and E. A. Lynch.
Lucy Costabile, 338 Montauk Ave., Brooklyn.
Endorsed by C. Burstein and W. J. Elster.

By Alderman Mullen—
Mortimer S. Lichtenstadter, 695 St. Nicholas Ave., Manhattan.
Endorsed by E. D. Hirsch and H. F. Van Hagen.
John Richard Sulzer, 503 West 140th St., Manhattan.
Endorsed by J. E. Maher and Geo. W. Weisman.
Henry Hirschson, 2441 Seventh Ave., Manhattan.
Endorsed by A. H. Friesner and H. W. Fertig.
Laura G. Walton, 717 Sterling Place, Brooklyn.
Endorsed by H. E. Svenson and J. D. Newton.

By Alderman Palitz—
David P. Grossman, 246 E. Tremont Ave., Bronx.
Endorsed by Z. Lychct and M. Levy.

By Alderman Quinn—
Stephen Kaufman Rapp, 346 West 71st St., Manhattan.
Endorsed by J. Goldstone and A. Stoch.

By Alderman Robitzek—
Milton Weinberger, 925 Jackson Ave., Bronx.
Endorsed by A. Orange and A. Schwartz.
Louis Stitzel, 945 E. 180th St., Bronx.
Endorsed by L. Prager and M. Coopersmith.
Joseph Knopp, 1030 Hoe Ave., Bronx.
Endorsed by David Siegel and I. Feicky.
Marguerite Fidler, 1015 Tiffany St., Bronx.
Endorsed by J. Axelrod and L. Berni.

By Alderman Ryan—
Harry Richard, 1040 East 13th St., Brooklyn.
Endorsed by A. Steckler, Jr., and J. Links.
Edward J. Moore, 249 West St., Brooklyn.
Endorsed by S. E. Green and J. Danzilo.
Aloysius T. Evans, 414 East 4th St., Brooklyn.
Endorsed by B. J. Vincent and D. B. Broderick.
Alphonsus L. Dusseldorf, 1076 E. 2nd St., Brooklyn.
Endorsed by J. Walsh and J. F. Bergesch.
Frank L. Marcelle, 143 Bay 8th St., Brooklyn.
Endorsed by H. L. Leggatt and J. A. Donohue, Jr.
Timothy Joseph McCarthy, 10 Avenue J., Brooklyn.
Endorsed by A. M. Davis and M. London.
Arthur A. Fogarty, 1495 East 10th St., Brooklyn.
Endorsed by B. E. Damson and S. O'Brien.
Harvey A. Lake, 405 E. 8th St., Brooklyn.
Endorsed by J. Walsh and C. M. Searles.

By Alderman Shields—
Nathan M. Abramson, 240 West 112th St., Manhattan.
Endorsed by M. Goldwater and J. Fischer.
Stansbury Hagar, 29 Claremont Ave., Manhattan.
Endorsed by W. R. Dorman and W. W. Wager.

By Alderman Smith—
Winfield S. Southard, 246 Quincy St., Brooklyn.
Endorsed by S. Baker and Geo. Wagner.

By Alderman Stevenson—
E. H. Dudgeon, 290 6th Ave., Brooklyn.
Endorsed by P. J. O'Brien and Jas. H. Wood.
Theodore Witte, 535 Second St., Brooklyn.
Endorsed by R. G. Barclay and J. F. Berry.
Harold Van T. Angevine, 439 Second St., Brooklyn.
Endorsed by S. V. Quist and A. L. Brucked.
George L. O'Neill, 316 12th St., Brooklyn.
Endorsed by R. I. Moneypenny and J. A. Degen.
Frederick William Rozeck, 240 Sixth St., Brooklyn.
Endorsed by E. J. Livingston and A. S. Cohn.
Frederick W. Bowne, 421 Fourth St., Brooklyn.
Endorsed by H. H. Schutte and A. Hegeman.

By Alderman Squiers—
Blanch Hyde Hamilton, 685 Nostrand Ave., Brooklyn.
Endorsed by A. R. Ullrich and E. O. Hahngreu.
William Harold Huelser, 1011 Ocean Ave., Brooklyn.
Endorsed by R. H. Van Ness and Jos. Hays.
Edgart C. Nowlin, 54 Woodruff Ave., Brooklyn.
Endorsed by H. Schulman and E. D. Greenwall.
William J. Doyle, 133 Lefferts Ave., Brooklyn.
Endorsed by C. V. Balletse and P. H. Cogan.
Maurice Brandt, 3305 Church Ave., Brooklyn.
Endorsed by N. E. Frieger and A. Butterman.
William F. Bantje, 865 East 21st St., Flatbush, Brooklyn.
Endorsed by E. N. Moore and J. Kerler.
Benjamin Steinman, 320 Linden Ave., Brooklyn.
Endorsed by Sam H. Ellmann and D. Drangle.
John C. van Glahn, 726 Ocean Ave., Brooklyn.
Endorsed by A. F. Van Thun, Jr., and H. S. Roberts.

By Alderman Stapleton—
Samuel Lazarus, 7 Attorney St., Manhattan.
Endorsed by I. Simon and J. Deutsch.
Isidore Silverstein, 235 Division St., Manhattan.
Endorsed by L. M. Friedman and M. Cohen.

By Alderman Tolk—
Louis Schwartz, 143 Forsyth St., Manhattan.
Endorsed by M. Packey and J. Rosenfeld.
David Rashkow, 49 Clinton St., Manhattan.
Endorsed by H. Freedberger and B. Schen.
By Alderman Williams—
George Bagby Campbell, 311 W. 95th St., Manhattan.
Endorsed by J. N. Russell and H. R. Sabine.
By Alderman Wirth—
Thomas C. Keenan, 1547 Fulton St., Brooklyn.
Endorsed by J. C. Keegan and I. Lewin.
Seymour Bluestone, 68 Patchen Ave., Brooklyn.
Endorsed by B. Pendry and W. H. Pendry.
Lester David Volk, 140a Floyd St., Brooklyn.
Endorsed by H. Diemer and F. Ross.
By Alderman Wise—
Auto U. Scott, 5 East 132d St., Manhattan.
Endorsed by A. J. Kohn and E. A. Wise.
John G. David, 125 West 135th St., Manhattan.
Endorsed by A. J. Kohn and J. E. Poe.
Herbert M. Unger, 139 West 130th St., Manhattan.
Endorsed by A. B. Unger and H. W. Unger.

The President put the question whether the Board would agree with said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Bent, Browne, Carroll, Cardani, Cassidy, Collins, Colne, Cox, Crane, Curley, Curran, Daly, Delaney, Diemer, Dixson, Donnelly, Dostal, Dunn, Drescher, Farley, Ferguson, Friedlander, Gilmore, Goetz, Gutman, Heyman, Hilkemeier, Kenney, McCourt, McGarry, McGillick, McKee, Moore, Mullen, O'Rourke, Palitz, Post, Quinn, Robitzek, Schweickert, Shields, Silberstein, Smith, Squiers, Stevenson, Tolk, Trau, Walsh, Wendel, Williams, Wirth, Wise; President Van Name; President Mathewson; President Pounds, by Edmund W. Voorhies, Commissioner of Public Works; President Marks, by Ralph Folks; Commissioner of Public Works—56.

No. 341.

Resolution Repealing "An Ordinance to Amend Chapter 14 of the Code of Ordinances of The City of New York," Relating to Dealers in Second-hand Articles.

By the same—

Whereas, inasmuch as this Board adopted and the Mayor has approved "An Ordinance to amend chapter 14 of the Code of Ordinances of The City of New York" (relating to Dealers in Second-hand Articles); and,

Whereas, this Board did, on January 3, 1916, adopt a resolution, and on January 11, 1916, adopted an ordinance, both of which referred to the same subject, simply changing the date of effect of the proposition to April 1, 1916, and which were approved by the Mayor; and

Whereas, the said resolution and ordinance are in effect superseded by the aforementioned "An Ordinance to amend chapter 14 of the Code of Ordinances of The City of New York" (relating to Dealers in Second-hand Articles), adopted March 21, 1916, and approved March 24, 1916, therefore,

Resolved, That the resolution adopted January 3, 1916, and approved January 11, 1916 (Ordinance No. 1, Approved Paper No. 1), and the ordinance adopted January 11, 1916, and approved January 12, 1916, (Ordinance No. 2, Approved Paper No. 3), be and the same are hereby annulled, rescinded and repaired, to take effect at the close of business March 31, 1916.

The President put the question whether the Board would agree with said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Bent, Browne, Carroll, Cardani, Cassidy, Collins, Colne, Cox, Crane, Curley, Curran, Daly, Delaney, Diemer, Dixson, Donnelly, Dostal, Dunn, Drescher, Farley, Ferguson, Friedlander, Gilmore, Goetz, Gutman, Heyman, Hilkemeier, Kenney, McCourt, McGarry, McGillick, McKee, Moore, Mullen, O'Rourke, Palitz, Post, Quinn, Robitzek, Schweickert, Shields, Silberstein, Smith, Squiers, Stevenson, Tolk, Trau, Walsh, Wendel, Williams, Wirth, Wise; President Van Name; President Mathewson; President Pounds, by Edmund W. Voorhies, Commissioner of Public Works; President Marks, by Ralph Folks; Commissioner of Public Works—56.

No. 342—Ord. No. 41.

An Ordinance to Amend Subdivision 1 of Section 240 of Article 17 of Chapter 23 of the Code of Ordinances, Relating to "Vaults and Cisterns."

By the President of the Borough of Manhattan. (Ralph Folks, Commissioner of Public Works, acting)—

AN ORDINANCE to amend subdivision 1 of section 240 of article 17 of chapter 23 of the Code of Ordinances, relating to "vaults and cisterns."

Be it Ordained, by the Board of Aldermen of The City of New York, as follows:

That Section 1, subdivision 1 of section 240 of article 17 of chapter 23 of the Code of Ordinances, relating to "vaults and cisterns," is hereby amended to read as follows:

§ 240. General Provisions: 1. Definitions. Whenever used in this article, the term vault shall be deemed to mean every description of opening below the surface of the street in front of any shop, store, house or other building, if covered over; except openings which are used exclusively as places for descending to the cellar floor of any building or buildings, by means of steps [.], *and openings over which substantial and safe gratings have been erected, or may be erected in accordance with the provisions of Sections* 241 *of Article* 17, *provided said openings be used primarily for light and ventilation only.*

Sec. 2. This ordinance shall take effect immediately.

Note—New matter in *italics;* old matter in [ ], to be omitted.

Which was referred to the Committee on General Welfare.

No. 343.

Resolution to Provide for an Issue of Special Revenue Bonds to the Amount of $1,000 for the Purpose of Holding of Memorial Day Exercises by the Army and Navy Union, U. S. A.

By Alderman Bent—

Resolved, That in pursuance of the provisions of Subdivision 8 of Section 188 of the Greater New York Charter, the Board of Estimate and Apportionment be and it is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to the amount of one thousand dollars ($1,000), the proceeds whereof to be used by the Army and Navy Union, U. S. A., for the purpose of holding appropriate exercises on Memorial Day, Monday, May 30, 1916, and the day (Sunday) preceding. (Chapter 360, Laws of 1906.)

All obligations incurred hereunder to be audited for payment by the Department of Finance.

Which was referred to the Committee on Finance.

No. 344.

Resolution Changing Name of Clason Point Road, Borough of The Bronx, to Sound View Avenue.

By Alderman Moran—

Resolved, That the name of Clason Point Road, from Westchester Avenue to the Sound, in the Borough of The Bronx, be and the same is hereby changed to and shall hereafter be known and designated as "Sound View Avenue," and the President of the Borough be and he is hereby authorized and requested to note the change on the maps and records of The City of New York.

Which was referred to the Committee on Public Thoroughfares.

No. 345.

Resolution Changing Name of Swinerton Avenue, Borough of Richmond, to Benziger Avenue.

By Alderman Walsh—

That the name of Swinerton Avenue, from Monroe Avenue to Jersey Street, New Brighton, in the Borough of Richmond, be changed to and shall hereafter be known and designated as "Benzinger Avenue," and the President of the Borough be and he is hereby authorized and requested to number or renumber the buildings on said thoroughfare in such manner and to such extent as may be necessary, and to note the changes on the maps and records of The City of New York.

Which was referred to the Committee on Public Thoroughfares.

No. 346.

Resolution Requesting Establishment of Branch Office of Department of Licenses in the Borough of The Bronx.

By Aldermen Robitzek, Ferguson, Schweickert, Palitz, Daly, Curley and Martin—

Whereas, Section 640 of Chapter XII-A of the Greater New York Charter, as amended, provides that the main office of the Department of Licenses of The City of New York shall be located in the Borough of Manhattan, and that branch offices *may* be located in the other boroughs of the City, and whereas there are located branch offices of the Department of Licenses, in Brooklyn, Queens and Richmond, but no branch office is located in the Borough of The Bronx, and whereas the Borough of The Bronx has a population of over seven hundred thousand, and its nearest point to the main office of said Department is more than seven miles, and the necessity for a branch of the Department of Licenses in the Borough of the Bronx is becoming daily more apparent, and the members of the Board of Aldermen of The City of New York, seeing the necessity for the same, it is, therefore,

Resolved, That it is the sense of the Board of Aldermen that the Commissioner of Licenses of The City of New York establish and maintain a branch of the Department of Licenses in the Borough of The Bronx.

Which was referred to the Committee on Departments.

No. 347.

Resolution Directing Clerk of the Board of Aldermen to Furnish to Each Member of the Board a Copy of the City Charter.

By Alderman Drescher—

Resolved, That the Clerk of this Board be and he is hereby directed to furnish such members as make written application, a copy of the City Charter, in order that they may become advised as to their powers and duties thereunder.

Which was referred to the Committee on Finance.

No. 348.

Protest Against Passage of Resolution Restricting Peddlers from Exhibiting Their Wares in Jennings Street, Borough of The Bronx.

By Alderman Robitzek—

To the Honorable the Board of Aldermen of the City of New York:

We, the undersigned, have learned that there is a movement on foot to make Jennings Street between the Southern Boulevard and Charlotte Street a restricted street, so that peddlers may not exhibit their wares thereon; and that a resolution has been introduced in your board, which has been reported upon favorably by your Committee on Public Thoroughfares, to amend the Code of Ordinances to this end.

We, the undersigned residents and storekeepers at the addresses below given, do hereby respectfully petition your Honorable Body not to grant the request but to defeat the resolution introduced to restrict Jennings Street, for the following reasons:

That the street in question has come to be recognized as a market center and is made up largely of taxpayer buildings in which are fish markets, meat markets and similar stores, and in front of which peddlers have their push carts containing fresh fruit and vegetables for sale; and the vast majority of the residents along that street and in its vicinity are desirous that that place shall continue as a market center because they are thereby enabled to obtain fresh supplies of food at low prices

Jennings Street above Wilkins Avenue has already been restricted; and if the present movement to restrict streets irrespective of the necessity of doing so keeps up it will be practically impossible for a peddler to avail himself of his license and make a living in that way.

The street it is sought to restrict is not a residential one; and there is therefore no necessity of restricting the same.

The neighborhood in question is a congested residential section; and a large number of persons living in that district are peddlers selling their wares, having disposed of them for a long time on the aforesaid Jennings Street; and should that street be restricted, their means of earning a livelihood will be seriously impaired, and the residents of the section will be deprived of making their purchases of fresh food at the present low prices, and the present rights and privileges of the citizens in the neighborhood will be prejudiced and abridged.

We believe that the signatures to this petition are sufficient proof that the sentiment of the community is in favor of leaving things as they are. Respectfully submitted. MR. BERGER, JULES SAYET and others.

Which was, on motion of the introducer, ordered on file.

REPORTS OF SPECIAL COMMITTEES.

No. 349.

Report of a Special Committee to Wait Upon Senate Committee on Cities at Albany.

The Committee duly attended before Hon. Elon T. Brown, Chairman of Committee on Cities, at Albany, March 23rd, 1916. The Committee attended in conjunction with the County officials of the respective Counties of the City of New York.

The Senator gave the matter very careful and proper consideration.

The main statement of the Committee, that the omission and neglect of the Board of Aldermen, in asking legislation, was a factor surprising to him. He was greatly pleased and interested in the fact that the Board was so interested in bills before the Senate, as to send a personal delegation.

He argued the question submitted as to concurrent power being given to the Board of Aldermen in conjunction with the Board of Estimate and as to submission by referedum. He suggested certain amendments be prepared and it would receive attention. Proposed amendments were submitted to him March 27th, 1916, and the Committee await further call from Senator Brown.

EMANUEL I. SILVERSTEIN, Chairman: WILLIAM K. WALSH, ALEX. S. DRESCHER, JAMES R. FERGUSON, FRANCIS P. BENT.

Which report was accepted.

REPORTS OF STANDING COMMITTEES.

Reports of Committee on Finance—

No. 302.

Report of the Committee on Finance in Favor of Filing Resolution for Special Revenue Bonds, $500, for the Purpose of the Holding of Memorial Day Exercises by the Army and Navy Union.

The Committee on Finance, to which was referred on March 14, 1916 (Minutes, page 699), the annexed resolution for special revenue bonds, $500, for the purpose of the holding of Memorial Day exercises by the Army and Navy Union, respectfully

REPORTS:

That, upon the request of the introducer, this matter was withdrawn. It therefore recommends that the accompanying resolution be placed on file.

Resolved, That in pursuance of the provisions of subdivision 8 of section 188 of the Greater New York Charter, the Board of Estimate and Apportionment be and it is hereby requested to authorize the Comptroller to issue special revenue bonds to the amount of five hundred dollars ($500), the proceeds whereof to be used by the Army and Navy Union for the purpose of holding appropriate exercises on Memorial Day, Monday, May 30, 1916, and the day (Sunday) preceding. (Chapter 360, Laws of 1906.) All obligations incurred hereunder to be audited for payment by the Department of Finance.

FRANCIS P. KENNEY, WM. P. KENNEALLY, HENRY H. CURRAN, ROBERT L. MORAN, JOHN DIEMER, MICHAEL STAPLETON, CHARLES DELANEY, SAMUEL J. BURDEN, F. H. STEVENSON, Committee on Finance.

Which report was accepted.

No. 310—(G. O. No. 56).

Report of the Committee on Finance in Favor of Adopting An Ordinance for Corporate Stock, $144,000, for Reconstruction of Block Pavement on Roadway, Queensboro Bridge.

The Committee on Finance, to whom was referred, on March 21, 1916 (Minutes, page 1916), the annexed ordinance for corporate stock, $144,000, to provide means for the reconstruction of the present wood block pavement on the roadway of the Queensboro Bridge, etc., respectfully

REPORTS:

That the proposed improvement is necessary, as the present condition of the pavement on Queensboro Bridge is in such a deplorable state as to be a serious menace to those having occasion to use this roadway. It therefore recommends that the accompanying ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock of The City of New York to an amount not exceeding one hundred and forty-four thousand dollars ($144,000), to provide means for the reconstruction of the present wood block pave-

ment on the roadway of the Queensboro Bridge, and work incidental thereto, under the jurisdiction of the Department of Bridges.

Be It Ordained by the Board of Aldermen of The City of New York, as follows:

Section 1. The Board of Aldermen hereby approves of and concurs in the following resolution, adopted by the Board of Estimate and Apportionment March 17, 1916, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes therein specified.

Resolved, That the Board of Estimate and Apportionment, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, hereby approves of the issue of corporate stock of The City of New York to an amount not exceeding one hundred and forty-four thousand dollars ($144,000), to provide means for the reconstruction of the present wood block pavement on the roadway of the Queensboro Bridge and work incidental thereto, under the jurisdiction of the Department of Bridges, and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller be and is hereby authorized to issue said corporate stock of The City of New York in the manner provided by section 169 of the Greater New York Charter, the proceeds thereof to the amount of the par value of the stock to be applied to the purposes aforesaid; provided, however, that no encumbrance or expenditure by contract shall be made against the proceeds of corporate stock herein authorized, nor shall bids upon such contracts be advertised for until after approval by the Board of Estimate and Apportionment of the plans, specifications, estimates of cost and forms of such contracts which shall be submitted to said Board by the Commissioner of Bridges, nor shall any architect, engineer, expert or departmental employee be engaged or employed as a charge against such proceeds, except after approval by said Board of such employment and of the fee or wage to be paid by preliminary and final contract, voucher or budget schedule, which are to be similarly submitted, unless in the case of departmental employees, such employment is in accordance with schedules approved by said Board.

FRANCIS P. KENNEY, WM. P. KENNEALLY, HENRY H. CURRAN, ROBERT L. MORAN, JOHN DIEMER, MICHAEL STAPLETON, CHARLES DELANEY, SAMUEL J. BURDEN, F. H. STEVENSON, Committee on Finance.

Which was laid over.

Reports of Committee on Public Thoroughfares—

No. 277—(G. O. No. 57).

Report of the Committee on Public Thoroughfares in Favor of Adopting Resolution to Change the Name of Jackson Avenue to Jackson Street, Borough of Brooklyn.

The Committee on Public Thoroughfares, to which was referred on March 1, 1916 (Minutes, page 550), the annexed request for change of name of Jackson Avenue, Borough of Brooklyn, to Jackson Street, respectfully

REPORTS:

It believes that the proposed change to be necessary in order to avoid any confusion or error, as one street is a continuation of the other. It, therefore, recommends that the accompanying resolution be adopted.

Resolved, That the name of Jackson Avenue, between Kingsland Avenue and Newtown Creek, in the Borough of Brooklyn, be and the same is hereby changed to and shall hereafter be known and designated as "Jackson Street," and the President of the borough be and he is hereby authorized and requested to number or renumber the buildings on said thoroughfare in such manner and to such extent as may be necessary and to note the changes on the maps and records of The City of New York.

MICHAEL STAPLETON, FRED SMITH, JOHN McCANN, JOHN J. RYAN, FRANCIS P. BENT, FRANK MULLEN, EDWARD W. CURLEY, ALEXANDER I. DRESCHER, Committee on Public Thoroughfares.

The City of New York, Office of the President of the Borough of Brooklyn, Office of the Commissioner of Public Works, Brooklyn, February 28, 1916.

The Honorable Board of Aldermen, City of New York:

Gentlemen—On April 23, 1912, your Board adopted a resolution changing the names of Bullion street, between Kingsland avenue and Newtown Creek to Skillman avenue; Benton street, between Kingsland avenue and Newtown Creek to Jackson avenue; Parker street, between Kingsland avenue and Newtown Creek to Withers street; Bennett street, between Kingsland avenue and Newtown Creek to Frost street; Ames street, between Kingsland avenue and Newtown Creek to Richardson street.

This was done, no doubt, to give the same names to the streets on the east side of Kingsland avenue as they now have on the westerly side, because the streets are continuous.

Benton street, however, was changed to Jackson avenue, whereas this street west of Kingsland avenue of which Benton street is the continuation, is known as Jackson street.

I would respectfully recommend, therefore, that a resolution be adopted by your Board changing the name of Jackson avenue, between Kingsland avenue and Newtown Creek to Jackson street, in order that it may agree with its continuation on the westerly side of Kingsland avenue.

Thanking your for your early consideration of this matter, I am, Yours very truly, E. W. VOORHIES, Commissioner, Public Works.

Which was laid over.

No. 226.

Report of the Committee on Public Thoroughfares in Favor of Filing a Communication from the Mayor Relative to the Transfer of Jurisdiction of Fort Hamilton Parkway from Commissioner of Parks to President, Borough of Brooklyn.

The Committee on Public Thoroughfares, to which was referred on February 23, 1916 (Minutes, page 467), the annexed communication from the Mayor relative to the transfer of jurisdiction over Fort Hamilton Parkway from the Commissioner of Parks to the President, Borough of Brooklyn, respectfully

REPORTS:

That having examined the subject and noted the contents therein, it recommends that the said paper be ordered on file.

MICHAEL STAPLETON, FRED SMITH, CHARLES W. DUNN, JOHN McCANN, JOHN J. RYAN, FRANK MULLEN, THOMAS W. MARTIN, WM. F. QUINN, EDWARD W. CURLEY, ALEXANDER S. DRESCHER, Committee on Public Thoroughfares.

City of New York, Office of the Mayor, February 15, 1916.

To the Honorable the Board of Aldermen:

Gentlemen—On November 13, 1914, the Board of Estimate received a communication from the Park Commissioner for the Borough of Brooklyn, requesting that jurisdiction and control of Fort Hamilton Parkway be transferred from his Department to the Office of the President of the Borough of Brooklyn. This transfer of jurisdiction was asked in order that the expense of the much needed repaving should be borne by assessment on abutting property owners, as suggested by the budget committee of the Board of Estimate. Similar thoroughfares in other boroughs have been transferred from the jurisdiction of the Park Commissioner to that of the Borough President.

Accordingly, on December 23, 1914, the Board of Estimate adopted a resolution, transferring the jurisdiction and control over Fort Hamilton Parkway, from Ocean Parkway to the southern end of Shore Road, from the Commissioner of Parks, Borough of Brooklyn, to the President of the Borough of Brooklyn, subject to the concurrence of the Board of Aldermen, as provided by section 243a of the Greater New York Charter. On March 30, 1915, the Board of Aldermen placed this matter on file, as recommended by its Committee on Public Thoroughfares, on the ground that, after careful consideration, it believed the proposed transfer to be unnecessary.

No provision was made in the budgets for 1915 and 1916 for the Park Commissioner of Brooklyn for the care and maintenance of this highway. The condition of Fort Hamilton Parkway requires immediate repaving. I have, therefore, requested the Secretary of the Board of Estimate to recertify to your Board for further consideration the resolution adopted by the Board of Estimate, December 23, 1914. I wish to urge upon your Board favorable action upon this resolution as proper, wise and in the public interest. Respectfully,

JOHN PURROY MITCHEL, Mayor.

Which report was accepted.

No. 230.

Report of the Committee on Public Thoroughfares in Favor of Filing Resolution Transferring Jurisdiction Over Fort Hamilton Parkway from the Commissioner of Parks to the President of the Borough of Brooklyn.

The Committee on Public Thoroughfares, to which was referred on February 23, 1916 (Minutes, page 469), a resolution transferring jurisdiction over Fort Hamilton Parkway from the Commissioner of Parks to the President of the Borough of Brooklyn, respectfully

REPORTS:

A public hearing was held on this matter in the Aldermanic Chamber, which was largely attended by residents of the section affected. There being on one in favor of the proposed change of jurisdiction, and those attending, representing the real estate owners and residents, were unanimously opposed to the proposition. It therefore recommends that the accompanying resolution be ordered on file.

MICHAEL STAPLETON, FRED SMITH, JOHN McCANN, CHARLES W. DUNN, JOHN J. RYAN, FRANK MULLEN, THOMAS W. MARTIN, M. D., W. F. QUINN, EDWARD W. CURLEY, ALEXANDER S. DRESCHER, Committee on Public Thoroughfares.

Which report was accepted.

No. 306.

Report of the Committee on Public Thoroughfares in Favor of Filing a Petition for a Change of the Name of "The Bowery," Manhattan.

The Committee on Public Thoroughfares, to which was referred on March 21st, 1916 (Minutes, page 729), a petition for a change of name of "The Bowery," Manhattan, respectfully

REPORTS:

That this is one of the city's oldest and most historic thoroughfares; its origin and name date back to the times of our earliest settlers. Considerable opposition to any change in the name of said thoroughfare was manifested in committee and because of the various sentiments expressed, it is not deemed wise or proper that any change be made. It therefore recommends that the accompanying petition be ordered on file.

MICHAEL STAPLETON, FRED SMITH, JOHN McCANN, JOHN J. RYAN, FRANCIS P. BENT, FRANK MULLEN, EDWARD W. CURLEY, ALEXANDER S. DRESCHER, CHARLES W. DUNN, Committee on Public Thoroughfares.

Which report was accepted.

SPECIAL ORDER.

No. 50—(Int. No. 297).

Report of the Committee on Finance in Favor of Adopting Resolution for Special Revenue Bonds, $396, for the Purchase of Various Machines for Use of the Clerk of the Court of Special Sessions.

The Committee on Finance, to which was referred on March 14, 1916 (Minutes, page 691), the annexed request of the Chief Clerk of the Court of Special Sessions for special revenue bonds, $396, for the purchase of various machines, respectfully

REPORTS:

That the permission asked for is necessary, as this matter was referred to the Bureau of Contract Supervision for investigation, and they report the need of these machines for expediting the work of the department. It, therefore, recommends that the accompanying resolution be adopted.

Resolved, That, in pursuance of the provisions of subdivision 8 of section 188 of the Greater New York Charter, the Board of Estimate and Apportionment be and it is hereby requested to authorize the Comptroller to issue special revenue bonds to the amount of three hundred and ninety-six dollars ($396), the proceeds whereof to be used by Court of Special Sessions for the purpose of purchasing the following articles:

Two dictating machines, at $76.50 each	$153 00
Two transcribing machines, at $67.50 each	135 00
Two shaving machines, at $54 each	108 00
	$396 00

—all obligations contracted for hereunder to be incurred on or before December 31, 1916.

FRANCIS P. KENNEY, ROBERT L. MORAN, JOHN DIEMER, CHARLES DELANEY, FRANK A. CUNNINGHAM, FRANCIS P. BENT, SAMUEL J. BURDEN, WM. P. KENNEALLY, HENRY H. CURRAN, Committee on Finance.

Chief Clerk's Office, Court of Special Sessions of The City of New York. Cor. Franklin and Centre Streets, New York, March 13th, 1916.

Board of Aldermen, New York City:

Gentlemen—Application is hereby made for the issue of revenue bonds for the sum of $396, for the purpose of the following articles:

Two dictating machines at $76.50 each	$153 00
Two transcribing machines at $67.50 each	135 00
Two shaving machines at $54 each	108 00
	$396 00

This is made necessary because of the provisions of the new Parole Law, chapter 579, Laws of 1915. Yours respectfully, F. W. SMITH, Chief Clerk.

City of New York, Board of Estimate and Apportionment, Municipal Building, Bureau of Contract Supervision, March 18, 1916.

Hon. FRANCIS P. KENNEY, *Chairman, Finance Committee, Board of Aldermen:*

No. 297—Court of Special Sessions, Request for Special Revenue Bonds, $396, for the Purchase of Dictating, Transcribing and Shaving Machines.

Sir—An examination has been made into this request and I find that the purchase of these machines is necessary in order to provide for the dictation and transcription of the reports of the Probation Officers.

It is intended to discontinue the present method of having the Probation Officers write out their reports in long hand, and to have them, in future, dictate their findings in each case pending before the court which may have been assigned to them for investigation. The records of the machine will then be turned over to a Typewriting Copyist, Dictaphone Operator, who will transcribe them, making three copies, one for the office file, one to accompany the court papers, and one to be furnished to the Parole Commission, in case the person charged with crime is found guilty and sentenced to some institution. At present it is necessary for the Parole Commission to send an assistant to the court to copy the required data from the Probation Officer's reports.

The proposed method, in addition to saving considerable time now occupied on copying reports, will also allow more time to the Probation Officers for investigation.

It is necessary to have one set of machines in the Manhattan office and one in Brooklyn.

No provision was made in the 1916 Budget for the purchase of these machines nor are funds available within the appropriations to the Court of Special Sessions for this purpose. Respectfully, PETER J. McGOWAN, Acting Director.

The President put the question whether the Board would agree to accept said report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Bassett, Cardani, Cassidy, Cole, Collins, Colne, Cox, Crane, Curley, Curran, Daly, Delaney, Dixson, Donnelly, Dunn, Drescher, Eagan, Farley, Ferguson, Ferrand, Friedlander, Gaynor, Gilmore, Goetz, Gutman, Haubert, Heyman, Hilkemeier, Kenneally, Kenney, McCourt, McGarry, McGillick, McKee, Martin, Molen, Moore, Moran, Mullen, O'Rourke, Palitz, Post, Robitzek, Ryan, Schmitz, Schweickert, Shields, Silberstein, Smith, Squiers, Stapleton, Tolk, Walsh, Wendel, Williams, Wirth, Wise; President Van Name, President Mathewson, President Pounds, by Edmund W. Voorhies, Commissioner of Public Works; President Marks, by Ralph Folks, Commissioner of Public Works.

GENERAL ORDERS.

No. 50—(Int. No. 39).

Report of the Committee on Public Thoroughfares of Board of Aldermen in Favor of Adopting an Ordinance to Amend Subdivision 2 of Section 13 of Chapter 24 of the Code of Ordinances Relating to "Peddlers."

The Committee on Public Thoroughfares, to which was referred on January 3, 1916 (Minutes, page 26), the annexed ordinance to amend subdivision 2 of section 13 of chapter 24 of the Code of Ordinances relating to "peddlers," respectfully

REPORTS:

That after hearing the complaints of numerous property holders and storekeepers in this neighborhood, they concluded that the continuance of the present conditions would seriously impair the Real Estate values, as well as the business in this neighborhood. It, therefore, recommends that the accompanying substitute ordinance be adopted.

SUBSTITUTE.

AN ORDINANCE to amend subdivision 2 of section 13 of article 2 of chapter 24 of the Code of Ordinances, relating to peddlers, and particularly to "restricted streets."

Be it Ordained, by the Board of Aldermen of The City of New York, as follows:

Section 1. Subdivision 2 of section 13 of article 2 of chapter 24 of the Code of Ordinances, relating to peddlers, and particularly to restricted streets, as amended, is hereby further amended by adding at the end thereof the following words: *Jennings street, between Wilkins avenue and Southern Boulevard, The Bronx;*

Sec. 2. This ordinance shall take effect thirty days after the approval thereof by the Mayor.

Note—New matter in *italics.*

ORIGINAL.

AN ORDINANCE to Amend Subdivision 2 of Section 13 of Chapter 24 of the Code of Ordinances by Adding Thereto a Clause Relating to Peddlers on Jennings Street Between Wilkins Avenue and Southern Boulevard, in the Borough of The Bronx.

Be it Ordained by the Board of Aldermen of The City of New York as follows:

Section 1. Subdivision 2 of section 13 of chapter 24 of the Code of Ordinances is hereby amended by adding thereto a clause to read as follows: *Nor shall any such peddler, vendor, hawker or huckster cry his or her wares, or stop or remain on Jennings Street between Wilkins Avenue and Southern Boulevard, in the Borough of The Bronx.*

Section 2. This ordinance shall take effect immediately.

Note—New matter in *italics.*

MICHAEL STAPLETON, CHARLES W. DUNN, FRANCIS P. BENT, THOMAS W. MARTIN, M. D.; JOHN J. RYAN, FRANK MULLEN, FRED SMITH, EDWARD W. CURLEY, Committee on Public Thoroughfares.

The President put the question whether the Board would agree to accept said report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Browne, Carroll, Cardani, Cassidy, Cole, Collins, Colne, Cox, Crane, Cunningham, Daly, Delaney, Diemer, Dixson, Donnelly, Dostal, Dunn, Eagan, Ferguson, Friedlander, Gilmore, Goetz, Heyman, Hilkemeier, Kenneally, Kenney, McCourt, McGarry, McGillick, McKee, Martin, Moran, Mullen, O'Rourke, Robitzek, Ryan, Schmitz, Schweickert, Shields, Silberstein, Smith, Squiers, Stapleton, Stevenson, Trau, Walsh, Williams, Wirth, Wise; President Van Name; President Mathewson; President Pounds, by Edmund W. Voorhies, Commissioner of Public Works; President Marks, by Ralph Folks, Commissioner of Public Works—53.

Negative—Aldermen Palitz, Trau—2.

No. 51—(Int. No. 41).

Report of the Committee on Public Thoroughfares of Board of Aldermen in Favor of Adopting an Ordinance to Amend Subdivision 2 of Section 13 of Article 2 of Chapter 14 of the Code of Ordinances, Relating to "Traffic Regulations."

The Committee on Public Thoroughfares, to which was referred on January 3d, 1916 (Minutes, page 26), the annexed ordinance to amend subdivision 2 of section 13 of article 2 of chapter 14 of the Code of Ordinances, relating to "traffic regulations," respectfully

REPORTS:

That after hearing the complaints of numerous property holders and storekeepers in this neighborhood they concluded that the continuance of the present conditions would seriously impair the real estate values as well as the business in this neighborhood. It therefore recommends that the accompanying substitute ordinance be adopted.

SUBSTITUTE.

AN ORDINANCE to amend subdivision 2 of section 13 of article 2 of chapter 24 of the Code of Ordinances relating to peddlers and particularly to "restricted streets."

Be it Ordained by the Board of Aldermen of The City of New York as follows:

Section 1. Subdivision 2 of section 13 of article 2 of chapter 24 of the Code of Ordinances relating to peddlers and particularly to "restricted streets," as amended, is hereby further amended by adding at the end thereof the following words: *Southern Boulevard, between Wilkins Avenue and Jennings Street, The Bronx.*

Sec. 2. This ordinance shall take effect thirty days after the approval thereof by the Mayor.

Note—New matter in *italics.*

ORIGINAL.

AN ORDINANCE to amend subdivision 2 of section 13 of article 2 of chapter 24 of the Code of Ordinances, relating to "traffic regulations."

Be it Ordained, by the Board of Aldermen of The City of New York, as follows:

Section 1. Subdivision 2 of section 13 of article 2 of chapter 24 of the Code of Ordinances, relating to "traffic regulations," as amended, is hereby further amended by adding thereto the following words: *Southern Boulevard, between Wilkins Avenue and Jennings Street, The Bronx.*

Section 2. This ordinance shall take effect immediately.

Note—New matter in *italics.*

MICHAEL STAPLETON, CHARLES W. DUNN, FRANCIS P. BENT, THOMAS W. MARTIN, M. D., JOHN J. RYAN, FRANK MULLEN, FRED SMITH, EDWARD W. CURLEY, Committee on Public Thoroughfares.

The President put the question whether the Board would agree to accept said report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Browne, Carroll, Cardani, Cassidy, Cole, Collins, Colne, Cox, Crane, Cunningham, Daly, Delaney, Diemer, Dixson, Donnelly, Dostal, Dunn, Eagan, Ferguson, Friedlander, Gilmore, Goetz, Heyman, Hilkemeier, Kenneally, Kenney, McCourt, McGarry, McGillick, McKee, Martin, Moran, Mullen, O'Rourke, Robitzek, Ryan, Schmitz, Schweickert, Shields, Silberstein, Smith, Squiers, Stapleton, Stevenson, Trau, Walsh, Williams, Wirth, Wise; President Van Name; President Mathewson; President Pounds, by Edmund W. Voorhies, Commissioner of Public Works; President Marks, by Ralph Folks, Commissioner of Public Works—53.

Negative—Aldermen Palitz, Trau—2.

No. 53 (Int. No. 314).

Resolution Appointing Various Persons Commissioners of Deeds.

Resolved, That the following named persons be and they are hereby appointed Commissioners of Deeds:

By Alderman Bent—
George Knaut, 156 Wyckoff Ave., Brooklyn.
Endorsed by Walter E. Vogt and August H. Rauss.

By Alderman Browne—
R. Louis Lapetina, 99 Park Ave., Brooklyn.
Endorsed by Thos. C. Whitlock and Henry Deimer.
B. Harrison Noden, 176 York St., Brooklyn.
Endorsed by Louis F. Seukel and James S. Lawson.

By Alderman Burden—
Henry Hansen, 568 8th Ave., L. I. City, Queens.
Endorsed by Arthur E. Keating and John W. Boyle.
Henry W. Sharkey, 35 Ely Ave., L. I. City, Queens.
Endorsed by Arthur E. Keating and John W. Boyle.

By Alderman Carroll—
David Manezon, 66 East 86th St., Manhattan.
Endorsed by Geo. L. Rauch and Peter J. Quinn.
Elisha Michael Friedman, 102 East 96th St., Manhattan.
Endorsed by Wm. H. Hillee and Arthur A. Levy.

By Alderman Cardani—
Herman Espen, 101 West 54th St., Manhattan.
Endorsed by F. La Guardio and Jesse Weil.
Sidney Parker Henshaw, 4 West 53d St., Manhattan.
Endorsed by Robinson Leech and Wm. S. Beaman.
Schuyler Merritt Meyer, 15 West 8th St., Manhattan.
Endorsed by Wm. S. Beaman and Robinson Leech.

By Alderman Collins—
Jeoffrey W. O'Connell, 309 East 37th St., Manhattan.
Endorsed by Daniel J. Callahan and Edward F. Cleary.
John J. Duggan, 236 East 36th St., Manhattan.
Endorsed by George S. Wing and F. H. Gerrodette.
Richard A. Hudson, 302 East 27th St., Manhattan.
Endorsed by Jas. T. Greene and Robt. L. Tudor.

By Alderman Colne—
Thomas E. Brownlee, 309 Lafayette Ave., Brooklyn.
Endorsed by Willis B. Davis and James R. Howe, Jr.

By Alderman Cox—
Frederick A. Locke, 1006 Seneca Ave., Evergreen, Queens.
Endorsed by Peter Cook and Chas. Geyer.
Minnie Miller, 429 Charlotte Place, Queens.
Endorsed by Vance Hewitt and Enos S. Booth.
Hugo Kestler, 121 No. Summerfield Ave., Arverne, Queens.
Endorsed by Kalmen Kohen and Patrick McDonald.
Frank J. Hildebrand, 444 Stockholm St., Queens.
Endorsed by Geo. H. Hawkins and John Steimer.

By Alderman Crane—
Michael Koppel, 502 West 151st St., Manhattan.
Endorsed by Benj. Horn and Lillian Perster.
Wickliffe Barry Lewis, 611 West 156th St., Manhattan.
Endorsed by W. E. Graham and Eugene C. Nearlor.
Benjamin F. Lyon, 583 West 188th St., Manhattan.
Endorsed by Alex. H. Engel and Chas. M. Rich.
John A. Burns, 153 Vermilyea Ave., Manhattan.
Endorsed by Max M. Kotzeu and M. J. Katz.

By Alderman Curley—
John Silverman, 866 Kelly St., Bronx.
Endorsed by Isaac Kraus and Arthur Sachs.
William R. Wiener, 10002 Garrison Ave., Bronx.
Endorsed by Maurice Murschel and F. P. Riomond.

By Alderman Curran—
Abraham M. Bloch, 69 West 11th St., Manhattan.
Endorsed by Solon J. Liebesking and E. J. Magan.
Robert A. Huddleston, 85 Washington Place, Manhattan.
Endorsed by McDougall Hawkes and Walter B. Safford.
Alice Loughran, 40 Washington Square, Manhattan.
Endorsed by Vincent C. Pepe and C. Gariboldi.
Joseph H. Kearney, 162 Waverly Place, Manhattan.
Endorsed by Sol D. Rosenthal and Louis Levy.

By Alderman Diemer—
Minnie Israel, 223 Tompkins Ave., Brooklyn.
Endorsed by S. D. Rosenthal and L. Hambeyer.
Minna Schiff, 594 Marcy Ave., Brooklyn.
Endorsed by Theo. Guterman and D. Haar.

By Alderman Dixson—
Clara Match, 197 So. 3rd St., Brooklyn.
Endorsed by Harry Horowitz and Bertha Kreis.

By Alderman Donnelly—
Louis V. Fugazy, 153 Bleecker St., Manhattan.
Endorsed by L. A. Valente and Henry L. Marquet.

By Alderman Eagan—
Rose Marks, 753 Kelly St., Bronx.
Endorsed by D. L. Schilt and M. Jacobs.

By Alderman Farley—
John J. Bickel, 215 East 69th St., Manhattan.
Endorsed by Hugh P. Connolly and John J. O'Connor.

By Alderman Ferrand—
Joseph Melcer, 155 Clinton Ave., Brooklyn.
Endorsed by M. Scheers, Jr., and H. A. Strong.

By Alderman Friedlander—
Samuel Joseph Oxenberg, 33 West 117th St., Manhattan.
Endorsed by Chas. Goldenberg and Harry V. Chesan.
Oscar Meltsner, 104 West 114th St., Manhattan.
Endorsed by Sam Fingerhut and Max Rothman.
Harry M. Steinhardt, 92 St. Nicholas Ave., Manhattan.
Endorsed by Isidor Cohen and L. Drueyer.

By Alderman Gaynor—
Olga McKenzie, 186 Division Ave., Brooklyn.
Endorsed by Chas. S. Wise and O. Bersch.
Sam Kanney, 179 Penn St., Brooklyn.
Endorsed by Benjamin Levy and Alex. Cohen.
Charles Scheuer, 147 Penn St., Brooklyn.
Endorsed by H. B. Cohen and Jas. S. Watson.

By Alderman Goetz—
Antonio Angrisani, 164 Wyckoff Ave., Jamaica, Queens.
Endorsed by W. H. Dunn and W. E. Schenck.
John F. Kraus, 1257 Elm St., Richmond Hill, Queens.
Endorsed by August J. Petoncci and Victor Deutsch.

By Alderman Gutman—
George Gould, 1576 Park Ave., Manhattan.
Endorsed by P. H. Gleason and M. A. Ball.
S. Earl Levene, 53 East 96th St., Manhattan.
Endorsed by Ben. Meyers and Edward A. Hahn.
Morris Waldman, 24 East 97th St., Manhattan.
Endorsed by Thos. B. Bloom and Chas. Fisher.

By Alderman Haubert—
Rose Weinberger, 1381 Putnam Ave., Brooklyn.
Endorsed by J. M. Groves, Jr., and Peter Ullrich.
George O. Smith, 254 Cooper St., Brooklyn.
Endorsed by J. J. Moran and D. A. Glover.
Henry Francis Christian, 1975 Eastern Parkway, Brooklyn.
Endorsed by Bert Carey and Michael J. Trudden.

By Alderman Heyman—
Anna Satra, 199 Graham Ave., Brooklyn.
Endorsed by L. Mieabeau and Michael M. Kahn.

By Alderman Hilkemeier—
Louis Lewin, 53 Himrod St., Brooklyn.
Endorsed by F. von der Geest and Max Keve.

By Alderman Hogan—
Horatio Collins King, 46 Willow St., Brooklyn.
Endorsed by C. Litchfield, Jr., and H. A. Muller.

By Alderman Kenneally—
Giacinto Soresi, 323 East 14th St., Manhattan.
Endorsed by Jerome Licari and Paolo Alonge.

By Alderman McCourt—
August J. Petrucci, 546 Ninth Ave., Manhattan.
Endorsed by J. J. Kraus and Victor Deutsch.

By Alderman McGarry—
Gustave J. Goldberg, 652½ Leonard St., Brooklyn.
Endorsed by W. B. Hazelwood and C. H. Appel.

By Alderman McGillick—
Vincenzo Di Simone, 2370 2nd Ave., Manhattan.
Endorsed by Z. Hirsch and E. Lussirer.
Michael J. Villamena, 315 East 116th St., Manhattan.
Endorsed by Chas. Fischer and R. Malone.

By Alderman McKee—
Henry B. Grossman, 61 East 124th St., Manhattan.
Endorsed by J. P. Sullivan and Frederick Richter.

By Alderman Martin—
Henry Storck, 3070 Bainbridge Ave., Bronx.
Endorsed by E. B. Levy and W. Sommerfield.
Thomas N. Cuthbert, Palisade Ave. and West 261st St., Bronx.
Endorsed by R. B. Lawrence and W. H. Warde.
Charles A. Cummiskey, 2415 Valentine Ave., Bronx.
Endorsed by D. R. Smith and T. C. Harkens.

By Alderman Molen—
Frank X. Jagocki, 707 Third Ave., Brooklyn.
Endorsed by C. F. Lamoch and R. L. Hall.

By Alderman Mullen—
Luisa Bellom, 360 East 146th St., Bronx.
Endorsed by E. S. Napokis and Robt. S. Mullen.

Robert Boyd Cook, 275 West 141st St., Manhattan.
Endorsed by B. A. Greens and Jas. D. Munan.
James W. Barker, 249 West 143d St., Manhattan.
Endorsed by Albert Sigel and Wm. Wolf.
Edward W. Hummers, 266 West 144th St., Manhattan.
Endorsed by E. H. Ohm and Abraham Bernstein.

By Alderman O'Rourke—
Agnes M. Munson, 30 Norwood Ave., Stapleton, S. I.
Endorsed by M. A. Mullen and C. B. Boyd.
Eduard Charles Meurer, 526 Bay St., Richmond.
Endorsed by A. T. Prall and H. C. Hagedom.
Frank M. Paulsen, 81 Washington Ave., Grant City, Richmond.
Endorsed by T. Wentmuller and A. P. Semler.

By Alderman Palitz—
William Knecht, 1141 Fox St., Bronx.
Endorsed by M. Sackler and A. Zimouoff.
Joseph A. Carzillo, 2500 Belmont Ave., Bronx.
Endorsed by Jas. F. Saul and H. J. Crowley.
William S. Glickman, 50 West 119th St., Manhattan.
Endorsed by Harry Paukin and James H. Cross.

By Alderman Quinn—
Robert M. Simpson, 112 West 72d St., Manhattan.
Endorsed by E. M. Simpson and H. O. Lipprau.

By Alderman Robitzek—
Anton Herbst, 803 East 166th St., Bronx.
Endorsed by I. Kugelman and S. Hochstadter.
Chas. M. Rich, 1443 Boston Road, Bronx.
Endorsed by B. F. Lyon and M. S. Enkeus.
Benjamin Bevenson, 783 Beck St., Bronx.
Endorsed by M. Landau and S. Reiner.
Julius Igel, 893 Stebbins Ave., Bronx.
Endorsed by I. Dreyfus and Ben Moysis.
Joseph Feinberg, 863 East 176th St., Bronx.
Endorsed by M. Dennison and P. Kern.
Nathan Vyner, 900 East 167th St., Bronx.
Endorsed by M. E. Graham and G. S. Lawless.
Jacob Graff, 1237 Hoe Ave., Bronx.
Endorsed by D. H. Sloane and J. E. Maguire.
Louis Mendelsohn, 970 Stebbins Ave., Bronx.
Endorsed by Wm. Mayer and Wm. Claman.
Harry Finkelstein, 557 East 169th St., Bronx.
Endorsed by A. Kassel and J. Adelson.
Abraham Mann, 1001 East 167th St., Bronx.
Endorsed by C. O. Smith and H. A. Schatzkin.

By Alderman Robitzek—
William J. Daly, Jr., 901 Trinity Ave., Bronx.
Endorsed by John Morris and G. Jackson.
George Goldson, 1018 E. 163d St., Bronx.
Endorsed by R. E. Seman and A. M. Wechele.
Aimee Marx, 754 East 169th St., Bronx.
Endorsed by Arthur Gutman and Sol Lin.

By Alderman Ryan—
Peter Imperiale, 499 Lake St., Brooklyn.
Endorsed by H. Taglianetti and T. Itri.
A. Ralph Greene, 1564 49th St., Brooklyn.
Endorsed by S. Trimbee and P. Simon.
James Raymond Bagley, 2409 Voorhies Ave., Brooklyn.
Endorsed by H. B. Coles and H. Katz.
Dennis Edward Egan, 759 Union St., Brooklyn.
Endorsed by J. J. Guinan and Denis Donegan.

By Alderman Schweickert—
Wm. W. Penfield, 4704 White Plains Road, Bronx.
Endorsed by John Stahl and J. Clarey, Jr.
Peter H. McHugh, 740 East 220th St., Bronx.
Endorsed by J. Goebner and John Widdecombe.

By Alderman Shields—
William A. Hyman, 430 West 118th St., Manhattan.
Endorsed by J. J. O'Hara and J. J. Murray.
William Henry Dannat Pell, 404 West 115th St., Manhattan.
Endorsed by Wm. A. Brown and Feo. A. Lewis.
Charles B. Sias, 211 West 101st St., Manhattan.
Endorsed by F. F. Thomassen and A. D. Richards.
Maxwell L. Karpel, 304 W. 111th St., Manhattan.
Endorsed by Wm. Marcus and M. E. Euluns.

By Alderman Smith—
Robert P. Gould, 640a Greene Ave., Brooklyn.
Endorsed by R. W. Seaton and F. O. Keck.
Clarence A. Smith, 648 Lafayette Ave., Brooklyn.
Endorsed by J. J. Haley and G. B. Glover.

By Alderman Squires—
John Hilton, 677 Mansfield Pl., Brooklyn.
Endorsed by J. I. Scott and E. O. Anderson.
Frank D. Keeler, 1236 Pacific St., Brooklyn.
Endorsed by Jas. E. Reilly and J. F. Carey.
Edward Fortenbach, 1319 Sterling Pl., Brooklyn.
Endorsed by Chas. S. Amsel and John Bauer.
Francis J. Daly, 961 New York Ave., Brooklyn.
Endorsed by Geo. Eckhard and M. F. Garwood.

By Alderman Stevenson—
Joseph A. O'Brien, 608 6th St., Brooklyn.
Endorsed by F. M. Ahern and Chas. W. Morhoop.
Frank Woodworth, 382 12th St., Brooklyn.
Endorsed by J. W. Mackey and W. E. Hutchinson.
William H. Burgess, 370 13th St., Brooklyn.
Endorsed by F. Woodworth and J. G. Thomson.
James Demarest, 599 6th St., Brooklyn.
Endorsed by J. S. Buller and A. B. Marrison.
David E. Hurwitz, 624 11th St., Brooklyn.
Endorsed by M. M. Leichter and W. A. Hammels.
Emma Aukam, 66 Windsor Place, Brooklyn.
Endorsed by Israel H. Perkins and A. A. Forman, Jr.

By Alderman Sullivan—
Angelo R. Coccaro, 224 Lafayette St., Brooklyn.
Endorsed by M. L. Tillman and John Hess, Jr.

By Alderman Walsh—
Frederick William Lahr, 1639 Richmond Turnpike, Richmond.
Endorsed by F. H. Horenburger and D, Heyl.

By Alderman Williams—
Eva Johanson, 1105 Teller Ave., Bronx.
Endorsed by Sam. Davis and John L. Meyer.

By Alderman Wirth—
Frederick Louis Thielmann, 617 Jefferson Ave., Brooklyn.
Endorsed by C. Bachrach and S. Cohn.
Frank J. Steinbacher, 303 Bainbridge St., Brooklyn.
Endorsed by J. J. McGrath and E. Jackson.
Edward B. Ecker, 926 Madison St., Brooklyn.
Endorsed by I. Morrison and R. Goodwin.

By Alderman Wise—
Emanuel M. Friedman, 601 West 135th St., Manhattan.
Endorsed by F. L. Tyson and John Hilton.
Richard W. B. Wagner, 313 W. 134th St., Manhattan.
Endorsed by Jas. A. Gearty and John A. Valadon.

The President put the question whether the Board would agree to accept said report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Bent, Browne, Carroll, Cardani, Cassidy, Collins, Colne, Cox, Crane, Curley, Curran, Daly, **Delaney, Diemer, Dixson, Donnelly, Dostal, Dunn, Drescher, Farley, Ferguson,** Friedlander, **Gilmore, Goetz, Gutman, Heyman, Hilkemeier, Kenney, McCourt,** McGarry, **McGillick, McKee, Moore, Mullen,** O'Rourke, Palitz, Post, Quinn, Robitzek, Schweickert, **Shields, Silberstein,** Smith, Squiers, Stevenson, Tolk, **Trau, Walsh,** Wendel, **Williams, Wirth, Wise;** President Van Name, President Mathewson, President Pounds, by Edmund W. Voorhies, Commisisoner of Public Works; President Marks, by Ralph Folks, Commissioner of Public Works —56.

No. 54 (Int. No. 315).

Resolution to Grant Permission to the Management of Polish Victims' Relief Fund to Make a Public Collection.

Resolved, That the management of the Polish Victims Relief Fund be and it is hereby granted permission to collect funds publicly, through duly accredited agents, on Wednesday, April 19, 1916, the proceeds of such collection to be used for the purpose of relieving Polish sufferers affected by the war now raging in Europe.

Following discussion on this resolution Alderman Delany moved the previous question.

The President put the question: "Shall the main question be now put?"

Which was adopted.

The President put the question whether the Board would agree with said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Bassett, Bent, Browne, Cassidy, Cole, Collins, Cox, Cunningham, Curley, Daly, Delaney, Dixson, Dunn, Drescher, Eagan, Farley, Ferguson, Friedlander, Gilmore, Hannon, Heyman, Hilkemeier, Hogan, Kenney, McCourt, McGillick, McKee, Martin, Molen, Palitz, Robitzek, Ryan, Schmitz, Schweickert, Shields, Silberstein, Sullivan, Stapleton, Tolk, Trau, Walsh, Wendel, Williams, Wise; President Van Name, the President—46.

Negative—Aldermen Carroll, Cardani, Colne, Crane, Curran, Diemer, Ferrand, Gaynor, Goetz, Gutman, McGarry, Mullen, O'Rourke, Post, Quinn, Smith, Squiers, Stevenson, Wirth; President Pounds, by Edmund W. Voorhies, Commissioner of Public Works; President Marks, by Ralph Folks, Commissioner of Public Works —21.

No. 55 (Int. No. 321).

An Ordinance to Amend Subdivision 1, Section 21 of Article 3 of Chapter 22 of the Code of Ordinances, Relating to "Snow and Ice," as Amended.

AN ORDINANCE to amend subdivision 1 of section 21 of article 3 of chapter 22 of the Code of Ordinances, relating to "Snow and Ice," as amended.

Be it Ordained, by the Board of Aldermen of The City of New York, as follows:

Section 1. Subdivision 1 of section 21 of article 3 of chapter 22 of the Code of Ordinances, relating to "Snow and Ice," as amended May 11, 1915, and July 16, 1915, respectively, is hereby further amended to read as follows:

§ 21. Property owners' duties. 1. Must clear sidewalks. Every owner, lessee, tenant, occupant, or other person having charge of any building or lot of ground in the city, abutting upon any street or public place where the sidewalk is paved, shall, within 4 hours after the snow ceases to fall, or after the deposit of any dirt or other material upon said sidewalk, remove the snow and ice, dirt or other material from the sidewalk and gutter, the time between 9 P. M. and 7 A. M. not being included in the above period of 4 hours; provided, however, that such removal shall in all cases be made before the removal of snow and ice from the roadway by the commissioner of street cleaning, or by the borough president of Queens or Richmond, or subject to the regulations of said commissioner of street cleaning, or of said borough president of Queens or Richmond, for the removal of snow and ice, dirt or other material; except that in the boroughs of Queens and Richmond any owner, lessee, tenant or occupant, or other person who has charge of any ground abutting upon any paved street or public place, for a linear distance of 500 feet or more, shall be considered to have complied with this section, if such person shall have begun to remove the snow and ice from the sidewalk and gutter before the expiration of the said 4 hours, and shall continue and complete such removal within a reasonable time.

[Whenever] Any owner, lessee, tenant, occupant, or other person having charge of any building or lot of ground abutting upon any street or public place where the sidewalk is paved *who* shall [fail] *have failed* to comply with the provisions of any ordinance of the city for the removal of snow and ice, dirt, or other material from the sidewalk and gutter in the street, on the side of the street on which such building or lot abuts, *shall, upon conviction thereof be punished by a fine of not more than* $3.

Whenever any such owner, lessee, tenant, occupant, or other person cannot be found, the president of the borough in which such building or vacant lot is located may cause such removal to be made, meeting the expense thereof from any suitable street cleaning or highway fund, and thereafter the expense of such removal as to each particular lot of ground shall be ascertained and certified by the said borough president to the comptroller, and the board of estimate and apportionment may authorize such additional expenditures as may be required for the said removal of such *snow and* ice [and snow], dirt or other material, to be repaid to the fund from which the payments were made, with proceeds from the issue and sale of revenue bonds which shall be sold by the comptroller, as provided by law.

The said borough president shall, as soon as possible, after the work is done, certify to the corporation counsel the amount of the expense chargeable against each piece of property.

The corporation counsel is hereby directed and authorized to sue for and recover the amount of this expense, together with [$3] *$15* dollars penalty for each offense, and when so recovered the amount shall be turned over to the city chamberlain to be deposited to the credit of the general fund of the city of New York for the reduction of taxation.

Section 2. This ordinance shall take effect immediately.

Note—Matter in *italics* is new; matter in [ ] is to be omitted.

Which, on motion of Alderman Carroll, was referred to the Committee on Public Thoroughfares.

Alderman Kenney moved that the Board do now adjourn to meet again on April 11, 1916, at 1:30 o'clock P. M.

The President put the question whether the Board would agree with said motion.

Which was decided in the affirmative.

And the President declared that the Board stood adjourned until Tuesday, April 11th, 1916, at 1:30 o'clock P. M.

P. J. SCULLY, City Clerk and Clerk of the Board of Aldermen.

DEPARTMENT OF FINANCE.

WARRANTS MADE READY FOR PAYMENT IN DEPARTMENT OF FINANCE WEDNESDAY, MARCH 29, 1916.

Below is a statement of warrants made ready for payment on the above date, showing therein the Department of Finance voucher number, the dates of the invoices or the registered number of the contract, the date the voucher was filed in the Department of Finance, the name of the payee and the amount of the warrant.

Where two or more bills are embraced in the warrant, the dates of the earliest and latest are given, excepting that, when such payments are made under a contract, the registered number of the contract is shown in the place of the second invoice date.

Where the word "final" is shown after the name of the payee, payment will not be made until thirty days after the completion and acceptance of the work, but all of the other warrants mentioned will be forwarded through the mail unless some reason exists why payment is to be made in person, in which event written notice will be promptly given to the claimant.

In making a written or verbal inquiry at this office for any of the above mentioned warrants, it is requested that reference be made by the Department of Finance voucher number.

WILLIAM A. PRENDERGAST, Comptroller.

Finance Voucher No.	Invoice Dates or Contract Number.	Received in Department of Finance.	Name of Payee.	Amount.
			Armory Board.	
50407	2- 5-16	3-17-16	T. E. Quinn	$62 00

Finance Voucher No.	Invoice Dates or Contract Number.	Received in Department of Finance.	Name of Payee.	Amount.
50403	2- 4-16	3-17-16	William P. Youngs & Bros.	50 37
50399	2-26-16	3-17-16	W. & J. Sloane	199 80
			Department of Bridges.	
52198	2-10-16	3-22-16	S. Trimmer & Sons, Inc.	$21 00
49774			Gasoline Distributing Co., Inc.	422 94
49772	2-12-16	3-16-16	General Electric Co.	679 00
			Bellevue and Allied Hospitals.	
51269		3-21-16	George A. White	$15 15
51259		3-21-16	Josephine T. W. Brass, Supt.	21 00
50531	11-13-15	3-21-16	J. E. Kennedy & Co.	32 65
49363	1-28-16	3-16-16	Frank A. Hall & Sons	274 50
51261		3-21-16	H. Malmgren	10 15
51265		3-21-16	Mary E. Wadley, Asst. Supt. of Nurses	35 15
51260		3-21-16	George A. White, Chief Clerk and Auditor	35 26
			Board of Coroners.	
50159	2-31-16	3-17-16	John J. Fox	$4 50
50144	2-18-16	3-17-16	Lily Cup Co.	15 00
			County Court, Kings County.	
49091	1-31-16	3-15-16	The Banks Law Publishing Co.	$21 00
			Municipal Court, City of New York.	
51519		3-21-16	John F. Ward	$7 85
			Court of General Sessions.	
3707	2-25-16	3-16-16	Ludwig Lutz	$119 00
			City Court of The City of New York.	
51641	3- 9-16	3-21-16	T. Hanrahan & Co.	$1 50
51640	2-28-16	3-21-16	Gretchen Bevins	11 50
			Supreme Courts.	
53038		3-24-16	James F. McGee	$35 28
			County Clerk, Bronx County.	
43520			James V. Ganly, County Clerk.	$100 00
			County Clerk, New York County.	
51433		3-21-16	William F. Schneider, County Clerk.	$100 00
			Hunter College.	
49912	9-18-15. 2-11-16	3-16-16	Eimer & Amend	$366 38
			College of The City of New York.	
50639	12-30-15	3-16-16	Patterson Brothers	$2 37
50694	1-18-16	3-18-16	Geo. W. Millar & Co.	15 75
50666	1-24-16	3-18-16	Stanley & Patterson	1 65
50667	2-10-16	3-18-16	Lux Manufacturing Co.	30 67
50691	12-28-15	3-18-16	F. W. Devoe & C. T. Raynolds Co.	3 78
			Department of Correction.	
49563	2-26-16	3-16-16	James A. Miller	$5 65
52134	12-31-15	3-22-16	Benjamin Horton	25 01
52168			Louis E. Lawes, Supt.	13 45
52167			Joseph A. McCann, Head Keeper	5 25
52166			Frank W. Fox, Warden	7 90
49561	12-31-15	3-16-16	James McVeigh, Agent Erie R. R. Co.	283 10
49582	12-31-15	3-16-16	Konop Iron Works	372 00
			District Attorney, Kings County.	
52768	3- 9-16	3-23-16	Hall's Photo Studio	10 00
			Department of Docks and Ferries.	
51412	3- 1-16	3-21-16	National Charcoal Co.	$16 20
51416	3-13-16	3-21-16	John E. Donovan	28 80
51417	3- 7-16	3-21-16	U. T. Hungerford Brass & Copper Co.	17 05
51418			Royal Eastern Electrical Supply Co.	16 05
			Board of Excise, Richmond County.	
51833			Joseph P. Thomson, Dep. Excise Commissioner	$51 87
			Board of Estimate and Apportionment.	
50771	3- 6-16	3-21-16	Wilson Stamp Co.	$1 30
52091			J. F. Hazrick, Clerk	28 46
			Department of Education.	
48973	1-20-16	3-16-16	A. Pearson's Sons	$144 00
49600	2- 1-16	3-16-16	Henry Abesser	75 00
49476	7- 2-15.12- 9-15	3-16-16	Scott, Foresman & Co.	180 55
49473	11-21-15.12-21-15	3-16-16	D. C. Heath & Co.	610 88
49705			The Crowell Publishing Co.	100 00
49963	1-20-16	3-16-16	D. J. Carey	148 57
49497	11-18-15	2-18-16	Hammacher, Schlemmer & Co.	193 00
49506		3-16-16	D. J. Deady Co.	140 00
49498	2-10-16	3-16-16	T. F. Jackson, Inc.	141 00
49660	1-20-16	3-16-16	Emil Wagner	128 00
49699	12-16-15	3-16-16	Royal Typewriter Co., Inc.	150 00
49490	1-27-16	3-16-16	Montgomery & Co., Inc.	103 04
49924			Woodhaven Water Supply Co.	305 15
49664	1-22-16	3-16-16	G. V. Gedroice & Co.	184 00
49926	12-15-15	3-16-16	John Kolenik, Jr., & Co., Inc.	185 00
49922	2- 2-16	3-16-16	I. A. Bogan	132 00
49610	12-30-15 41461	3-16-16	The J. W. Pratt Co.	503 57
49608	12-23-15 41647	3-16-16	Frank D. Beattys & Co.	139 60
49680	12- 3-15.12-22-15	3-16-16	Ginn & Co.	182 60
49612	10-29-15 39411	3-15-16	E. P. Dutton & Co.	157 59
49611	10-29-15 39411	3-15-16	E. P. Dutton & Co.	155 89
49480	12-11-15	3-16-16	Singer Sewing Machine Co.	246 24
49495	6-24-15	3-16-16	Greenhut Co., Inc., Assignee of J. B. Greenhut Co.	205 00
49501	5-19-15	3-16-16	George Rabe	268 00
			Department of Finance.	
51501	3- 1-16	3-21-16	Diamond Towel Supply Co.	$4 00
51500	3- 1-16	3-21-16	Peerless Towel Supply Co.	6 30
51508		3-21-16	Elliott-Fisher Co.	50
51509		3-21-16	Metal Worker, Plumber & Steamfitter	2 00
51503	3- 1-16	3-21-16	The Peerless Towel Supply Co.	10 28
			Fire Department.	
52915		3-24-16	Clarence H. Fay	$9 25
51232		3-21-16	New York Telephone Company	63 89
49535	9- 8-15. 1-31-16	3-16-16	Fulton Blue Print Company	258 66
49537	12-30-15.12-31-15	3-16-16	Bonner & Barnewall, Inc.	347 34
			Department of Health.	
49831	2-28-16	3-16-16	John Bell Co.	$18 50
49832	2-18-16	3-16-16	Nason Manufacturing Co.	3 00
47479	11-29-15 39547	3-10-16	Henry Allen	150 00
47478	11-29-15 39547	3-10-16	Henry Allen	194 25
49824	2-16-16	3-16-16	Yawman & Erbe Mfg. Co.	119 22
49819	1-31-16	3-16-16	International Provision Co.	124 61
			Commissioner of Jurors, Queens County.	
52017	3- 1-16	3-21-16	The Diamond Towel Supply Co.	$1 00
			Department of Licenses.	
50440	2- 3-16. 2-14-16	3-17-16	Theo. Moss & Co.	$1 13
			Law Department.	
52663	3- 1-16	3-23-16	Title Guarantee & Trust Company	$1 50
3694		3-16-16	James F. Carey	200 00
3695		3-16-16	Kingsley L. Martin	500 00
3692	12-14-15. 2-11-16	3-16-16	William E. Davies	435 00
3693			George H. Chivvis	440 00
3703	3- 1-16	3-16-16	Johnson & Galston	132 53
			The Mayoralty.	
50214	2-29-16	3-17-16	John Manning	$17 08
50213	2-29-16	3-17-16	Foster-Scott Ice Co.	6 25

Finance Voucher No.	Invoice Dates or Contract Number.	Received in Department of Finance.	Name of Payee.	Amount.
			Public Administrator, Bronx County.	
52026			Nicholas Gless	$1 75
52029			Ernest E. L. Hammer	5 00
			Miscellaneous.	
53287		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	$6,947 50
53290		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	340 00
53289		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	6,230 00
53288		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	31,127 50
53284		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	10,560 00
53283			William A. Prendergast, as Comptroller of The City of New York	11,890 23
53285		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	2,080 00
53292		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	4,715 50
53291		3-24-16	William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	126 00
53294			The Chamberlain of The City of New York	227 50
53295		3-24-16	Matteawan Savings Bank	1,000 00
53293			The Chamberlain of The City of New York	13,000 00
53286			William A. Prendergast, as Comptroller, and Henry Bruere, as Chamberlain	230,527 50
54078			Hebrew Sheltering Guardian Society	12,270 91
53922		3-27-16	Michael Murray	60 00
53921		3-27-16	Edward Boyle	187 39
53924		3-27-16	John P. Burns	36 16
53919		3-27-16	Elise Bentz	50 00
53920		3-27-16	George A. Stein	286 25
53917		3-27-16	Mary Teresa Cox	146 80
53918		3-27-16	Grace O'Brien and Josephine Sullivan.	621 73
53918		3-27-16	Grace O'Brien and Josephine Sullivan.	186 66
52923		3-27-16	John P. Burns	2,228 06
52923		3-23-16	John P. Burns	8,384 01
53395		3-25-16	Sunnyside Development Co.	4,843 29
53395		3-25-16	Sunnyside Development Co.	610 00
53395		3-25-16	Sunnyside Development Co.	599 80
53396			Vaclav Uher and Mary Uher	4,721 92
53396			Vaclav Uher and Mary Uher	710 42
53396			Vaclav Uher and Mary Uher	290 00
53386		3-25-16	Catherine Green & Elizabeth Kane	298 38
53386		3-25-16	Catherine Green & Elizabeth Kane	756 78
53394		3-25-16	Terence F. Smith	11,024 69
53394		3-25-16	Terence F. Smith	695 77
53401			Annie Lynam	1,148 44
53401			Annie Lynam	539 82
53402		3-25-16	Denis Roseny	3,968 60
53402		3-25-16	Denis Roseny	463 10
53403		3-25-16	George E. Clay	4,988 72
53403		3-25-16	George E. Clay	1,869 86
53404			Solomon Barnett	726 38
53404		3-21-16	Solomon Barnett	539 82
53400		3-25-16	City Real Estate Co.	25,374 69
53400		3-25-16	City Real Estate Co.	6,280 31
53398		3-25-16	Samuel Dolcort	1,500 00
53398		3-25-16	Samuel Dolcort	260 00
53398		3-25-16	Samuel Dolcort	579 75
53398		3-25-16	Samuel Dolcort	2,612 43
53388		3-25-16	Fred Lotz and Henrietta Lotz	1,000 00
53388		3-25-16	Fred Lotz and Henrietta Lotz	170 00
53388		3-25-16	Fred Lotz and Henrietta Lotz	1,842 02
53388		3-25-16	Fred Lotz and Henrietta Lotz	344 64
53390		3-25-16	Caroline Moser	1,300 00
53390		3-25-16	Caroline Moser	344 64
53390		3-25-16	Caroline Moser	170 00
53390		3-25-16	Caroline Moser	1,542 02
53393		3-25-16	Anton J. Schachta and Mary Ann Schachta	1,700 00
53393		3-25-16	Anton J. Schachta and Mary Ann Schachta	463 10
53393		3-25-16	Anton J. Schachta and Mary Ann Schachta	270 00
53393		3-25-16	Anton J. Schachta and Mary Ann Schachta	2,822 31
53399			Jacob P. Biffar and Sarah Biffar	2,842 02
53399			Jacob P. Biffar and Sarah Biffar	344 64
53399		2-25-16	Jacob P. Biffar and Sarah Biffar	170 00
53944		3-28-16	Harry Silverstone, individually, and as assignee of Samuel Thomas	183 05
53945		3-27-16	Harry Silverstone, individually, and as assignee of Samuel Thomas	10,099 47
53945		3-28-16	Harry Silverstone, individually, and as assignee of Samuel Thomas	682 54
53397		3-25-16	Simon P. Emery	1,200 00
53397		3-25-16	Simon P. Emery	1,199 60
53397		3-25-16	Simon P. Emery	12,789 40
53385		3-25-16	John C. Anderson	640 00
53385		3-25-16	John C. Anderson	1,761 49
53385		3-25-16	John C. Anderson	10,308 00
53387		3-25-16	Venzl Kodera	55 00
53387		3-25-16	Venzl Kodera	554 44
53387		3-25-16	Venzl Kodera	379 24
53389		3-25-16	Gerard Francis Moore and Michael Edward Moore	753 46
53389		3-25-16	Gerard Francis Moore and Michael Edward Moore	1,250 00
53389		3-25-16	Gerard Francis Moore and Michael Edward Moore	1,373 07
53391		3-25-16	Sidney H. Schloss	185 00
53391		3-25-16	Sidney H. Schloss	599 80
53391		3-25-16	Sidney H. Schloss	2,956 19
53392		3-25-16	Frank Hingher and Caroline Hingher	300 00
53392		3-25-16	Frank Hingher and Caroline Hingher	463 10
53392		3-25-16	Frank Hingher and Caroline Hingher	5,207 95
54073			Hospital for Deformities and Joint Diseases	769 12
54075			The S. R. Smith Infirmary	1,568 50
54076			Brooklyn Hebrew Orphan Asylum	9,023 53
54077			Catholic Guardian Society of the Diocese of Brooklyn	122 50

Finance Voucher No.	Invoice Dates or Contract Number.	Received in Department of Finance.	Name of Payee.	Amount.
54079			Montefiore Home and Hospital for Chronic Diseases	12,754 60
54080			Montefiore Home and Hospital for Chronic Diseases	11,800 60
54081			New York Foundling Hospital	34,609 21
54082			New York Foundling Hospital	2,150 00
			Central Purchasing Committee.	
50862	3- 3-16	3-21-16	Cobb-Macey-Dohme, Inc.	$27 00
			Bronx Parkway Commission.	
52548	2-14-16	3-23-16	Scarsdale Supply Company	$15 00
53714		3-27-16	John Ph. Voelker and Adolph E. Heislitz	427 87
			Department of Parks.	
52386	2-22-16	3-22-16	Quaker City Rubber Co	$19 30
52384	2-19-16	3-21-16	Jenkins Bros.	6 36
52382			The Motor Car Equipment Co., Inc.	25 52
51188	2-21-16	3-21-16	Behren's Market	14 50
51192	3- 2-16	3-21-16	Stevenson & Marsters, Inc	1 75
51218	3- 4-16	3-21-16	Knickerbocker Supply Company	18 30
52371	2-16-16	3-22-16	Greenfield Tap and Die Corporation	8 40
49867			American Flag Company	63 64
49852	3- 3-16. 3- 4-16	3-16-16	Robert Gordon & Son, Inc	104 25
49868	2-23-16	3-16-16	Baker-Barron, Inc.	150 00
49848			The Atlantic Hotel Supply Co	525 65
49792	1-31-16	3-16-16	Charles Christiansen	268 00
			Police Department.	
48467	2-14-16	3-14-16	Jacob F. Fuessel	$32 00
48473	2-24-16	3-14-16	C. H. Stoelting Co	42 86
48469	2-26-16	3-14-16	Ford Motor Car Company	408 00
			President of the Borough of Manhattan.	
50741	2-16-16	3-21-16	Stewart Warner Speedometer Corporation	$1 00
50742	2-10-16	3-21-16	Standard Auto Radiator Co	14 00
50207	3- 2-16	3-17-16	The Griscom-Russell Co	20 00
50208	2-11-16	3-17-16	Cornell & Underhill	10 25
50209	2- 9-16	3-17-16	Cutler Mail Chute Company	5 00
			President of the Borough of The Bronx.	
51612	3-14-16	3-21-16	W. & J. Sloane	$1 50
51600	3- 4-16	3-21-16	The Tengwall Company	4 75
51601	1-26-16	3-21-16	A. P. Dienst Co. Inc	19
51603	1-21-16	3-21-16	A. P. Dienst Co., Inc	1 62
51602	3-10-16	3-21-16	E. O. Hausburg	40 00
51604	2-24-16	3-21-16	A. P. Dienst Co., Inc	1 35
			President of the Borough of Brooklyn.	
50495	2-16-16. 3- 3-16	3-21-16	H. T. Dakin	$59 04
50496			Enterprise Oil Company	12 75
50491	3- 7-16	3-21-16	Munson Supply Co	3 15
50498	3-14-16	3-21-16	Remson Harness Co	9 50
50490	3-13-16	3-21-16	Rutherford Rubber Co	50
50492	3- 7-16	3-21-16	Brooklyn Automobile Company	37 50
			President of the Borough of Queens.	
48610	2 29-16. 3- 4-16	3-14-16	W. A. Duncan	$142 50
51757	2-22-16	3-21-16	Jurgen-Rathjen Co.	12 00
51758	1-13-16	3-21-16	Metropolitan Coal Pocket	14 00
51759	2-17-16	3-21-16	Jurgen-Rathjen Co.	64 50
51781	2-29-16	3-21-16	Great Bear Spring Co	7 20
51756	3- 3-16	3-21-16	The Jamieson & Bond Co	7 25
			President of the Borough of Richmond.	
52295			Wm. J. McDermott, Superintendent	$21 70
52296			William B. Kenney, Chief Clerk	3 45
52303		3-22-16	Robert Bailey, Superintendent	143 00
51712	3- 1-16	3-21-16	Richmond Hardware Co	4 05
51713	3- 4-16	3-21-16	Ensign Manufacturing Co	3 00
51714	2-29-16	3-21-16	Tiernan's Garage	5 00
51715	3- 1-16	3-21-16	W. H. Johnson	30 00
51711	2-29-16	3-21-16	Staten Island Supply Co	10 37
50425	2-26-16	3-17-16	Good Roads	1 00
50427	2-29-16	3-17-16	Frank Weber	1 80
50428	2-15-16	3-17-16	H. W. Koenig	11 65
50418	2-28-16	3-17-16	Staten Island Supply Co	69 72
51704	2-29-16	3-21-16	Richmond Ice Company	24 50
51703	1-31-16	3-21-16	Richmond Ice Company	3 73
			Public Service Commission.	
51635			Thomas D. Hoxsey, Secretary	$93 06
51634		3-21-16	Milton J. Farrell, Secretary to Chief Engineer	120 20
51636		3-21-16	Joseph Johnson, Chief	477 01
51557	12- 8-15	3-21-16	G. E. Stechert & Co	10 17
51572	1-29-16. 3- 6-16	3-21-16	Manhattan Electrical Supply Co	85 43
51579			Henry Moss & Co	18 84
51584	2- 8-16. 3- 4-16	3-21-16	O'Keefe & Bannin Co., Inc	97 71
51528	1-29-16. 2-18-16	3-21-16	Henry Pearl & Sons Co., Inc	12 85
51539	2- 8-16. 2-25-16	3-21-16	John Simmons Co	13 34
51524			Panama Paper Co	7 50
51550	2-28-16	3-21-16	Van Camps Products Co	56 25
51564	1-31-16	3-21-16	J. J. Lawracy	8 66
51559	2- 8-16	3-21-16	Kalt Lumber Co	4 85
51567	2-19-16	3-21-16	The Liquid Carbonic Co	8 00
51555	5-22-15	3-22-16	Eimer & Amend	2 50
			Department of Public Charities.	
49435	2-24-16	3-16-16	Mercantile Warehouse Co	$26 10
49436	2-24-16	3-16-16	Kalt Lumber Co	5 90
49437	2-14-16	3-16-16	Imperial Paint Co	14 00
49438	2-16-16	3-16-16	John Wilfert Co	3 51
49441			Oscar Schlegel Mfg. Co	1 50
49439	2-26-16	3-16-16	Valentine & Co	18 75
49440	2-28-16	3-16-16	Singer Sewing Machine Co	4 80
49441	2-17-16	3-16-16	Oscar Schlegel Mfg. Co	1 50
49442	2-24-16	3-16-16	Otis Elevator Co	9 72
51376			Big Gem Polish Co	21 00
51383	3- 1-16	3-21-16	West End Auto Supply Co	9 95
51380	2-16-16	3-21-16	New York Window Cleaning Co	20 00
51374	3- 4-16	3-21-16	Henry Romeike, Inc	12 00
51375	2-18-16	3-21-16	Great Bear Spring Co	90
51371	1-24-16	3-21-16	Van Horn & Sawtell	22 50
51370	1-25-16	3-21-16	Surgical Narcosis Supply Co	30 45
51369	1-27-16	3-21-16	A. G. Spalding & Bros	10 00
50781	1-17-16	3-20-16	Consolidated Dental Mfg. Co	52 01
50783	1- 8-16. 1-24-16	3-20-16	George Murphy, Inc	40 65
51381			Joseph W. Miller	6 00
49194	2-15-16 44278	3-15-16	Pattison & Bowns	3,000 31
44499	12-31-15 42968	3- 3-16	Thos. W. Woods' Sons, Inc	395 41
49418			Agent and Warden of Auburn Prison	744 00
49190	2-25-16	3-16-16	Syndicate Trading Co	557 98
49171	2-19-15. 2-28-15	2-15-16	E. T. Joyce	109 04
49170			Troy Laundry Machinery Co., Ltd	411 02
53635		3-21-16	A. M. Wilson, Director	937 00
53637		3-27-16	William J. Doherty, Second Dep. Commr.	240 00
53636		3-27-16	A. M. Wilson, Director	165 00
51830			The Fleischmann Co	17 20
51827	2-25-16	3-22-16	Francis H. Leggett & Co	25 00
51826	2-29-16	3-22-16	Rebecka Melicow	35 28
49432	2-21-16	3-15-16	James S. Barron & Co	9 20
50785	1-18-15. 1-28-16	3-20-16	The Watters Laboratories	26 40
50784	1-14-16. 1-19-16	3-20-16	George Tiemann & Co	17 50
51368	1-22-16	3-21-16	E. B. Meyrowitz, Inc	5 70
53282		3-24-16	The Louisa Minturn Hospital	42 86
49155	2-29-16	3-15-16	R. F. Stevens Co	77 07
49154	2- 1-16	3-15-16	Leo Hamburger	383 45
49175	2- 5-16	3-16-16	M. McGirr's Sons Co	742 60
49149	2-15-16. 2-24-16	3-15-16	The Arlington Chemical Co	54 76
49400	12- 1-15	3-16-16	J. T. McKinney	60
49401	12-31-15	3-16-16	The Fairbanks Co	15 98
50024	43178	3-16-16	John J. Hearn	6,534 00
50025	42681	3-16-16	Charles B. Meyers	185 87
49103	42681	3-15-16	Charles B. Meyers	91 87
49389	3- 2-16	3-16-16	I. J. Stander & Co., Inc	355 45
49391	2-23-16	3-16-16	Albert Winternitz	343 00
49399	2-25-16	3-16-16	Manhattan Electrical Supply Co	198 00
			Commissioner of Records.	
50489		3-17-16	Direct-Line Telephone Company	$6 00
			Register, New York County.	
53445		3-27-16	Jno. J. Hopper, Register	$24 00
53444		3-27-16	Walter Fairchild, Special Deputy Register	21 45
50279	2-29-16	3-17-16	Joseph Spengler	7 75
			Sheriff, Richmond County.	
49557	3- 6-16	3-16-16	Hugh McRoberts Coal Co., Theodore Kieran, Prop.	$175 00
			Sheriff, Kings County.	
53659			Edward Riegelman, Sheriff	$15 00
			Department of Street Cleaning.	
48555			Charles E. Burtis, Inc	$694 53
48556	2-28-16	3-14-16	Zee Contracting Co	129 06
48560			Saverio Feraca	172 08
48561	2-29-16	3-14-16	Watson Contracting Co	951 20
52926			J. T. Fetherston, Commissioner	250 00
48562	2-29-16	3-14-16	Edelstein Contracting Co	93 34
50113	3- 1-16	3-16-16	F. O. Boyd & Co	31 23
50115	2-18-16	3-16-16	Knickerbocker Supply Co	43 20
50091	3-10-16	3-16-16	A. H. Jones	88 95
49728	43228		Rosenthal Engineering Cont. Co., Inc.	8,444 41
49727	43227	3-16-16	Parsons & Lantry, Inc	3,635 99
49726	43229	3-16-16	North American Brewing Company, Assignee of Thomas Calandriello	1,602 88
50067	2-23-16	3-16-16	Drier Iron Works, Inc	142 50
50059	2-17-16	3-16-16	Knickerbocker Supply Co	138 40
50060	3- 1-16	3-16-16	The Addressograph Co	126 80
50054	2-29-16	3-16-16	Art Metal Construction Co., Inc	439 60
50086			Semet Solvay Company	283 92
50085	3- 4-16	3-16-16	Edelstein Contracting Co	118 48
50087	2-24-16	3-16-16	W. G. Harrington	192 00
50088	2-26-16	3-16-16	John H. Eckhoff, Jr	207 90
50089	2-15-16	3-16-16	Brooklyn Packard Auto Service Co., Inc.	137 70
50067			Dreier Iron Works, Inc	142 50
50122	2-29-16 44299	3-16-16	Middle Lehigh Company	154 11
50078			J. Rocke	1,162 33
50090	2- 9-16. 2-18-16	3-16-16	Anthony McCullough	105 30
50080	2-23-16	3-16-16	Tompkins Garage and Auto Co	637 45
50079	2-26-16	3-16-16	John H. Eckhoff, Jr	2,862 00
50117	1-21-16. 1-27-16	3-16-16	The East River Mill and Lumber Co	481 87
			Board of Water Supply.	
52073		3-22-16	William B. Hunter	$49 38
52072		3-22-16	J. P. Hogan	23 24
52074		3-22-16	Ernst Jonson, Engr. Inspector	114 58
52076		3-22-16	Walter E. Spear, Dept. Engineer	23 02
51125			The J. W. Pratt Co	15 25
51285	3- 8-16	3-21-16	New York American	2 40
52075		3-22-16	H. Lincoln Rogers, Architect	39 25
49994	40926		The J. W. Pratt Co	258 79
			Department of Water Supply, Gas and Electricity.	
51720	2-24-16	3-21-16	Horne, Scrymser Co	$22 50
51719	1-26-16	3-21-16	New York Sporting Goods Co	13 81
51718			Great Bear Spring Co	1 20
51717	2-29-16	3-21-16	Great Bear Spring Co	90
53422		3-25-16	Edmond Beardsley, Acting Chief	314 03
51745			President of the Borough of Richmond	4 50
51748	2-29-16	3-21-16	The Yonkers Electric Light & Power Co	24 56
52185		3-22-16	John F. Bussing, Inspector	73 19
52184			George Sheridan, Inspector	44 00
48083	10-27-15	3-13-16	Defiance Manufacturing Co	125 15
49909	12-31-15 41286	3-16-16	Consolidated Gas Co. of New York	9,894 66
49906	11-30-15 41923	3-16-16	The Bronx Gas & Electric Co	244 78
49907	11-30-15 41283	3-16-16	Brooklyn Borough Gas Co	1,628 51
49904	11- 2-14 40396	3-16-16	Westchester Lighting Co	333 25
49905	2- 1-16 41291	3-16-16	Westchester Lighting Co	398 32
49908	12-31-15 41935	3-16-16	Central Union Gas Co	905 46
49903	11-30-15 41932	3-16-16	Welsbach Street Lighting Co. of America	2,918 47
52187		3-22-16	A. H. Kirchmer, Clerk	77 05
51354		3-21-16	L. E. Stander, Auditor	13 50

VOUCHERS RECEIVED IN DEPARTMENT OF FINANCE, WEDNESDAY, MARCH 29, 1916.

A statement is herewith submitted of all vouchers filed in the Department of Finance on this date, in which is shown the Department of Finance voucher number, the date of the invoices or the registered number of the contract, the name of the payee and the amount of the claim. Where two or more bills are embraced in one voucher the date of the earliest is given, excepting that when such vouchers are submitted under a contract the registered number of the contract is shown instead.

WILLIAM A. PRENDERGAST, Comptroller.

Finance Voucher No.	Invoice Date or Contract Number.	Name of Payee.	Amount.
		Armory Board.	
55117	37269	The Marble Arch Co. & Connors' Bros. Co	$500 11
55118	31946	Pilcher & Tachau	181 70
55119	37296	B. Diamond	308 00
		Department of Bridges.	
55033	35224	Wm. P. Seaver	3,000 00
55032	35224	Wm. P. Seaver	7,000 00
55031	35224	Wm. P. Seaver	26,500 00
55116		Calvin I. Crocker	6 40
55112	2-23-16	Oriental Rubber & Supply Co., Inc.	165 52
55113	1-21-16	National Auto Radiator & Lamp Works, Inc	27 10

Finance Voucher No.	Invoice Date or Contract Number.	Name of Payee.	Amount.
55114	2-21-16	Manhattan Wheel Works..	6 00
55115	2-16-16	The Haynes Automobile Co. Works	10 70
55086	3- 8-16	Pure Oil Co.	4 50
55087	1-25-16	Obrig Camera Co.	56 34
55088	3-30-15	Keuffel & Esser Co.	16 98
55089	3-14-16	Jas. S. Barron & Co.	25 00
55090	3-14-16	A. F. Brombacher & Co.	6 00
55091	2-12-16	Oriental Rubber & Supply Co.	2 44
55092	3-20-16	Stanley & Patterson	16 55
55093	3-11-16	Stanley & Patterson	19 20
55094	3-21-16	Sibley, Pitman Electric Corp.	16 62
55095	3-23-16	A. F. Brombacher & Co.	17 20
55096	3-21-16	Egleston Bros. & Co.	27 00
55097	3-17-16	Froment & Co.	9 00
55098	3-17-16	E. F. Keating Co.	57 56
55099	3-15-16	The L. I. Hardware Co.	60 40
55100	2-29-16	Pitts & Kitts Mfg. & Supply Co.	37 50
55101	3-13-16	Bishop Gutta Percha Co.	7 20
55102	3- 7-16	The Barber Asphalt, Pav. Co.	337 74
55103	3-13-16	The Barrett Co.	65 65
55104	2-14-16	Geo. Pool & Son.	5 61
55105	2-16-16	The Petroleum Products Co.	24 75
55106	3- 7-16	N. Y. & Brooklyn Towel Supply Co.	10 00
55107	1-21-16	The Petroleum Products Co.	12 50
55108	2-21-16	Travellers Tire & Tube Co., Inc.	56 16
55109	2-14-16	Oriental Rubber & Supply Co., Inc.	295 44
55110	2-28-16	Oriental Rubber & Supply Co., Inc.	501 12
55111	2-24-16	E. Schoonmaker Co., Inc.	21 83
		Bellevue and Allied Hospitals.	
54694	2-24-16	Bausch & Lomb Optical Co.	2 75
54695	2-29-16	Jas. S. Barron & Co.	6 10
54696	2-23-16	Hammacher, Schlemmer Co.	17 95
54697	1- 7-16	Stanley & Patterson.	95 63
54698	2- 7-16	Walter H. Ambrose	88 53
54685	2-29-16	Borden's Condensed Milk Co.	9 10
54686	2-15-16	Everson & Reed Co.	10 17
54687	1-20-16	Lehn & Fink.	6 20
54688	2-10-16	Granite City Soap Co., Inc.	66 00
54689	2-15-16	Singer Sewing Machine Co.	1 60
54690	1-18-16	The American News Co.	31 80
54691	2- 2-16	Sutphen & Myer	62 45
54692	1-24-16	F. Madlener Mfg. Co.	10 00
54693	2- 8-16	Wm. Langbein & Bros.	159 30
54674		W. Chubbuck	2 30
54675	2-15-16	The Dentists' Supply Co.	14 76
54676	2-16-16	P. Lawless' Sons.	6 80
54677	12-28-15	Standard Oil Co. of N. Y.	74 26
54678	1-29-16	Watters Laboratories	5 96
54679	2-15-16	The Kny-Scheerer Corp.	9 15
54680	12-23-15	Frank J. Lennon Co.	10 18
54681	2-16-16	Reamer, Turner & Co.	3 28
54682	3-16-16	Herschmann, Blier, Edelstein Co.	67 28
54683	3- 1-16	Wm. J. Hewlett	23 52
54684	2-29-16	Scheffield Farms, Slawson, Decker Co.	227 40
54699	2-11-16	Thos. A. Glendinning	88 90
54700	1-27-16	Jas. S. Barron & Co.	17 50
54701	2-10-16	Jas. T. Dougherty	51 53
54702	2- 5-16	Standard Iron Works.	35 00
54703	2-11-16	Bruce & Cook.	19 89
54704	2-23-16	John Lucas	38 32
54705	2- 4-16	Ogden & Wallace.	69 40
54706	2- 7-16	The Glidden Varnish Co.	28 80
54707	2-10-16	Jas. A. Miller.	63 60
54708	2-16-16	Sutphen & Myer	58 00
		Board of Child Welfare.	
54828	3-23-16	Helen M. McCormick	6 22
		Municipal Civil Service Commission.	
54827		Robert W. Belcher	750 00
		Board of Coroners.	
55019	2-29-16	N. Y. Telephone Co.	15 57
		City Magistrates' Courts.	
54982		N. Y. Bottling Co., Inc.	35 40
		Supreme Court Library, Brooklyn.	
55241		I. & S. Glick.	233 25
		County Clerk, Queens County.	
55020	2-29-16	N. Y. Telephone Co.	$26 69
55021	3-10-16	C. E. Schaffner	1 50
55022	3-11-16	Remington Typewriter Co.	5 00
55023	3-14-16	J. E. Linde Paper Co.	24 84
55024	3-21-16	Mittinacht & Co.	80 00
		Department of Correction.	
54887	42994	Wm. Farrell & Son.	$491 57
54888	43988	Jas. S. Barron & Co.	1,033 08
54889	44058	Peter J. Constant	1,313 98
54890	43872	The Manhattan Supply Co.	2,589 75
54891	3-17-16	B. Levinson	5 00
54892	2-22-16	George Nash	2 00
54893	2-24-16	Swift & Co., Inc.	14 50
54894	1-31-16	Benj. Horton	271 00
54895	3- 8-16	Benj. Horton	542 41
54896	2-19-16	Pattison & Bowns	891 11
54897	2-28-16	Jas. A. Miller	36 00
54898	3- 3-16	National Oil Co.	1 90
54899	2-29-16	Foster, Scott Ice Co.	63 20
54900	3-18-16	Hull, Grippen & Co.	2 29
54901	2-23-16	Geo. W. Millar & Co.	70 82
54902	3- 3-16	Jas. A. Miller	2 20
54903	3- 4-16	W. R. Ostrander & Co.	8 50
54904	3- 6-16	Shaw, Walker Co.	37 45
54905	3-14-16	John Wanamaker	14 00
54906	3- 6-16	Francis J. Archer	118 00
54907	3- 2-16	Knickerbocker Supply Co.	10 50
54908	2-16-16	Smith & Boullion	609 00
54909	3-10-16	Jas. S. Barron & Co.	5 43
54910	3- 8-16	J. G. Bodenstein & Co.	4 25
54911	3- 8-16	J. W. Buckley Rubber Co.	7 00
54912	3-10-16	The City Packing Box Co.	31 25
54913	3- 3-16	The Frank Richard & Gardner Co.	8 78
54914	3-13-16	John Simmons Co.	12 60
54915	3-16-16	E. F. Keating Co.	118 24
54916	3-15-16	John Simmons Co.	6 25
54917	3- 2-16	The Simes Co.	12 75
54918	3- 8-16	Nason Mfg. Co.	20 74
54919	3- 1-16	Jas. S. Barron & Co.	26 40
54920	3-14-16	Montgomery & Co., Inc.	1 41
54921	3-15-16	Wm. S. Haines & Co.	80 00
54922	3- 1-16	Jas. Y. Watkins & Son, Inc.	6 00
54923	3- 6-16	The J. L. Mott Iron Works.	28 86
54924	1-31-16	Kipp Wagon Co.	90 20
54925	2-29-16	John T. Ogden & Son.	4 05
54926	2-29-16	M. Reidy	11 95
54927	2-24-16	Bramhall, Deane Co.	3 50
54928		Jas. McVeigh, Agent, Erie R. R. Co.	115 94
55255	1-31-16	M. Reidy	12 15
55256	2-20-16	James McVeigh	212 70
55257	3-16-16	James McVeigh	2 36
55258	2-29-16	N. Y. Central R. R. Co.	14 01
55259	2-29-16	N. Y. Central R. R. Co.	5 12
55260	12-31-15	McMonagle & Rogers	11 30
55261	11- 5-15	Standard Oil Co. of New York	13 16
55262		Edmund L. Tichenor	6 94
55263	4-21-16	Bramhall, Deane Co.	16 00
55264	12-31-15	The Fair Syndicate	4 25
55265	10-25-15	Standard Oil Co. of N. Y.	64 75
55266	12-31-15	Geo. A. Swalm & Son Co.	2 50
55267	2-26-16	American Iron & Steel Mfg. Co.	106 00
55268	1-27-16	F. N. Du Bois & Co.	83 46
55269	2-23-16	F. N. Du Bois & Co.	48 60
55270	1-13-16	E. I. Du Pont, De Nemours & Co.	31 50
55271	2-17-16	H. D. Gould Co.	334 20
55272	10-23-15	Gordon Lumber Co.	586 43
55273	2-18-16	Reading Iron Co.	192 60
55274	2- 9-16	The E. R. Mill & Lumber Co.	82 12
55275	1-31-16	Bramhall, Deane Co.	12 50
55276	2-21-16	F. N. Du Bois & Co.	78 80
55277	1-14-16	Standard Oil Co. of N. Y.	23 00
55242	12-31-15	Benj. Horton	21 00
55243	12-31-15	Stanley & Patterson	457 89
55244	12-31-15	Ayres & Galloway, Lowe Co.	3 15
55245	12-31-15	Dept. of Correction.	20 00
55246	12-31-15	Otis Elevator Co.	51 25
55247	12-31-15	The Simes Co.	387 50
55248	3- 8-16	H. B. Seely & Son.	2 60
55249	2-27-16	Harry F. Nimphius	1 50
55250	2-29-16	Gordon Lumber Co.	35 70
55251	2-29-16	The Mutual Towel Supply Co.	5 00
55252	2-29-16	Thomas Glacklin Co.	67 20
55253	2-29-16	Montgomery & Co., Inc.	2 70
55254	3- 3-16	Arthur J. Le Croix.	990 00
		Department of Education.	
55334	42733	Jos. Kessler	$832 50
55335	42315	Finnan & Lee	708 20
		Finnan & Lee	465 00
55336	40984	L. R. Merritt & Co.	158 00
55337	40984	L. R. Merritt & Co.	298 00
55338	40984	L. R. Merritt & Co.	162 50
55339	40984	L. R. Merritt & Co.	157 00
55340	40984	L. R. Merritt & Co.	154 50
55341	43040	L. R. Merritt & Co.	173 40
54710	41701	H. C. Hallenbeck	28 10
54711	41649	Hinds, Noble & Eldredge.	46 56
54712	41171	Owen M. Dawson	1 89
54713	41841	Alfred Field & Co.	2 16
54714	41380	A. G. Spaulding & Bros.	3 00
54715	41124	M. J. Tobin	3 20
54716	41179	Milton, Bradley Co.	27
54717	41532	Schoverling, Daly & Gales.	7 56
54718	41182	O. M. Gottesman	1 83
54719	41165	Saml. Gabriel, Sons & Co.	1 98
54720	41490	Globe Ink & Muscilage Co.	2 22
54721	41644	D. C. Heath & Co.	5 88
54722	41629	American Book Co.	1 23
54723	41635	The Macmillan Co.	53 20
54724	41207	Louis S. Gimbel	3 10
54725	41671	The A. N. Palmer Co.	8 00
54726	41665	Newson & Co.	12 84
54727	41209	Neostyle Envelope Co.	37
54728	41229	Graham Paper Co.	51
54729	41663	J. L. Hammett Co.	12 48
54730	41219	The Prang Co.	5 11
54731	41181	Gerry & Murray	35
54732	41480	Brooklyn Lumber Co.	64
54733	42541	N. Y. Calcium Light Co.	310 50
54734	41706	Clarence S. Nathan	161 50
54735	41708	Paul Baron	42 60
54709	42650	N. Y. Tel. Co.	341 91
54749	44169	Rolle Rubber Co.	5 64
54750	44015	Blomingdale Bros.	69
54751	44169	Rolle Rubber Co.	7 05
54752	44077	Israel Moraff	28 44
54777	10-14-15	Duncan Stewart	46 84
54778	1- 3-16	Michael Fogarty, Inc.	18 00
54779	1- 3-16	Michael Fogarty, Inc.	8 75
54780	12-16-15	A. C. Laurence	114 18
54781	1-24-16	J. J. Fay.	18 92
54782	1-12-16	Herman Sacks Roofing & Cont. Co.	21 87
54783	1- 3-16	Michael Fogarty, Inc.	22 00
54784	12-18-15	J. J. Kenney Co.	15 26
54785	1-21-16	Marquard, Fay Co., Inc.	12 72
54786	9-22-15	Agent and Warden of Sing Sing Prison	126 22
54787	1-13-16	Philp & Paul	69 09
54788	1-19-16	Henry Pearl & Sons Co.	30 97
54789	1- 4-16	Geo. Rabe	49 29
54790	1- 7-16	Reid's Express	1 80
54791	1-22-16	Reid, King & Co., Inc.	157 88
54792	12-31-15	Ph. Simberg	5 45
54793	1-24-16	Hale Desk Co.	2 00
54794	1- 6-16	Emil F. Bertram.	1 50
54795	1-20-16	Hermannsen & Co.	68 60
54841	41161	J. B. Greenhut Co.	3 71
54736	44131	Tower Mfg. & Nov. Co.	3 25
54737	44049	Snelling & Son.	1 70
54738	44086	Solihed Tack Co.	72
54739	44169	Rolle Rubber Co.	4 23
54740	44032	Globe Ink & Mucilage Co.	1 42
54741	44131	Tower Mfg. & Nov. Co.	90
54742	44077	Israel Moraff	1 42
54743	41756	Brooklyn Daily Eagle.	75
54744	44114	Metropolitan Supply Co.	3 18
54745	44002	Liberty Ink Corp.	4 05
54746	44024	A. B. Dick Co.	15 10
54747	44002	Liberty Ink Corp.	8 10
54748	44131	Tower Mfg. & Nov. Co.	5 35
54753	41355	Adolph Hauptman	2 64
54754	41344	Keuffel & Esser Co.	1 38
54755	41743	A. B. Dick Co.	9 47
54756	41841	Alfred Field & Co.	8 64
54757	41183	E. Steiger & Co.	4 94
54758	41183	E. Steiger & Co.	79
54759	41489	Gerry & Murray	5 00
54760	41699	Geo. T. Montgomery.	1 44
54761	41542	J. B. Greenhut Co.	69
54762	41161	J. B. Greenhut Co.	2 72
54763	41378	Geo. T. Montgomery.	70
54764	41456	Adolph Hauptman	27
54765	41530	Talens & Son.	1 98
54766	43074	E. Steiger & Co.	1 28
54767	41210	Brooklyn Lumber Co.	3 50
54768	41218	Rauh Cutlery Co.	4 05
54769	41672	Chas. Scribner's Sons.	3 00
54770	41650	Silver, Burdett & Co.	1 02
54771	41180	Parker P. Simmons Co., Inc.	1 43
54772	41163	American Lead Pencil Co.	3 85
54773	41210	Brooklyn Lumber Co.	3 50
54774	41539	Wm. P. Youngs & Bros.	2 80
54775	41480	Brooklyn Lumber Co.	2 84
54776	41229	Graham Paper Co.	48
54796	1-15-16	Interborough Guarantee Roofing Co.	11 24
54797	1-20-16	James I. Kely	22 85
54798	12- 3-15	John T. Rogers & Co.	32 81
54799	1-20-16	Frank Sharrptte	31 46
54800	1-14-16	S. Zacharkow	49 60
54801	6-30-15	Goetz & Co.	5 50
54802	1-15-16	J. H. Boozer	1 44
54803	12-20-15	Walldorf, Hafner & Schultz	13 55
54804	1-26-16	Walldorf, Hafner, Schultz.	16 40
54805	2- 9-16	Fr. Jos. Unger	10 00
54806	1-19-16	Henry Tuke	5 49
54807	1-27-16	Garbutt & Co.	26 48
54808	1-29-16	John Gelshion	5 51
54809	2-11-16	Garbutt & Co.	9 25
54810	2- 4-16	D. J. Carey	13 87
54811	1-18-16	T. J. McGaragher	21 93
54812	2- 6-16	James I. Kelly.	14 33
54813	1-31-16	John Gelshion	10 88
54814	1-20-16	Edward D. Fox.	12 09
54815	1-19-16	E. E. Stapleton.	12 75
54816		A. W. Ross.	107 45
54817	2- 8-16	Frank A. Collins.	49 10
54818	2- 2-16	Samuel R. Brick.	43 85
54819	2- 4-16	C. M. Morgan	34 70
54820	2- 8-16	H. M. Devoe	113 05
54821	1-31-16	M. B. Brown Ptg. & Bdg. Co.	15 84
34822	1-29-16	The Crowell Pub. Co.	50 00
54823	2-19-16	The Crowell Pub. Co.	300 00
54824	12-21-15	A. B. Dick Co.	65 00
54825	7-30-15	Eugene Frank	186 00
55034	42650	N. Y. Telephone Co.	26 25
55035	42649	N. Y. Telephone Co.	258 61
55313	43259	Jandous Electric Equipment Co.	900 00
55314	44269	Reis & O'Donovan.	630 00
55312		Clarence S. Nathan, Inc.	126 90
55322	40828	American Seating Co.	1,611 20
55323	42333	L. E. Atherton.	466 00
55324	38943	Thos. F. Breen	1,148 80
55325	40616	Jandous Electric Equipment Co.	822 60
55326	41690	Schoverling, Daly & Gales.	122 00
55327	40840	Frymier & Hanna Co.	4,657 42
55328	40422	Wells & Newton Co. of N. Y.	2,516 50
55329	42338	Wheeler, McDowell Elevator Co.	806 00
55330	37725	Commercial Const. Co.	2,698 34
55331	42337	Burwak Elevator Co., Inc.	813 00
55332	42602	Arthur Casey	329 00
55333	42843	Commercial Const. Co.	160 00
55315	43041	Philp & Paul	631 80
		Department of Finance.	
54842		J. H. Timmerman.	106 89
54853	3-17-16	B. G. Hughes & Bros.	6 00
54854	3- 1-16	Nickel Towel Supply Co.	34 74
54855	2-29-16	F. M. Schildwachter	3 00
54856	3-15-16	Boston Specialty Corp.	2 50
54857	2- 8-16	Burroughs Adding Machine Co.	10 78
54858	3- 7-16	Remington Typewriter Co.	1 75
54859	2- 4-16	The Casualty Co. of America	135 00
54860	3- 9-16	David Mackay, Jr., Co.	16 05
54861	3-10-16	Mutual Wall Paper Co.	19 00
54862	3-10-16	Mutual Wall Paper Co.	21 00
54863	3-10-16	Mutual Wall Paper Co.	28 00
54864	3- 8-16	David Mackay, Jr., Co.	14 08
54865	3-11-16	Howard R. Cox	22 85
54843	43984	John H. Eckhoff, Jr.	292 82
54826	1-31-16	N. Y. Tel. Co.	100 68
54844	2-10-16	Downing Letter Co.	3 25
54845	2-29-16	The Powers Accounting Machine Co.	84 00
54846	3-10-16	The Ten Eyck Co.	7 00
54847		Brooklyn Union Gas Co.	18 30
54848	3- 2-16	Edward L. Van Orden.	2 00
54849	2-29-16	Consolidated Gas Co. of New York	12 60
54850		Consolidated Gas Co.	17 55
54851		New Amsterdam Gas Co.	5 10
54852		B. McDonough	11 50
		Fire Department.	
55316	44104	Edward Wisely & Son.	$478 93
55317	43058	Bacon Coal Co.	1,000 98

Finance Voucher No.	Invoice or Contract Number.	Name of Payee.	Amount.
55318	42666	Meyer, Denker, Sinram Co..	883 56
55319	44399	Manhattan Electrical Supply Co.	24 38
55320	44256	Standard Oil Co. of N. Y..	11 18
55321	44178	United States Tire Co.	302 40
		Department of Health.	
55079	43942	Beyer Bros. Commission Co.	$18 74
55080	43931	Mutual Milk & Cream Co..	86 56
55081	43943	Shults Bread Co.	21 45
55082	43933	Saml. E. Hunter	11 33
55083	44135	Saml. E. Hunter	51 17
55084	44318	Meyer, Denker, Sinram Co..	77 50
55059	3- 1-16	M. T. Kenny	17 50
55060	3- 6-16	Crown Heights Horse Shoeing Estab.	33 24
55061	3- 1-16	Dr. C. Clark	30 00
55062	3-10-16	Daniel T. Kenney	70
55063	2- 1-16	The Western Union Tel. Co.	6 86
55064	3- 8-16	Dr. Walter W. Griffin	5 00
55065	2-23-16	George M. Friese	10 00
55066	2-26-16	J. P. Duffy Co.	154 00
55067	12-28-15	Knauth Bros.	29 00
55068	3- 1-16	John R. S. White	75
55069	3-10-16	Christian Becker, Inc.	43 05
55070	10-31-15	Knickerbocker Ice Co.	82 97
55071	10-31-15	Knickerbocker Ice Co.	13 74
55072		S. J. Rosenthal	14 15
55073	11-16-15	Francis H. Leggett & Co.	11 74
55074	3-10-16	The Kny, Scheerer Corp.	13 00
55075	12-15-15	Michael Paulini	1 15
55076	4-28-15	Reiff Bros. Co., Inc.	2 47
55077	11- 1-15	Sheppard & Kellett	62 88
55078		R. J. Wilson, M.D.	500 00
55036		Crown Stamp Works	4 06
55037	3- 8-16	Library Bureau	59 01
55038	3-11-16	G. E. Stechert & Co.	11 90
55039	3- 8-16	E. Kessling	3 00
55040	3-14-16	Bausch & Lomb Optical Co.	2 00
55041	2-24-16	E. Schoonmaker Co., Inc.	12 84
55042	2-17-16	E. Schoonmaker Co., Inc.	7 13
55043	3- 3-16	Morse & Rogers	2 13
55044	1-31-16	Richard & Dutt	49 00
55045	3-10-16	Montague Mailing Machinery Co.	2 06
55046	3- 7-16	Michael Paulini	11 30
55047	3-15-16	The General Fireproofing Co.	37 75
55048	1-28-16	Julius Haas' Sons	3 47
55049		Albert Rabau	60
55050	3- 6-16	Sheppard & Kellett	2 80
55051	3- 7-16	Michael Paulini	1 20
55052	2- 2-16	M. S. Brown	2 30
55053	3- 1-16	Lunny & Handibode	3 50
55054	3- 6-16	Sheppard & Kellett	3 60
55055	2-21-16	Reiff Bros. Co., Inc.	21 67
55056	2- 7-16	George Tiemann & Co.	8 50
55057	3- 1-16	Peter A. Stackwell	22 85
55058	3- 6-16	Jos. A. Shears, M.D.	3 40
		Commissioner of Jurors, Queens County.	
54835		Thorndyke C. McKennee	$1 00
		Department of Licenses.	
55184	2-29-16	N. Y. Tel. Co.	$79 80
55185		E. M. Morgan	420 00
55186		Geo. H. Bell	50 75
55187		Geo. H. Bell	63 95
55188	1-31-16	Yawman & Erbe Mfg. Co..	20 20
55189	3-15-16	Theo. Moss & Co.	9 00
55190	3-18-16	F. Madlener Mfg. Co.	5 25
55191	3-16-16	The General Fireproofing Co.	67 40
55192	3- 1-16	Thedford Eltz Coal Co.	32 50
55193	3-21-16	The Automatic Time Stamp Co.	34 60
55194	3-13-16	Remington Typewriter Co..	5 00
		Law Department.	
54878		Lamar Hardy	$500 00
54880	1- 7-16	J. B. Lyon	99 00
54881	3-17-16	M. B. Brown Ptg. & Bdg. Co.	17 70
54879	44437	N. Y. Tel. Co.	60 43
55195	3-20-16	Neostyle Co.	17 91
55196	2-11-16	Tower Mfg. & Nov. Co.	42 75
55197	1- 8-16	Remington Typewriter Co.	1,070 24
55198	3-22-16	A. Rudolph	14 28
55199		I. Steinberg	311 50
		Miscellaneous.	
54866		Clarence A. Fowler	1,676 39
54867		Clarence A. Fowler	100 00
54868		Howard P. Weir, or the Collector of Assessments and Arrears	661 85
54869		Frank Monteverde	1,500 00
54870	3-24-16	John O'Mara et al.	1,000 00
54871		J. O'Mara et al.	13 07
54872		Jos. Jankiewicz et al.	150 00
54873		Jos. Jankiewicz et al.	13 07
54874		Jos. A. Kryger	26 13
54875		Jos. A. Kryger	61 20
54876		Helen V. Henkel, formerly Helen V. Monteverde	43 90
54877		Julis L. Shotter, assignee of David H. Tho	5,305 86
55028	3-28-16	Helen M. Callahan	69 30
55029	3-28-16	Charlotte C. Finn	1 50
55030	3-28-16	Michael M. Bergman	24 17
54932		Aetna Accident & Liability Co.	275 50
54933		American Surety Co.	270 00
55025		David J. Tysen	25 00
55026		The G. X. Mathews Co.	60 00
55027		St. Andrews Realty Co.	23 00
		Department of Parks, Boroughs of Manhattan and Richmond.	
55156	2-18-16	Henry Pearl & Son Co.	1 25
55157	3- 7-16	Chilton Paint Co.	75 40
55169	3- 8-16	Thomas J. Fenley	29 00
55170	2-29-16	Welsbach Gas Lamp Co.	4 05
55171	2-16-16	J. Bergonzi	12 00
55172	1-17-16	American Wood Working Machinery Co.	24 44
55173	12- 8-15	Stanley & Patterson	134 06
55158	3-10-16	Kalt Lumber Co.	173 00
55159	2-11-16	Topping Brothers	12 00
55160	2-23-16	The De Vilbiss Mfg. Co.	4 15
55161	3- 1-16	Lord & Burnham Co.	1 85
55162	3-15-16	McMann Supply Co.	51 06
55163	3- 6-16	P. J. Langler	49 98
55164	3- 4-16	Vought & Williams	127 90
55165	2-19-16	The George Taylor Brass & Bronze Works	18 00
55166	2- 3-16	Froment & Co.	21 42
55167	1-25-16	Schoverling, Daly & Gales..	90 76
55168	2- 7-16	Hugh J. Christie	61 00
55144	2-15-16	The Motor Car Equipment Co., Inc	3 34
55145	3- 2-16	Buick Motor Co.	995 00
55146	3- 8-16	Oriental Rubber & Supply Co., Inc.	192 46
55147	2- 7-16	Stumpp & Walter Co.	51 83
55148	3- 1-16	N. Y. Belting & Packing Co.	5 62
55149	2- 7-16	John Wanamaker, N. Y. C.	19 20
55150	3-13-16	The J. L. Mott Iron Works	2 30
55151	3-21-16	J. Edward Dunn Co.	5 45
55152		Agent and Warden of Sing Sing Prison	62 00
55153	3-10-16	Patterson Bros.	26 60
55154	2-29-16	Jos. Murray & Co., Inc.	3 13
55155	2- 1-16	J. L. Keating Co., Inc.	87 50
55131	2-29-16	Philp & Paul	490 00
55132	2-29-16	Cushman Sons, Inc.	53 89
55133	3- 2-16	Stumpp & Walter Co.	5 95
55134	3- 6-16	F. Brazeau	6 50
55135	3- 8-16	Harral Soap Co.	3 50
55136	1-17-16	A. B. Dick Co.	1 75
55137	3-15-16	Samuel Lewis	9 79
55138	3-13-16	Frazer Lubricator Co.	20 00
55139		Travers Twine & Cordage Co.	2 88
55140	3- 6-16	A. P. W. Paper Co.	106 25
55141	2- 4-16	Standard Oil Co. of N. Y..	1 90
55142	2-21-16	Scofield & Co.	5 50
55143	1-14-16	Tower Bros. Stationery Co.	85
		Police Department.	
55215		Frank J. Batzing	13 25
55216		Patrick J. Horan	15 90
55217		Edward H. Stoll	10 05
55218		Michael J. Regan	21 89
55219		Jeremiah J. Quinn	10 70
55220		Thos. F. Dwyer	2 90
55221		Geo. C. Leavitt	11 60
55222		Vincent Di Giuda	8 38
55223		Frank J. Allen	7 76
55224		Jas. J. Gegan	1 90
55225		Wm. F. Boyle	31 00
55226		Western Union Tel. Co.	126 68
55227		Western Union Tel. Co.	5 35
55228		N. Y. & Queens Electric Light & Power Co.	1 25
55229		Queens County Water Co..	7 32
55230		Edward M. Morgan	25 15
		President of the Borough of The Bronx.	
55085	40996	F. V. Smith, Inc.	3,081 87
		President of the Borough of Brooklyn.	
55301	2-16-16	The Long Island Wire Works	11 10
55302	2-26-16	Wm. Buchanan	13 00
55303	2-28-16	John A. Scollay	111 77
55304	2- 4-16	P. W. Taylor	3 00
55305	3-10-16	W. R. Adams & Co.	81
55306	3-13-16	Fallon Law Book Co.	3 00
55307	3- 8-16	West Pub. Co.	3 00
55278	3-15-16	Keuffel & Esser Co.	16 80
55279	3-20-16	The Blake & Knowles Steam Pump Works	2 00
55280	12-31-15	Buffalo Steam Roller Co.	62 50
55281	3-15-16	C. W. Jean Co.	3 60
55282	2- 3-16	Brooklyn Automobile Co.	11 42
55283	2- 3-16	Erasmus Garage	10 73
55284	3-16-16	Bradley Auto Supply Co., Inc.	9 00
55285	2-21-16	Tinius Olsen Testing Machine	30 00
55286	3- 2-16	Wheeling Corrugating Co.	55 65
55287	2- 1-16	Bergstrom & Bass	91 00
55288	2- 3-16	Midwood Garage	18 00
55289	2- 3-16	Brooklyn Automobile Co.	15 00
55290	2- 3-16	Erasmus Garage	15 00
55291	2-11-16	Brooklyn Automobile Co.	5 63
55292	2-11-16	Elwood Garage	3 60
55293	9-22-15	Fallon Law Book Co.	6 50
55294	3- 8-16	Innis, Speiden & Co.	68 25
55295	3-16-16	A. J. Maynard Co.	3 50
55296	2- 7-16	P. W. Taylor	4 50
55297	3-13-16	Thomas M. De Laney	26 45
55298	3-16-16	Jos. H. Benzing & Co.	11 46
55299	3-17-16	Thomas M. De Laney	15 86
55300	1-27-16	P. W. Taylor	7 50
55308	44100	The Barber Asphalt Pav. Co.	1,412 00
55309	44164	Bacon Coal Co.	7,114 65
55310	43996	Saverno Products Co.	552 33
55311	42047	Almirall & Co.	2,374 05
		President of the Borough of Queens.	
54980	3- 1-16	Dennis Shugrue	$80 00
54981	3- 1-16	Seth W. Kelly	20 00
54956	12-30-15	Hills, McCanna Co.	45 00
54957	5-22-15	Roden Lime Co., Inc.	53 75
54958	12- 1-15	Willard Storage Battery Co.	5 30
54959	3- 7-16	Jurgen, Rathjen Co.	7 00
54960	2-23-16	Underwood Typewriter Co..	13 50
54961	2-14-16	Great Bear Spring Co.	9 00
54962	2- 8-16	Edw. E. Buhler Co.	250 00
54963	2-28-16	Stephen Briggs	160 60
54964	3- 6-16	Bloomingdale Bros.	90 12
54965	3- 1-16	Jamaica Auto Garage	26 62
54966	3- 2-16	G. R. Lawrence	12 75
54967	2-26-16	Paige & Jones Chemical Co.	30 40
54968	3-16-16	Paige & Jones Chemical Co.	92 70
54969	2-29-16	The N. Y. Multi-Color Copying Co.	46 51
54970	3- 1-16	Walldorf, Hafner & Schultz	59 93
54971		Defiance Mfg. Co.	68 04
54972	3- 7-16	Chas. Greffrath Co.	1 50
54973	3-13-16	Detroit Cadillac Motor Co..	850 00
54974	3- 2-16	The Good Roads Machinery Co., Inc.	102 00
54975	3-21-16	Cavanagh Bros. Co.	14 00
54976	1-31-16	W. F. Sheehan Co.	116 09
54977		Frank Fredericks	80 00
54978	3- 2-16	Madison Ave. Garage & Stables	80 00
54979	3- 1-16	W. A. Duncan	80 00
55174	2-29-16	Crescent Garage	40 00
55175	2- 1-16	Jamaica Auto Garage	20 00
55176	3- 6-16	James Keily	10 50
55177	3- 2-16	E. Becher Hyde	7 50
55178	2-29-16	Tabulating Machine Co.	69 00
55179	2- 8-16	N. Y. & Queens Light & Power Co.	61 08
55180	3-13-16	Jamaica Auto Garage	5 70
55181	3-13-16	Jamaica Auto Garage	1 97
55182	1-31-16	Crescent Garage	33 60
55183	1-25-16	Elliott, Fisher Co.	1 30
		President of the Borough of Richmond.	
55231		W. B. Corcoran	$2 07
55232		Ed. J. Field	2 00
55233		Paul C. Taylor	4 95
55234		Robt. Bailey	11 60
55235		Robt. Bailey	139 35
55236		John J. Collins	33 55
55237		Wm. B. Kenney	2 95
55238		E. H. Seehusen	6 30
55239		John Timlin, Jr.	7 40
55240		Theodore S. Oxholm	33 85
55200	4-24-15	The Banks Law Pub. Co.	2 50
55201	1-24-16	Wallace & Piernan Co., Inc.	18 00
55202	1-10-16	E. J. O'Connor	18 50
55203	3-18-16	Geo. C. Knesel	140 00
55204		Schutte Bros.	4 75
55205	2- 4-16	The Allen, Wheeler Co.	22 81
55206		Wm. S. Van Clief & Sons.	25 00
55207	3- 6-16	Richmond Monumental Wks.	60 00
55208	3- 1-16	I. C. Blake	2 90
55209	3- 1-16	I. C. Blake	1 37
55210		G. F. Van Dam & Son.	9 50
55211		G. F. Van Dam & Son.	4 55
55212	2-28-16	Weston Electrical Inst. Co..	2 90
55213	2-29-16	Zorn & Schrengauer	18 40
55214	2-29-16	The Chapman Valve Mfg. Co.	52 50
		Department of Public Charities.	
54882	1-24-16	Geo. Latta Barrus	$2 00
54883	2-29-16	John Hayes	3 20
54884	2-29-16	George Latta Barrus	13 20
54885	2-29-16	Walter A. Lamb	47 59
54886		Louis E. Lawes, Supt.	4 00
54929		Wm. A. Prendergast, Comp., for Acct. Public School Teachers Retirement Fund..	1 25
54930		Wm. A. Prendergast Comp., for Acct. Public School Teachers Retirement Fund..	3 75
54829		Tingue, Brown Co.	127 22
54830		Library Bureau	512 16
54831		Edward T. Joyce	3,372 00
54832		The Proudfit Loose Leaf Co.	1 04
54833		Boynton Furnace Co.	6 91
54834		Hardy & Tierney	46 80
54836	3-24-16	A. M. Wilson	4 10
54837	3-23-16	William J. Doherty	11 77
54838		A. M. Wilson	72 69
54839		A. M. Wilson	415 00
54840	3-22-16	Frank Sutton	118 75
54983	3- 8-16	Dept. of Correction	50 50
54984	3-15-16	International Shoe Supplies Co., Inc.	4 35
54985	2-25-16	Singer Sewing Machine Co.	56 50
54986	3- 9-16	Stanley & Patterson	50
54987	3- 7-16	Standard Regulator Co.	56 25
54988	2-14-16	John A. Roebling's Sons Co.	106 50
54989	2-15-16	Pittsburgh Plate Glass Co..	11 40
54990	3- 1-16	Mercantile Warehouse Co..	225 00
54991	2-11-16	E. B. Latham & Co.	8 32
54992	2-10-16	A. C. Laurence	11 48
54993	3- 3-16	Imperial Paint Co.	34 88
54994	3-11-16	Hoopes & Shipman	9 13
54995	2- 4-16	Holbrook Bros., Inc.	8 90
54996	3- 1-16	Godfrey, Keeler & Co.	60
54997	2-17-16	Eureka Mfg. Co.	27 35
54998	2-29-16	Duparquet, Huot & Moneuse Co.	19 65
54999	2-11-16	John A. Casey Co.	37 70
55000	3- 7-16	Crannell, Nugent & Kranzer, Inc.	52
55001		Colonial Works, Inc.	12 68
55002	2-28-16	Jas. S. Barron & Co.	12 53
55003	2-25-16	Valentine & Co.	75 00
55004	3- 2-16	H. W. Johnsmanville Co.	15 23
55005	3- 4-16	Bosch Magneto Co.	3 20
55006	3- 1-16	The White Co.	32 75
55007	2-28-16	M. Meyers, Inc.	23 15
55008	2- 5-16	Detroit Cadillac Motor Car Co.	12 35
55009	3- 9-16	Underwood Typewriter Co..	75
55010	3-10-16	Charles Meyer	48 00
55011	2-31-16	Jos. D. Duffy	91 64
55012	3- 2-16	The Terry & Tench Co., Inc.	100 00
55013	2-22-16	Moreland Operating Co.	90 00
55014	1-22-16	Troy Laundry Machinery Co., Ltd.	322 00
55015	2-29-16	The H. B. Smith Co.	66 00
55016	3- 7-16	Remington Typewriter Co..	85
55017	2-17-16	Nanz Clock Co.	6 50
55018	1- 5-16	C. W. Hunt Co., Inc.	35 65
55120	33784	Richard Carvel Co.	1,471 04
55121	33894	Richard Carvel Co.	644 00
55122	33993	Richard Carvel Co.	2,688 50
55123	44133	John Bellmann	225 79
55124	44138	Burton & Davis Co.	447 92
55125	43946	Grand Central Market, Inc.	21 35
55126	43944	Morris & Co.	2,273 71
55127	44136	Jos. Seeman	1,159 83
55128	42995	Geo. D. Harris & Co., Inc..	864 18
55129	44256	Standard Oil Co. of N. Y..	224 08
55130	44329	The Manhattan Supply Co..	10 24
		The Manhattan Supply Co..	10 47
		Department of Water Supply, Gas and Electricity.	
54936		H. R. Emerson	$201 07

Finance Voucher No.	Invoice or Contract Date	Name of Payee.	Amount.
54937		James E. Halligan	14 40
54934	3-18-16	Stillman Appellate Ptg. Co.	34 25
54935		William Hauck	197 69
54938		The Citizen's Water Supply Co. of Newtown	13,871 66
54939		Edmond Beardsley	281 50
54940	3- 6-16	Wm. Farrell & Son.....	104 70
54941	3- 6-16	Wm. Farrell & Son.....	62 50
54942	3- 6-16	Wm. Farrell & Son.....	60 00
54943	2-29-16	Nickel Towel Supply Co...	5 12
54944	2-29-16	H. W. Johnsmanville Co....	12 75
54945	3-18-16	The Linde Air Products Co.	4 00
54946	3- 3-16	Jas. A. Miller	17 40
54947	2-11-16	Knickerbocker Supply Co...	46 96
54948	2- 1-16	Florida Sponge & Chamois Co.	5 50
54949	3- 9-16	Chas. E. Chapin Co., Inc....	10 80
54950	3-11-16	Engine & Machine Co.....	5 20
54951	3-17-16	Jos. L. Brennan	713 00
54952	2-29-16	Ward & Co.	28 40
54953	2-29-16	Bernard McAneny	60 00
54954		Autocar Sales Co.	1 80
54955	3-14-16	Manhattan Electrical Supply Co.	9 40

Changes in Departments, Etc.

DEPARTMENT OF FINANCE.

Died—David J. Buckley, Cashier, Bureau for Collection of Taxes, Brooklyn, March 23.

Appointed—Morris E. Zucker, 306 East 27th Street, Clerk, at $300 per annum, Bureau for the Collection of Assessments and Arrears, March 22.

COLLECTION OF TAXES.

Appointed — Temporary Adding and Billing Machine Operators: Theresa Ward, 98 Eldert St., Brooklyn, March 24; Gussie Diamondstein, 893 Stebbins St., Bronx; Helen Schwartz, 511 West 138th St., Manhattan.

REGISTER, NEW YORK COUNTY.

Services Ceased—Irving Friedman, 71 St. Mark's Place, and Sol. G. Goldstein, 109 West 122d St., Abstractors; effective April 1.

DEPARTMENT OF PARKS.

MANHATTAN AND RICHMOND.

Reassigned—Patrick Powers, 365 West 11th Street, Laborer at $2.50 per day.

DEPARTMENT OF EDUCATION.

Services Ceased—Albert Nelson, Cleaner, Public School 14, Richmond, effective April 1.

BOROUGH OF BRONX.

Died—George Fehn, Laborer, March 10.

Services Ceased—George A. Van Horn, Stationary Engineer, March 27.

Department of Bridges.

Report for week ended March 11, 1916.

Vouchers Drawn on Comptroller—Payrolls, $30,825; open market orders, $1,338.30; contract, $25,515.13; miscellaneous vouchers, $95.56; total, $57.773.99.

Moneys Received — Brooklyn Bridge: Privileges, $1,001.89; tolls, elevated R. R. Co., $1,933.80; total, $2,935.69. Williamsburg Bridge: Material and labor (auction sale held Jan. 1, 1916), $1,554. Manhattan Bridge: Privileges, $109.50. Bridges, Harlem River and The Bronx: Privileges, $175. Municipal Garage: Material, labor and storage, $703.05. Miscellaneous: Subpoena fee, $1.25; grand total, $5,478.49.

Contracts Awarded—March 9, for furnishing and delivering steel castings and machinery parts to the Williamsburg Bridge was this day awarded to Steele & Condict, Inc., Jersey City, N. J., their bid of $3,499.20 being the lowest formal one received.

F. J. H. KRACKE, Commissioner.

Department of Public Charities.

Report for week ended March 18, 1916.

Appointments — Clarence Wingenfeld, Baker, $540; Tessie Korel, Attendant, $300; David Levy, Hospital Clerk, $480; Chas. F. Ferrel, Inst. Artisan, $390; Emma Rothasker. Attendant, $300; Mary Burger, Edna L. Blanchard, Luella Chestnut, Margaret M. Conolly, Mabel F. Rippengale, Bertha Sorkness, Catharine A. Tanacy, Elvira Thompson, Linda A. Weber and Augusta Times, Trained Nurses at $600; Fannie Frank and Thomas Shepherd, Attendants at $300; Anna Phillips, Dora Aidman, Mary N. Winslow, Social Investigators at $1,080; Vera Keys, Attendant, $360; John A. Grier, Clerk (temporary emergency), $600; Martin Corsa, Hospital Clerk (temporary emergency), $540. Clerks: Mary I. Stevenson, at $480; Edward Condon, at $900; Stephen W. Gerber, at $600; Elsie Marshall, at $360. Helen Fitzgerald, Cecelia Elish and Kathryn DeVallion, Trained Nurses, at $600. Helen V. Flood, Attendant, $360; A. Stollmeyer and George McGee, Firemen, at $3 per day. Helen A. Holleran, Trained Nurse, $600. Florence T. Donovan, Marjorie Winfield and Gudrum Dorf, Attendants, at $360. John Haggerty, Clerk (temporary emergency), $600; Lucy M. Goss, Attendant, $480; Louise Staples, Alice Nikela and Frances Brown, Trained Nurses, at $600; Anna McGavock, Pupil Nurse, $144; Rose Young, Trained Nurse, $600; Lawrence W. Duffy, Hospital Clerk (temporary emergency), $600; Veronica Garcua, Typewriter Copyist, $600; Hutton Williams, Laboratory Assistant, $900; Martin Henry, Emergency Oiler, $3 per day; John Wilson, Senior Hospital Artisan, $390; Anna M. Glenn, Pupil Dietitian, $120; Harry Murray and David Dinan, Licensed Firemen, at $3 per day; Annie W. Grant, Mary Montgomery and Margaret F. Murphy, Trained Nurses, at $600; Meyer Emanuel, Pharmacist (temporary emergency), $900; George A. Cooper, George Robertson, John Freed, George Seaman, John Osmer and Nicholas McCann, Hospital Helpers, at $480; Robert Fannon, Hospital Clerk, $480; Alicia Jack, Trained Nurse, $600; Timothy Hogan, Laundryman, $600; Veronica Van Derord, Attendant, $360; Isidor Krause, Physician, $4 per day; Samuel Kawaguch, Cook, $480; John Rohan, Mate, $900; John E. Dougherty, Medical Superintendent, $2,520; Elizabeth Daisy McEver and Marie Hertz, Trained Nurses, at $600; Ellen Still, Pupil Nurse, $144; Mabel L. Marvin, Pupil Dietitian, $120; Belle O'Connor, Clerk (temporary emergency), $720; Zetta Bouton and Ada Lavalle, Pupil Nurses, at $120; Margaret Huggard and Myra F. Jones, Trained Nurses, $600; Mary Mulligan, Pupil Nurse, $144; Daisy M. Cole, Trained Nurse, $600; Minnie Umbercant, Emma Lepers, Gertrude McCarvell, Mary Porterfield, Mary Dillon and Agnes Stenson, Attendants, at $360; Michael Murphy, Joseph Peerea and William Reardon, Licensed Firemen, at $3 per day; Arthur M. Stewart, Hospital Clerk, $390; James Bennett, Hospital Clerk, $300; Mary Minolotti, Hospital Clerk, $540; Nicholas Biberian, Senior Hospital Artisan, $390; William W. McTaggart, Attendant, $360; Samuel M. Kurtz, Laboratory Attendant (temporary emergency), $720; Bert Williams, Attendant, $360; Catherine Thum, Florence M. Holleran and Gertrude Tieleke, Pupil Nurses, at $120; Ann M. Kerrigan, Hospital Clerk, $720; Jessie Wyatt, Dietitian, $900; Frank Devlin, General Plant Operator, $1,320; Dr. Bertram Brown, Assistant Alienist, $1,500; Robert Bissett, Stable Foreman, $1,000.

Services Ceased—John N. Malkie, Laundryman, $600; Ruth Ingraham, Physician, $1,020; August J. Pecini, Pathologist, $1,500; Eva Adams, Fannie Frank and Ella R. Stacke, Attendants, at $300; Augusta Timos, Trained Nurse, $600; Joseph D. Clayton, Baker, $540; Marion E. Lee, Trained Nurse, $900; Anna Polak, Social Investigator, $1,080; Nellie Wise, Social Investigator, $900; Mary N. Winslow, Clerk, $600; Mollie J. Hickey, Margaret Young, Ruby M. Mercy and Ella M. Kinney, Trained Nurses, at $600; Daisy McEver, Persis Weare and Mary McCool, Pupil Nurses, $144; Alf. Bergen, Senior Hospital Artisan, $390; May McMahon, Trained Nurse, $600; Edith Batchelor, Anna McGavock and Katherine Coyle, Pupil Nurses, $120; Ruth Markel and Helen Still, Pupil Nurses, at $144; Patrick Connors, Hospital Artisan, $390; Henrietta Shulman, Pupil Dietitian, $120; William B. Buck, Superintendent, $3,500; John P. Higgins, Clerk, $900; Edward Conroy, Michael McAloon and Harry Murray, Licensed Fireman, $3 per day; Helen G. Annan, Irene Noonan, Nellie A. Moran, Daniel Conety, Walter Burns, Frank Idone, William Kreitzberg, John Ryan, Michael Snyder, Marie O'Donovan and Anastasia Curran, Trained Nurses, at $600; Patrick Kenny and Benjamin Novak, Attendants, $300; Thomas Nolan, Laundryman, $600; S. Isabella Stowell and Josephine McCabe, Trained Nurses, at $600; Paul Husselrath, Cook, $480; Jas. Conn, Engineer, $4.50; Henry O'Rourke, Senior Hospital Artisan, $480; Joseph Caulfield and John Fitzgerald, Hospital Helpers, $150; William L. Will, Mate, $900; John Rohan, Deckhand, $720; Michael Berris, Hospital Helper, $480; C. La Gois and Helene D. Conklin, Trained Nurses, $600; Herbert Marshall Attendant, $480; Mary A. Dubus, Annie Silsby, Jane Teribury, Edith Blythe and Helen Dickenger, Attendants, at $360; Theresa M. Smith and Daisy M. Cole, Pupil Nurses, at $180; Michael Murphy, William Riordon, August Schoffarth and William Sander, Licensed Firemen, at $3 per day; Harry H. Phillips, Hospital Clerk, $480; George Koenig, Hospital Clerk, $540; George Middleton, Senior Hospital Artisan, $390; Ida Cockran, Hospital Clerk, $480; Ann N. Kerrigan, Stenographer and Typewriter, $720; Frank Devlin, Superintendent of Stables, $1,000; Prudence Walsh, Trained Nurse, $600; Anna Mulick, Francis J. Brennan and Emma Hammond, Attendants, at $480; Elsie Marshall, Clerk, $360; Mary C. Nolan, Jean R. Geddes and Ida C. Stevens, Attendants, at $480; Anna M. Carr, Trained Nurse, $600; A. Stollmeyer, Fireman, $3; John J. McCormick, Clerk, $300; Kathryn Mara, Clerk, $360; Stephen W. Gerber, Clerk, $600; Mary I. Stevenson, Hospital Clerk, $540; John A. Grier, Clerk, $900; Martin Corsa, Clerk, $480; Amy Woodrow, Attendant, $360; Mary L. O'Neill, Lucy M. Goss, Florence E. Hait and Anna Lawless, Trained Nurses, at $600; Michael F. O'Shea and Theresa A. Morrison, Attendants, at $480; Florence Flynn, Attendant, $360; Louise Thompson, Attendant, $480; Agnes Darrow, Lucy M. Goss and Florence E. Hait, Trained Nurses, at $600; Mary Sullivan, Attendant, $240; Kathryn DeVallian, Anna V. Nolan and Mabel P. Whitney, Attendants, at $360; Cecelia Elish, Trained Nurse, $600.

Promotions—Teresa M. V. Broughton, Frances Finley, Dora Neal Adams, Pupil Nurses, to $144; Thomas Reardon, Senior Hospital Artisan, to $390; William Muldoon, Gardner, $360; William Byron and John Reilly, Hospital Helpers, to $240; Tekla Terrell and Elin Johnson, Pupil Nurses, to $144; Katherine Moran, Attendant, to $420; Elizabeth Hinchman Dietitian, to $900; Elizabeth Sheridan, Attendant, to $390.

Demotions—Florence E. Otten, Marie V. Kedadek and Ann R. Florence, Attendants, to $300; Martin M. Corsa, Hospital Clerk, to $480.

DEPARTMENT OF HEALTH.

Vital Statistics.

Summary for Week Ending Saturday, 12 M., March 25, 1916.

Boroughs	Population U. S. Census. April 15, 1910.	Estimated Population, July 1, 1916.	Deaths. 1915.	Deaths. 1916.	Deaths. *Corrected, 1916.	Births.	Marriages.	Still-births.	Death-rate. 1915.	Death-rate. 1916.	Death-rate. *Corrected, 1916.
Manhattan	2,331,542	2,634,223	877	785	782	1,310	684	50	17.66	15.59	15.53
The Bronx	430,980	575,877	175	157	139	305	101	18	12.94	14.26	12.63
Brooklyn	1,634,351	1,928,432	549	530	557	954	246	33	14.39	14.38	15.10
Queens	284,041	366.426	109	102	103	182	17	6	13.63	14.56	14.71
†Richmond	85,969	97,883	40	50	43	37	9	2	20.54	26.73	22.98
City of New York	4,766,883	‡5,602,841	1,750	1,624	1,624	2,788	1,057	109	15.72	15.16	....

*Corrected by redistributing deaths according to borough of residence.

‡The Federal Bureau of the Census having concluded not to use for estimating the population of New York the figures as returned by the State Census of 1915, notified this Department on Feb. 10, 1916, that future estimates of the population of the cities and States within the United States would be based upon the returns of the Federal censuses of 1900 and 1910, this Department has reached the conclusion to adopt the arithmetical method in use by the Bureau of the Census and to estimate the population of the boroughs and city for this and subsequent years in this manner.

†The presence of several large institutions, the great majority of whose inmates are non-residents of the city, increases considerably the death rate of this Borough.

Cases of Infectious Diseases Reported for Week Ending March 25, 1916.

Tuberculosis	364	Chickenpox	320	Syphilis	330
Diphtheria and Croup.....	347	Typhus Fever	1	Gonorrhea	73
Measles	772	Typhoid Fever	17	Chancroid	..
Scarlet Fever	226	Whooping Cough	203		
Smallpox	..	Cerebro-Spinal Meningitis.	5	Total.....	2,658



OFFICIAL DIRECTORY.

Unless otherwise stated, the Public Offices of the City are open for business from 9 a. m. to 5 p. m.; Saturday, 9 a. m. to 12 noon.

CITY OFFICES.

MAYOR'S OFFICE.
City Hall. Telephone, 8020 Cortlandt.
John Purroy Mitchel, Mayor.
Theodore Rousseau, Secretary.
Samuel L. Martin, Executive Secretary.
Bureau of Weights and Measures.
Municipal Building, 3d floor. Telephone, 1498 Worth.
Joseph Hartigan, Commissioner.

COMMISSIONERS OF ACCOUNTS.
Municipal Building. Telephone, 4315 Worth.
Leonard M. Wallstein, Commissioner of Accounts.

BOARD OF ALDERMEN.
Clerk's Office, Municipal Building, 2nd floor. Telephone, 4430 Worth.
P. J. Scully, Clerk.
President of the Board of Aldermen.
City Hall. Telephone, 6770 Cortlandt.
Frank L. Dowling, President.

BOARD OF AMBULANCE SERVICE.
Municipal Building, 10th floor. Ambulance Calls, 3100 Spring. Administration Offices, 748 Worth.

ARMORY BOARD.
Hall of Records. Telephone, 3900 Worth.
C. D. Rhinehart, Secretary.

ART COMMISSION.
City Hall. Telephone, 1197. Cortlandt.
John Quincy Adams, Assistant Secretary.

BOARD OF ASSESSORS.
Municipal Building, 8th floor. Telephone, 29 Worth.
William C. Ormond, Chairman.
St. George B. Tucker, Secretary.

BELLEVUE AND ALLIED HOSPITALS.
26th st. and 1st ave. Telephone, 4400 Madison Square.
Dr. John W. Brannan, President.
J. K. Paulding, Secretary.

DEPARTMENT OF BRIDGES.
Municipal Building, 18th floor. Telephone, 380 Worth.
F. J. H. Kracke. Commissioner.

CENTRAL PURCHASING COMMITTEE.
Municipal Building, 12th floor. Telephone, 4315 Worth.
———, Director.

BUREAU OF THE CHAMBERLAIN.
Municipal Building, 8th floor. Telephone, 4270 Worth.
Henry Bruere, Chamberlain.

BOARD OF CHILD WELFARE.
City Hall. Telephone, 7541 Cortlandt.
Harry L. Hopkins, Secretary.

CITY CLERK AND CLERK OF THE BOARD OF ALDERMEN.
Municipal Building, 2nd floor. Telephone, 4430 Worth.
P. J. Scully, City Clerk.

BOARD OF CITY RECORD.
Supervisor's office, Municipal Building, 8th floor. Distributing Division, 96 Reade st. Telephone, 3490 Worth.
David Ferguson, Supervisor.

DEPARTMENT OF CORRECTION.
Municipal Building, 24th floor. Telephone, 1610 Worth.
Burdette G. Lewis, Commissioner.

DEPARTMENT OF DOCKS AND FERRIES.
Pier "A," N. R. Telephone, 300 Rector.
R. A. C. Smith, Commissioner.

DEPARTMENT OF EDUCATION.
Board of Education.
Park ave. and 59th st. Telephone, 5580 Plaza.
Stated meetings of the Board are held at 4 p. m. on the first Monday in February, the second Wednesday in August, and the second and fourth Wednesdays in every month, except August.
William G. Willcox, President.
A. Emerson Palmer, Secretary.

BOARD OF ELECTIONS.
General office and office of the Borough of Manhattan, Municipal Building, 18th floor. Telephone, 1307 Worth.
Edward F. Boyle, President.
Moses M. McKee, Secretary.
Other Borough Offices.
The Bronx.
368 E. 148th st. Telephone, 336 Melrose.
Brooklyn.
435-445 Fulton st. Telephone, 1932 Main.
Queens.
64 Jackson ave., Long Island City. Telephone, 3375 Hunters Point.
Richmond.
Borough Hall, New Brighton, S. I. Telephone, 1000 Tompkinsville.
All offices open from 9 a. m. to 4 p. m. Saturdays, to 12 m.

BOARD OF ESTIMATE AND APPORTIONMENT.
Municipal Building, 13th floor. Telephone, 4560 Worth.
Joseph Haag, Secretary.
Bureau of Records and Minutes.
Municipal Building, 13th floor. Telephone, 4560 Worth. Joseph Haag, Secretary.
Office of the Chief Engineer.
Municipal Building, 13th floor. Telephone, 4560 Worth. Nelson P. Lewis, Chief Engineer.
Bureau of Public Improvements.
Municipal Building, 13th floor. Telephone, 4560 Worth. Nelson P. Lewis, Chief Engineer.
Bureau of Franchises.
Municipal Building, 13th floor. Telephone, 4563 Worth. Harry P. Nichols, Engineer.
Bureau of Contract Supervision.
Municipal Building, 13th floor. Telephone, 4560 Worth. Central Testing Laboratory, 125 Worth st. Telephone, 3088 Franklin. Tilden Adamson, Director.
Bureau of Standards.
Municipal Building, 13th floor. Telephone, 4560 Worth. George L. Tirrell, Director.

BOARD OF EXAMINERS.
Municipal Building, 20th floor, 9 a. m. to 4 p. m. Saturday, to 12 m. Telephone, 1800 Worth.
Board meets every Tuesday at 2 p. m.
Edward V. Barton, Clerk.

DEPARTMENT OF FINANCE.
Municipal Building, 5th floor. Telephone, 1200 Worth. Shepard A. Morgan, Secretary to the Department, 5th floor.

William A. Prendergast, Comptroller.
Deputy Comptrollers, 7th floor. Alexander Brough, Edmund D. Fisher, Hubert L. Smith.
Receiver of Taxes.
Manhattan—Municipal Building, 2nd floor. Telephone, 1200 Worth.
Bronx—177th st. and Arthur ave. Telephone, 140 Tremont.
Brooklyn—236 Duffield st. Telephone, 7056 Main.
Queens—5 Court Square, Long Island City. Telephone, 3386 Hunters Point.
Richmond—Borough Hall, St. George. Telephone, 100 Tompkinsville.
———. Receiver of Taxes.
Collector of Assessments and Arrears.
Manhattan—Municipal Building, 3d floor. Telephone, 1200 Worth.
Bronx—177th st. and Arthur ave. Telephone, 47 Tremont.
Brooklyn—503 Fulton st. Telephone, 8340 Main.
Queens—Municipal Building, Court Square, Long Island City. Telephone, 1553 Hunters Point.
Richmond—Borough Hall, St. George. Telephone, 1000 Tompkinsville.
Daniel Moynahan, Collector.

FIRE DEPARTMENT.
Municipal Building, 11th floor. Telephone. 4100 Worth.
Brooklyn, 365 Jay st. Telephone, 7600 Main.
Robert Adamson, Commissioner.

DEPARTMENT OF HEALTH.
Centre and Walker sts., Manhattan. Telephone, 6280 Franklin.
Burial Permit and Contagious Disease offices always open.
Bronx, 3731 Third ave. Brooklyn, Flatbush ave., Willoughby and Fleet sts. Queens, 372 Fulton st., Jamaica. Richmond, 514 Bay st., Stapleton.
Haven Emerson, Commissioner.
Eugene W. Scheffer, Secretary.

BOARD OF INEBRIETY.
300 Mulberry st. Telephone, 7116 Spring.
Board meets first Wednesday in each month at 3 o'clock.
Charles Samson, Secretary.

LAW DEPARTMENT.
Office of Corporation Counsel.
Main office, Municipal Building, 16th floor. Telephone, 4600 Worth.
Lamar Hardy, Corporation Counsel.
Brooklyn office, 153 Pierrepont st. Telephone, 2948 Main.
Bureau of Street Openings.
Main office Municipal Building, 15th floor. Telephone, 1380 Worth.
Brooklyn office, 166 Montague st. Telephone, 5916 Main.
Queens office, Municipal Building, Long Island City. Telephone, 3886 Hunters Point.
Bureau for the Recovery of Penalties.
Municipal Building, 15th floor. Telephone, 3460 Worth.
Bureau for the Collection of Arrears of Personal Taxes.
Municipal Building, 17th floor. Telephone, 4585 Worth.
Tenement House Bureau and Bureau of Buildings.
Municipal Building, 15th floor. Telephone, 1620 Worth.

DEPARTMENT OF LICENSES.
Main Office, 49 Lafayette st. Telephone, 4490 Franklin.
George H. Bell, Commissioner.
Brooklyn—381 Fulton st. Telephone, 1497 Main.
Queens—Borough Hall, Long Island City. Telephone, 5400 Hunters Point.
Richmond—Borough Hall, New Brighton. Telephone, 1000 Tompkinsville.
Division of Licensed Vehicles—517-519 W. 57th st. Telephone, 6387 Columbus.
Public Employment Bureau—Men's departments, 128 Leonard st. Women's departments, 53 Lafayette st. Telephone, 6100 Franklin.

MUNICIPAL CIVIL SERVICE COMMISSION.
Municipal Building, 14th floor. Telephone, 1580 Worth.
Henry Moskowitz, President.
Robert W. Belcher, Secretary.

MUNICIPAL REFERENCE LIBRARY.
Municipal Building, 5th floor. Telephone, 1072 Worth. 9 a. m. to 5 p. m.; Saturday, to 1 p. m.

DEPARTMENT OF PARKS.
Municipal Building, 10th floor. Telephone, 4850 Worth.
Cabot Ward, Commissioner, Manhattan and Richmond.
Borough of Brooklyn.
Litchfield Mansion, Prospect Park, Brooklyn. Telephone, 2300 South.
Raymond V. Ingersoll, Commissioner.
Borough of The Bronx.
Zbrowski Mansion, Claremont Park. Telephone, 2640 Tremont.
Thomas W. Whittle, Commissioner.
Borough of Queens.
The Overlook, Forest Park, Richmond Hill, L. I. Telephone, 2300 Richmond Hill.
John E. Weier, Commissioner.
PARK BOARD.
Municipal Building, 10th floor. Telephone, 4850 Worth. Cabot Ward, President; Louis W. Fehr, Secretary.

PAROLE COMMISSION.
Municipal Building, 24th floor. Telephone, 1610 Worth.
Thomas R. Minnick, Secretary.

EXAMINING BOARD OF PLUMBERS.
Municipal Building, 9th floor. Telephone, 1800 Worth.
Janet A. G. Hahn, Clerk.

POLICE DEPARTMENT.
240 Centre st. Telephone, 3100 Spring.
Arthur Woods, Commissioner.

DEPARTMENT OF PUBLIC CHARITIES.
Principal office, Municipal Building, 10th floor. Telephone, 4440 Worth.
Brooklyn and Queens, 327 Schermerhorn st., Brooklyn. Telephone, 2977 Main.
Bureau of Social Investigation, Pearl and Centre sts. Telephone, Worth 4405.
Borough of Richmond, Borough Hall, St. George, S. I. Telephone, 1000 Tompkinsville.
John A. Kingsbury, Commissioner.

PUBLIC SERVICE COMMISSION.
154 Nassau st., Manhattan, 8 a. m. to 11 p. m. every day, including holidays and Sundays. Telephone, 4150 Beekman.
Oscar S. Straus, Chairman.
James B. Walker, Secretary.

BOARD OF REVISION OF ASSESSMENTS
Municipal Building, 7th floor. Telephone, 1200 Worth.
John Korb, Jr., Chief Clerk.

COMMISSIONERS OF SINKING FUND.
Office of Secretary, Municipal Building, 7th floor. Telephone, 1200 Worth.
John Korb, Jr., Secretary.

DEPARTMENT OF TAXES AND ASSESSMENTS.
Municipal Building, 9th floor. Telephone, 1800 Worth.
Lawson Purdy, President.
C. Rockland Tyng, Secretary.

DEPARTMENT OF STREET CLEANING.
Municipal Building, 12th floor. Telephone, 4240 Worth.
John T. Fetherston, Commissioner.

TENEMENT HOUSE DEPARTMENT.
Manhattan and Richmond office, Municipal Building, 19th floor. Telephone, 1526 Worth.
Brooklyn and Queens office, 503 Fulton st., Brooklyn. Telephone, 3825 Main.
Bronx office, 391 East 149th st. Telephone, 7107 Melrose.
John J. Murphy, Commissioner.

BOARD OF WATER SUPPLY.
Municipal Building, 22nd floor. Telephone, 3150 Worth.
Charles Strauss, President.
George Featherstone, Secretary.

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.
Municipal Building, 23d, 24th and 25th floors.
Telephones: Manhattan, 4320 Worth; Brooklyn, 3980 Main; Queens, 3441 Hunters Point; Richmond, 840 Tompkinsville; Bronx, 3400 Tremont.
Brooklyn, 50 Court St, Brooklyn. Bronx, Tremont and Arthur aves. Queens, Municipal Building, Long Island City. Richmond, Municipal Building, St. George.
William Williams, Commissioner.

BOROUGH OFFICES.

BOROUGH OF THE BRONX.
President's office, 3d ave. and 177th st. Telephone, 2680 Tremont.
Douglas Mathewson, President.

BOROUGH OF BROOKLYN.
President's office, 2d floor, Borough Hall.
Commissioner of Public Works, 2d floor, Borough Hall.
Assistant Commissioner of Public Works, 2d floor, Borough Hall.
Bureau of Highways, 5th and 12th floors, 50 Court st.
Bureau of Public Buildings and Offices, 10th floor, 50 Court st.
Bureau of Sewers, 10th floor, 215 Montague st.
Bureau of Buildings, 4th floor, Borough Hall.
Topographical Bureau, 209 Montague st.
Bureau of Substructures, 11th floor, 50 Court st.
Telephone, 3960 Main.
Lewis H. Pounds, President.

BOROUGH OF MANHATTAN.
President's office, 20th floor, Municipal Bldg.
Commissioner of Public Works, 21st floor, Municipal Building.
Assistant Commissioner of Public Works, 21st floor, Municipal Building.
Bureau of Highways, 21st floor, Municipal Building.
Bureau of Public Buildings and Offices, 20th floor, Municipal Building.
Bureau of Sewers, 21st floor, Municipal Bldg.
Bureau of Buildings, 20th floor, Municipal Building.
Telephone, 4227 Worth.
Marcus M. Marks, President.

BOROUGH OF QUEENS.
President's office, Borough Hall, Long Island City. Telephone, 5400 Hunters Point.
Bureau of Public Buildings and Offices, Town Hall, Flushing, L. I. Telephone, 1740 Flushing.
Maurice E. Connolly, President.

BOROUGH OF RICHMOND.
President's office, New Brighton, Staten Island. Telephone, 1000 Tompkinsville.
Calvin D. Van Name, President.

CORONERS.
Manhattan, Municipal Building—Second Floor. Open at all hours of the day and night. Telephone, Worth 3711.
Bronx—Arthur and Tremont aves. Telephone, 1250 Tremont, 8 a. m. to midnight, every day.
Brooklyn, 236 Duffield st. Telephone, 4004 Main. Open at all hours of the day and night.
Queens, Town Hall, Jamaica, L. I., 9 a. m. to 10 p. m.; Sundays and holidays, 9 a. m. to 12 m.
Richmond, 175 Second st., New Brighton. Open at all hours of the day and night.

COUNTY OFFICES.

Unless otherwise stated, the County offices are open for business from 9 a. m. to 4 p. m.; Saturday, 9 a. m. to 12 noon.

NEW YORK COUNTY.

COUNTY CLERK.
County Court House. Telephone, 5388 Cortlandt.
9 a. m. to 2 p. m., during July and August.
Wm. F. Schneider, County Clerk.

DISTRICT ATTORNEY.
Criminal Courts Building, 9 a. m. to 5.15 p. m.; Saturdays, to 12 m. Telephone, 2304 Franklin.
Edward Swann, District Attorney.

COMMISSIONER OF JURORS.
280 Broadway. Telephone, 241 Worth.
Frederick O'Byrne, Commissioner.

PUBLIC ADMINISTRATOR.
119 Nassau st. Telephone, 6376 Cortlandt.
William M. Hoes, Public Administrator.

COMMISSIONER OF RECORDS.
Hall of Records. Telephone, 3900 Worth.
Charles K. Lexow, Commissioner.

REGISTER.
Hall of Records. Telephone, 3900 Worth.
9 a. m. to 2 p. m. during July and August.
John J. Hopper, Register.

SHERIFF.
51 Chambers st. Telephone, 4300 Worth.
New York County Jail, 70 Ludlow st.
Alfred E. Smith, Sheriff.

SURROGATES.
Hall of Records. Telephone, 3900 Worth.
John P. Cohalan; Robert Ludlow Fowler, Surrogates.
William Ray De Lano, Chief Clerk.
John F. Curry, Commissioner of Records.

KINGS COUNTY.

COUNTY CLERK.
Hall of Records, Brooklyn. Telephone, 4930 Main.
William E. Kelly, County Clerk.

COUNTY COURT.
County Court House, Brooklyn. Court opens at 10 a. m. daily and sits until business is completed. Part I, Room No. 23; Part II, Room No. 10; Part III, Room No. 14; Part IV, Room No. 1, Court House. Clerk's office, Rooms 17, 18, 19 and 22; open daily from 9 a. m. to 5 p. m.; Saturday to 12 m. Telephone, 4154 Main.
John L. Gray, Chief Clerk.

DISTRICT ATTORNEY.
66 Court st., Brooklyn, 9 a. m. to 5.30 p. m.; Saturday, to 1 p. m. Telephone, 2954 Main.
James C. Cropsey, District Attorney.

COMMISSIONER OF JURORS.
381 Fulton st., Brooklyn. Telephone, 330-331 Main.
Jacob Brenner, Commissioner.

PUBLIC ADMINISTRATOR.
44 Court st., Brooklyn. Telephone, 2840 Main.
Frank V. Kelly, Public Administrator.

COMMISSIONER OF RECORDS.
Hall of Records, Brooklyn. Telephone, 6988 Main.
Edmund O'Connor, Commissioner.

REGISTER.
Hall of Records, Brooklyn. Telephone, 2830 Main.
Edward T. O'Loughlin, Register.

SHERIFF.
4560 Court st., Brooklyn. Telephone, 6845 Main.
Edward Riegelmann, Sheriff.

SURROGATE.
Hall of Records, Brooklyn. Court opens at 10 a. m. Telephone, 3954 Main.
Herbert T. Ketcham, Surrogate.
John H. McCooey, Chief Clerk.

BRONX COUNTY.

COUNTY CLERK.
Civil Records—161st. st. and 3d ave. Telephone, 9266 Melrose.
Criminal Branch, 1918 Arthur ave.
James Vincent Ganly, County Clerk.

COUNTY JUDGE.
161st st. and 3 ave. Telephone, 7907 Melrose.
Louis D. Gibbs, County Judge.

DISTRICT ATTORNEY.
Tremont and Arthur aves. Telephone, 1100 Tremont.
Francis Martin, District Attorney.

COMMISSIONER OF JURORS.
1932 Arthur ave. Telephone, 3700 Tremont.
John A. Mason, Commissioner.

PUBLIC ADMINISTRATOR.
2808 3d ave. Telephone, 9816 Melrose, 9 a. m. to 5 p. m., Saturday to 12 m.
Ernest E. L. Hammer, Public Administrator.

REGISTER.
1932 Arthur ave. Telephone, 6694 Tremont.
Edward Polak, Register.

SHERIFF.
1932 Arthur ave. Telephone, 6600 Tremont.
James F. O'Brien, Sheriff.

SURROGATE.
Bergen Building Annex, 1918 Arthur ave.
George M. S. Schulz, Surrogate.

QUEENS COUNTY.

COUNTY CLERK.
364 Fulton st., Jamaica. Telephone, 151 Jamaica.
Alexander Dujat, County Clerk.

COUNTY COURT.
County Court House, Long Island City. Telephone, 596 Hunters Point.
Court opens at 10 a. m. Trial Term begins first Monday of each month, except July, August and September, and on Friday of each week.
Clerk's office opens 9 a. m. to 5 p. m.; Saturdays to 12.30 p. m. Telephone, 551 Jamaica.
Burt Jay Humphrey, County Judge.

DISTRICT ATTORNEY.
County Court House, Long Island City, 9 a. m. to 5 p. m.; Saturday, to 12 m.
County Judge's office always open at 336 Fulton st., Jamaica. Telephone, 3871 Hunters Point.
Denis O'Leary, District Attorney.

COMMISSIONER OF JURORS.
County Court House, Long Island City. Telephone, 963 Hunters Point.
Thorndyke C. McKennee, Commissioner.

PUBLIC ADMINISTRATOR.
302 Fulton st., Jamaica. Telephone, 223 Jamaica.
Randolph White, Public Administrator.

SHERIFF.
County Court House, Long Island City. Telephone, 3766 Hunters Point.
Paul Stier, Sheriff.

SURROGATE.
364 Fulton st., Jamaica. Telephone, 397 Jamaica.
Daniel Noble, Surrogate.

RICHMOND COUNTY.

COUNTY CLERK.
County Office Building, Richmond. Telephone, 28 New Dorp.
C. Livingston Bostwick, Clerk.

COUNTY JUDGE AND SURROGATE.
Trial Terms, with Grand and Trial Jury, second Monday of March, first Monday of October.
Trial Terms, with Trial Jury only, first Monday of May, first Monday of December.
Special Terms, Without Jury—Wednesday of each week, except the last week of July, the month of August and the first week of September.
Surrogate's Court.
Monday and Tuesday of each week at the Borough Hall, St. George, and on Wednesday at the Surrogate's Court at Richmond, except during the session of the County Court. There will be no Surrogate's Court during the month of August.
Surrogate's Court and Office, Richmond, S. I.
Surrogate's Chambers, Borough Hall, St. George.
J. Harry Tiernan, County Judge and Surrogate.

DISTRICT ATTORNEY.
Borough Hall, St. George. Telephone, 50 Tompkinsville, 9 a. m. to 5 p. m.; Saturday, to 12 m.
Albert C. Fach, District Attorney.

COMMISSIONER OF JURORS.
Village Hall, Stapleton. Telephone, 81 Tompkinsville.
Edward I. Miller, Commissioner.

PUBLIC ADMINISTRATOR.
Port Richmond. Telephone, 704 West Brighton.
William T. Holt, Public Administrator.

SHERIFF.
County Court House, Richmond. Telephone, 120 New Dorp.
Spire Pitou, Jr., Sheriff.

THE COURTS.

CITY COURT OF THE CITY OF NEW YORK.
City Hall Park. Special Term Chambers held from 10 a. m. to 4 p. m. Clerk's office open from 9 a. m. to 4 p. m. Telephone, 122 Cortlandt.
Thomas F. Smith, Clerk.

CITY MAGISTRATES' COURTS.
Boroughs of Manhattan and Bronx.
William McAdoo, Chief City Magistrate, 300 Mulberry st. Telephone, 6213 Spring.
Municipal Term—Room 500, Municipal Building, Manhattan.
First District—Criminal Courts Building.
Second District—125 Sixth ave.
Third District—2d ave. and 1st st.
Fourth District—151 E. 57th st.
Fifth District—121st st. and Sylvan place.
Sixth District—162d st. and Washington ave.
Seventh District—314 W. 54th st.
Eighth District—1014 E. 181st st., The Bronx.
Ninth District (Night Court for Females)—125 6th ave.
Tenth District (Night Court for Males)—151 E. 57th st.
Eleventh District (Domestic Relations)—151 E. 57th st.
Thirteenth District (Domestic Relations)—1014 E. 181st st., The Bronx.
Office of the Chief Probation Officer, 300 Mulberry st. Telephone, 8713 Spring.
Borough of Brooklyn.
Office of Deputy Chief Clerk, Wm. F. Delaney, 44 Court st. Telephone, 7411 Main.
First District—318 Adams st.
Second District—Court and Butler sts.
Fifth District—261 Bedford ave.
Sixth District—495 Gates ave.
Seventh District—31 Snider ave., Flatbush.
Eighth District—W. 8th st., Coney Island.
Ninth District—5th ave. and 29th st.
Tenth District—133 New Jersey ave.
Domestic Relations—Myrtle and Vanderbilt aves.
Borough of Queens.
First District—St. Mary's Lyceum, L. I. City.
Second District—Town Hall, Flushing, L. I.
Third District—Central ave., Far Rockaway.
Fourth District—Town Hall, Jamaica, L. I.
Borough of Richmond.
First District—Lafayette ave., New Brighton.
Second District—Village Hall, Stapleton.
All courts open daily from 9 a. m. to 4 p. m., except on Saturdays, Sundays and legal holidays, when only morning sessions are held.

COURT OF GENERAL SESSIONS.
Criminal Court Buildings. Court opens at 10.30 a. m. Clerk's office open from 9 a. m. to 4 p. m., and on Saturdays until 12 m.
Edward R. Carroll, Clerk.

MUNICIPAL COURTS.
The Clerks' offices are open from 9 a. m. to 4 p. m.; Saturday, to 12 noon.
Board of Justices—James J. Devin, Secretary, 264 Madison st., Manhattan. Telephone, 2596 Orchard.
Borough of Manhattan.
First District—146 Grand Street. Telephone, 9611 Spring. Additional part is held at the southwest corner of 6th ave. and 10th st. Telephone, 2513 Chelsea.
Second District—264-266 Madison st. Telephone, 4300 Orchard.
Third District—314 West 54th st. Telephone, 5450 Columbus.
Fourth District—207 E. 32d st. Telephone, 4358 Murray Hill.
Fifth District—2565 Broadway. Telephone, 4006 Riverside.
Sixth District—155 East 88th st. Telephone, 4343 Lenox.
Seventh District—70 Manhattan st. Telephone, 6334 Morningside.
Eighth District—121st st. and Sylvan place. Telephone, 3950 Harlem.
Ninth District—Madison ave. and 59th st. Telephone, 3873 Plaza.
Borough of The Bronx.
First District—Town Hall, 1400 Williamsbridge road, Westchester. Telephone, 457 Westchester.
Second District—Washington ave. and 162d st. Telephone, 3042 Melrose.
Borough of Brooklyn.
First District—State and Court sts. Telephone, 7091 Main.
Second District—495 Gates ave. Telephone, 504 Bedford.
Third District—6 Lee ave. Telephone, 556 Williamsburg.
Fourth District—14 Howard ave. Telephone, 4323 Bushwick.
Fifth District—5220 Third ave. Telephone, 3907 Sunset.
Sixth District—236 Duffield st. Telephone, 6166 Main.
Seventh District—31 Pennsylvania ave. Telephone, 904 East New York.
Borough of Queens.
First District—115 Fifth st., Long Island City. Telephone, 1420 Hunters Point.
Second District—Broadway and Court st., Elmhurst. Telephone, 87 Newtown.
Third District—1908 Myrtle ave., Glendale. Telephone, 2352 Bushwick.
Fourth District—Town Hall, Jamaica. Telephone, 1654 Jamaica.
Borough of Richmond.
First District—Lafayette ave. and 2d st., New Brighton. Telephone, 503 Tompkinsville.
Second District—Village Hall, Stapleton. Telephone, 313 Tompkinsville.

COURT OF SPECIAL SESSIONS.
Courts opens at 10 a. m.
Part I, Criminal Court Building, Manhattan. Telephone, 3983 Franklin.
Part II, 171 Atlantic ave., Brooklyn. Telephone, Main 4280.
Part III, Town Hall, Jamaica. Held on Tuesday of each week. Telephone, 2620 Jamaica.
Part IV, Borough Hall, St. George. Held on Wednesday of each week. Telephone, 324 Tompkinsville.
Part V, Bergen Building, Tremont and Arthur aves., Bronx. Held on Thursday of each week. Telephone, 6056 Tremont.
Frank W. Smith, Chief Clerk.

CHILDREN'S COURT.
New York County—137 E. 22d st. Telephone, 3611 Gramercy.
Dennis A. Lambert, Clerk.
Bronx County—355 E. 137th st. Court held on Wednesday and Friday of each week. Telephone, 9092 Melrose.
Michael Murray, Clerk.
Kings County—102 Court st. Telephone, 627 Main.
William C. McKee, Clerk.
Queens County—19 Flushing ave., Jamaica. Court held on Monday and Thursday of each week. Telephone, 2624 Jamaica.
Sydney Ollendorf, Clerk.
Richmond County—Corn Exchange Bank Building, St. George. Court held on Tuesday of each week. Telephone, 324 Tompkinsville.
William J. Browne, Clerk.

SUPREME COURT—APPELLATE DIVISION.
First Judicial Department.
Madison ave., corner 25th st. Court open from 2 p. m. until 6 p. m. Friday, Motion Day. Court opens at 10.30 a. m. Motions called at 10 a. m. Orders called at 10.30 a. m. Telephone, 3840 Madison Square.
Alfred Wagstaff, Clerk.
Second Judicial Department.
Borough Hall, Brooklyn. Court meets from 2 p. m. to 5 p. m., excepting that on Fridays Court opens at 10 o'clock a. m. Clerk's office open 9 a. m. Telephone, 1392 Main.
John B. Byrne, Clerk.

SUPREME COURT—APPELLATE TERM.
503 Fulton st., Brooklyn. Court meets 10 a. m. Clerk's office opens 9 a. m. Telephone, 7452 Main.
Joseph H. De Bragga, Clerk.

SUPREME COURT—CRIMINAL DIVISION.
Criminal Court Building. Court opens at 10.30 a. m. Clerk's office open from 9 a. m. to 4 p. m.; Saturday, to 12 m. Telephone, 6064 Franklin.
William J. Schneider, Clerk.

SUPREME COURT—FIRST DEPARTMENT.
County Court House. Court open from 10.15 a. m. to 4 p. m. Telephone, 4580 Cortlandt.

SUPREME COURT—SECOND DEPARTMENT.
Kings County.
Joralemon and Fulton sts., Brooklyn. Clerk's office hours, 9 a. m. to 5 p. m. Seven jury trial parts. Special Term for trials. Special Term for motions. Special Term (ex-parte business). Court opens at 10 a. m. Naturalization Bureau, Hall of Records, Brooklyn. Telephone, 5460 Main.
James F. McGee, General Clerk.
Queens County.
County Court House, Long Island City. Court opens at 10 a. m. Trial and Special Term for motions and ex-parte business each month, except July, August and the first two weeks in September, in Part 1. Trial Term, Part 2, February, April, June, last two weeks in September, and November. Special Term for Trials, January, April, June and October.
Clerk's Office open 9 a. m. to 5 p. m. Saturdays until 12 m. from October to June. July, August and September until 2 p. m. Telephone, 3896 Hunters Point.
Thomas B. Seaman, Special Deputy Clerk in Charge.
Richmond County.
Trial Term held at County Court House, Richmond. Special Term for trials held at Court room, Borough Hall, St. George. Special Term for motions held at Court House, Borough Hall, St. George.
C. Livingston Bostwick, County Clerk.

POLICE DEPARTMENT.

Auction Sale of Unclaimed Property.

PUBLIC NOTICE IS HEREBY GIVEN THAT the 21st PUBLIC AUCTION SALE, consist-

ing of UNCLAIMED PROPERTY (watches, chains, fobs, pins, rings, bracelets, lockets, clothing, knives, spoons, baby carriages, robes, shovels, garden forks, suit cases, pocketbooks, hand bags, razors, pocketknives, clocks, rugs, shoes, tools, household goods, hardware, umbrellas, walking canes, etc., etc.) will be held in the Trial Room, at Police Headquarters, No. 78 Poplar Street, Borough of Brooklyn, on

THURSDAY, APRIL 6, 1916,

at 10:30 A. M.

ARTHUR WOODS, Police Commissioner.

m25,a6

Auction Sale.

PUBLIC NOTICE IS HEREBY GIVEN THAT the One Hundred and Eighty-fourth Public Auction Sale, consisting of unclaimed boats and a quantity of old scrap iron, will be held at Marine Sub-Division "B," at the Foot of East 120th Street, Borough of Manhattan, on

THURSDAY, MARCH 30, 1916,

at 11:00 A. M.

Lot No. 1. 10-Foot Rowboat.
Lot No. 2. 15-Foot Dory.
Lot No. 3. 14-Foot Skiff.
Lot No. 4. 10-Foot Skiff.
Lot No. 5. 10-Foot Skiff.
Lot No. 6. 12-Foot Skiff.
Lot No. 7. 16-Foot Skiff.
Lot No. 8. 13-Foot Skiff.
Lot No. 9. 16-Foot Skiff.
Lot No. 10. 16-Foot Rowboat.
Lot No. 11. 25-Foot Metallic lifeboat.
Lot No. 12. Quantity of Old iron.

Terms strictly cash. No checks accepted. Property not Warranted. Property must be removed at once.

ARTHUR WOODS, Police Commissioner.

m18,30

Owners Wanted for Unclaimed Property.

OWNERS WANTED BY THE PROPERTY Clerk of the Police Department of The City of New York, No. 240 Centre st., for the following property now in custody without claimants: Automobiles, baby carriages, bags, bicycles, boats, cameras, clothing, furniture, jewelry, junk, machinery, merchandise, metals, optical goods, silverware, tools, trunks, typewriters, umbrellas, etc.; also sums of money feloniously obtained by prisoners, or found abandoned by Patrolmen of this Department.

ARTHUR WOODS, Police Commissioner.

OWNERS WANTED BY THE PROPERTY Clerk of the Police Department of The City of New York—Office, No. 72 Poplar st., Borough of Brooklyn—for the following property, now in custody, without claimants: Boats, rope, iron, lead, male and female clothing, boots, shoes, wine, blankets, diamonds, canned goods, liquors, etc.; also small amount of money taken from prisoners and found by Patrolmen of this Department.

ARTHUR WOODS, Police Commissioner.

BOARD MEETINGS.

Board of Aldermen.

The Board of Aldermen meets in the Aldermanic Chamber, City Hall, every Tuesday, at 1.30 o'clock p. m.

P. J. SCULLY, City Clerk and Clerk to the Board of Aldermen.

Board of Estimate and Apportionment.

The Board of Estimate and Apportionment meets in the Old Council Chamber, Room 16, City Hall, every Friday at 10 o'clock a. m.

JOSEPH HAAG, Secretary.

Commissioners of Sinking Fund.

The Commissioners of the Sinking Fund meet in the Meeting Room (Room 16), City Hall, on Thursdays, at 11 a. m., at call of the Mayor.

JOHN KORB, Jr., Secretary.

Board of Revision of Assessments.

The Board of Revision of Assessments meets in the Meeting Room (Room 16), City Hall, upon notice of the Secretary.

JOHN KORB, Jr., Secretary.

Board of City Record.

The Board of City Record meets in the City Hall at call of the Mayor.

DAVID FERGUSON, Supervisor, Secretary.

MUNICIPAL CIVIL SERVICE COMMISSION.

Notices of Examinations.

PUBLIC NOTICE IS HEREBY GIVEN THAT applications will be received by the Municipal Civil Service Commission, Municipal Building, Manhattan, New York City, from

THURSDAY, MARCH 30, 1916, TO THURSDAY, APRIL 13, 1916,

for the position of

CHIEF EXAMINER, PURCHASE AND SUPPLIES.

No applications delivered at the office of the Commission, by mail or otherwise, after 4 p. m. THURSDAY, APRIL 13, 1916, will be accepted.

Application blanks will be mailed upon request, provided a self-addressed stamped envelope or sufficient postage is enclosed to cover the mailing. The Commission will not guarantee the delivery of same. Postage on applications forwarded by mail must be fully prepaid.

Applicants must be citizens of the United States and residents of the State of New York.

The requirement that every application shall bear the certificates of four reputable citizens whose residences or places of business are within the City of New York is waived for applicants for this examination whose previous occupation or employment has been wholly or in part outside the City of New York, and the said certificates will be accepted from persons resident or engaged in business elsewhere.

The subjects and weights of the examination are: Experience, 4; 75% required. Thesis, 3; 70% required. Oral, 3; 70% required.

A qualifying physical test will be given on the same day as the Oral examination.

Candidates failing to qualify in any part of the examination will not be summoned for the ensuing tests.

Applications for this examination must be filed on a special blank, Form C, with insert.

DUTIES.

The present duties of this position are: (1) to supervise (under the direction of the Director of the Bureau of Contract Supervision) the force engaged in carrying to completion the preparation of standard specifications governing the purchase of all classes of supplies and materials by the City of New York, and in currently revising specifications already adopted; and (2) to assist in developing plans for centralizing the purchase, distribution and control of all supplies for the City of New York.

It is expected that, with the development of a system for such central purchase and control, the incumbent of this position, with the force under him, will be transferred to the organization created to operate such system and that major functions in the administration of that organization will be conferred upon him, including the continuance of supplies standardization and the preparation of standard specification for supplies and more especially the development of a system of stores organization and management for the City of New York.

REQUIREMENTS.

Experience: Extended executive experience of a kind tending to qualify for this position, and preferably in connection with purchasing organizations, is required.

Technical Applicants must possess (1) a basic knowledge of industrial technique sufficient to enable them to supervise the investigation of processes of manufacture of all kinds of supplies, (2) a thorough knowledge of current practice in purchasing, distributing and controlling supplies in both governmental and private organizations, especially with reference to the preparation of specifications and the organization and management of stores, and (3) a thorough understanding of the legal provisions governing these functions in the City of New York.

Candidates must be at least 25 years of age on the closing date for the receipt of applications.

There is one vacancy in the Bureau of Contract Supervision, in the Board of Estimate and Apportionment, at $5,000 per annum.

The term of the eligibility of the list resulting from this examination is fixed at not less than one year nor more than four years.

m30,a13 R. W. BELCHER, Secretary.

PUBLIC NOTICE IS HEREBY GIVEN THAT applications will be received by the Municipal Civil Service Commission, Municipal Building, Manhattan, New York City, from

TUESDAY, MARCH 21, 1916, TO TUESDAY, APRIL 11, 1916,

for the position of

SUPERINTENDENT, ASPHALT PLANT.

No applications delivered at the office of the Commission, by mail or otherwise, after 4 P. M. TUESDAY, APRIL 11, 1916, will be accepted. Application blanks will be mailed upon request, provided a self-addressed stamped envelope or sufficient postage is enclosed to cover the mailing. The Commission will not guarantee the delivery of the same. Postage on applications forwarded by mail must be fully prepaid.

Applicants must be citizens of the United States. The requirement that applicants must be residents of the State of New York is waived for this examination.

Persons who accept appointment must thereafter reside in the State of New York.

The requirement that every application shall bear the certificates of four reputable citizens whose residences or places of business are within the City of New York is waived for applicants for this examination whose previous occupation or employment has been wholly or in part outside the City of New York, and the said certificates will be accepted from persons resident or engaged in business elsewhere.

The subjects and weights are: Experience, 4; 70% required. Duties, 3; 70% required. Oral, 3; 70% required.

A qualifying physical examination will be given. Candidates failing to qualify in any part of the examination will not be summoned for the ensuing tests.

Applications for this examination must be filed on a special blank, Form B, with insert.

Requirements: Candidates must have had at least ten years' experience in the construction of pavements or in the manufacture of materials for pavements or in industrial plants of such character and magnitude as to have brought them into intimate contact with crushing, mixing or distributing machinery which prepare materials for Engineering Works, or the equivalent of such experience. Three years of this period must have been spent in responsible charge of an asphalt plant or of similar works of such size and importance as to require administrative and initiative ability. Candidates must further be familiar with current practice and discussion relative to bituminous mixtures and they must give evidence of a knowledge of the approved types of asphalt working machinery. Suitable credit will be allowed to holders of appropriate technical degrees or to those submitting evidence of having equivalent or similar scientific acquirements.

Duties: The Superintendent of an Asphalt Plant will have responsible charge of the operation, maintenance and efficiency of a Municipal plant now being operated by the City of New York. He will report directly to the Chief Engineer of Highways and will be required to give independent, critical judgment incident to organization and equipment; in co-operation with the Chief Chemist, he will be required to advise as to the quality and inspection of the raw materials; he will be expected to co-operate with the Engineer of maintenance and to install from time to time approved appliances for efficient handling of materials within the plant as well as for the distribution of the product to various points for repairing city streets. He will supervise, direct and regulate the proportioning of mixtures based upon his own knowledge and upon that derived from the tests of the plant chemist.

The salary for this grade of work ranges from $2,100 to $3,180 per annum, depending upon the size of the plant. The vacancy immediately to be filled is at the large Municipal Plant of the Borough of Manhattan, which carries a minimum salary of $2,400 per annum.

Candidates must be at least 25 years of age on the closing date for the receipt of applications.

The term of the eligibility of the list resulting from this examination is fixed at not less than one year nor more than four years.

m21,a11 R. W. BELCHER, Secretary.

PUBLIC NOTICE IS HEREBY GIVEN THAT applications will be received by the Municipal Civil Service Commission, Municipal Building, Manhattan, New York City from

MONDAY, MARCH 20, 1916, TO MONDAY, APRIL 10, 1916,

for the position of

DEPUTY CHIEF, BUREAU OF FIRE PREVENTION.

No applications delivered at the office of the Commission, by mail or otherwise, after 4 P. M., MONDAY, APRIL 10, 1916, will be accepted. Application blanks will be mailed upon request, provided a self-addressed stamped envelope or sufficient postage is enclosed to cover the mailing. The Commission will not guarantee the delivery of the same. Postage on applications forwarded by mail must be fully prepaid.

Applicants must be citizens of the United States. The requirement that applicants must be residents of the State of New York is waived for this examination.

Persons who accept appointment must thereafter reside in the State of New York.

The requirement that every application shall bear the certificates of four reputable citizens whose residences or places of business are within the City of New York is waived for applicants for this examination whose previous occupation or employment has been wholly or in part outside the City of New York, and the said certificates will be accepted from persons resident or engaged in business elsewhere.

The subjects and weights for this examination are: Experience, 4; 70 per cent. required. Duties, 3; 70 per cent. required. Oral, 3; 70 per cent. required.

A qualifying physical examination will be given. Candidates failing to qualify in any part of the examination will not be summoned for the ensuing tests.

Applications for this examination are to be filed on a special blank, Form C, with insert.

Requirements—Candidates must have had experience of an executive character tending to fit them for the responsibility of the work of a large number of employees. They must have had four years' experience as an Engineer, Inspector or Investigator in work relating to fire hazards and appliances, or in such capacity as to direct, supervise or regulate building construction or occupancy, or other similar experience. Two years' experience will be allowed to holders of appropriate degrees or to those submitting evidence of having pursued for a sufficient length of time courses leading to such degrees as would fit them for work of this character.

Duties—The Deputy Chief, Bureau of Fire Prevention will assist and represent the Chief in the general administration of the Bureau, and will be called upon at times to assume large discretionary powers relating to the enforcement of fire protection rules and regulations governing the construction, alteration and occupancy of buildings. The Bureau has authority over the use of all buildings and is responsible for: investigation as to the cause of fires; exit facilities; matters affecting common and special fire hazards, including storage and handling of explosives and inflammable substances; heating appliances; auxiliary fire appliances and fire alarm systems.

Candidates must be at least 25 years of age on the closing date for the receipt of applications.

The Bureau of Standards has recommended to the Board of Estimate and Apportionment that the salary range for this position should be $3,600 to $4,200 per annum; but the vacancy is at $3,000 per annum at present.

The term of the eligibility of the list resulting from this examination is fixed at not less than one year nor more than four years.

The requirement of paragraph 12 of Rule VII., that no person who has entered any examination for appointment to a competitive position and failed, or who has withdrawn from an examination, shall be admitted within nine months from the date of such examination to a new examination for the same position, is waived for this examination.

m20,a10 R. W. BELCHER, Secretary.

PUBLIC NOTICE IS HEREBY GIVEN THAT applications will be received by the Municipal Civil Service Commission, Municipal Building, Manhattan, New York City, from

FRIDAY, MARCH 17, 1916, to FRIDAY, MARCH 31, 1916.

for the position of

DIRECTOR, CENTRAL PURCHASE COMMITTEE.

No applications delivered at the office of the Commission, by mail or otherwise, after 4 P. M. FRIDAY, MARCH 31, 1916, will be accepted.

Application blanks will be mailed upon request, provided a self-addressed stamped envelope or sufficient postage is enclosed to cover the mailing. The Commission will not guarantee the delivery of the same. Postage on applications forwarded by mail must be fully prepaid.

Applicants must be citizens of the United States and residents of the State of New York.

The requirement that every application shall bear the certificates of four reputable citizens whose residences or places of business are within the City of New York is waived for applicants for this examination whose previous occupation or employment has been wholly or in part outside the City of New York, and the said certificates will be accepted from persons resident or engaged in business elsewhere.

The subjects and weights of the examination are: Experience, 4; 75% required. Thesis, 3; 70% required. Oral, 3; 70% required.

A qualifying physical test will be given on the same day as the oral examination.

Candidates failing to qualify in any part of the examination will not be summoned for the ensuing tests.

Applications for this examination must be filed on a special blank, Form C, with insert.

Duties: To have active direction of the planning, installing, organizing and supervising a system of central purchase and control of all supplies purchased by the City of New York.

Requirements: Extended experience in an important executive capacity is required. This experience must have been such as to qualify the candidate for the position sought. The candidate must also present evidence of having occupied a position of trust over a considerable period. Before any appointment is made, the character and record of the prospective appointee will be investigated most carefully.

Technical: A thorough knowledge of scientific purchasing methods and of accounting control relating thereto and a clear understanding of the legal conditions governing the making of purchases by the City of New York are required.

Candidates must be at least 30 years of age on the closing date for the receipt of applications.

There is one vacancy in the position of Director, Central Purchase Committee, at $5,000 per annum.

If the proposed bill providing for the establishment of a Board of Central Purchase is enacted into law, the position of Director, Central Purchase Committee, in such Board will probably be filled by the transfer of the person holding the position above advertised. The salary for such proposed position has not been established, but will probably be considerably in excess of that provided for the position above mentioned.

The term of the eligibility of the list resulting from this examination is fixed at not less than one year nor more than four years.

m17,31 R. W. BELCHER, Secretary.

DEPARTMENT OF STREET CLEANING.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at Room 1244, Municipal Building, Manhattan, until 12 o'clock noon on

MONDAY, APRIL 10, 1916,

FOR FURNISHING AND DELIVERING 200 WHEELS.

The time allowed for the delivery of materials and supplies and the performance of the contract is Forty-five (45) days.

The amount of security required is Thirty (30) per centum of the amount of the contract price.

Bids must be submitted in duplicate in separate envelopes.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per horse, per wheel, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total, and the award made to the lowest bidder on the entire contract.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Room 1244, Municipal Building, New York City.

J. T. FETHERSTON, Commissioner.

Dated March 27, 1916. m30,a10

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning, at Room 1247, Municipal Building, Manhattan, until 12 o'clock noon on

MONDAY, APRIL 3, 1916,

FOR FURNISHING AND DELIVERING—CLASS I, 4 TRACTORS; CLASS II, 1 GASOLINE ENGINE; CLASS III, 1 GENERATOR; CLASS IV, 2 DRIVING MOTORS.

The time allowed for the delivery of materials and supplies and the performance of the contract is sixty (60) calendar days.

The amount of security required for the faithful performance of the contract is 30% of the contract price.

Bids must be submitted in duplicate in separate envelopes.

The bidder will state the price of each item or article contained in schedules, per Tractor, Engine, Generator or Motor, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total for each class, and awards made to the lowest bidder on each class.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms, drawings and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Room 1247, Municipal Building, New York City. Bidders will be required to deposit the sum of Fifteen Dollars ($15.00) on receiving the plans. This amount will be refunded upon return of the plans in good condition.

I. T. FETHERSTON, Commissioner.

Dated March 20, 1916. m23,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at Room 1247, Municipal Building, Manhattan, until 12 o'clock noon on

MONDAY, APRIL 3, 1916,

FOR FURNISHING AND DELIVERING—CLASS I, 6 TRAILERS; CLASS II, 3 WHEELS AND BEARINGS.

The time allowed for the delivery of materials and supplies and the performance of the contract is sixty (60) calendar days.

The amount of security required for the faithful performance of the contract is 30% of the amount of the contract price.

Bids must be submitted in duplicate in separate envelopes.

The bidder will state the price of each item or article contained in the schedules, per Trailer or Part, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total for each class, and awards made to the lowest bidder on each class.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms, drawings and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Room 1247, Municipal Building, New York City. Bidders will be required to deposit the sum of Fifteen Dollars ($15.00) on receiving the plans. This amount will be refunded upon return of the plans in good condition.

I. T. FETHERSTON, Commissioner.

Dated March 20, 1916. m23,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at Room 1247, Municipal Building, Manhattan, until 12 o'clock noon on

MONDAY, APRIL 3, 1916,

FOR FURNISHING AND DELIVERING 55 FOUR-WHEEL PAPER TRUCKS.

The time allowed for the delivery of materials and supplies and the performance of the contract is 25 trucks in 60 days, balance in 90 calendar days.

The amount of security required for the faithful performance of the contract is 30% of the amount of the bid.

Bids must be submitted in duplicate in separate envelopes.

The bidder will state the price of each item or article contained in the schedules, per truck, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total, and the award made to the lowest bidder on the entire contract.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms, drawings and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Room 1244, Municipal Building, New York City. Bidders will be required to deposit the sum of Fifteen Dollars ($15.00) on receiving the plans. This money will be refunded upon return of the plans in good condition.

J. T. FETHERSTON, Commissioner.

Dated March 20, 1916. m23,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at Room 1244, Municipal Building, Manhattan, until 12 o'clock noon on

MONDAY, APRIL 3, 1916,

FOR FURNISHING AND DELIVERING 3 GASOLINE ELECTRIC TRACTORS.

The time allowed for the delivery of materials and supplies and the performance of the contract is sixty (60) days.

The amount of security required for the faithful performance of the contract is 30% of the amount of the contract price.

Bids must be submitted in duplicate in separate envelopes.

The bidder will state the price of each item or article contained in the schedules, per Tractor, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total, and the award made to the lowest bidder on the entire contract.

Delivery will be required to be made at the time and in the manner as may be directed.

Blank forms, drawings and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Room 1244, Municipal Building, New York City. Bidders will be required to deposit the sum of Fifteen Dollars ($15.00) on receiving the plans. This money will be refunded upon return of the plans in good condition.

J. T. FETHERSTON, Commissioner.

Dated March 20, 1916. m23,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at Room 1247, Municipal Building, Manhattan, until 12 o'clock noon on

MONDAY, APRIL 3, 1916,

FOR FURNISHING AND DELIVERING—CLASS I, 55 ASH COMPARTMENTS; CLASS II, 20 COMBINATION DUST AND RUBBISH CONTAINERS.

The time allowed for the delivery of materials and supplies and the performance of the contract is sixty (60) calendar days.

The amount of security required for the faithful performance of the contract is 30% of the amount of the contract price.

Bids must be submitted in duplicate in separate envelopes.

The bidder will state the price of each item or article contained in the schedules, per compartment or Container, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total for each class, and awards made to the lowest bidder on each class.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms, drawings and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Room 1247, Municipal Building, New York City.

Bidders will be required to deposit the sum of Five Dollars ($5.00) on receiving the plans. This amount will be refunded upon return of the plans in good condition.

J. T. FETHERSTON, Commissioner.

Dated March 20, 1916. m23,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

BOROUGH OF BROOKLYN.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Brookiyn at Room No. 2, Borough Hall, Brooklyn, until 11 o'clock A. M. on

WEDNESDAY, APRIL 12, 1916,

NO. 1. FOR FURNISHING, UNDER PROPOSITION "A," ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING SEWERS IN CHAUNCEY STREET, FROM LEWIS AVENUE TO RALPH AVENUE.

The Engineer's estimate of the quantities, under Proposition "A," to construct all the sewers and their appurtenances in open cut, is as follows:

2,442 linear feet 114-inch brick sewer.
901 linear feet 102-inch brick sewer.
37 linear feet 96-inch brick sewer.
834 linear feet 15-inch pipe sewer.
4,227 linear feet 12-inch pipe sewer.

At Intersection No. 1.

24 linear feet special 54-inch sewer.
1 special connecting chamber.
77 linear feet special sewer "A."
1 special manhole "F."
1 special manhole "G."

At Intersection No. 2.

1 special connecting chamber.
6 linear feet special sewer "B."
18 linear feet 15-inch pipe sewer.
1 overflow manhole.
170 house connection drains, reconnected.
10 sewer basins, reconnected.
3 manholes, Class "A."
1 manhole, Class "C."
41 manholes, Class "D."
1,100,000 feet, B. M., sheeting and bracing.
20 cubic yards Class "B" concrete.
10 cubic yards Brick masonry.
10 bbls. cement.
1,000 lin. ft. piles.
2,000 lbs. steel rods.
20,000 ft. B. M. foundation planking.

NO. 2. FOR FURNISHING, UNDER PROPOSITION "B," ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING SEWERS IN CHAUNCEY STREET, FROM LEWIS AVENUE TO RALPH AVENUE.

The Engineer's estimate of the quantities, under Proposition "B," to construct some of the sewers in tunnel and some in open cut, as designated in spectifications and on the plans, is as follows:

1,621 linear feet 114-inch brick sewer in tunnel.
821 linear feet 114-inch brick sewer in open cut.
901 linear feet 102-inch brick sewer.
37 linear feet 96-inch brick sewer.
48 linear feet 15-inch pipe sewer.
2,511 linear feet 12-inch pipe sewer.

At Intersection No. 1.

24 linear feet special 54-inch sewer.
1 special connecting chamber.
77 linear feet special sewer "A."
1 special manhole "F."
1 special manhole "G."

At Intersection No. 2.

1 special connecting chamber.
6 linear feet special sewer "B."
18 linear feet 15-inch pipe sewer.
1 overflow manhole.
90 house connection drains, reconnected.
10 sewer basins, reconnected.
3 manholes, Class "A."
1 manhole, Class "C."
22 manholes, Class "D."
35,000 feet, B. M., foundation planking.
480,000 feet, B. M., sheeting and bracing.
1,000 cubic yards concrete or brick masonry around sewer in tunnel.
10 cubic yards Class "B" concrete.
10 cubic yards brick masonry.
10 bbls. cement.
1,000 lin. ft. piles.
2,000 lbs. steel rods.

Bidders may bid upon one proposition or upon both propositions.

The time allowed for the completion of the work and full performance of the contract is three hundred (300) working days.

The amount of security required is Eighty thousand dollars ($80,000).

Whether a bidder bids upon one proposition or upon both propositions, the person or persons making such bid or bids will be required to deposit only one certified check or sum of money equal to five per centum of the amount of security required.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per linear foot, foot board measure or other unit of measure, by which the bids will be tested.

The bids will be compared and the contract awarded at a lump or aggregate sum to the lowest bidder for the contract.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Sewers, the Borough of Brooklyn, No. 215 Montague St., Borough of Brooklyn.

Dated, March 20, 1916.

m24,a12 L. H. POUNDS, President.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of Borough of Brooklyn at Room No. 2, Borough Hall, Brooklyn, until 11 o'clock A. M., on

WEDNESDAY, APRIL 12, 1916,

NO. 1. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING SEWERS IN CHAUNCEY STREET FROM RALPH AVENUE TO BROADWAY.

The Engineer's estimate of the quantities is as follows:

706 linear feet of 96-inch brick sewer.
770 linear feet of 66-inch brick sewer.
745 linear feet of 54-inch brick sewer.
761 linear feet of 48-inch brick sewer.
457 linear feet of 42-inch brick sewer.
2,161 linear feet of 12-inch pipe sewer.

At Intersection No. 1.

14 linear feet of special sewer "A."
18 linear feet of 15-inch pipe sewer.
1 overflow manhole.

At Intersection No. 2.

26 linear feet of 42-inch brick sewer.
14 linear feet of 12-inch pipe sewer.

At Intersection No. 3.

15 linear feet of special sewer "B."
12 linear feet of 12-inch pipe sewer.
1 overflow manhole.

At Intersection No. 4.

28 linear feet of 30-inch brick sewer.

At Intersection No. 5.

1 storm overflow.
119 house connection drains, reconnected.
13 sewer basins, reconnected.
1 manhole, Class "C."
21 manholes, Class "D."
12 manholes, Class "E."
460,000 feet, board measure, of sheeting and bracing.
21,000 feet, board measure, of foundation planking.
100 cubic yards Class "B" concrete.
1,000 linear feet piles.
2,000 lbs. steel rods.

The time allowed for the completion of the work and full performance of the contract is Two Hundred (200) working days.

The amount of security required is Thirty-five thousand dollars ($35,000.00).

NO. 2. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING SEWERS IN PACIFIC STREET FROM BUFFALO AVENUE TO TROY AVENUE; IN TROY AVENUE FROM PACIFIC STREET TO A POINT ABOUT 55 FEET SOUTH OF FULTON STREET, AND IN ROCHESTER AVENUE FROM PACIFIC STREET TO A POINT ABOUT MIDWAY BETWEEN DEAN STREET AND BERGEN STREET.

The Engineer's estimate of the quantities is as follows:

940 linear feet of 78-inch brick sewer.
724 linear feet of 72-inch brick sewer.
778 linear feet of 60-inch brick sewer.
763 linear feet of 54-inch brick sewer.
774 linear feet of 42-inch brick sewer.
421 linear feet of 30-inch brick sewer.
38 linear feet of 30-inch brick and concrete sewer.
15 linear feet of special sewer "A."
39 linear feet of special sewer "B."
8 linear feet of 24-inch pipe sewer.
14 linear feet of 18-inch pipe sewer.
770 linear feet of 15-inch pipe sewer.
1,043 linear feet of 12-inch pipe sewer.
144 linear feet of 8-inch house connection drain.
2 Overflow manholes ("A" and "E").
1 Overflow manhole "B."
2 Overflow manholes "C" and "D" with Drop Chambers.
1 Special manhole "X."
2 Manholes, Class "C."
9 Manholes, Class "E."
13 manholes on pipe sewers, Class "D."
13 Sewer basins reconnected.
63 House connections reconnected.
750,000 feet, board measure, of sheeting and bracing.
8,500 feet, board measure, of foundation planking.
100 cubic yards of Class "B" concrete.
10 cubic yards of brick masonry.
10 barrels of cement.
2,000 lbs. of steel rods.
1,000 linear feet of piles.

The time allowed for the completion of the work and full performance of the contract is two hundred and twenty (220) working days.

The amount of security required is Fifty Thousand Dollars ($50,000.00).

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per linear foot, foot board measure, or other unit of measure, by which the bids shall be tested.

The bids will be compared and the contracts awarded at a lump or aggregate sum for each contract.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Sewers, the Borough of Brooklyn, No. 215 Montague Street, Brooklyn. L. H. POUNDS, President.

Dated, March 20, 1916. m24,a12

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of Borough of Brooklyn at Room No. 2, Borough Hall, Brooklyn, until 11 o'clock A. M., on

WEDNESDAY, APRIL 12, 1916,

NO. 1. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING SEWERS IN MYRTLE AVENUE FROM CLERMONT AVENUE TO CLASSON AVENUE, AND IN CLASSON AVENUE FROM MYRTLE AVENUE TO PARK AVENUE.

The Engineer's estimate of the quantities is as follows:

1. 1,596 linear feet of 54-inch brick sewer, laid complete, including all incidentals and appurtenances; per linear foot, $12.00 ..... $19,152.00
2. 509 linear feet of 48-inch brick sewer, laid complete, including all incidentals and appurtenances; per linear foot, $9.25 ..... 4,708.25
3. 540 linear feet of 42-inch brick sewer, laid complete, including all incidentals and appurtenances; per linear foot, $9.00 ..... 4,860.00
4. 260 linear feet of 36-inch brick sewer, laid complete, including all incidentals and appurtenances; per linear fot, $8.20 ..... 2,132.00
5. 312 linear feet of 24-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $3.80 ..... 1,185.60
6. 320 linear feet of 18-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $2.45 ..... 784.00
7. 120 linear feet of 15-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $3.10 ..... 372.00
8. 300 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $2.60 ..... 780.00
9. 10 manholes, Class "E," complete, with standard iron heads and covers, including all incidentals and appurtenances; per manhole, $60.00.. 600.00
10. 23 manholes, Class "D," complete, with standard iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00.. 1,150.00
11. 1 drop manhole, complete, with standard manhole head and cover, including all incidentals and appurtenances; per manhole, $300..... 300.00
12. 1 overflow connection, laid complete, including all incidentals and appurtenances; per overflow connection, $450.00 ..... 450.00
13. 21 sewer basins reconnected complete with iron basin hoods, connecting culverts, and all incidentals and appurtenances; per reconnection, $45.00 ..... 945.00
14. 55 house connections reconnected complete, with all risers, pipes and fittings, including all incidentals and appurtenances; per reconnection, $5.00 ..... 275.00
15. 300,000 feet, board measure, of sheeting and bracing driven in place complete, including all incidentals and appurtenances; per thousand feet, board measure, $18.00 ..... 5,400.00
16. 22,000 feet, board measure, of foundation planking, laid in place complete, including all incidentals and appurtenances; per thousand feet, board measure, $25.00 ..... 550.00
17. 110 cubic yards of concrete, class "B," laid in place complete, including extra excavation and all incidentals and appurtenances; per cubic yard, $7.00 ..... 770.00
18. 10 cubic yards of brick masonry, laid in place complete, including extra excavation and all incidentals and appurtenances; per cubic yard, $10.00 ..... 100.00
19. 9 manholes reconstructed complete as per specifications, including standard heads and covers, and all incidentals and appurtenances; per manhole reconstructed, $20.00 ..... 180.00
20. 1,000 linear feet of piles, driven in place complete, including all incidentals and appurtenances; per linear foot, $0.40 ..... 400.00
21. 2,000 pounds of steel rods, in place complete, including all incidentals and appurtenances; per pound, $0.03 ..... 60.00

Total $45,153.85

The time allowed for the completion of the work and full performance of the contract will be one hundred and twenty (120) working days.

The amount of security required will be Twenty Thousand ($20,000.00) Dollars.

NO. 2. FOR FURNISHING ALL THE LABOR AND MATERIALS FOR CONSTRUCTING SEWERS IN PARK AVENUE FROM SUMNER AVENUE TO TOMPKINS AVENUE, AND IN TOMPKINS AVENUE FROM PARK AVENUE TO VERNON AVENUE.

The Engineer's preliminary estimate of the quantities is as follows:

1. 262 linear feet of 66-inch sewer, laid complete, including all incidentals and appurtenances; per linear foot, $17.50 ..... $4,585.00
2. 270 linear feet of 60-inch sewer, laid complete, including all incidentals and appurtenances; per linear foot, $12.00 ..... 3,240.00
3. 258 linear feet of 54-inch sewer, laid complete, including all incidentals and appurtenances; per linear foot, $10.00 ..... 2,580.00
4. 225 linear feet of 48-inch sewer, laid complete, including all incidentals and appurtenances; per linear foot, $8.25 ..... 1,856.25
5. 805 linear feet of 42-inch sewer, laid complete, including all incidentals and appurtenances; per linear foot, $7.25 ..... 5,836.25
6. 765 linear feet of 36-inch sewer, laid complete, including all incidentals and appurtenances; per linear foot, $6.75 ..... 5,163.75
7. 566 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $2.50 ..... 1,415.00
8. 4 manholes, Class "C," complete, with standard iron heads and covers, including all incidentals and appurtenances; per manhole, $75.00.. 300.00
9. 6 manholes, Class "D," complete, with standard iron heads and covers, including all incidentals and appurtenances; per manhole, $75.00.. 450.00
10. 9 manholes, Class "E," complete, with standard iron heads and covers, including all incidentals and appurtenances; per manhole, $40.00.. 360.00
11. 36 house connection drains, reconnected complete, with all pipes and fittings, including all incidentals and appurtenances; per reconnection, $5.00 180.00
12. 1 Storm water overflow connection, laid complete, including all incidentals and appurtenances; per storm water overflow connection, $100.00.. 100.00
13. 3 sewer basins, reconnected complete, with iron basin hoods, connecting culverts, and all incidentals and appurtenances; per reconnection, $50.00 ..... 150.00
14. 238,000 feet, board measure, of sheeting and bracing driven and left in place complete, including all incidentals and appurtenances; per thousand feet, board measure, $18..... 4,284.00
15. 20,000 feet, board measure, of foundation planking, laid in place complete, including all incidentals and appurtenances; per thousand feet, board measure, $25.00 ..... 500.00
16. 110 cubic yards of concrete, Class "B," laid in place complete, including extra excavation and all incidentals and appurtenances; per cubic yard, $7.00 ..... 770.00
17. 50 linear feet of stand pipe complete, including concrete casing and all incidentals and appurtenances; per linear foot, $1.30..... 65.00
18. 10 barrels of Portland cement; furnished and delivered in place in work, including all incidentals and appurtenances; per barrel, $1.50..... 15.00
19. 1,000 linear feet of piles, driven in place complete, including all incidentals and appurtenances; per linear foot, $0.40 ..... 400.00
20. 2,000 pounds of steel bars, in place complete, including all incidentals and appurtenances; per pound, $0.03 ..... 60.00

Total $32,310.25

The time allowed for the completion of the work and full performance of the contract will be One hundred and twenty (120) working days.

The amount of security required will be Twelve thousand dollars ($12,000.00).

The foregoing Engineer's preliminary estimates of the total cost for the completed work are to be taken as the 100 per cent. basis and test for bidding. Proposals shall each state a single percentage of such 100 per cent. (such as 95 per cent., 100 per cent. or 105 per cent.) for which all materials and work called for in the proposed contract and the notices to bidders are to be furnished to the City. Such percentage as bid for this contract shall apply to all unit items specified in the Engineer's preliminary estimate to an amount necessary to complete the work described in the contract.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Sewers, 215 Montague st., Borough of Brooklyn.

m24,a12 L. H. POUNDS, President.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of Borough of Brooklyn at Room No. 2, Borough Hall, Brooklyn, until 11 o'clock A. M.,

WEDNESDAY, APRIL 5, 1916.

NO. 1. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING A SEWER IN 39TH STREET, FROM 14TH AVENUE TO 16TH AVENUE.

The Engineer's preliminary estimate of the quantities is as follows:

454 linear feet of 15-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.85 ..... $839.90
1,024 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.50 ..... 1,536.00
90 linear feet of 6-inch house connection drain, laid complete, including all incidentals and appurtenances; per linear foot, $0.70 ..... 63.00
15 manholes complete, with iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00 ..... 750.00
2 sewer basins complete, of either standard design, with iron pans or gratings, iron basin hoods and connecting culverts, including all incidentals and appurtenances; per basin, $120.00 ..... 240.00
4,000 feet, Board Measure, of sheeting and bracing, driven in place complete, including all incidentals and appurtenances; per thousand feet, Board Measure, $18.00 ..... 72.00
5 cubic yards of extra excavation, including all incidentals and appurtenances; per cubic yard, $0.50..... 2.50

Total $3,503.40

The time allowed for the completion of the work and full performance of the contract will be Sixty (60) working days.

The amount of security required will be Seventeen Hundred Dollars ($1,700.00).

NO. 2. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING A SEWER IN EAST 22ND STREET BETWEEN AVENUE L AND AVENUE M.

The Engineer's preliminary estimate of the quantities is as follows:

1. 750 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.75 ..... $1,312.50
2. 290 linear feet of 6-inch house connection drain, laid complete, including all incidentals and appurtenances; per linear foot, $0.85..... 246.50
3. 7 manholes complete, with iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00 ..... 350.00
4. 2,000 feet, board measure, of sheeting and bracing, driven in place complete, including all incidentals and appurtenances; per thousand feet, board measure, $18.00 ..... 36.00
5. 5 cubic yards of extra excavation, including sheeting and bracing and all labor and materials, incidentals and appurtenances; per cubic yard, $0.50 ..... 2.50

Total $1,947.50

The time allowed for the completion of the work and full performance of the contract will be thirty (30) working days.

The amount of security required will be one thousand ($1,000.00) Dollars.

NO. 3. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING A SEWER IN 62ND STREET, BETWEEN 18TH AND 19TH AVENUES.

The Engineer's preliminary estimate of the quantities is as follows:

632 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.70 ..... $1,074.40
608 linear feet of 6-inch house connection drain, laid complete, including all incidentals and appurtenances; per linear foot, $0.70 ..... 425.60
6 manholes complete, with iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00 ..... 300.00
20 cubic yards of extra excavation, including all incidentals and appurtenances; per cubic yard, $0.50..... 10.00

Total $1,810.00

The time allowed for the completion of the work and full performance of the contract will be Thirty (30) working days.

The amount of security required will be Nine Hundred Dollars ($900.00).

NO. 4. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING A SEWER IN BAY RIDGE AVENUE, FROM 18TH AVENUE TO 19TH AVENUE.

The Engineer's preliminary estimate of the quantities is as follows:

43 linear feet of 15-inch pipe sewer, laid complete including all incidentals and appurtenances; per linear foot, $1.85 ..... $79.55
565 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.50 ..... 847.50
165 linear feet of 6-inch house connection drain, laid complete, including all incidentals and appurtenances; per linear foot, $0.70 ..... 115.50
6 manholes complete, with iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00 ..... 300.00

Total $1,342.55

The time allowed for the completion of the work and full performance of the contract will be Thirty (30) working days.

The amount of security required will be Six Hundred and Fifty Dollars ($650.00).

NO. 5. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING A SEWER IN EAST 18TH STREET FROM THE SEWER SUMMIT ABOUT 280 FEET SOUTH OF AVENUE M TO AVENUE N.

The Engineer's preliminary estimate of the quantities is as follows:

1. 563 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.60 ..... $900.80
2. 190 linear feet of 6-inch house connection drain, laid complete, including all incidentals and appurtenances; per linear foot, $0.75..... 142.50
3. 5 manholes complete, with iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00 ..... 250.00
4. 2,000 feet, board measure, of sheeting and bracing, driven in place complete, including all incidentals and appurtenances; per thousand feet, board measure, $18.00 ..... 36.00

Total $1,329.30

The time allowed for the completion of the work and full performance of the contract will be thirty (30) working days.

The amount of security required will be six hundred dollars ($600.00).

NO. 6. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING A SEWER IN AVENUE I, FROM GRAVESEND AVENUE TO EAST 3RD STREET.

The Engineer's preliminary estimate of the quantities is as follows:

330 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.65 ..... $544.50
350 linear feet of 6-inch house connection drain, laid complete, including all incidentals and appurtenances; per linear foot, $0.75 ..... 262.50

4 manholes complete, with iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00 ..... 200.00

Total $1,007.00

The time allowed for the completion of the work and full performance of the contract will be Twenty (20) working days.

The amount of security required will be Five Hundred Dollars ($500.00).

NO. 7. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING A SEWER IN THE WESTERLY SIDE OF 7TH AVENUE, FROM 76TH STREET TO 77TH STREET.

The Engineer's preliminary estimate of the quantities is as follows:

245 linear feet of 12-inch pipe sewer, laid complete, including all incidentals and appurtenances; per linear foot, $1.60 ..... $392.00

90 linear feet of 6-inch house connection drain, laid complete, including all incidentals and appurtenances; per linear foot, $0.75 ..... 67.50

3 manholes complete, with iron heads and covers, including all incidentals and appurtenances; per manhole, $50.00 ..... 150.00

Total $609.50

The time allowed for the completion of the work and full performance of the contract will be twenty (20) working days.

The amount of security required will be Three hundred dollars ($300.00).

The foregoing Engineer's preliminary estimates of the total cost for the completed work are to be taken as the 100 per cent. basis and test for bidding. Proposals shall each state a single percentage of such 100 per cent. (such as 95 per cent., 100 per cent. or 105 per cent.) for which all materials and work called for in the proposed contract and the notice to bidders are to be furnished to the City. Such percentage as bid for each contract shall apply to all unit items specified in the Engineer's preliminary estimate to an amount necessary to complete the work described in the contract.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Sewers, 215 Montague st., Borough of Brooklyn.

m24,a5 L. H. POUNDS, President.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

BELLEVUE AND ALLIED HOSPITALS, DEPARTMENT OF PUBLIC CHARITIES AND DEPARTMENT OF HEALTH.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by Bellevue and Allied Hospitals, Department of Public Charities and Department of Health, at Room 1230, Municipal Building, Borough of Manhattan, City of New York, until 12 o'clock noon on

FRIDAY, MARCH 31, 1916,

FOR FURNISHING AND DELIVERING FRESH FISH, CLAMS, ETC.

The time for the performance of the contract is on or before December 31, 1916.

The amount of security required is thirty (30) per cent. of the amount of the bid or estimate.

No bid will be considered unless it is accompanied by a deposit. Such deposit shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per pound, or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read and awards made to the lowest bidder on each class, as stated in the specifications.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at room 1230, Municipal Building, Borough Manhattan.

BOARD OF TRUSTEES, BELLEVUE AND ALLIED HOSPITALS, JOHN W. BRANNAN, M. D., President.

DEPARTMENT OF PUBLIC CHARITIES, JOHN A. KINGSBURY, Commissioner.

DEPARTMENT OF HEALTH, H. EMERSON, Commissioner. m20,31

☞See General Instructions to Bidders on last page, last column, of the "City Record," except for the address of the office for receiving and opening bids.

BOROUGH OF RICHMOND.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Richmond, at Borough Hall, St. George, New Brighton, S. I., until 12 o'clock M., on

TUESDAY, APRIL 4, 1916,
Borough of Richmond.

NO. 9. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR 900 CUBIC YARDS OF GRITS IN DISTRICT NO. 2.

The time for the completion of the work and the full performance of the contract is until December 30, 1916.

The amount of security required is 30% of total amount for which contract is awarded.

Deposit: 1½% of total amount of the bid.

NO. 10. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR 860 CUBIC YARDS OF GRITS IN DISTRICT NO. 3.

The time for the completion of the work and the full performance of the contract is until December 30, 1916.

The amount of security required is 30% of total amount for which contract is awarded.

Deposit: 1½% of total amount of the bid.

The contracts must be bid for separately, and the bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Bidders are requested to make their bids or estimates upon the blank form prepared by the President, a copy of which, with the proper envelope in which to enclose the bid, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the said President. The plans and drawings may be seen and other information obtained at the office of the Commissioner of Public Works of the Borough of Richmond, Borough Hall, New Brighton, Borough of Richmond.

CALVIN D. VAN NAME, President.

Dated, New York, March 10, 1916. m23,a4

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Richmond, at Borough Hall, St. George, New Brighton, S. I., until 12 o'clock M., on

TUESDAY, APRIL 4, 1916,
Borough of Richmond.

NO. 5. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR 1,000 CU. YDS. OF ONE AND ONE-HALF INCH, 245 CU. YDS. OF THREE-QUARTER INCH BROKEN STONE, AND 125 CU. YDS. OF SCREENINGS OF TRAP ROCK IN STONE DISTRICT NO. 1.

The time for the completion of the work and the full performance of the contract is until December 30, 1916.

The amount of security required is 30% of total amount for which contract is awarded.

Deposit: 1½% of total amount of the bid.

NO. 6. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR 1,350 CU. YDS. OF ONE AND ONE-HALF INCH, 843 CU. YDS. OF THREE-QUARTER INCH BROKEN STONE, AND 235 CU. YDS. OF SCREENINGS OF TRAP ROCK IN STONE DISTRICT NO. 2.

The time for the completion of the work and the full performance of the contract is until December 30, 1916.

The amount of security required is 30% of total amount for which contract is awarded.

Deposit: 1½% of total amount of the bid.

NO. 7. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR 700 CU. YDS. OF ONE AND ONE-HALF INCH, 362 CU. YDS. OF THREE-QUARTER INCH BROKEN STONE, AND 125 CU. YDS. OF SCREENINGS OF TRAP ROCK IN STONE DISTRICT NO. 3.

The time for the completion of the work and the full performance of the contract is until December 30, 1916.

The amount of security required is 30% of total amount for which contract is awarded.

Deposit: 1½% of total amount of the bid.

NO. 8. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR 800 CU. YDS. OF GRITS IN DISTRICT NO. 1.

The time for the completion of the work and the full performance of the contract is until December 30, 1916.

The amount of security required is 30% of total amount for which contract is awarded.

Deposit: 1½% of total amount of the bid.

The contracts must be bid for separately, and the bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Bidders are requested to make their bids or estimates upon the blank form prepared by the President, a copy of which, with the proper envelope in which to enclose the bid, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the said President. The plans and drawings may be seen and other information obtained at the office of the Commissioner of Public Works of the Borough of Richmond, Borough Hall, New Brighton, Borough of Richmond.

CALVIN D. VAN NAME, President.

Dated, New York, March 10, 1916. m23,a4

☞See General Instructions to Bidders on last page, last column, of the "City Record."

BOROUGH OF THE BRONX.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of The Bronx, at his office, Municipal Building, Crotona Park, 177th St. and 3rd Ave., until 10.30 a. m., on

WEDNESDAY, APRIL 5, 1916,

NO. 1. FOR FURNISHING AND DELIVERING WHITE ASH ANTHRACITE AND CUMBERLAND COAL.

The time allowed for the performance of the contract is on or before March 31, 1917, or as stated in the schedules.

The amount of security for the performance of the contract shall be thirty (30) per cent. of the total amount for which the contract is awarded.

The bidder will state the price per gross ton for each item on which he desires to bid, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read and awards, if made, will be to the lowest bidder on each item.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

No bid will be considered unless accompanied by a deposit in an amount not less than one and one-half (1½%) per cent. of the amount of the bid.

Blank forms of bids or estimates upon which bids must be made can be obtained upon application therefor, the specifications may be seen and other information obtained at said office.

m25,a5 DOUGLAS MATHEWSON, President.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of The Bronx, at his office, Municipal Building, Crotona Park, 177th St. and 3rd Ave., until 10.30 a. m., on

THURSDAY, APRIL 6, 1916,

NO. 1. FOR REGULATING, GRADING, SETTING CURBSTONES, FLAGGING SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES AND ERECTING FENCES WHERE NECESSARY IN KINGSBRIDGE AVENUE, FROM WEST 230TH STREET TO THE LINE, BETWEEN THE BOROUGHS OF MANHATTAN AND THE BRONX, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

150 Cubic Yards of Excavation of all kinds.
7,400 Cubic Yards of Filling.
425 Linear feet New Bluestone curb.
1,750 Square feet New Bluestone Flagging.
750 Cubic Yards Dry Rubble Masonry.
50 Linear Feet of Vitrified Pipe Drains, 12 inches in diameter.
5,000 Feet B. M. Timber.
420 Linear Feet of New Guard Rail.

The time allowed for the full completion of the work herein described will be 60 consecutive working days.

The amount of security required for the performance of the contract will be Two thousand seven hundred dollars ($2,700).

NO. 2. FOR REGULATING, GRADING, SETTING CURB, LAYING SIDEWALKS AND CROSSWALKS, BUILDING INLETS, RECEIVING BASINS, DRAINS, CULVERTS, APPROACHES AND GUARD RAILS WHERE NECESSARY IN REVIEW PLACE, FROM WEST 238TH STREET TO WEST 239TH STREET, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

100 Cubic Yards Excavation of all kinds.
4,630 Cubic Yards Filling.
500 Linear feet of New Bluestone curb.
2,500 Square feet Two Course Concrete sidewalk (including maintenance for one year).
200 Cubic Yards Dry Rubble Masonry.
50 Linear feet Vitrified Pipe Drains, 12 inches in diameter.
480 Linear feet of New Guard Rail.
7 Cubic Yards of Brick Masonry.

The time allowed for the full completion of the work herein described will be 50 consecutive working days.

The amount of security required for the performance of the contract will be One thousand six hundred dollars ($1,600).

NO. 3. FOR REGULATING, GRADING, SETTING CURB, LAYING SIDEWALKS AND CROSSWALKS, BUILDING INLETS, RECEIVING BASINS, DRAINS, CULVERTS, APPROACHES AND GUARD RAILS WHERE NECESSARY IN NEWBOLD AVENUE, FROM TREMONT AVENUE TO CASTLE HILL AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

5,600 Cubic Yards Earth Excavation.
200 Cubic Yards of Rock Excavation.
1,480 Cubic Yards Filling.
3,490 Linear feet New Bluestone Curb.
17,580 Square feet Two Course Concrete sidewalk (including maintenance for one year).
690 Square feet of New Bridgestone.
10 Cubic Yards of Dry Rubble Masonry.
1,000 Feet, B. M., Timber.
120 Linear feet New Guard Rail.
5 Cubic Yards Brick Masonry.

The time allowed for the full completion of the work herein described will be 80 consecutive working days.

The amount of security required for the performance of the contract will be Three Thousand four hundred dollars ($3,400).

NO. 4. FOR REGULATING, GRADING, SETTING CURB, LAYING SIDEWALKS AND CROSSWALKS, BUILDING APPROACHES AND ERECTING FENCES WHERE NECESSARY IN ODELL STREET, FROM UNIONPORT ROAD TO STARLING AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

1,350 Cubic Yards Excavation of All kinds.
350 Cubic Yards of Filling.
1,200 Linear feet of New Bluestone Curb.
5,500 Square feet of Two Course Concrete sidewalk (including maintenance for one year).
10 Cubic Yards Dry Rubble Masonry.

The time allowed for the full completion of the work herein described will be 30 consecutive working days.

The amount of security required for the performance of the contract will be One thousand two hundred dollars ($1,200).

NO. 5 FOR REGULATING, GRADING AND REGRADING, SETTING AND RESETTING CURB, LAYING AND RELAYING SIDEWALKS AND CROSSWALKS, BUILDING INLETS, RECEIVING BASINS, DRAINS, CULVERTS, APPROACHES AND GUARD RAILS WHERE NECESSARY IN WEST 238TH STREET, FROM BROADWAY TO RAILEY AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

1,150 Cubic Yards Earth Excavation.
25 Cubic Yards Rock Excavation.
5,400 Cubic Yards Filling.
600 Linear feet New Bluestone Curb.
750 Linear feet of Old Bluestone Curb.
2,250 Square feet New Bluestone Flagging.
2,975 Square feet Old Flagging.
900 Square feet New Bridgestone.
450 Square feet Old Bridgestone.
200 Cubic Yards Dry Rubble Masonry.
5 Cubic Yards Class B Concrete.
50 Linear Feet Vitrified Pipe Drains, 12 inches in diameter.
1,000 Linear Feet of New Guard Rail.
1 Receiving Basin, Type B.

The time allowed for the full completion of the work herein described will be 60 consecutive working days.

The amount of security required for the performance of the contract will be Two thousand five hundred dollars ($2,500).

NO. 6. CONSTRUCTING SEWER AND APPURTENANCES IN HONE AVENUE, BETWEEN WALKER AVENUE AND THE PROPERTY OF THE NEW YORK, NEW HAVEN AND HARTFORD RAILROAD COMPANY, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

376 Linear feet of Vitrified Pipe Sewer, 12-inch.
15 Linear feet of Vitrified Pipe Drains, 12-inch to 24-inch.
56 Spurs for House Connections.
4 Manholes.
10 Cubic Yards of Rock Excavation.
30 Cubic Yards of Class C Concrete.
1,000 Feet (B. M.) of Timber Sheeting.

The time allowed for the full completion of the work herein described will be 30 consecutive working days.

The amount of security required for the performance of the contract will be Seven hundred and fifty dollars ($750).

Blank forms of bids or estimates upon which bids must be made can be obtained upon application therefor, the plans and specifications may be seen and other information obtained at said office. DOUGLAS MATHEWSON, President.

m27,a6

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of The Bronx, at his office, Municipal Building, Crotona Park, 177th St. and 3rd Ave., until 10.30 a. m., on

THURSDAY, MARCH 30, 1916,

NO. 1. CONSTRUCTING SEWERS AND APPURTENANCES IN WESTCHESTER AVENUE FROM EXISTING SEWER AT WESTCHESTER SQUARE TO BLONDELL AVENUE; BLONDELL AVENUE, BETWEEN WESTCHESTER AVENUE AND POPLAR STREET; THE PROPERTY OF THE N. Y., N. H. & H. R. R. CO. BETWEEN POPLAR STREET AND SACKET AVENUE; SACKET AVENUE, BETWEEN HERING AVENUE AND EASTCHESTER ROAD; EASTCHESTER ROAD, BETWEEN SACKET AVENUE AND SEYMOUR AVENUE; SEYMOUR AVENUE, BETWEEN EASTCHESTER ROAD AND ALLERTON AVENUE; ALLERTON AVENUE, BETWEEN SEYMOUR AVENUE AND WILSON AVENUE; WILSON AVENUE, BETWEEN ALLERTON AVENUE AND ADEE AVENUE; ADEE AVENUE, BETWEEN WILSON AVENUE AND THROOP AVENUE; THROOP AVENUE, BETWEEN ADEE AVENUE AND BURKE AVENUE; BURKE AVENUE, BETWEEN THROOP AVENUE AND WHITE PLAINS ROAD, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

1,656 Linear feet of Single Concrete Sewer, 11′ 0″ x 8′ 0″.
1,889 Linear feet of Single Concrete Sewer, 7′ 6″ x 8′ 0″.
10 Linear feet of Triple Concrete Sewer, 11′ 0″ x 8′ 0″.
45 Linear feet of Double Concrete Sewer, 8′ 0″ x 6′ 6″.
163 Linear feet of Double Concrete Sewer, 7′ 6″ x 8′ 0″.
17 Linear Feet of Double Concrete Sewer, 7′ 3″ x 8′ 0″.
597 Linear feet of Single Concrete Sewer, 12′ 9″ x 8′ 0″.
100 Linear feet of Single Concrete Sewer, 12′ 9″ x 7′ 0″.
1,307 Linear feet of Single Concrete Sewer, 12′ 0″ x 8′ 0″.
1,593 Linear feet of Single Concrete Sewer, 11′ 3″ x 8′ 0″.
772 Linear feet of Single Concrete Sewer, 10′ 9″ x 8′ 0″.
801 Linear feet of Single Concrete Sewer, 9′ 6″ x 8′ 0″.
664 Linear feet of Single Concrete Sewer, 9′ 3″ x 8′ 0″.
1,583 Linear feet of Single Concrete Sewer, 7′ 3″ x 8′ 0″.
760 Linear feet of Single Concrete Sewer, 7′ 6″ x 7′ 0″.
536 Linear feet of Single Concrete Sewer, 7′ 0″ x 7′ 0″.
539 Linear Feet of Single Concrete Sewer, 4′ 3″ x 5′ 0″.
1,388 Linear Feet of Single Concrete Sewer, 4′ 0″ x 4′ 9″.
520 Linear feet of Single Concrete Sewer, 3′ 9″ x 4′ 6″.
260 Linear feet of Single Concrete Sewer, 3′ 6″ x 4′ 3″.
258 Linear feet of Single Concrete Sewer, 3′ 6″ x 4′ 0″.
21 Linear feet of Single Concrete Sewer, 3′ 3″ diameter.
139 Linear feet of Single Concrete Sewer, 3′ 0″ diameter.
410 Linear feet of Vitrified Pipe Sewer, 30-inch.
116 Linear feet of Vitrified Pipe Sewer, 24 inch.
83 Linear feet of Vitrified Pipe Sewer, 20-inch.
253 Linear feet of Vitrified Pipe Sewer, 18-inch.
570 Linear Feet of Vitrified Pipe Sewer, 15-inch.
1,100 Linear feet of Vitrified Pipe Sewer, 12-inch.
1,118 Linear feet of Basin Connections.
1,150 Linear feet of Vitrified Pipe Drains, 12-inch to 24-inch.
1,461 Spurs for House Connections.
6,350 Linear feet of Risers.
123 Manholes.
29 Receiving Basins, Type B.
4 Receiving Basins, Type C.
2 Inlets, Type C.
51,000 Cubic Yards of Rock Excavation.
1,310 Cubic Yards of Concrete, Class B.
215 Cubic Yards of Concrete, Class C.
20,500 pounds of Steel Reinforcement Bars.
75,000 feet (B. M.) of Timber Sheeting.
1 Overflow Chamber.
3,325 Linear feet of Guard Rail.
250 Cubic Yards of Dry Rubble Masonry.

The time allowed for the full completion of the work herein described will be 400 consecutive working days.

The amount of security required for the performance of the contract will be Two hundred and twenty-five thousand dollars ($225,000).

NO. 2. CONSTRUCTING SEWERS AND APPURTENANCES IN WESTCHESTER AVE. FROM EXISTING SEWER AT WESTCHESTER SQUARE TO BLONDELL AVENUE; BLONDELL AVENUE, BETWEEN WESTCHESTER AVENUE AND POPLAR STREET; THE PROPERTY OF THE N. Y., N. H. & H. R. R. CO., BETWEEN POPLAR STREET AND SACKET AVENUE; SACKET AVENUE, BETWEEN HERING AVENUE AND EASTCHESTER ROAD; EASTCHESTER ROAD, BETWEEN SACKET AVENUE AND SEYMOUR AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

10 Linear feet of Triple Concrete Sewer, 11′ 0″ x 8′ 0″.
45 Linear feet of Double Concrete Sewer, 8′ 0″ x 6′ 6″.
597 Linear feet of Single Concrete Sewer, 12′ 9″ x 8′ 0″.
100 Linear feet of Single Concrete Sewer, 12′ 9″ x 7′ 0″.
1,656 Linear feet of Single Concrete Sewer, 11′ 0″ x 8′ 0″.
3 Linear feet of Vitrified Pipe Sewer, 18-inch.
3 Linear feet of Vitrified Pipe Sewer, 15-inch.
105 Linear feet of Vitrified Pipe Sewer, 12-inch.
125 Linear feet of Basin Connections.
150 Linear feet of Vitrified Pipe Drains, 12-inch to 24-inch.
146 Spurs for House Connections.
150 Linear feet of Risers.
14 Manholes.
4 Receiving Basins, Type B.
4 Receiving Basins, Type C.
2 Inlets, Type C.
5,000 Cubic Yards of Rock Excavation.
750 Cubic Yards of Concrete, Class B.
10 Cubic Yards of Concrete, Class C.
12,000 Pounds of Steel Reinforcement Bars.

60,000 Feet (B. M.) of Timber Sheeting.
1 Overflow Chamber.
1,500 Linear feet of Guard Rail.
50 Cubic Yards of Dry Rubble Masonry.

The time allowed for the full completion of the work herein described will be 250 consecutive working days.

The amount of security required for the performance of the contract will be forty-five thousand Dollars ($45,000).

NO. 3. CONSTRUCTING SEWER AND APPURTENANCES IN SEYMOUR AVENUE, BETWEEN EASTCHESTER ROAD AND ALLERTON AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

1,889 Linear Feet of Single Concrete Sewer, 7′ 6″ x 8′ 0″.
447 Linear feet of Single Concrete Sewer, 7′ 3″ x 8′ 0″.
163 Linear feet of Double Concrete Sewer, 7′ 6″ x 8′ 0″.
17 Linear feet of Double Concrete Sewer, 7′ 3″ x 8′ 0″.
1,307 Linear feet of Single Concrete Sewer, 12′ 0″ x 8′ 0″.
1,593 Linear feet of Single Concrete Sewer, 11′ 3″ x 8′ 0″.
21 Linear feet of Single Concrete Sewer, 3′ 3″ diameter.
42 Linear feet of Single Concrete Sewer, 3′ 0″ diameter.
152 Linear feet of Vitrified Pipe Sewer, 30-inch.
36 Linear feet of Vitrified Pipe Sewer, 24-inch.
28 Linear feet of Vitrified Pipe Sewer, 20-inch.
93 Linear feet of Vitrified Pipe Sewer, 18-inch.
8 Linear feet of Vitrified Pipe Sewer, 15-inch.
170 Linear feet of Vitrified Pipe Sewer, 12-inch.
68 Linear feet of Basin Connections.
500 Linear feet of Vitrified Pipe Drains, 12″ to 24″.
510 Spurs for House Connections.
3,200 Linear feet of Risers.
41 Manholes.
6 Receiving Basins, Type B.
23,500 Cubic Yards of Rock Excavation.
200 Cubic Yards of Concrete, Class B.
35 Cubic Yards of Concrete, Class C.
6,500 Pounds of Steel Reinforcement Bars.
10,000 Feet (B. M.) of Timber Sheeting.
1,225 Linear feet of Guard Rail.
100 Cubic Yards of Dry Rubble Masonry.

The time allowed for the full completion of the work herein described will be 400 consecutive working days.

The amount of security required for the performance of the contract will be Ninety thousand Dollars ($90,000).

NO. 4. CONSTRUCTING SEWERS AND APPURTENANCES IN ALLERTON AVENUE, BETWEEN SEYMOUR AVENUE AND WILSON AVENUE; WILSON AVENUE, BETWEEN ALLERTON AVENUE AND ADEE AVENUE; ADEE AVENUE, BETWEEN WILSON AVENUE AND THROOP AVENUE; THROOP AVENUE, BETWEEN ADEE AVENUE AND BURKE AVENUE; BURKE AVENUE, BETWEEN THROOP AVENUE AND WHITE PLAINS ROAD, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the work is as follows:

772 Linear feet of Single Concrete Sewer, 10′ 9″ x 8′ 0″.
801 Linear feet of Single Concrete Sewer, 9′ 6″ x 8′ 0″.
664 Linear feet of Single Concrete Sewer, 9′ 3″ x 8′ 0″.
1,136 Linear feet of Single Concrete Sewer, 7′ 3″ x 8′ 0″.
760 Linear feet of Single Concrete Sewer, 7′ 6″ x 7′ 0″.
536 Linear feet of Single Concrete Sewer, 7′ 0″ x 7′ 0″.
539 Linear feet of Single Concrete Sewer, 4′ 3″ x 5′ 0″.
1,388 Linear feet of Single Concrete Sewer, 4′ 0″ x 4′ 9″.
520 Linear feet of Single Concrete Sewer, 3′ 9″ x 4′ 6″.
260 Linear feet of Single Concrete Sewer, 3′ 6″ x 4′ 3″.
258 Linear feet of Single Concrete Sewer, 3′ 6″ x 4′ 0″.
97 Linear feet of Single Concrete Sewer, 3′ 0″ Diameter.
258 Linear feet of Vitrified Pipe Sewer, 30-inch.
80 Linear feet of Vitrified Pipe Sewer, 24-inch.
55 Linear feet of Vitrified Pipe Sewer, 20-inch.
157 Linear feet of Vitrified Pipe Sewer, 18-inch.
559 Linear feet of Vitrified Pipe Sewer, 15-inch.
825 Linear feet of Vitrified Pipe Sewer, 12-inch.
925 Linear feet of Basin Connections.
500 Linear feet of Vitrified Pipe Drains, 12-inch to 24-inch.
805 Spurs for House Connections.
3,000 Linear feet of Risers.
68 Manholes.
19 Receiving Basins, Type B.
22,500 Cubic Yards of Rock Excavation.
360 Cubic Yards of Concrete, Class B.
170 Cubic Yards of Concrete, Class C.
2,000 Pounds of Steel Reinforcement Bars.
5,000 feet (B. M.) of Timber Sheeting.
600 Linear Feet of Guard Rail.
100 Cubic Yards of Dry Rubble Masonry.

The time allowed for the full completion of the work herein described will be 400 consecutive working days.

The amount of security required for the performance of the contract will be Ninety Thousand Dollars ($90,000).

Blank forms of bids or estimates upon which bids must be made can be obtained upon application therefor, the plans and specifications may be seen and other information obtained at said office. DOUGLAS MATHEWSON, President.

m7,30

☞See General Instructions to Bidders on last page, last column, of the "City Record."

DEPARTMENT OF FINANCE.

Temporary Hiring of City Property.

SEALED BIDS WILL BE RECEIVED BY the Comptroller on

WEDNESDAY, APRIL 12, 1916,

at 11.00 A. M., at the office of the Collector of City Revenue, Room 368, Municipal Building, Borough of Manhattan, for the rental of the plot of ground on the westerly side of Hamilton Place, the northerly side of West 140th Street, and the southerly side of West 141st Street, in the

Borough of Manhattan.

for the period from May 1, 1916, to October 31, 1916, for use for tennis court purposes only.

Each bid must be accompanied by a deposit of cash or a certified check for the amount of one month's rental, which shall be forfeited if the successful bidder fails to sign the rental agreement when ready for execution.

All bids must state clearly (1) the amount of the bid specified at the rate per month, (2) the full name and address of the bidder, and must be enclosed in properly sealed envelopes marked "Proposal for rental privilege," and must be delivered or mailed in time for their delivery prior to 11 A. M. on Wednesday, April 12, 1916, to the Collector of City Revenue, Room 368, Municipal Building, Borough of Manhattan, from whom any further particulars concerning the plot to be rented may be obtained.

The successful bidder will be obliged to provide a drainage system which will place the property in such condition as will prevent surface water or seepage from passing to the adjoining property.

The Comptroller reserves the right to reject any and all bids and to waive any defects or informalities in any bid should it be deemed in the interest of The City of New York to do so.

WM. A. PRENDERGAST, Comptroller.

City of New York, Department of Finance, Comptroller's Office, March 24, 1916. m28,a12

Confirmation of Assessments.

NOTICES TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 985 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court and the entering in the Bureau for the Collection of Assessments and Arrears of the assessment for OPENING AND ACQUIRING TITLE to the following named avenue in the BOROUGH OF QUEENS:

SECOND WARD.

CLINTON AVENUE—OPENING, from Montgomery Avenue to Mueller Street. Confirmed January 26, 1916; entered March 28, 1916. Area of assessment includes all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Queens, in The City of New York, which, taken together, are bounded and described as follows, viz.:

AREA NO. ONE: Beginning at a point on the Easterly line of Montgomery Avenue midway between the Southerly line of Hull Avenue and the Northerly line of Clinton Avenue, and running thence Southerly along the Easterly line of Montgomery Avenue to the Southerly line of the right of way of the Montauk Division of the Long Island Railroad; running thence Westerly along the Southerly line of the right of way of the Montauk Division of the Long Island Railroad to the intersection of the same with the easterly line of Clay Avenue; running thence Southerly along the Easterly line of Old Clay Avenue to the high water line of Newtown Creek; running thence Easterly along the high water line of Newtown Creek and the high water line of Maspeth Creek to the intersection of the same with a line bisecting the angle between the Southerly line of Hull Avenue and the Northerly line of Clinton Avenue, as the same are laid down West of Clark Avenue; thence westerly along said bisecting line to the intersection with a line midway between the Southerly line of Hull Avenue and the Northerly line of Clinton Avenue, as the same are laid down west of the angle in Clinton Avenue, about 188 feet west of Clark Avenue; thence westerly along the said line midway between the Southerly line of Hull Avenue and the Northerly line of Clinton Avenue, and continuations thereof, to the intersection of the same with a line bisecting the angle between the Southerly line of Hull Avenue and the Northerly line of Clinton Avenue as the same are laid down between Clinton Avenue and Montgomery Avenue; thence westerly along said bisecting line to the Easterly line of Montgomery Avenue, the point or place of beginning.

AREA NO. TWO: Beginning at a point formed by the intersection of a line midway between the Southerly line of Hull Avenue and the Northerly line of Clinton Avenue with a line 100 feet Westerly of and parallel with the westerly line of Broad Street; running thence Easterly along the line midway between the Southerly line of Hull Avenue and the Northerly line of Clinton Avenue and the continuations of the same to the intersection of the same with the Easterly line of Mueller Street; thence Easterly and at right angles to Mueller Street 100 feet; thence Southerly along a line 100 feet from and parallel with the Easterly line of Mueller Street to an intersection with a line at right angles to the Easterly line of Mueller Street where the same is intersected by the prolongation of the line midway between the Northerly line of Perry Avenue and the Southerly line of Clinton Avenue; thence westerly along said line at right angles to the Easterly line of Mueller Street to an intersection with the Easterly line of Mueller Street; thence westerly along the prolongation of and along the line midway between the Northerly line of Perry Avenue and the Southerly line of Clinton Avenue to an intersection with a line 100 feet westerly from and parallel with the westerly line of Broad Street; thence Northerly along said line 100 feet westerly from and parallel with the westerly line of Broad Street to the intersection with the line midway between the southerly line of Hull Avenue and the Northerly line of Clinton Avenue, the point or place of beginning.

—the above entitled assessment was entered on the day hereinbefore given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid on or before May 27, 1916, which is sixty days after the date of said entry of the assessments, interest will be collected thereon at the rate of seven per centum per annum, to be calculated from ten days after the date of said entry to the date of payment, as provided by Sections 159 and 987 of the Greater New York Charter.

The above assessment is payable to the Collector of Assessments and Arrears at his office in the Municipal Building, Court House Square, Long Island City, Borough of Queens, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 noon.

WILLIAM A. PRENDERGAST, Comptroller.
Dated, New York, March 28, 1916. m30,a10

IN PURSUANCE OF SECTION 986 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court and the entering in the Bureau for the Collection of Assessments and Arrears of the assessment for OPENING AND ACQUIRING TITLE to the following named street and avenues in the BOROUGH OF BROOKLYN:

SECTIONS 20 and 21.

WEST FOURTH STREET—OPENING from Kings Highway to Avenue T, and AVENUES S AND T—OPENING from Stillwell Avenue to Gravesend Avenue, excepting the right-of-way of the New York and Sea Beach Railroad. Confirmed March 7th, 1916. Entered March 23, 1916. Area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of Brooklyn, in the City of New York, which, taken together, are bounded and described as follows, viz.: BEGINNING at a point on the prolongation of a line midway between Avenue R and Avenue S, distant 100 feet westerly from the westerly line of Stillwell Avenue, and running thence eastwardly along the said line midway between Avenue R and Avenue S, and along the prolongations of the said line to the intersection with a line midway between West 4th Street and West 5th Street; thence northwardly along the said line midway between West 4th Street and West 5th Street to a point distant 100 feet northerly from the northerly line of Kings Highway, the said distance being measured at right angles to Kings Highway; thence eastwardly and always distant 100 feet northerly from and parallel with the northerly line of Kings Highway to the intersection with a line midway between West 3rd and West 4th Streets to the intersection with a line midway between Avenue R and Avenue S; thence eastwardly along the said line midway between Avenue R and Avenue S and along the prolongation of the said line to the intersection with a line distant 200 feet easterly from and parallel with the easterly line of Gravesend Avenue, the said distance being measured at right angles to Gravesend avenue; thence southwardly along the said line parallel with Gravesend avenue to the intersection with the prolongation of a line midway between Avenue T and Avenue U; thence westwardly along the said line midway between Avenue T and Avenue U and along the prolongation of the said line to the intersection with a line parallel with Stillwell Avenue and passing through the point of beginning; thence northwardly along the said line parallel with Stillwell Avenue to the point or place of beginning.

—the above entitled assessment was entered on the day hereinbefore given in the Record of Title of Assessments, kept in the Bureau for Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid on or before May 22, 1916, which is sixty days after the date of said entry of the assessment, interest will be collected thereon at the rate of seven per centum per annum, to be calculated from ten days after the date of said entry to the day of payment, as provided by Sections 159 and 987 of the Greater New York Charter The above assessment is payable to the Collector of Assessments and Arrears at his office in the Offerman Building, 503 Fulton Street, Borough of Brooklyn, between the hours of 9 a. m. and 2 p. m. and on Saturdays from 9 a. m. to 12 m. noon.

WILLIAM A. PRENDERGAST, Comptroller.
Dated March 23rd, 1916. m27,a6

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS IN THE BOROUGH OF THE BRONX:

SECTION 13.

FIELDSTON ROAD—REGULATING, GRADING, BUILDING APPROACHES and ERECTING FENCES from Mosholu Avenue to a point about 303 feet north of West Two Hundred and Fiftieth Street. Area of assessment affects blocks 3415, 3421 and 3423.

—that the above assessments were confirmed by the Board of Revision of Assessments March 22, 1916, and entered March 23, 1916, in the record of titles of assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid on or before May 22, 1916, which is sixty days after the date of said entry of the assessments, interest will be collected thereon at the rate of seven per centum per annum, to be calculated from ten days after the date of said entry to the date of payment, as provided by Sections 159 and 1019 of the Greater New York Charter.

The above assessments are payable to the Collector of Assessments and Arrears at his office in the Bergen Building, fourth floor, southeast corner of Arthur and Tremont Avenues, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m. and on Saturdays from 9 a. m. to 12 noon.

WILLIAM A. PRENDERGAST, Comptroller.
Dated, New York, March 23, 1916. m27,a6

IN PURSUANCE OF SECTION 986 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court and the entering in the Bureau for the Collection of Assessments and Arrears of the assessment for OPENING AND ACQUIRING TITLE to the following named avenues in the BOROUGH OF QUEENS:

SECOND WARD.

OPENING AND EXTENDING OF BRITTON AVENUE (ORCHARD AVENUE) from Broadway to Roosevelt Avenue, and of ELMHURST AVENUE from Broadway to Roosevelt Avenue. Confirmed February 16th, 1916. Entered March 23, 1916. Area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of Queens, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point on the prolongation of a line midway between Britton avenue and Vietor place, distant 100 feet southerly from the southerly line of Broadway, the said distance being measured at right angles to Broadway, and running thence westwardly and always distant 100 feet southerly from and parallel with the southerly line of Broadway to the intersection with the prolongation of a line midway between Britton avenue and Petit place; thence northwardly along the said line midway between Britton avenue and Petit place, and along the prolongations of the said line to a point distant 100 feet northerly from the northerly line of Ithaca street; thence westwardly and parallel with Ithaca street to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the centre lines of Baxter avenue and Britton avenue as these streets are laid out between Gleane street and Hampton street; thence northwardly along the said bisecting line to the intersection with the southerly line of Roosevelt avenue; thence northwardly at right angles to Roosevelt avenue a distance of 180 feet; thence eastwardly and parallel with Roosevelt avenue to the intersection with a line at right angles to Roosevelt avenue and passing through a point on its southerly side where it is intersected by a line bisecting the angle formed by the intersection of the prolongations of the centre lines of Elmhurst avenue and Warner avenue as these streets are laid out between Denman street and Elbertson street; thence southwardly along the said line at right angles to Roosevelt avenue to its southerly side; thence southwardly along the bisecting line last described to the intersection with the prolongation of a line midway between Elmhurst avenue and Warner avenue as these streets are laid out between Hampton street and Jacobsen street; thence southwardly along the said line midway between Elmhurst avenue and Warner avenue and along the prolongation of the said line to the intersection with a line passing through a point on the northerly line of Ketcham street midway between Elmhurst avenue and Warner avenue, and a point on the northerly line of Macnish street midway between Elmhurst avenue and Kingsland avenue; thence southwardly along the line last described to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the easterly line of Elmhurst avenue and the westerly line of Kingsland avenue as these streets are laid out between Broadway and Macnish street; thence southwardly along the said bisecting line to a point distant 100 feet southerly from the southerly line of Broadway, the said distance being measured at right angles to Broadway; thence westwardly and parallel with Broadway to the intersection with a line bisecting the angle formed by the intersection of the prolongation of the centre lines of Vietor place and Elmhurst avenue as these streets are laid out between Ketcham street and Macnish street; thence northwardly along the said bisecting line to the intersection with a line at right angles to Jacobsen street, and passing through a point on its southerly side midway between Vietor place and Elmhurst avenue; thence northwardly along the said line at right angles to Jacobsen street to a point distant 100 feet northerly from its northerly side; thence westwardly and parallel with Jacobsen street to the intersection with the prolongation of a line midway between Britton avenue and Vietor place; thence southwardly along the said line midway between Britton avenue and Vietor place and along the prolongations of the said line to the point or place of beginning.

—the above entitled assessment was entered on the day hereinbefore given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid on or before May 22, 1916, which is sixty days after the date of said entry of the assessments, interest will be collected thereon at the rate of seven per centum per annum, to be calculated from ten days after the date of said entry to the date of payment, as provided by Sections 159 and 987 of the Greater New York Charter.

The above assessment is payable to the Collector of Assessments and Arrears at his office in the Municipal Building, Court House Square, Long Island City, Borough of Queens, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 noon.

WILLIAM A. PRENDERGAST, Comptroller.
Dated, New York, March 23, 1916. m25,a5

IN PURSUANCE OF SECTION 986 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court and the entering in the Bureau for the Collection of Assessments and Arrears of the assessment for OPENING AND ACQUIRING TITLE to the following named avenues and public park in the BOROUGH OF THE BRONX:

SECTIONS 11 and 12, Supplemental.

OPENING OF SEDGWICK AVENUE between Fordham Road and Bailey Avenue; BAILEY AVENUE between Sedgwick Avenue and Albany Road; ALBANY ROAD between Bailey Avenue and Van Cortland Park, and FOR THE OPENING AND EXENDING OF HEATH AVENUE (Harlem River Terrace) between West One Hundred and Eighty-ninth Street and West One Hundred and Ninety-first Street, and a Public Place between Heath Avenue and Bailey avenue, south of West One Hundred and Ninety-first Street, and KINGSBRIDGE ROAD WIDENING between Exterior Street and Bailey Avenue. Confirmed FEB. 17th, 1916. Eentered Mar. 21, 1916. Area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of The Bronx, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at the intersection of the prolongation of a line 100 feet south of the southerly side of East One Hundred and Eighty-first street and parallel therewith, with the easterly bulkhead line of the Harlem River, and running thence northwardly along the said easterly line of the Harlem River to the intersection with a line midway between Broadway and Exterior street; thence northeastwardly along the said line midway between Broadway and Exterior street to the northerly side of Kingsbridge road; thence northwardly at right angles to the line of the Kingsbridge road 100 feet; thence eastwardly and parallel with the Kingsbridge road to the easterly line of the land of the New York and Putnam Railway; thence northwardly and along the said easterly line of the New York and Putnam Railway to the intersection with a line distant 100 feet north of and parallel with the southerly line of Van Cortlandt Park, the said distance being measured at right angles to the said southerly line of Van Cortlandt Park; thence easterly and parallel with the southerly line of Van Cortlandt Park to the intersection with the prolongation of a line midway between Gouverneur avenue and Norman avenue; thence southwestwardly along the said line midway between Gouverneur avenue and Norman avenue and the prolongation of the said line to the intersection with the centre line of Sedgwick avenue; thence southwestwardly to a point on the southwesterly side of Kingsbridge road where the same is intersected by a line 100 feet northwest of and parallel with the northwesterly line of Aqueduct avenue, the said distance being measured at right angles to the line of Aqueduct avenue; thence southwestwardly and always distant 100 feet northwestwardly from the northwesterly line of Aqueduct avenue and along the prolongation of the said line to the intersection with the southerly line of East One Hundred and Eighty-first street; thence southwestwardly at right angles to East One Hundred and Eighty-first street 100 feet; thence northwestwardly and westwardly and always parallel with the southerly line of East One Hundred and Eighty-first street, and 100 feet distant therefrom, to the point or place of beginning.

—the above entitled assessment was entered on the day hereinbefore given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid on or before May 20th, 1916, which is sixty days after the date of said entry of the assessment, interest will be collected thereon at the rate of seven per centum per annum, to be calculated from ten days after the date of said entry to the day of payment, as provided by Sections 159 and 987 of the Greater New York Charter. The above assessment is payable to the Collector of Assessments and Arrears at his office in the Bergen Building, Fourth floor, southeast corner of Arthur and Tremont Avenues, Borough of the Bronx, between the hours of 9 a. m. and 2 p. m. and on Saturdays from 9. a. m. to 12 m. noon.

WILLIAM A. PRENDERGAST, Comptroller.
Dated March 21, 1916. m23,a3

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS IN THE BOROUGH OF THE BRONX:

SECTION 11.

EAST ONE HUNDRED AND NINETIETH STREET—PAVING THE ROADWAY AND SETTING CURB from Jerome Avenue to Creston Avenue. Area of assessment affects blocks 3174, 3175, 3189 and 3190.

—that the above assessment was confirmed by the Board of Assessors March 21, 1916, and entered March 21, 1916, in the record of titles of assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid on or before May 20, 1916, which is sixty days after the date of said entry of the assessments, interest will be collected thereon at the rate of seven per centum per annum, to be calculated from ten days after the date of said entry to the date of payment, as provided by Sections 159 and 1019 of the Greater New York Charter.

The above assessment is payable to the Collector of Assessments and Arrears at his office

in the Bergen Building, fourth floor, southeast corner of Arthur and Tremont Avenues, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m. and on Saturdays from 9 a. m. to 12 noon.

WILLIAM A. PRENDERGAST, Comptroller.
Dated, New York, March 21, 1916. m23,a3

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS IN THE BOROUGH OF THE BRONX:

SECTION 10.

JACKSON AVENUE — PAVING THE ROADWAY AND SETTING CURB from East One Hundred and Forty-first to East One Hundred and Forty-ninth Street. Area of assessment affects blocks 2557, 2572, 2573, 2574, 2576, 2577, 2578 and 2579.

SECTION 15.

FILLMORE STREET — REGULATING, GRADING, SETTING CURBSTONES, FLAGGING THE SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES and ERECTING FENCES from Morris Park Avenue to Van Nest Avenue. Area of assessment affects block 4020, 4021, 4029 and 4030.

MELVILLE STREET — REGULATING, GRADING, SETTING CURBSTONES, FLAGGING SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES and ERECTING FENCES from West Farm Road to Morris Park Avenue. Area of assessment affects blocks 4020, 4021, 4029 and 4030.

VAN BUREN STREET—REGULATING, GRADING, SETTING CURBSTONES, FLAGGING SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES and ERECTING FENCES from WEST FARM ROAD TO MORRIS PARK AVENUE. Area of assessment affects blocks 4015, 4016, 4018, 4019 and 4022.

—that the above assessments were confirmed by the Board of Revision of Assessments March 15, 1916, and entered March 15, 1916, in the record of titles of assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid on or before May 15, 1916, which is sixty days after the date of said entry of the assessments, interest will be collected thereon at the rate of seven per centum per annum, to be calculated from ten days after the date of said entry to the date of payment, as provided by Sections 159 and 1019 of the Greater New York Charter.

The above assessments are payable to the Collector of Assessments and Arrears at his office in the Bergen Building, fourth floor, southeast corner of Arthur and Tremont Avenues, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m. and on Saturdays from 9 a. m. to 12 noon.

WILLIAM A. PRENDERGAST, Comptroller.
Dated, New York, March 15, 1916. m21,31

Corporation Sales of Buildings and Appurtenances Thereto on City Real Estate by Sealed Bids

AT THE REQUEST OF THE PRESIDENT of the Borough of Queens, public notice is hereby given that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale by sealed bids certain encroachments standing upon property owned by The City of New York, acquired by it for street opening purposes in the

Borough of Queens.

BEING the buildings, parts of buildings, etc., standing within the lines of Remington Street, from Chichester Avenue to Beaufort Avenue, in the Borough of Queens, which are more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 368, Municipal Building, Borough of Manhattan.

PURSUANT to a resolution of the Commissioners of the Sinking Fund adopted at a meeting held March 8, 1916, the sale by sealed bids at the upset or minimum prices named in the description of each parcel of the above described buildings and appurtenances thereto will be held by direction of the Comptroller on

MONDAY, APRIL 3, 1916,

at 11:00 A. M., in lots and parcels, and in manner and form, and at upset prices as follows:

PARCEL NO. 1 One-story frame house No. 34 Chichester Avenue, Dunton, Borough of Queens.

Sealed bids (blank forms of which may be obtained upon application) will be received by the Comptroller at the office of the Collector of City Revenue, Room 368, Municipal Building, Borough of Manhattan, until 11.00 a. m. on the 3d day of April, 1916, and then publicly opened for the sale for removal of the above described buildings and appurtenances thereto, and the award will be made to the highest bidder within twenty-four hours, or as soon as possible thereafter.

Each parcel must be bid for separately and will be sold in its entirety, as described in above advertisement.

Each and every bid must be accompanied by a deposit of cash or certified check in a sum equal to 25 per cent. of the amount of the bid, except that a minimum deposit of $50 will be required with all bids, and that a deposit of $500 will be sufficient to entitle bidders to bid on any or all of the buildings.

Deposits of unsuccessful bidders will be returned within twenty-four hours after successful bidders have paid purchase price in full and given security, and those of successful bidders may be declared forfeited to The City of New York by the Comptroller upon the failure of the successful bidder to further comply with the requirements of the terms and conditions of the sale as set forth hereinafter.

Successful bidders will be required to pay the purchase money and deposit the required security within twenty-four hours of the receipt of notification of the acceptance of their bids.

The Comptroller reserves the right to reject any and all bids and to waive any defects or informalities in any bid should it be deemed in the interest of The City of New York to do so.

All bids must state clearly (1) the number or description of the building or buildings bid for, (2) the amount of the bid, (3) the full name and address of the bidder.

All bids must be inclosed in properly sealed envelopes, marked "Proposals to be opened April 3, 1916," and must be delivered, or mailed in time for their delivery, prior to 11 a. m. of that date to the "Collector of City Revenue, Room 368, Municipal Building, New York City," from whom any further particulars regarding the buildings to be disposed of may be obtained.

THE BUILDINGS WILL BE SOLD FOR IMMEDIATE REMOVAL ONLY, SUBJECT TO THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS ISSUE OF THE "CITY RECORD."

WM. A. PRENDERGAST, Comptroller.
City of New York, Department of Finance
Comptroller's Office, March 9, 1916. m17,a3

AT THE REQUEST OF THE PRESIDENT of the Borough of The Bronx, public notice is hereby given that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale by sealed bids certain encroachments standing upon property owned by The City of New York, acquired by it for street opening purposes in the

Borough of The Bronx.

BEING the building on Damage Parcel No. 16 of the Grand Boulevard and Concourse proceeding, in the Borough of The Bronx, which is more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 368, Municipal Building, Borough of Manhattan.

PURSUANT to a resolution of the Commissioners of the Sinking Fund, adopted at a meeting held March 8, 1916, the sale by sealed bids at the upset or minimum prices named in the description of each parcel of the above buildings and appurtenances thereto, will be held by direction of the Comptroller on

FRIDAY, MARCH 31, 1916,

at 11:00 A. M., in lots and parcels, and in manner and form, and at upset prices as follows:

PARCEL NO. 16: Two-story frame house and two-story frame stable No. 969 Grand Boulevard and Concourse, northwest corner of East 164th Street, The Bronx. Upset price, $1,000.00.

Possession of this building will be given to purchaser on July 31, 1916. All excavations remaining after removal of buildings must be filled in with clean earth to the level of the surrounding ground, and the property left in a safe and sanitary condition.

Sealed bids (blank forms of which may be obtained upon application) will be received by the Comptroller at the office of the Collector of City Revenue, Room 368, Municipal Building, Borough of Manhattan, until 11.00 a. m. on the 31st day of March 1916, and then publicly opened for the sale for removal of the above described buildings and appurtenances thereto, and the award will be made to the highest bidder within twenty-four hours, or as soon as possible thereafter.

Each parcel must be bid for separately and will be sold in its entirety, as described in above advertisement.

Each and every bid must be accompanied by a deposit of cash or certified check in a sum equal to 25 per cent. of the amount of the bid, except that a minimum deposit of $50 will be required with all bids, and that a deposit of $500 will be sufficient to entitle bidders to bid on any or all of the buildings.

Deposits of unsuccessful bidders will be returned within twenty-four hours after successful bidders have paid purchase price in full and given security, and those of successful bidders may be declared forfeited to The City of New York by the Comptroller upon the failure of the successful bidder to further comply with the requirements of the terms and conditions of the sale as set forth hereinafter.

Successful bidders will be required to pay the purchase money and deposit the required security within twenty-four hours of the receipt of notification of the acceptance of their bids.

The Comptroller reserves the right to reject any and all bids and to waive any defects or informalities in any bid should it be deemed in the interest of The City of New York to do so.

All bids must state clearly (1) the number or description of the building or buildings bid for, (2) the amount of the bid, (3) the full name and address of the bidder.

All bids must be inclosed in properly sealed envelopes, marked "Proposals to be opened March 31, 1916," and must be delivered, or mailed in time for their delivery, prior to 11 a. m. of that date to the "Collector of City Revenue, Room 368, Municipal Building, New York City," from whom any further particulars regarding the buildings to be disposed of may be obtained.

THE BUILDINGS WILL BE SOLD FOR IMMEDIATE REMOVAL ONLY, SUBJECT TO THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS ISSUE OF THE "CITY RECORD."

WM. A. PRENDERGAST, Comptroller.
City of New York, Department of Finance,
Comptroller's Office, March 8, 1916. m15,31

AT THE REQUEST OF THE PRESIDENT of the Borough of The Bronx, public notice is hereby given that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale by sealed bids certain encroachments standing upon property owned by The City of New York, acquired by it for street opening purposes in the

Borough of The Bronx.

BEING the buildings, parts of buildings, etc., standing within the lines of Bear Swamp Road, from Sacket Avenue to Van Nest Avenue, including Parcels Nos. 1, 1A, 23, 37 and 57, in the Borough of The Bronx, which are more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 368, Municipal Building, Borough of Manhattan.

PURSUANT to a resolution of the Commissioners of the Sinking Fund, adopted at a meeting held March 8, 1916, the sale by sealed bids at the upset or minimum prices named in the description of each parcel of the above buildings and appurtenances thereto, will be held by direction of the Comptroller on

THURSDAY, MARCH 30, 1916,

at 11:00 A. M., in lots and parcels, and in manner and form, and at upset prices as follows:

PARCELS 16 AND 19: Stone wall on the northerly side of Bear Swamp Road from Sacket Avenue to Pierce Avenue. Upset price, $2.00.

PARCEL 22: Part of one-story frame building No. 1606 Bear Swamp Road (Bronxdale Avenue). Cut 45.7 feet on the south side by 30.7 feet on the north side. Upset price, $10.00.

PARCEL 23: Wire fence, part of porch and steps on the southerly side of Bear Swamp Road opposite Sacket Avenue. Upset price, $2.00.

PARCEL 24: Wire fence on the southerly side of Bear Swamp Road running westerly from Parcel No. 23. Upset price, $2.00.

PARCEL 31-34: Stone wall on northerly side of Bear Swamp Road from the bridge to Van Nest Avenue. Upset price, $5.00.

Sealed bids (blank forms of which may be obtained upon application) will be received by the Comptroller at the office of the Collector of City Revenue, Room 368, Municipal Building, Borough of Manhattan, until 11.00 a. m. on the 30th day of March, 1916, and then publicly opened for the sale for removal of the above described buildings and appurtenances thereto, and the award will be made to the highest bidder within twenty-four hours, or as soon as possible thereafter.

Each parcel must be bid for separately and will be sold in its entirety, as described in above advertisement.

Each and every bid must be accompanied by a deposit of cash or certified check in a sum equal to 25 per cent. of the amount of the bid, except that a minimum deposit of $50 will be required with all bids, and that a deposit of $500 will be sufficient to entitle bidders to bid on any or all of the buildings.

Deposits of unsuccessful bidders will be returned within twenty-four hours after successful bidders have paid purchase price in full and given security, and those of successful bidders may be declared forfeited to The City of New York by the Comptroller upon the failure of the successful bidder to further comply with the requirements of the terms and conditions of the sale as set forth hereinafter.

Successful bidders will be required to pay the purchase money and deposit the required security within twenty-four hours of the receipt of notification of the acceptance of their bids.

The Comptroller reserves the right to reject any and all bids and to waive any defects or informalities in any bid should it be deemed in the interest of The City of New York to do so.

All bids must state clearly (1) the number or description of the building or buildings bid for, (2) the amount of the bid, (3) the full name and address of the bidder.

All bids must be inclosed in properly sealed envelopes, marked "Proposals to be opened March 30, 1916," and must be delivered, or mailed in time for their delivery, prior to 11 a. m. of that date to the "Collector of City Revenue, Room 368, Municipal Building, New York City," from whom any further particulars regarding the buildings to be disposed of may be obtained.

THE BUILDINGS WILL BE SOLD FOR IMMEDIATE REMOVAL ONLY, SUBJECT TO THE TERMS AND CONDITIONS PRINTED ON THE LAST PAGE OF THIS ISSUE OF THE "CITY RECORD."

WM. A. PRENDERGAST, Comptroller.
City of New York, Department of Finance,
Comptroller's Office, March 8, 1916. m14,30

Corporation Sale of Real Estate.

PUBLIC NOTICE IS HEREBY GIVEN THAT the Commissioners of the Sinking Fund of The City of New York, by virtue of the powers vested in them by law, will offer for sale at public auction on

MONDAY, APRIL 10, 1916,

at 12 o'clock M., in Room 368, Municipal Building, Borough of Manhattan, the following described property

ALL that certain piece or parcel of land situated at Lake Gleneida, Town of Carmel, County of Putnam and State of New York, shown on Map No. 10,938-Z, on file in the office of the Commissioner of Water Supply, Gas and Electricity of the City of New York, more fully described as follows:

BEGINNING at the northwest corner of Fowler Avenue and Pond Street, running thence westerly along the northerly line of Pond Street 264.39 feet to a point; thence deflecting to the right an angle of 92 degrees 46 minutes, a distance of 199.84 feet to a point; thence deflecting to the right an angle of 101 degrees 39 minutes, a distance of 171.44 feet, to a point on a stone monument; thence deflecting to the right an angle of 9 degrees 24 minutes 30 seconds, a distance of 126.72 feet, to a point on the westerly line of Fowler Avenue; thence deflecting to the right an angle of 80 degrees 36 minutes, a distance of 109.26 feet, along the westerly line of Fowler Avenue to the point or place of beginning, containing within said bounds 44,256.65 square feet, more or less.

The minimum or upset price at which said property shall be sold is hereby fixed at the sum of One hundred Dollars ($100). The sale to be made upon the following

TERMS AND CONDITIONS:

No building or construction of any kind shall be erected or constructed upon the premises to be demised, nor shall the demised premises be used for any other purposes than ingress and egress to or from adjoining premises.

In the event of the use of any portion of the premises to be demised for roadway purposes, such portion thereof to be used for roadway purposes shall have proper paved gutters on either side thereof, which gutters shall be so constructed as to receive only the natural drainage from the surface of said roadway, such drainage to drain into gutters on either side thereof.

It is distinctly understood that no house waste, filth, refuse or other objectionable matter to the City of New York shall be thrown upon or discharged upon the surface of the grounds to be demised nor shall the premises or any part thereof be used for any purpose or purposes inconsistent with the sanitary protection of the water supply of the City of New York.

It is distinctly understood and agreed that in the event of a breach of any of the conditions contained in the above mentioned terms, the property shall then revert back to the City of New York without further action.

The highest bidder will be required to pay ten per cent. (10%) of the amount of the bid, together with the auctioneer's fees, at the time of the sale, and ninety per cent. (90%) upon the delivery of the deed, which shall be within sixty (60) days from the date of sale.

The deed so delivered shall be in the form of a bargain and sale deed without covenenats.

The Comptroller may, at his option, resell the property, if the successful bidder shall fail to comply with the terms of the sale, and the person so failing to comply therewith will be held liable for any deficiency which may result from such resale.

The right is reserved to reject any and all bids.

By order of the Commissioners of the Sinking Fund under resolution adopted at meeting of the Board held March 8, 1916.

WM. A. PRENDERGAST, Comptroller, City of New York.

Department of Finance, Comptroller's Office, March 22, 1916. m24,a10

Interest on City Bonds and Stock.

THE INTEREST DUE APRIL 1, 1916, ON Registered and Coupon bonds and stock of The City of New York, and of the former corporations now included therein, will be paid on that day by the Comptroller at his office (Room 847, Municipal Building, Chambers and Centre Streets, Borough of Manhattan).

The books for the transfer of bonds and stock on which interest is payable April 1, 1916, will be closed from March 15, 1916, to April 1, 1916.

WILLIAM A. PRENDERGAST, Comptroller.
City of New York, Department of Finance,
Comptroller's Office, March 1, 1916. m1,a1

Sureties on Contracts.

UNTIL FURTHER NOTICE SURETY COMpanies will be accepted as sufficient upon the following contracts to the amounts named:

Supplies of Any Description, Including Gas and Electricity.

One company on a bond up to $50,000.

When such company is authorized to write that amount as per letter of Comptroller to the surety companies, dated January 1, 1914.

Construction.

One company on a bond up to $25,000.

Including regulating, grading, paving, sewers, maintenance, dredging, construction of parks, parkways, docks, buildings, bridges, tunnels, aqueducts, repairs, heating, ventilating, plumbing, etc., etc.

When such company is authorized to write that amount as per letter of Comptroller to the surety companies, dated January 1, 1914.

Asphalt, Asphalt Block and Wood Block Pavement.

Two companies will be required on any and every bond up to amount authorized by letter of Comptroller to the surety companies, dated January 1, 1914.

January 1, 1914.

WILLIAM A. PRENDERGAST, Comptroller.

BELLEVUE AND ALLIED HOSPITALS, DEPARTMENT OF PUBLIC CHARITIES, DEPARTMENT OF CORRECTION AND DEPARTMENT OF HEALTH.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by Bellevue and Allied Hospitals, Department of Public Charities, Department of Correction and Department of Health, at Room 1230, Municipal Building, Borough of Manhattan, City of New York, until 12 o'clock noon on

MONDAY, APRIL 3, 1916,

FOR FURNISHING AND DELIVERING BUTTER, CHEESE, EGGS AND BREAD AND ROLLS.

The time for the performance of the contract is on or before June 30, 1916.

The amount of security required is thirty (30) per cent. of the amount of the bid or estimate.

No bid will be considered unless it is accompanied by a deposit. Such deposit shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per pound, dozen or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder on each line or class, as stated in the specifications.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at Room 1230, Municipal Building, Borough of Manhattan.

BOARD OF TRUSTEES, BELLEVUE AND ALLIED HOSPITALS, JOHN W. BRANNAN, M. D., President.

DEPARTMENT OF PUBLIC CHARITIES, JOHN A. KINGSBURY, Commissioner.

DEPARTMENT OF CORRECTION, BURDETTE G. LEWIS, Commissioner.

DEPARTMENT OF HEALTH, H. EMERSON, Commissioner. m22,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record," except for the address of the office for receiving and opening bids.

DEPARTMENT OF CORRECTION, FIRE DEPARTMENT; DEPARTMENT OF PARKS, MANHATTAN AND RICHMOND; DEPARTMENT OF PARKS, BRONX; DEPARTMENT OF PUBLIC CHARITIES.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by Dep't of Correction, Fire Department, Dep't of Parks, Man. and Rich.; Dep't of Parks, Bronx; Dep't of Public Charities, at Room 1230, Municipal Building, Borough of Manhattan, City of New York, until 12 o'clock noon on

THURSDAY, APRIL 6, 1916,

FOR FURNISHING AND DELIVERING NAILS, BOLTS, NUTS, WASHERS, RIVETS AND SCREWS.

The time for the performance of the contract is on or before June 30, 1916.

The amount of security required is thirty (30) per cent. of the amount of the bid or estimate.

No bid will be considered unless it is accompanied by a deposit. Such deposit shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per pound, gross, hundred or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read and awards made to the lowest bidder on each line or class, as stated in the specifications.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at Room 1230, Municipal Building, Borough of Manhattan.

DEPT. OF CORRECTION, BURDETTE G. LEWIS, Commissioner.

PARK BOARD, CABOT WARD, President; THOS. W. WHITTLE, RAYMOND V. INGERSOLL, JOHN E. WEIER, Commissioners of Parks.

FIRE DEPARTMENT, ROBERT ADAMSON, Commissioner.

DEP'T OF PUBLIC CHARITIES, JOHN A. KINGSBURY, Commissioner. m25,a6

☞See General Instructions to Bidders on last page, last column, of the "City Record," except for the address of the office for receiving and opening bids.

DEPARTMENT OF PARKS.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the office of the Department of Parks, Municipal Building, Manhattan, until 3 o'clock P. M. on

THURSDAY, MARCH 30, 1916,
Borough of Brooklyn.

FURNISHING AND DELIVERING ONE (1) POWER SPRAYER.

The time allowed for the completion of this contract will be Thirty (30) Calendar Days.

The amount of security required will be thirty (30%) per cent. of the amount for which the contract will be awarded.

A deposit of one and one-half (1½%) per cent. of the total amount of bid must accompany estimate.

Bids will be compared and the contract awarded at a lump or aggregate sum.

Bids must be submitted in duplicate.

Blank forms may be obtained at the office of the Department of Parks, Borough of Brooklyn, Litchfield Mansion, Prospect Park West and Fifth Street, Prospect Park, Brooklyn.

CABOT WARD, President; RAYMOND V. INGERSOLL, THOMAS W. WHITTLE, JOHN E. WEIER, Commissioners of Parks. m18,30

☞See General Instructions to Bidders on last page, last column, of the "City Record."

FIRE DEPARTMENT, DEPARTMENT OF PARKS, MANHATTAN AND RICHMOND; DEPARTMENT OF PARKS, BRONX; DEPARTMENT OF PARKS, BROOKLYN; DEPARTMENT OF PUBLIC CHARITIES, DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by Fire Department, Dep't of Parks, Man. and Rich.; Dep't of Parks, Bronx; Dep't of Parks, Brooklyn; Department of Public Charities, Department of Water Supply, Gas and Electricity, at Room 1230, Municipal Building, Borough of Manhattan, City of New York, until 12 o'clock noon on

FRIDAY, APRIL 7, 1916,

FOR FURNISHING AND DELIVERING METALS, PIPE VALVES AND FITTINGS.

The time for the performance of the contract is on or before June 30, 1916.

The amount of security required is thirty (30) per cent. of the amount of the bid or estimate.

No bid will be considered unless it is accompanied by a deposit. Such deposit shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per pound, feet, each, or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read and awards, if made, made to the lowest bidder on each item or class, as stated in the specifications.

Bids must be submitted in dupficate, each in a

separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at Room 1230, Municipal Building, Borough of Manhattan.

FIRE DEPARTMENT, ROBERT ADAMSON, Commissioner.

PARK BOARD, CABOT WARD, President; THOS. W. WHITTLE, RAYMOND V. INGERSOLL, JOHN E. WEIER, Commissioners of Parks.

DEPARTMENT OF PUBLIC CHARITIES, JOHN A. KINGSBURY, Commissioner.

DEPARTMENT OF WATER SUPPLY, GAS & ELECTRICITY, WILLIAM WILLIAMS, Commissioner. m27,a7

☞See General Instructions to Bidders on last page, last column, of the "City Record," except for the address of the office for receiving and opening bids.

DEPARTMENT OF PUBLIC CHARITIES.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the Department of Public Charities, Tenth Floor, Municipal Building, Manhattan, until 10.30 o'clock a. m., on

THURSDAY, APRIL 6, 1916,

FOR FURNISHING AND DELIVERING LAUNDRY MACHINERY MATERIALS, CONSISTING OF CANVAS DUCK, WOOL FELT, HAIR FELT AND ASBESTOS PAPER.

The time for the performance of the contract is thirty (30) calendar days.

The amount of the security required for the performance of the contract is thirty (30) per cent. of the amount of the contract.

No bid will be considered unless it is accompanied by a deposit, which shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per yard or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder on each line or item, as stated in the specifications.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at the office of the Purchasing Agent of the Department, Tenth Floor, Municipal Building, Borough of Manhattan.

JOHN A. KINGSBURY, Commissioner.

Dated March 27, 1916. m27,a6

☞See General Instructions to Bidders on last page, last column, of the "City Record."

DEPARTMENT OF CORRECTION.

Proposals.

SEALED BIDS OR PROPOSALS WILL BE received by the Commissioner of Correction, Municipal Building, Manhattan, until eleven o'clock A. M. on

MONDAY, APRIL 3, 1916,

FOR FURNISHING MATERIALS REQUIRED FOR THE FOUNDATIONS FOR THE RECEIVING, CLASSIFICATION AND ADMINISTRATION BUILDING OF THE REFORMATORY OF MALE MISDEMEANANTS FOR THE DEPARTMENT OF CORRECTION, CITY OF NEW YORK, LOCATED AT NEW HAMPTON, ORANGE COUNTY, NEW YORK.

Proposals are to be made and contracts will be awarded separately for materials furnished under each item—A, B, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R.

Each proposal shall be accompanied by a certified check on a State or National Bank of the City of New York, drawn to the order of the Comptroller, or money to the amount of not less than two and one-half (2½%) per cent. of the amount of the bid.

The time allowed for furnishing the materials under each bid will be as stated in the Instructions to Bidders.

The amount of security required will be fifty (50%) per cent. of the amount of the contract.

Blank forms and further information may be obtained from Department of Correction, Municipal Building, Room 2400; Charles B. Meyers, Architect, No. 1 Union Square West, and William Goldsmith, Engineer, New Hampton Farms, New Hampton, Orange County, New York. A copy of the plans will be on display at the above places.

BURDETTE G. LEWIS, Commissioner. m23,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

BOROUGH OF QUEENS.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Queens at Third Floor, Borough Hall, Fifth Street and Jackson Avenue, Long Island City, until 11 o'clock a. m. on

MONDAY, APRIL 10, 1916,

NO. 1. FOR REGULATING AND GRADING THE SIDEWALK SPACES AND LAYING SIDEWALKS WHERE NECESSARY, TOGETHER WITH ALL WORK INCIDENTAL THERETO, ON THE SOUTHERLY SIDE OF QUEENS BOULEVARD FROM HILL STREET TO HAROLD AVENUE, FIRST WARD OF THE BOROUGH OF QUEENS, IN ACCORDANCE WITH SECTION 435 OF THE GREATER NEW YORK CHARTER.

The time allowed for doing and completing the above work will be Twenty (20) Working Days.

The amount of security required will be Seven Hundred ($700) Dollars.

The Engineer's estimate of the quantities is as follows:

350 Cu. Yds. Earth Excavation.

8,600 Sq. Ft. Cement Sidewalk, and one (1) year's maintenance.

200 Sq. Yds. Stone Gutters relaid.

NO. 2. FOR REGULATING, CURBING, LAYING SIDEWALKS (WHERE NOT ALREADY LAID TO GRADE AND IN GOOD CONDITION) AND PAVING WITH A PERMANENT PAVEMENT OF IMPROVED GRANITE BLOCKS UPON A CONCRETE FOUNDATION SIX INCHES IN THICKNESS, TOGETHER WITH ALL WORK INCIDENTAL THERETO, IN ORCHARD STREET FROM JACKSON AVENUE TO THE LONG ISLAND RAILROAD, FIRST WARD OF THE BOROUGH OF QUEENS.

The time allowed for doing and completing the above work will be Thirty (30) Working Days.

The amount of security required will be Three thousand ($3,000) Dollars.

The Engineer's estimate of the quantities is as follows:

300 cu. yds. of Earth Excavation.

4 cu. yds. of Rock Excavation.

650 lin. ft. of New Bluestone Curb.

40 lin. ft. Old Bluestone Curb, reset.

3,400 sq. ft. Cement sidewalk, and one year's maintenance.

260 cu. yds. of Concrete in place.

1,390 sq. yds. Improved Granite Block Pavement, including sand bed and bituminous grouted joints, and one year's maintenance.

15 square yards of Asphalt Block Pavement, to be relaid, not to be bid for.

NO. 3. FOR REGULATING AND GRADING FOR A WIDTH OF 25 FEET ON EITHER SIDE OF THE CENTER LINE, AND FOR LAYING SIDEWALKS (WHERE NOT ALREADY LAID TO GRADE AND IN GOOD CONDITION), TOGETHER WITH ALL WORK INCIDENTAL THERETO, IN FORTIETH (CLINTON) STREET FROM JACKSON AVENUE TO HAYES AVENUE AND FROM THE NORTH LINE OF THE OLD RIGHT OF WAY OF THE LONG ISLAND RAILROAD TO FOREST STREET; AND FOR REGULATING AND GRADING THE SIDEWALK SPACES FOR A WIDTH OF TEN (10) FEET AND LAYING SIDEWALKS (WHERE NOT ALREADY LAID TO GRADE AND IN GOOD CONDITION), TOGETHER WITH ALL WORK INCIDENTAL THERETO, ON THE EAST SIDE OF FORTIETH STREET FROM HAYES AVENUE TO THE NORTH LINE OF THE OLD RIGHT OF WAY OF THE LONG ISLAND RAILROAD, SECOND WARD OF THE BOROUGH OF QUEENS.

The time allowed for doing and completing the above work will be Fifty (50) Working Days.

The amount of security required will be Two Thousand eight Hundred ($2,800) Dollars.

The Engineer's estimate of the quantities is as follows:

1,400 Cu. Yds. Earth Excavation.

22,800 Sq. Ft. of Cement Sidewalk and one (1) year's maintenance.

NO. 4. FOR REGULATING, CURBING AND LAYING SIDEWALKS (WHERE NOT ALREADY LAID TO GRADE AND IN GOOD CONDITION) AND PAVING WITH A PERMANENT PAVEMENT OF SHEET ASPHALT UPON A CONCRETE FOUNDATION SIX (6) INCHES IN THICKNESS, TOGETHER WITH ALL WORK INCIDENTAL THERETO, IN FOREST AVENUE FROM HALLECK (EDSALL) AVENUE TO MYRTLE AVENUE, 2ND WARD.

The time allowed for doing and completing the above work will be Twenty (20) Working Days.

The amount of security required will be Eight Hundred ($800) Dollars.

The Engineer's estimate of the quantities is as follows:

20 Lin. Ft. Old Curb redressed and reset.

300 Lin. Ft. Cement Curb with Steel Nosing and one (1) year's maintenance.

125 Cu. Yds. Concrete, in place.

660 Sq. Yds. Sheet Asphalt Pavement, including binder course, and five (5) years' maintenance.

40 Sq. Yds. Granite Block Pavement relaid.

NO. 5. FOR REGULATING AND GRADING THE SIDEWALK SPACES AND LAYING SIDEWALKS (WHERE NOT ALREADY LAID TO GRADE AND IN GOOD CONDITION), TOGETHER WITH ALL WORK INCIDENTAL THERETO, ON THE WEST SIDE OF CREEK STREET BETWEEN GRAND STREET AND FLUSHING AVENUE, SECOND WARD OF THE BOROUGH OF QUEENS, IN ACCORDANCE WITH SECTION 435 OF THE GREATER NEW YORK CHARTER.

The time allowed for doing and completing the above work will be Fifteen (15) Working Days.

The amount of security required will be Two hundred and Fifty ($250.00) Dollars.

The Engineer's Estimate of the Quantities is as follows:

200 cu. yds. of Earth Excavation.

400 sq. ft. Old Flagstone Sidewalk relaid.

2,500 sq. ft. of Cement Sidewalk, and one (1) year's maintenance.

100 square yards of Old Granite Block Pavement relaid.

The bidder must state the price of each item or article contained in the specification or schedule herein contained or hereafter annexed, per square yard, linear foot or other unit of measure, by which the bids will be tested. Bids will be compared and each contract awarded at a lump or aggregate sum. Blank forms may be obtained and the plans or drawings may be seen at the office of the President of the Borough of Queens.

Dated March 29th, 1916.

MAURICE E. CONNOLLY, President. m29,a10

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Queens at third floor, Borough Hall, 5th Street and Jackson Avenue, Long Island City, until 11.00 A. M. on

MONDAY, APRIL 10, 1916,

NO. 1. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN KINGSLAND AVENUE FROM FIFTY-FIRST STREET TO WAY AVENUE; IN ALBURTIS AVENUE FROM KINGSLAND AVENUE TO ROOSEVELT AVENUE, AND IN ROOSEVELT AVENUE FROM ALBURTIS AVENUE TO JUNCTION AVENUE, SECOND WARD OF THE BOROUGH OF QUEENS.

The engineer's estimate of the quantities is as follows:

832 Lin. Ft. 5′ 0″ Reinforced concrete sewer.
583 Lin. Ft. 4′ 3″ Reinforced concrete sewer.
251 Lin. Ft. 3′ 9″ Plain concrete sewer.
242 Lin. Ft. 3′ 6″ Plain concrete sewer.
650 Lin. Ft. 2′ 9″ Plain concrete sewer.
1,345 Lin. Ft. 2′ 6″ Plain concrete sewer.
265 Lin. Ft. 24″ Vitrified pipe sewer.
250 Lin. Ft. 20″ Vitrified pipe sewer.
3 Lin. Ft. 18″ Vitrified pipe sewer.
12 Lin. Ft. 15″ Vitrified pipe sewer.
30 Lin. Ft. 12″ Vitrified pipe sewer.
27 Manholes, complete.
17 Single receiving basins, complete.
1 Double receiving basin, complete.
440 Lin. Ft. 12″ Vitrified pipe for basin connections.
20 Lin. Ft. 10″ Vitrified pipe for basin connections.
206 Six-inch spurs, 24″ long, on concrete sewers.
8 Six-inch spurs on 24″ Vitrified pipe sewer.
10 Six-inch spurs on 20″ Vitrified pipe sewer.
1,820 Lin. Ft. 6″ pipe for house connection drains.
1 Shaft connection chamber, 51st Street and Kingsland Avenue, Complete.
1 Junction chamber, 51st St. and Kingsland Ave., Complete.
1 Junction chamber, Kingsland and Alburtis Aves., Complete.
1 Junction chamber, Kingsland and Way Avenues, Complete.
1 Junction chamber, Alburtis and Roosevelt Aves., Complete.
1 Junction chamber, Roosevelt Ave. and 46th St., Complete.
25,000 Feet, B. M., Timber, sheeting and bracing.
25 Cubic Yards concrete, Class A, not shown on plan.
2.000 Lbs. reinforcing steel, not shown on plan.

The time allowed for completing the above work will be one hundred and fifty (150) working days.

The amount of security required will be Twenty Thousand ($20,000.00) Dollars.

The bidder must state the price of each item or article contained in the specifications or schedule herein contained or hereafter annexed, per square yard, per linear foot, or other unit of measure, by which the bids will be tested. Bids will be compared and each contract awarded at a lump or aggregate sum. Blank forms may be obtained and the plans or drawings may be seen at the office of the President of the Borough of Queens.

Dated March 29th, 1916.

MAURICE E. CONNOLLY, President. m29,a10

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Queens at his office, third floor, Borough Hall, Fifth Street and Jackson Avenue, Long Island City, until 11 o'clock A. M., on

MONDAY, APRIL 3, 1916,

CONTRACT, PURSUANT TO SECTION 544 OF THE GREATER NEW YORK CHARTER, FOR THE RECEPTION, TRANSPORTATION AND FINAL DISPOSITION OF GARBAGE, RUBBISH, ASHES AND STREET SWEEPINGS IN A PORTION OF THE FIFTH WARD OF THE BOROUGH OF QUEENS, CITY OF NEW YORK, DURING THE MONTHS OF APRIL, MAY, JUNE, JULY, AUGUST, SEPTEMBER AND OCTOBER, 1916, AND FURNISHING AND OPERATING THE NECESSARY DUMPS, SCOWS, TUGS, TOOLS, APPLIANCES AND LABOR THEREFOR, WITH THE RIGHT OF THE CITY OF NEW YORK TO RENEW THE SAID CONTRACT FOR THE SAID PERIOD IN THE YEARS 1917, 1918 AND 1919, UPON THE SAME TERMS AND CONDITIONS, EXCEPTING THE PROVISIONS OF RENEWAL.

The amount of security required will be forty-five hundred dollars ($4,500).

Bidder will state a lump sum for the above contract, as the contract is entire and for a complete job.

Blank forms and further information may be obtained at the office of the President of the Borough of Queens.

Dated March 22nd, 1916.

m22,a3 MAURICE E. CONNOLLY, President.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

BOROUGH OF MANHATTAN.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Manhattan at Room 2032, Municipal Building, New York City, until 2 o'clock P. M., on

THURSDAY, APRIL 6, 1916,

REGULATING, GRADING, CURBING, CONSTRUCTING SIDEWALK, BUILDING RETAINING WALL AND ERECTING GUARD-RAILS ON MARBLE HILL AVENUE FROM THE NORTH SIDE OF TERRACE VIEW AVENUE TO THE BOROUGH LINE, AND DO ALL OTHER NECESSARY WORK INCIDENTAL THERETO.

Engineer's Estimate of the Amount of Work to be Done:

Item 1. 90 cu. yds. Earth Excavation.
Item 2. 10 cu. yds. Rock Excavation.
Item 4. 6,400 cu. yds. Filling.
Item 5. 430 lin. ft. New Bluestone Curb, 5-inch.
Item 6. 10 lin. ft. Old Bluestone Curb.
Item 8. 1,710 sq. ft. New Bluestone Flagging.
Item 10. 10 sq. ft. Concrete Sidewalk.
Item 13. 350 cu. yds. Dry Rubble Masonry.
Item 16. 10 cu. yds. Class B Concrete.
Item 18. 60 lin. ft. Vitrified Pipe Drains, 12 inches in diameter.
Item 23. 330 lin. ft. New Guard Rail.
Item 33. Sinkage, shrinkage and settlement.
Item 34. 5 cu. yds. Brick Masonry.

The time allowed for the full completion of the work will be fifty (50) consecutive working days.

The amount of security required will be $1,500, and the amount of deposit accompanying the bid shall be five (5) per cent. of the amount of security.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per foot, yard or other unit of measure or article, by which the bid will be tested. The contract, if awarded, will be awarded for the whole work at a lump sum.

Blank forms may be had and the plans and drawings may be seen at the offices of the Commissioner of Public Works, Municipal Building, Bureau of Highways, Room 2124, Borough of Manhattan. MARCUS M. MARKS, President.

Dated March 27, 1916. m27,a6

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Manhattan at Room 2032, Municipal Building, Manhattan, until 2 o'clock P. M. on

MONDAY, APRIL 3, 1916,

NO. 1.—FOR THE ALTERATION AND IMPROVEMENT TO SEWER IN WEST 24TH STREET, BETWEEN SIXTH AVENUE AND BROADWAY.

The Engineer's estimate of the quantity and quality of the material, and the nature and extent as near as possible, of the work required is as follows:

Item No. 1. 643 linear feet of 4′ 0″ x 2′ 8″ brick sewer, complete (including the breaking down of old sewer and the supplying of any necessary additional backfill).
Item No. 2. 96 spurs for house-connections.
Item No. 3. 7 manholes, complete.
Item No. 4. 40,000 feet B. M. of timber and planking for sheathing and bracing.
Item No. 5. 3,000 feet B. M. of timber and planking for foundations.
Item No. 6. 5 square yards extra earth excavation.
Item No. 7. 2 cubic yards of brick masonry.
Item No. 8. 3 cubic yards of concrete (Class "B").

The time allowed for constructing and completing the sewer and appurtenances will be Fifty (50) consecutive working days.

The amount of security required will be five thousand five hundred dollars ($5,500), and the amount of deposit accompanying the bid shall be five per cent (5%) of the amount of security.

NO. 2.—FOR THE ALTERATION AND IMPROVEMENT TO SEWER IN WEST 33RD STREET, BETWEEN TENTH AND NINTH AVENUES.

The Engineer's estimate of the quantity and quality of the material, and the nature and extent, as near as possible, of the work required is as follows:

Item No. 1. 920 linear feet of 3′ 6″ x 2′ 4″ brick sewer, complete (including the breaking down and removal of old sewer and the furnishing of any additional backfill that may be necessary).
Item No. 2. 15 linear feet of 12″ vitrified pipe culvert, complete.
Item No. 3. 125 spurs for house-connections.
Item No. 4. 10 manholes, complete.
Item No. 5. 1 receiving basin (granite head), complete.
Item No. 6. 10 cubic yards of rock excavated and removed.
Item No 7. 50,000 feet B. M. of timber and planking for bracing and sheating.
Item No. 8. 15 cubic yards of wedge rock, excavated and removed.

The time allowed for constructing and completing the sewer and appurtenances will be sixty (60) consecutive working days.

The amount of security required will be six thousand two hundred dollars ($6,200), and the amount of deposit accompanying the bid shall be five per cent (5%) of the amount of security.

NO. 3.—FOR THE ALTERATION AND IMPROVEMENT TO SEWER IN EAST AND WEST 28TH STREET, BETWEEN MADISON AVENUE AND BROADWAY.

The Engineer's estimate of the quantity and quality of the material, and the nature and extent as near as possible, of the work required is as follows:

Item 1—861 lin. ft. of 3′ 6″ x 2′ 4″ brick sewer, complete (including the breaking down and removal of the old sewer and the supplying of any additional backfill required).
Item No. 2. 120 spurs for house-connections.
Item No. 3. 8 manholes, complete.
Item No. 4. 45,000 ft. B. M. timber and planking for bracing and sheeting.
Item No. 5. 2 cubic yards of brick masonry.
Item No. 6. 3 cubic yards of concrete masonry (Class "B").
Item No. 7. 1 cubic yard wedge rock excavated.
Item No. 8. 30 cubic yards of extra excavation.

The time alowed for constructing and completing the sewers and appurtenances will be seventy (70) consecutive working days.

The amount of security required will be six thousand dollars ($6,000), and the amount of deposit accompanying the bid shall be five per cent (5%) of the amount of security.

The bidder will state the price for each item or article contained in the specifications or schedules herein contained or hereto annexed, per foot, yard or other unit of measure, or article by which the bid will be tested. Each contract, if awarded, will be awarded for the whole work at a lump sum.

Blank forms may be had and the Drawings, form of Specification and Contract may be seen at the offices of the Commissioner of Public Works, Municipal Building, Bureau of Sewers, Room 2103, Borough of Manhattan, and may be obtained upon payment of a nominal fee.

Dated, March 23, 1916.

MARCUS M. MARKS, President. m23,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

FIRE DEPARTMENT.

Notice.

Re-Telegraphic Communication from Parochial School Buildings.

In view of the proposed reorganization and rebuilding of the fire alarm telegraph systems throughout the city, the Fire Commissioner has approved a recommendation that the requirement for direct telegraphic communication from parochial school buildings to Fire Department Headquarters be waived at this time and in lieu thereof a public telephone, if installed in such school buildings as are not already provided with special fire alarm boxes or public telephones, be accepted as a substitute for direct telegraphic communication, and be considered satisfactory to this Department. m30

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the Fire Commissioner at eleventh floor, Municipal Building, Manhattan, until 10.30 o'clock A. M., on

MONDAY, APRIL 10, 1916,

NO. 1—FOR FURNISHING AND APPLYING SIXTEEN (16) TWO-WHEEL GASOLINE-DRIVEN TRACTORS.

The time for the delivery of the articles, materials and supplies and the performance of the contract is by or before One Hundred and Five (105) calendar days.

The amount of security required for the performance of the contract is *fifty per cent.* (50%) *of the amount of the bid or estimate.*

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per tractor or other unit of measure, by which the bids will be tested. The extension must be made, as the bids will be read from the total. *The bids will be compared and the contract awarded at a lump or aggregate sum.*

Bids for supplies must be submitted in duplicate.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Fire Department, eleventh floor, Municipal Building, Manhattan.

ROBERT ADAMSON, Fire Commissioner. m29,a10

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Fire Department at Room 1230, Municipal Building, Borough of Manhattan, City of New York, until 12 o'clock noon on

THURSDAY, APRIL 6, 1916,

FOR FURNISHING AND DELIVERING WIRE, COPPER, BRASS, STEEL, PHOSPHOR BRONZE WIRE ROPE AND CABLE.

The time for the performance of the contract is on or before June 30, 1916.

The amount of security required is thirty (30) per cent. of the amount of the bid or estimate.

No bid will be considered unless it is accompanied by a deposit. Such deposit shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per pound, feet or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read and awards, if made, made to the lowest bidder on each line or class, as stated in the specifications.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at Room 1230, Municipal Building, Borough of Manhattan.

FIRE DEPARTMENT, ROBERT ADAMSON, Commissioner. m25,a6

☞See General Instructions to Bidders on last page, last column, of the "City Record," except for the address of the office for receiving and opening bids.

SEALED BIDS OR ESTIMATES WILL BE received by the Fire Commissioner at his office, eleventh floor, Municipal Building, Manhattan, until 10.30 o'clock A. M., on

WEDNESDAY, APRIL 5, 1916.

FOR FURNISHING AND DELIVERING ANTHRACITE COAL.

The time for the performance of the contract for furnishing coal to department buildings is on or before April 29, 1916, and for furnishing coal to fireboats is on or before June 30, 1916.

The amount of security required for the performance of the contract is thirty per cent. (30%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per ton, or other unit of measure, by which the bids will be tested. The extensions must be made, as the bids will be read and awards, if made, made to the lowest bidder on each item.

Bids for supplies must be submitted in duplicate.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Fire Department, eleventh floor, Municipal Building, Manhattan.

ROBERT ADAMSON, Fire Commissioner.
m24,a5

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Fire Commissioner at his office, eleventh floor, Municipal Building, Manhattan, until 10.30 o'clock A. M., on

SATURDAY, APRIL 1, 1916,

FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR PAINTING AND REPAIRS TO THE QUARTERS OF ENGINE COMPANIES NOS. 2, 7, 27, 28, 34 AND 35 AND HOOK AND LADDER COMPANIES NOS. 1 AND 22.

The time for the completion of the work and the full performance of the contract is fifty (50) consecutive working days.

The amount of security required for the performance of the contract is fifty per cent. (50%) of the amount of the bid or estimate.

Bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Fire Department, eleventh floor, Municipal Building, Manhattan.

ROBERT ADAMSON, Fire Commissioner.
m21,a1

☞See General Instructions to Bidders on last page, last column, of the "City Record."

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at room 2351, Municipal Building, Manhattan, until 2 o'clock p. m., on

FRIDAY, APRIL 7, 1916,

Boroughs of Manhattan and The Bronx.

FOR FURNISHING, DELIVERING AND LAYING WATER MAINS AND APPURTENANCES IN BROADWAY, AMSTERDAM AND COLUMBUS AVENUES, IN CATHEDRAL PARKWAY AND WEST 106TH STREET, BOROUGH OF MANHATTAN.

The time allowed for doing and completing the entire work is one hundred and twenty-five (125) consecutive working days.

The amount in which security is required for the performance of the contract is twenty thousand dollars ($20,000).

The bidder will state the price, per unit, of each item of work, materials or supplies contained in the specifications or schedule, by which the bids will be tested. The bids will be compared and the award made to the lowest formal bidder in a lump or aggregate sum.

Blank forms of bid, proposals and contract, including specifications, approved as to form by the Corporation Counsel, can be obtained at Room 2351, in the Municipal Building, Manhattan, New York City.

Dated March 27, 1916.

m28,a7 WILLIAM WILLIAMS, Commissioner.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received at the office of the Commissioner of the Department of Water Supply, Gas and Electricity, Room 2351, Municipal Building, Borough of Manhattan, until 2 p. m., on

WEDNESDAY, APRIL 5, 1916,

Boroughs of The Bronx and Brooklyn.

SECTION I. FOR CROSS-CONNECTING EXISTING TRUNK MAINS IN SOUTHERN BOULEVARD AND MOSHOLU PARKWAY, BOROUGH OF THE BRONX.

SECTION II. FOR CONNECTING DISTRIBUTION SYSTEM TO CONDUITS OF CATSKILL AQUEDUCT, BOROUGH OF BROOKLYN.

Time allowed for doing and completing the entire work is fifty (50) consecutive working days on each section.

The amount of security required for the performance of the contract is Seven thousand Dollars ($7,000.00) on Section 1, and Five Thousand Dollars ($5,000.00) on Section 2.

Bids will be received for each section singly, or for both sections; but in comparing the bids the bids for each section will be compared separately and the contract awarded by Sections in a lump or aggregate sum to the lowest formal bidder.

Blank forms of bid, proposals and contract, including specifications approved as to form by the Corporation Counsel, can be obtained at Room 2351, in the Municipal Building, Manhattan, New York City.

Dated, March 21, 1916.

m24,a5 WILLIAM WILLIAMS, Commissioner.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at room 2351, Municipal Building, Manhattan, until 2 o'clock p. m., on

WEDNESDAY, APRIL 5, 1916,

Boroughs of Manhattan and Brooklyn.

FOR CONNECTION HIGH PRESSURE FIRE SERVICE MAINS TO SHAFTS 19, 22 AND 23 OF THE CITY TUNNEL, CATSKILL AQUEDUCT, BOROUGHS OF MANHATTAN AND BROOKLYN.

The time allowed for doing and completing the entire work is sixty (60) consecutive working days.

The amount of security required for the performance of the contract is three thousand dollars ($3,000).

The bidder will state the price, per unit, of each item of work, material or supplies contained in the specifications or schedule, by which the bids will be tested. The bids will be compared and the award made to the lowest formal bidder in a lump or aggregate sum.

Blank forms of bid, proposals and contract, including specifications, approved as to form by the Corporation Counsel, can be obtained at Room 2351, in the Municipal Building, Manhattan, New York City.

Dated March 22, 1916.

m24,a5 WILLIAM WILLIAMS, Commissioner.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at room 2351, Municipal Building, Manhattan, until 2 o'clock p. m., on

FRIDAY, MARCH 31, 1916,

Borough of Brooklyn.

FOR FURNISHING AND DELIVERING FIVE-TON MOTOR TRUCK WITH BODY AND OTHER APPURTENANCES COMPLETE.

The time allowed for performing the contract is forty (40) calendar days.

The amount of the security for the performance of the contract shall be thirty (30) per cent. of the total amount for which the contract is awarded.

The bids will be compared and the contract awarded to the lowest formal bidder.

Blank forms of bid, proposals and contract, including specifications approved as to form by the Corporation Counsel, can be obtained at Room 2351, in the Municipal Building, Manhattan, New York City.

WILLIAM WILLIAMS, Commissioner.

Dated March 17, 1916. m20,31

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at room 2351, Municipal Building, Manhattan, until 2 o'clock p. m., on

FRIDAY, MARCH 31, 1916,

Boroughs of Manhattan and The Bronx.

FOR FILLING AND GRADING THE GROUNDS OWNED BY THE CITY BETWEEN SEDGWICK AVENUE AND THE N. Y. C. AND H. R. R. R. AT HIGH BRIDGE, BOROUGH OF THE BRONX.

The time allowed for doing and completing the entire work will be two (2) years.

The security required will be Two Thousand Dollars ($2,000).

The bids will be compared and the award made in an aggregate or lump sum to the highest formal bidder.

Blank forms of bid, proposals and contract, including specifications, approved as to form by the Corporation Counsel, can be obtained at Room 2351, in the Municipal Building, Manhattan, New York City.

Dated, March 17, 1916.

m20,31 WILLIAM WILLIAMS, Commissioner.

☞See General Instructions to Bidders on last page, last column, of the "City Record."

BELLEVUE AND ALLIED HOSPITALS, DEPARTMENT OF PUBLIC CHARITIES AND DEPARTMENT OF CORRECTION.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by Bellevue and Allied Hospitals, Department of Public Charities, Department of Correction, at Room 1230, Municipal Building, Borough of Manhattan, City of New York, until 12 o'clock noon on

FRIDAY, MARCH 31, 1916,

FOR FURNISHING AND DELIVERING FLOUR.

The time for the performance of the contract is on or before December 31, 1916.

The amount of security required is thirty (30) per cent. of the amount of the bid or estimate.

No bid will be considered unless it is accompanied by a deposit. Such deposit shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per bbl., or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder on each line, as stated in the specifications.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at room 1230, Municipal Building, Borough Manhattan.

BOARD OF TRUSTEES, BELLEVUE AND ALLIED HOSPITALS, JOHN W. BRANNAN, M. D., President.

DEPARTMENT OF PUBLIC CHARITIES, JOHN A. KINGSBURY, Commissioner.

DEPARTMENT OF CORRECTION, BURDETTE G. LEWIS, Commissioner. m20,31

☞See General Instructions to Bidders on last page, last column, of the "City Record," except for the address of the office for receiving and opening bids.

DEPARTMENT OF HEALTH.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the Board of Health of the Department of Health, Corner of Centre and Walker Sts., Manhattan, until 10.30 o'clock a. m., on

FRIDAY, APRIL 7, 1916,

FOR FURNISHING AND DELIVERING, AS REQUIRED, ICE TO THE HOSPITALS, LABORATORIES, DAY CAMPS, INFANTS' MILK STATIONS AND OFFICE BUILDINGS OF THE DEPARTMENT OF HEALTH, CITY OF NEW YORK, IN THE VARIOUS BOROUGHS, FROM APRIL 10 TO SEPTEMBER 30, 1916.

The time for the delivery of the supplies and the performance of the contract will be from April 10 to September 30, 1916.

No Bond will be required with the Bid, but will be required upon awarding of the contract in an amount equal to Thirty (30%) of the contract.

The bid, however, must be accompanied by a deposit of an amount of not less than 1½ per cent. of the amount of the bid.

Bids will be compared and the contract awarded to the lowest bidder for each item in Class No. 1 and to the lowest bidder for each class from No. 2 to Class No. 15.

Blank forms and further information may be obtained at the office of the Chief Clerk of the Department of Health, southwest corner of Centre and Walker sts., Borough of Manhattan, City of New York.

HAVEN EMERSON, M. D., President, Board of Health.

EUGENE W. SCHEFFER, Secretary. m28,a7

☞See General Instructions to Bidders on last page, last column, of the "City Record."

BOARD OF ESTIMATE AND APPORTIONMENT.

Notices of Public Hearings.

FRANCHISE MATTERS.

PUBLIC NOTICE IS HEREBY GIVEN PURsuant to law that at a meeting of the Board of Estimate and Apportionment, held March 10, 1916, the following petition was received:

Board of Estimate and Apportionment of The City of New York.

Petition in the matter of the application of The Long Island Railroad Company for the consent of The City of New York to the construction and operation of a branch of its railroad, to be known as the Creedmoor-Flushing Branch, across certain streets, avenues or highways in the Borough of Queens, in The City of New York.

To the Honorable the Board of Estimate and Apportionment of the City of New York:

The Long Island Railroad Company, the petitioner herein, alleges as follows:

I. That it is a domestic railroad corporation organized and existing under and pursuant to the provision of Chapter 178 of the Laws of 1834, the acts amendatory thereof and supplementary thereto, and the Railroad Law of the State of New York.

II. That on April 29th, 1839, an act to amend the Charter of The Long Island Railroad Company was passed by the legislature of the State of New York and subsequently became Chapter 277 of the Laws of 1839. That the third section of said act reads as follows:

"Section 3. The said corporation are hereby authorized to construct such branch railroads in any part of Long Island as they may deem expedient and necessary in cases where the landholders may offer the land required for those purposes, free of expense; but no branch road shall be constructed at the expense of the said corporation until they shall have completed and ready to put into operation the main track of their said road."

III. That on April 21st, 1862, an act to amend said Chapter 277 of the Laws of 1839 was passed by the legislature of the State of New York and subsequently became Chapter 413 of the Laws of 1862. That said act reads as follows:

"Section 1. The third section of the act entitled 'An Act to Amend the Charter of the Long Island Railroad Company,' passed April twenty-ninth, eighteen hundred and thirty-nine, is hereby amended so as to read as follows:

"The said corporation are hereby authorized to construct such branch railrod in any part of Long Island, except the County of Kings, as they may deem expedient and necessary, subject to the provisions of the general railroad law, provided that no such branch railroad be constructed west of the eastern boundary of the village of Jamaica.

"Section 2. This act shall take effect immediately."

III. That on January 27th, 1916, the Public Service Commission of the State of New York for the First District made an order dated on that day granting to The Long Island Railroad Company the permission and approval of said Commission to the construction of a branch line of railroad from the end of its tracks at Creedmoor to a point west of Lawrence Street, Flushing, all within The City of New York, and to the exercise of such franchise or right as it may possess under the provisions of Section 3 of Chapter 277 of the Laws of 1839 as amended by Chapter 413 of the Laws of 1862. By the terms of said order such permission and approval was conditioned upon and was not to take effect until the said Railroad Company should have obtained from The City of New York the franchise or right to cross certain existing streets, avenues or highways hereinafter named. That the terms of said order, a copy of which is attached hereto, marked "Schedule A," were accepted by the said The Long Island Railroad Company.

IV. That on January 31st, 1916, the Public Service Commission of the State of New York for the First District made an order, dated on that day, by the terms of which it determined the manner in which the aforesaid proposed Creedmoor-Flushing Branch of the Long Island Railroad should cross the said streets, avenues or highways within The City of New York above mentioned and hereinafter enumerated. That the terms of said order, a copy of which is attached hereto, marked "Schedule B," are acceptable to The Long Island Railroad Company.

V. That the petitioner herein, The Long Island Railroad Company, desires to construct and operate the aforesaid proposed Creedmoor-Flushing Branch of its railroad in accordance with the authority conferred upon it by its charter as amended by the acts hereinabove specifically enumerated, as well as the Railroad Law of the State of New York, and in accordance with the provisions of the aforesaid orders of the Public Service Commission of the State of New York for the First District, dated respectively January 27th and January 31st, 1916. That the streets, avenues or highways within The City of New York required to be crossed by said branch railroad are Springfield Boulevard (Rocky Hill Road), Black Stump Road, Queens Road, North Hempstead Turnpike, Lawrence Road, Fresh Meadow Road, Underhill Avenue (Jamaica Avenue), Jagger Avenue (Remsen Road), Hammell Avenue (Hillside Drive), and Lawrence Street. That the location of said streets, avenues or highways with respect to the proposed branch railroad of the petitioner and the manner of crossing as determined by the said Public Service Commission are shown upon a blue print accompanying this petition, marked "Schedule C," which blue print is similar to that referred to in the aforesaid order of the Public Service Commission dated January 31st, 1916, as having been received in evidence by the said Public Service Commission on October 28th, 1915, and marked "Exhibit 4," and entitled "The Long Island Railroad Company, Creedmoor-Flushing Branch."

Wherefore, your petitioner prays that the consent of The City of New York may be granted it through your Honorable Board to the construction and operation of the aforesaid proposed Creedmoor-Flushing Branch of its railroad across the above named streets, avenues or highways, in the Borough of Queens, in The City of New York, in the manner provided by, and in accordance with the determination by the aforesaid order of the Public Service Commission dated January 31st, 1916.

Dated, February 28th, 1916.

THE LONG ISLAND RAILROAD COMPANY, by RALPH PETERS, President.

JOSEPH F. KEANY, Attorney for Petitioner, Pennsylvania Station, New York City.

State of New York, County of New York, ss.:

Ralph Peters, being duly sworn, deposes and says: That the petitioner above named is a domestic corporation, and that he is an officer thereof, to wit, President, and therefore makes this verification. The foregoing petition is true to the knowledge of deponent, except as to the matters therein stated to be alleged upon information and belief, as to which matters he believes it to be true.

Sworn to before me this 28th day of February, 1916. Ralph Peters.

Harry K. Howland, Notary Public, Queens County No. 226; Certificate filed New York County No. 46; term expires March 30, 1916.

—and the following resolutions were thereupon adopted:

Whereas, the foregoing petition from the Long Island Railroad Company, dated February 28, 1916, was presented to the Board of Estimate and Apportionment at a meeting held March 10, 1916,

Resolved, That in pursuance of law this Board sets Friday, the seventh day of April, 1916, at ten o'clock in the forenoon, and Room 16 in the City Hall, Borough of Manhattan, as the time and place when and where such petition shall be first considered, and a public hearing be had thereon, at which citizens shall be entitled to appear and be heard; and be it further

Resolved, That the petition and these resolutions shall be published for at least twice in two daily newspapers in the City of New York, to be designated by the Mayor, and for at least ten (10) days in the "City Record" immediately prior to such date of public hearing. The expense of such publication to be borne by the petitioner.

JAMES D. McGANN, Assistant Secretary, Room 1307, Municipal Building, Borough of Manhattan. Telephone, 4560 Worth.

New York, March 10, 1916. m27,a7

Notices of Public Hearings.

PUBLIC IMPROVEMENT MATTERS.

NOTICE IS HEREBY GIVEN THAT AT THE meeting of the Board of Estimate and Apportionment held on March 17, 1916, the Board *continued until March 31, 1916, the hearing on a* Tentative Plan showing proposed lines and grades for Riverside Drive West from West 155th Street to Riverside Drive East, about opposite West 177th Street; a proposed change in the lines and grades of West 158th Street between Riverside Drive West and Riverside Drive East; proposed lines for West 171st Street from Riverside Drive West to Riverside Drive East; and a proposed change in the grade of Audubon Place from Riverside Drive East to West 157th Street; and a proposed change in the grade of Riverside Drive East from West 157th Street to a point about 300 feet north of West 158th Street, in the Borough of Manhattan, City of New York; the said Tentative Plan bearing the signature of the Secretary of the Board of Estimate and Apportionment and date of February 18, 1916.

The hearing will be held in the City Hall, Borough of Manhattan, City of New York, on Friday, March 31, 1916, at 10 o'clock a. m.

Dated March 20, 1916.

JOSEPH HAAG, Secretary, Municipal Building. Telephone, 4560 Worth. m20,31

DEPARTMENT OF EDUCATION.

Auction Sale.

THE DEPARTMENT OF EDUCATION WILL sell at Public School 111 (Storehouse), No. 31 Vestry Street, Borough of Manhattan, at two o'clock P. M., on

WEDNESDAY, APRIL 5, 1916,

the following lots of old and broken castings, old carpets, old chairs, etc., as hereinafter mentioned:

LOT No. 1—All broken castings, etc., now in West areaway.

LOT No. 2—All old carpets and rugs now located in pile at rear of Main Room, first floor.

LOT No. 3—All broken chairs, etc., now located in rear of Main Room, first floor.

LOT Nos. 1, 2 and 3 will be sold separately to the highest bidder for each.

The removals of articles included in the above mentioned lots, viz., 1, 2 and 3, shall be made at such time as shall be directed by this department. An inspector must be present to witness said removals.

Cash payment must be made at the time and place of sale by the successful bidder for each lot, in addition to submitting a cash deposit of $50.00 to secure the prompt removal within the time specified Said deposit to be returned to the purchaser upon the satisfactory completion of the work. Removal of said materials from premises must be made within five days from date of sale.

The City will not be responsible for loss or damage of said materials between time of sale and the time of removal.

All property will be sold "as is," and if the purchaser at said sale shall fail to remove the same within five days from the date of sale, the said purchaser will be deemed to have abandoned the property and to have forfeited all claims to ownership thereof, and the above deposit of $50.00, together with the purchase money paid at the sale, shall become the property of the City of New York by way of liquidated damages and the Department of Education shall have the right to resell the property for the benefit of the City and to retain the proceeds of such resale.

C. B. J. SNYDER, Superintendent of School Buildings.

Dated, March 24, 1916. m25,a5

☞See General Instructions to Bidders on last page, last column, of the "City Record."

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Supplies at the office of the Department of Education, Park ave. and 59th st., Manhattan, until 11 a. m.,

THURSDAY, APRIL 6, 1916,

FOR FURNISHING AND DELIVERING GAS AND LIMES, OIL CLOTH SIGNS, AND RENTAL OF STEREOPTICON OUTFITS, RENTAL OF PIANOS, TRANSFER OF LECTURE MATERIALS, ETC., STATIONERY, ETC., FOR THE PUBLIC LECTURES, DEPARTMENT OF EDUCATION OF THE CITY OF NEW YORK.

The time for the delivery of the articles, materials and supplies and the performance of the contract is by or before December 31, 1916.

The amount of the security required is thirty (30) per cent. of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, by which the bids will be tested. Award will be made to the lowest bidder on each item.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Bids must be submitted in duplicate, each in a separate envelope.

Blank forms and further information may be obtained at the office of the Superintendent of of School Supplies, Board of Education, Borough of Manhattan, southwest corner of Park ave. and 59th st.

PATRICK JONES, Superintendent of School Supplies.

Dated March 25, 1916. m25,a6

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the office of the Department of Education, Park Avenue and 59th Street, Manhattan, until four o'clock P. M., on

MONDAY, APRIL 3, 1916,

Borough of Brooklyn.

FOR FURNISHING AND DELIVERING GLASS TO VARIOUS SCHOOLS IN THE BOROUGH OF BROOKLYN.

The time allowed to complete the whole work will be sixty (60) working days, as provided in the contract.

The amount of security required is One Thousand Dollars ($1,000).

The bid to be submitted must include the entire work on all schools and award will be made thereon.

The deposit accompanying bid shall be five per centum of the amount of security.

The bids will be compared and the contract will be awarded in a lump sum to the lowest bidder.

Blank forms and specifications may be obtained or seen at the office of the Superintendent, at Estimating Room, 9th floor, Hall of the Board of Education, Park Avenue and 59th Street, Borough of Manhattan, and also at Branch Office, 131 Livingston Street, Borough of Brooklyn.

C. B. J. SNYDER, Superintendent of School Buildings.

Dated, March 22, 1916. m22,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the office of the Department of Education, Park Avenue and 59th Street, Manhattan, until four o'clock P. M., on

MONDAY, APRIL 3, 1916,

Borough of Manhattan.

FOR FURNISHING AND DELIVERING GLASS TO VARIOUS SCHOOLS IN THE BOROUGH OF MANHATTAN.

The time allowed to complete the whole work will be Thirty (30) Working days, as provided in the contract.

The amount of security required is Six Hundred Dollars ($600).

The bid to be submitted must include the entire work on all schools and award will be made thereon.

The deposit accompanying bid shall be five per centum of the amount of security.

The bids will be compared and the contract will be awarded in a lump sum to the lowest bidder.

Blank forms and specifications may be obtained or seen at the office of the Superintendent, at Estimating Room, 9th floor, Hall of the Board of Education, Park Avenue and 59th Street, Borough of Manhattan.

C. B. J. SNYDER, Superintendent of School Buildings.

Dated, March 22, 1916. m22,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the office of the Department of Education, Park Avenue and 59th Street, Manhattan, until four o'clock P. M., on

MONDAY, APRIL 3, 1916,

Borough of Queens.

FOR FURNISHING AND DELIVERING GLASS TO VARIOUS SCHOOLS IN THE BOROUGH OF QUEENS.

The time allowed to complete the whole work will be Thirty (30) Working days, as provided in the contract.

The amount of security required is Six Hundred Dollars ($600).

The bid to be submitted must include the entire work on all schools and award will be made thereon.

The deposit accompanying bid shall be five per centum of the amount of security.

The bids will be compared and the contract will be awarded in a lump sum to the lowest bidder.

Blank forms and specifications may be obtained or seen at the office of the Superintendent at Estimating Room, 9th floor, Hall of the Board of Education, Park Avenue and 59th Street, Borough of Manhattan, and also at Branch Office, No. 69 Broadway, Flushing, Borough of Queens.

C. B. J. SNYDER, Superintendent of School Buildings.

Dated, March 22, 1916. m22,a3

☞See General Instructions to Bidders on last page, last column, of the "City Record."

SUPREME COURT — FIRST DEPARTMENT.

Notice of Appointment.

In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of MANOR AVENUE, from Westchester Avenue southwardly to Bronx River Avenue, in the 24th Ward, Borough of The Bronx, City of New York.

NOTICE IS HEREBY GIVEN THAT BY AN order of the Supreme Court, bearing date the Ninth day of February, 1916, and duly entered in the office of the Clerk of the County of Bronx, at his office in the Borough of The Bronx, in The City of New York, on the Tenth day of February, 1916, a copy of which order was duly filed in the office of the Register of the County of Bronx, we, Joseph I. Berry, Edward McLaughlin and Thomas L. Green, were appointed Commissioners of Estimate for the purpose of making a just and equitable estimate and assessment of the loss and damage to the respective owners, lessees, parties and persons respectively entitled unto or interested in the lands, tenements, hereditaments and premises required for the purpose by and in consequence of opening and extending the above mentioned street or avenue, the same being particularly set forth and described in the petition of The City of New York, and also in the notice of the application for the said order thereto attached, filed herein in the office of the Clerk of the County of Bronx on the Tenth day of February, 1916; and the said Joseph I. Berry was appointed Commissioner of Assessment for the purpose of making a just and equitable estimate and assessment of the value of the benefit and advantage of the said street or avenue so to be opened and extended, to the respective owners, lessees, parties and persons respectively entitled to or interested in the respective lands, tenements, hereditaments and premises situated within the area of assessment adopted by the Board of Estimate and Apportionment and not required for the purpose of opening and extending the same, but benefited thereby, the said area of assessment being particularly set forth and described in the petition of The City of New York, and also in the notice of the application for the said order thereto attached, filed herein in the office of the Clerk of the County of Bronx on the Tenth day of February, 1916, and of ascertaining and defining the extent and boundaries of the respective tracts or parcels of land to be taken or to be assessed therefor, and of performing the trusts and duties required of us by Chapter 17, Title 4 of the Greater New York Charter, as amended, and the Acts or parts of Acts supplementary thereto or amendatory thereof.

All parties and persons interested in the real estate taken or to be taken for the purpose of opening and extending the said street or avenue and affected thereby, and having any claim or demand on account thereof, are hereby required to present the same, duly verified, to us, the undersignd Commissioners of Estimate, at our office, fifteenth floor, Municipal Building, in the Borough of Manhattan, in The City of New York, with such affidavit or other proof as the owners or claimants may desire, within ten days after the date of this notice.

And we, the said Commissioners, will be in attendance at our said office on the 17th day of April, 1916, at 3 o'clock in the afternoon of that day, to hear the said parties and persons in relation thereto. And at such time and place, and at such further or other time and place as we may appoint, we will hear such owners in relation thereto and examine the proof of such claimant or claimants, or such additional proofs and allegations as may then be offered by such owner, or on behalf of The City of New York.

Dated, New York, March 30, 1916.

JOSEPH I. BERRY, THOS. L. GREEN, EDWARD McLAUGHLIN, Commissioners.

JOEL J. SQUIER, Clerk. m30

Filing Preliminary Abstracts.

In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of HERING AVENUE, from Bronx and Pelham Parkway South to Sacket Avenue; TENBROECK AVENUE, from Bronx and Pelham Parkway South to Pierce Avenue; SACKET AVENUE, from Williamsbridge Road to the prolongation of the easterly line of Newport Avenue, and NEWPORT AVENUE, from Sacket Avenue to Morris Park Avenue, in the Twenty-fourth Ward, Borough of The Bronx City of New York.

NOTICE IS HEREBY GIVEN TO ALL PERsons interested in the above entitled proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First.—That the undersigned, Commissioners of Estimate, have completed their estimate of damage, and that all persons interested in this proceedings, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with them at their office, Room 1557, 15th Floor, Municipal Building, Chambers and Centre Streets, in the Borough of Manhattan, in The City of New York, on or before the 18th day of April, 1916, and that the said Commissioners will hear parties so objecting, and for that purpose will be in attendance at their said office on the 20th day of April, 1916, at 2 o'clock P. M.

Second.—That the undersigned, Commissioner of Assessment, has completed his estimate of benefit and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with him at his office, Room 1557, 15th Floor, Municipal Building, Chambers and Centre Streets, in the Borough of Manhattan, in The City of New York, on or before the 18th day of April, 1916, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 21st day of April, 1916, at 2 o'clock P. M.

Third.—That the Commissioner of Assessment has assessed any or all such lands, tenements and hereditaments and premises as are within the area of assessment fixed and prescribed as the area of assessment for benefit by the Board of Estimate and Apportionment on the 6th day of February, 1913, and that the said area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of The Bronx, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point on the northwesterly line of Eastchester Road where it is intersected by a line midway between Newport Avenue and Elberon Avenue and running thence southeastwardly at right angles to Eastchester Road to the intersection with the northwesterly right of way line of the New York, New Haven and Hartford Railroad; thence southwestwardly along the said right of way line to the intersection with a line distant 100 feet southwesterly from and parallel with the southwesterly line of Williamsbridge Road as this street is laid out at Sacket Avenue, the said distance being measured at right angles to Williamsbridge Road; thence northwestwardly along the said line parallel with Williamsbridge Road to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the centre lines of Sacket Avenue and Pierce Avenue as these streets are laid out immediately westerly from and adjoining Williamsbridge Road; thence northeastwardly along the said bisecting line to the intersection with a line midway between Hering Avenue and Yates Avenue; thence northwardly along a line always midway between Hering Avenue and Yates Avenue and the prolongations thereof to a point distant 100 feet northerly from the northerly line of Bronx and Pelham Parkway South; thence eastwardly and parallel with Bronx and Pelham Parkway South to the intersection with the prolongation of a line midway between Tenbroeck Avenue and Narragansett Avenue as these streets are laid out north of Lydig Avenue; thence generally southwardly along a line always midway between Tenbroeck Avenue and Narragansett Avenue and the prolongations thereof to the intersection with a line distant 100 feet northerly from and parallel with the northerly line of Morris Park Avenue, the said distance being measured at right angles to Morris Park Avenue; thence eastwardly along the said line parallel with Morris Park Avenue to the intersection with the prolongation of a line midway between Newport Avenue and Elberon Avenue as these streets are laid out south of Morris Park Avenue; thence southwardly along the said line midway between Newport Avenue and Elberon Avenue and along the prolongation of the said line to the point or place of beginning.

Fourth.—That the abstracts of said estimate of damage and of said assessment for benefit, together with the damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by the Commissioners of Estimate and by the Commissioner of Assessment in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, Room 1529, 15th Floor, Municipal Building, Chambers and Centre Streets, in the Borough of Manhattan, in said City, there to remain until the 20th day of April, 1916.

Fifth.—That, provided there be no objections filed to either of said abstracts, the reports as to awards and as to assessments for benefit herein will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part III, to be held in the County Court House in the Borough of Manhattan, in The City of New York, on the 22nd day of June, 1916, at the opening of the Court on that day.

Sixth.—In case, however, objections are filed to the foregoing abstracts of estimate and assessment, or to either of them, the motion to confirm the reports as to awards and as to assessments shall stand adjourned to the date to be hereafter specified in the notice provided in such cases to be given in relation to filing the final reports, pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 658 of the Laws of 1906.

Dated, New York, March 23rd, 1916.

EARNEST R. ECKLEY, Chairman; GEO. W. M. CLARK, CHAS. J. CAVANAGH, Commissioners of Estimate. EARNEST R. ECKLEY, Commissioner of Assessment.

JOEL J. SQUIER, Clerk. m29,a14

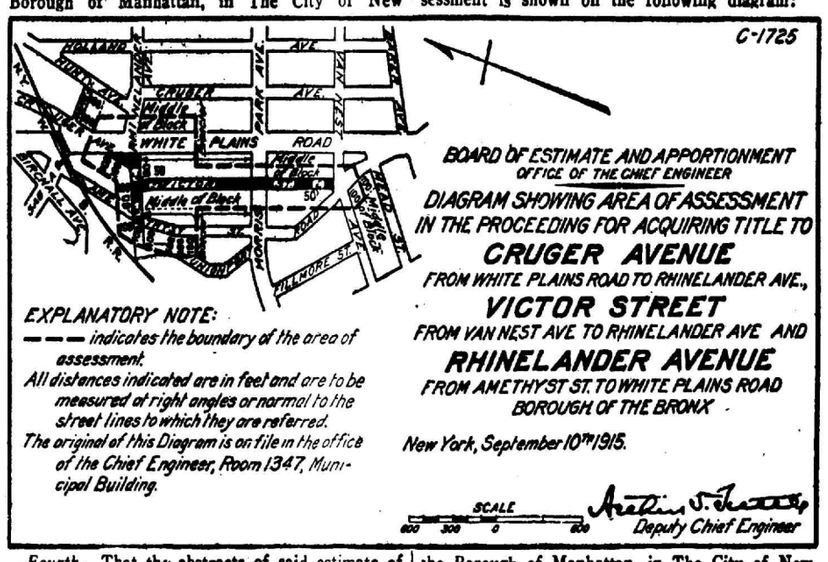
In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of VICTOR STREET, from Van Nest Avenue to Rhinelander Avenue; RHINELANDER AVENUE, from Old Unionport Road to White Plains Road, and CRUGER AVENUE, from White Plains Road to Rhinelander Avenue, in the 24th Ward, Borough of The Bronx, City of New York, as amended by an order of the Supreme Court of the State of New York, First Judicial District, dated June 12, 1914, and duly entered and filed in the office of the Clerk of the County of Bronx on June 17th, 1914, so as to relate to Victor Street, from Van Nest Avenue to Rhinelander Avenue; Rhinelander Avenue, from Unionport Road to White Plains Road, and Cruger Avenue, from White Plains Road to Rhinelander Avenue; and as further amended by an order of the Supreme Court, First Judicial District, dated January 11th, 1916, and duly entered and filed in the office of the Clerk of the County of Bronx on January 14th, 1916, so as to conform to a map or plan adopted by the Board of Estimate and Apportionment January 8th, 1915, and approved by the Mayor January 15th, 1915, in which the westerly line of Unionport Road, which is now designated as Amethyst Street, was deflected slightly to the east, with the result that a small triangular parcel having an area of 7.80 square feet is excluded from the area to be acquired from Rhinelander Avenue in the aforesaid proceeding; the proceeding as now amended providing for the acquisition of title to Victor Street, from Van Nest Avenue to Rhinelander Avenue; Rhinelander Avenue, from Amethyst Street to White Plains Road, and Cruger Avenue, from White Plains Road to Rhinelander Avenue, as these streets are now laid out upon the map or plan of The City of New York.

NOTICE IS HEREBY GIVEN TO ALL PERsons interested in the above entitled proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First.—That the undersigned, Commissioners of Estimate, have completed their estimate of damage, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with them at their office, Room 1557, 15th Floor, Municipal Building, Chambers and Centre Streets, in the Borough of Manhattan, in The City of New York, on or before the 18th day of April, 1916, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 14th day of April, 1916, at 2 o'clock P. M.

Second.—That the undersigned, Commissioner of Assessment, has completed his estimate of benefit and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections, in writing, duly verified, with him at his office, Room 1557, 15th Floor, Municipal Building Chambers and Centre Streets, in the Borough of Manhattan, in The City of New York, on or before the 12th day of April, 1916, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 17th day of April, 1916, at 2.30 o'clock P. M.

Third.—That the Commissioner of Assessment has assessed any or all such lands, tenements and hereditaments and premises as are within the area of assessment fixed and prescribed as the area of assessment for benefit by the Board of Estimate and Apportionment on the 15th day of October, 1915, and that the said area of assessment is shown on the following diagram:



Fourth.—That the abstracts of said estimate of damage and of said assessment for benefit, together with the damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by the Commissioners of Estimate and by the Commissioner of Assessment in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, Room 1529, 15th Floor, Municipal Building, Chambers and Centre Streets, in the Borough of Manhattan, in said City, there to remain until the 14th day of April, 1916.

Fifth.—That, provided there be no objections filed to either of said abstracts, the reports as to awards and as to assessments for benefit herein will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part III, to be held in the County Court House in the Borough of Manhattan, in The City of New York, on the 22nd day of June, 1916, at the opening of the Court on that day.

Sixth.—In case, however, objections are filed to the foregoing abstracts of estimate and assessment, or to either of them, the motion to confirm the reports as to awards and as to assessments shall stand adjourned to the date to be hereafter specified in the notice provided in such cases to be given in relation to filing the final reports, pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 658 of the Laws of 1906.

Dated, New York, March 14th, 1916.

DOMINIC L. O'REILLY, Chairman; ALFRED B. HALL, Commissioners of Estimate. DOMINIC L. O'REILLY, Commissioner of Assessment.

JOEL J. SQUIER, Clerk. m23,a8

SUPREME COURT — SECOND DEPARTMENT.

Application for Court to Condemn Property.

In the Matter of the Application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the extension of LINCOLN TERRACE PARK, as laid out upon the map or plan of The City of New York under a resolution adopted by the Board of Estimate and Apportionment on February 11, 1916, and to the unacquired portion of PRESIDENT STREET, from Buffalo Avenue to Rochester Avenue, in the Twenty-fourth and Twenty-ninth Wards, Borough of Brooklyn, City of New York.

NOTICE IS HEREBY GIVEN THAT AN APplication will be made to the Supreme Court of the State of New York, Second Judicial District, at a Special Term, Part I, held for the hearing of motions, held in and for the County of Kings, in the County Court-house, in the Borough of Brooklyn, City of New York, on the 5th day of April, 1916, at the opening of the Court on that day, or as soon thereafter as counsel can be heard thereon, to have the compensation which should justly be made to the respective owners of the real property proposed to be acquired for such improvement, ascertained and determined by the Supreme Court without a jury and to have the cost of such improvement assessed by the said Court, as hereinafter set forth, in accordance with the resolution of the Board of Estimate and Apportionment.

The nature and extent of the improvement hereby intended is the acquisition of title in fee by The City of New York, for the use of the public, to all the lands and premises, together with the buildings thereon and the appurtenances thereunto belonging, required for the extension of Lincoln Terrace Park, as laid out upon the map or plan of The City of New York under a resolution adopted by the Board of Estimate and Apportionment on February 11, 1916, and to the unacquired portion of President Street, from Buffalo Avenue to Rochester Avenue, in the Twenty-fourth and Twenty-ninth Wards, Borough of Brooklyn, City of New York. The real property title to which is proposed to be acquired is more particularly bounded and described as follows, to wit:

EXTENSION OF LINCOLN TERRACE PARK.

Parcel "A."

Beginning at the intersection of the west line of Buffalo Avenue with the north line of Carroll Street, as the same are laid out on the map of the City. Thence westerly along the north line of Carroll Street 670.0 feet to the east line of Rochester Avenue. Thence northerly along the east line of Rochester Avenue 240.58 feet to the south line of President Street. Thence easterly along the south line of President Street 670.0 feet to the west line of Buffalo Avenue. Thence southerly along the west line of Buffalo Avenue 240.58 feet to the point of beginning.

Parcel "B."

Beginning at the intersection of the east line of Buffalo Avenue with the north line of East New York Avenue, as the same are laid out on the map of the City. Thence northerly along the east line of Buffalo Avenue 706.49 feet. Thence easterly deflecting 90° to the right 69.80 feet. Thence southeasterly deflecting 51° 16′ 42″ to the right 48.27 feet. Thence southerly deflecting 38° 43′ 18″ to the right 80.42 feet. Thence easterly deflecting 90° to the left 49.37 feet. Thence southerly deflecting 63° 47′ 13″ to the right 96.59 feet. Thence southerly deflecting 4° 12′ 47″ to the right 84.30 feet. Thence westerly deflecting 90° to the right 1.63 feet. Thence southerly deflecting 90° to the left 232.18 feet to the north line of East New York Avenue. Thence westerly 372.40 feet to the point of beginning.

PRESIDENT STREET.

Beginning at the intersection of the west line of Buffalo Avenue with the south line of President Street, as the same are laid out on the map of the City. Thence northerly along the west line of Buffalo Avenue 61.88 feet. Thence westerly deflecting 109° 46′ 57″ to the left 74.15 feet. Thence westerly deflecting 14° 48′ 50″ to the right 79.66 feet. Thence westerly deflecting 9° 11′ 59″ to the left 122.08 feet. Thence easterly 267.50 feet to the point of beginning.

The land to be acquired in this proceeding is shown on "Map showing the closing and discontinuing of that part of Lincoln Terrace Park, bounded by Eastern Parkway, Ralph Avenue, East New York Avenue, and the westerly line of the land required for purpose of the Public Service Commission for the Eastern Parkway Subway, of President Street, from Buffalo Avenue to East New York Avenue, of East 98th Street, from President Street to East New York Avenue, and of Rockaway Parkway, from Buffalo Avenue to East New York Avenue, and showing the locating and laying out of Portal Street, from Eastern Parkway to East New York Avenue, of Union Street, from Portal Street to Ralph Avenue, and establishing grades therefor, and of additions to Lincoln Terrace Park, bounded by Buffalo Avenue, the northerly line of President Street, the westerly line of the land required for purpose of the Public Service Commission for the Eastern Parkway Subway and East New York Avenue and bounded by President Street, Buffalo Avenue, Carroll Street and Rochester Avenue. Dated New York, January 13, 1916, approved by the Board of Estimate and Apportionment February 11, 1916," which map was filed as follows: In the office of the President of the Borough of Brooklyn on the 18th day of March, 1916, in the office of the Register of the County of Kings on the 18th day of March, 1916, and in the office of the Corporation Counsel of The City of New York on the 18th day of March, 1916.

The Board of Estimate and Apportionment by a resolution adopted on the 3d day of March, 1916, duly determined that 50 per cent of the entire cost and expense of the proceedings, less any portion of the awards for damage to buildings which the Court may place upon The City of New York be borne and paid by the Borough of Brooklyn, in accordance with the provisions of Chapter 679 of the Laws of 1911 (Section 247 of the Charter); said entire cost and expense to include all costs and expenses of said proceedings incurred by reason of the provisions of Title 4, Chapter 17, of the Greater New York Charter, as amended, including the expense of the Bureau of Street Openings, the cost and expense incurred by the President of the Borough of Brooklyn in the preparation of rule, damage and benefit maps for use in the proceedings; and all other expenses and disbursements authorized by Section 977 of said title as amended.

That the remainder of the entire cost and expense of the proceedings be assessed upon the property benefited, comprising the following area:

Beginning at a point on a line midway between Sterling Place and St. John's Place, distant 100 feet westerly from the westerly line of Kingston Avenue, the said distance being measured at right angles to Kingston Avenue, and running thence eastwardly along the said line midway between Sterling Place and St. John's Place to the intersection with a line midway between Kingston Avenue and Albany Avenue; thence northwardly along the said line midway between Kingston Avenue and Albany Avenue to the intersection with a line midway between Park Place and Prospect Place; thence eastwardly along the said line midway between Park Place and Prospect Place to the intersection with a line midway between Albany Avenue and Troy Avenue; thence northwardly along the said line midway between Albany Avenue and Troy Avenue to the intersection with a line midway between St. Mark's Avenue and Bergen Street; thence eastwardly along the said line midway between St. Mark's Avenue and Bergen Street to the intersection with a line midway between Troy Avenue and Schenectady Avenue; thence north-

wardly along the said line midway between Troy Avenue and Schenectady Avenue to the intersection with a line midway between Pacific Street and Atlantic Avenue; thence eastwardly along the said line midway between Pacific Street and Atlantic Avenue to the intersection with a line midway between Schenectady Avenue and Utica Avenue; thence northwardly along the said line midway between Schenectady Avenue and Utica Avenue to the intersection with a line midway between Atlantic Avenue and Herkimer Street; thence eastwardly along the said line midway between Atlantic Avenue and Herkimer Street to the intersection with a line midway between Ralph Avenue and Howard Avenue; thence southwardly along the said line midway between Ralph Avenue and Howard Avenue to the intersection with a line midway between Atlantic Avenue and Pacific Street; thence eastwardly along the said line midway between Atlantic Avenue and Pacific Street to the intersection with a line midway between Howard Avenue and Saratoga Avenue; thence southwardly along the said line midway between Howard Avenue and Saratoga Avenue to the intersection with a line midway between Dean Street and Bergen Street; thence eastwardly along the said line midway between Dean Street and Bergen Street to the intersection with a line midway between Saratoga Avenue and Hopkinson Avenue; thence southwardly along the said line midway between Saratoga Avenue and Hopkinson Avenue to the intersection with a line midway between Bergen Street and St. Mark's Avenue; thence eastwardly along the said line midway between Bergen Street and St. Mark's Avenue to the intersection with a line midway between Hopkinson Avenue and Rockaway Avenue; thence southwardly along the said line midway between Hopkinson Avenue and Rockaway Avenue to the intersection with the southerly line of St. Mark's Avenue; thence southwardly in a straight line to a point on the southeasterly line of East New York Avenue midway between Chester Street and Rockaway Avenue; thence southwardly along a line midway betwen Chester Street and Rockaway Avenue to the intersection with a line midway between Sutter Avenue and Blake Avenue; thence westwardly along the said line midway between Sutter Avenue and Blake Avenue to the intersection with a line midway between Chester Street and Bristol Street; thence southwardly along the said line midway between Chester Street and Bristol Street to the intersection with a line midway between Blake Avenue and Dumont Avenue; thence westwardly along the said line midway between Blake Avenue and Dumont Avenue to the intersection with a line midway between Hopkinson Avenue and Amboy Street; thence southwardly along the said line midway between Hopkinson Avenue and Amboy Street and along the prolongation of the said line to the intersection with a line midway between Livonia Avenue and Riverdale Avenue; thence westwardly along the said line midway between Livonia Avenue and Riverdale Avenue to the intersection with a line midway between Herzl Street and Douglass Street; thence southwardly along the said line midway between Herzl Street and Douglass Street to the intersection with a line midway between Riverdale Avenue and Newport Street; thence westwardly along the said line midway between Riverdale Avenue and Newport Street to the intersection with a line midway between Douglass Street and Saratoga Avenue; thence southwardly along the said line midway between Douglass Street and Saratoga Avenue to a point distant 100 feet southerly from the southerly line of Newport Street; thence westwardly and parallel with Newport Street and the prolongation thereof to the intersection with a line distant 100 feet southeasterly from and parallel with the southeasterly line of Linden Avenue, the said distance being measured at right angles to Linden Avenue; thence southwestwardly and always distant 100 feet southeasterly from the southeasterly line of Linden Avenue to the intersection with a line midway between East 91st Street and East 92d Street; thence northwestwardly along the said line midway between East 91st Street and East 92d Street to the intersection with a line midway between Lenox Road and Linden Avenue; thence southwestwardly and along a line always midway between Lenox Road and Linden Avenue to the intersection with a line midway between Utica Avenue and East 49th Street; thence northwardly along the said line midway between Utica Avenue and East 49th Street to the intersection with a line midway between Clarkson Avenue and Lenox Road; thence westwardly along the said line midway between Clarkson Avenue and Lenox Road to the intersection with a line midway between Schenectady Avenue and East 46th Street; thence northwardly along the said line midway between Schenectady Avenue and East 46th Street to the intersection with a line midway between Clarkson Avenue and Winthrop Street; thence westwardly along the said line midway between Clarkson Avenue and Winthrop Street to the intersection with a prolongation of a line midway between Troy Avenue and Albany Avenue, as these streets are laid out immediately north of Winthrop Street; thence northwardly along the said line midway between Troy Avenue and Albany Avenue and along the prolongation of the said line to the intersection with a line midway between Rutland Road and Fenimore Street; thence westwardly along the said line midway between Rutland Road and Fenimore Street to the intersection with a line midway between Albany Avenue and Kingston Avenue; thence northwardly along the said line midway between Albany Avenue and Kingston Avenue to the intersection with a line midway between East New York Avenue and Lefferts Avenue; thence westwardly along the said line midway between East New York Avenue and Lefferts Avenue to a point distant 100 feet westerly from the westerly line of Kingston Avenue; thence northwardly and always distant 100 feet westerly from and parallel with the westerly line of Kingston Avenue to the point or place of beginning.

That the proportion of the cost and expense of the proceedings to be placed upon the Borough of Brooklyn shall be levied and collected with the taxes upon the real property in said borough becoming due and payable in the year in which such cost and expense shall have been fixed and determined, provided that such cost and expense be ascertained in time to be included with the taxes on the real property of said borough in the same year, and if not determined in time, the same shall be levied and collected with the taxes of the succeeding year.

Dated, New York, March 24th, 1916.

LAMAR HARDY, Corporation Counsel, Municipal Building, Borough of Manhattan, City of New York. m24,a4

Filing Final Reports.

In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands and premises required for the opening and extending of BRAGAW STREET (although not yet named by proper authority), from Skillman Avenue to Borden Avenue, in the First Ward, Borough of Queens, City of New York.

NOTICE IS HEREBY GIVEN THAT THE final supplemental and amended reports of the Commissioners of Estimate and of the Commissioner of Assessment in the above-entitled matter will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Trial Term thereof, Part 1, to be held in the Queens County Court House, Long Island City, in the Borough of Queens, in The City of New York, on the 6th day of April, 1916, at 10.30 o'clock in the forenoon of that day; and that the said final supplemental and amended reports have been deposited in the Office of the Clerk of the County of Queens, there to remain for and during the space of five days, as required by law.

Dated, New York, March 30th, 1916.

DENNIS J. HARTE, C. A. WADLEY, C. AUGUSTUS POST, Commissioners of Estimate. C. A. WADLEY, Commissioner of Assessment.

WALTER C. SHEPPARD, Clerk. m30,a4

Filing Preliminary Abstracts.

In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose, to the lands, tenements and hereditaments required for an easement for sewer purposes in a parcel of land having a width ranging from 20 to 50 feet, located in KISSEL AVENUE AND BRIGHTON BOULEVARD (Kissel Avenue) and in Brighton Boulevard (Kissel Avenue), extended, between Castleton Avenue and the pier and bulkhead line, in the First Ward, Borough of Richmond, The City of New York, which land is shown on a map bearing the signature of the President of the Borough, dated July 3, 1912, and adopted by the Board of Estimate and Apportionment on December 12, 1912, and as amended by an order of the Supreme Court, Second Department, dated the 22nd day of December, 1914, and entered in the office of the Clerk of the County of Richmond on the 28th day of December, 1914, so as to provide for the acquisition of the easement rights contemplated in Kissel Avenue, and in Brighton Boulevard, from Henderson Avenue to Richmond Terrace and along the prolongation of Brighton Boulevard, from Richmond Terrace to the Bulkhead line; and also the easement rights in the area included in a map adopted by the Board of Estimate and Apportionment on July 2, 1914, entitled "Map showing lands in which it is necessary to acquire an easement for the purpose of a sewer in Kissel Avenue, from Henderson Avenue to Castleton Avenue, in the First Ward, Borough of Richmond," signed by the President of the Borough and dated May 18, 1914, pursuant to a resolution of the Board of Estimate and Apportionment adopted on the 30th day of July, 1914.

WE, THE UNDERSIGNED, COMMISsioners of Estimate and Assessment in the above-entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First.—That we have completed our estimate and assessment, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, and having objections thereto, do present their said objections in writing, duly verified, to us at our office, Room 1557, 15th Floor, Municipal Building, Chambers and Centre Streets, in the Borough of Manhattan, in The City of New York, on or before the 19th day of April, 1916, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 24th day of April, 1916, at 2 o'clock P. M.

Second.—That the abstracts of our said estimate and assessment, together with our damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by us in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, Room 1529, 15th Floor, Municipal Building, Chambers and Centre Streets, in the Borough of Manhattan, in said City, there to remain until the 24th day of April, 1916.

Third.—That the limits of our assessment for benefit include all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Richmond, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point on the southerly bulkhead line of Kill Van Kull where it is intersected by the prolongation of a line distant 100 feet easterly from and parallel with the easterly line of Brighton Boulevard, as this street is laid out where it adjoins Richmond Terrace, the said distance being measured at right angles to Brighton Boulevard, and running thence southwardly along the said line parallel with Brighton Boulevard and along the prolongation of the said line to a point distant 100 feet northerly from the northerly line of Henderson Avenue, the said distance being measured at right angles to Henderson Avenue; thence eastwardly and always distant 100 feet northerly from and parallel with the northerly line of Henderson Avenue to the intersection with a line passing through a point on the northerly line of Henderson Avenue distant 280 feet easterly from its intersection with the easterly line of Kissel Avenue, as this street is laid out north of Henderson Avenue, the said distance being measured along the line of Henderson Avenue, and a point on the southerly line of Castleton Avenue distant 270 feet easterly from its intersection with the easterly line of Kissel Avenue, as this street meets Castleton Avenue on the south, the said distance being measured along the line of Castleton Avenue; thence southwardly along the course last described to a point distant 100 feet northerly from the northerly line of Castleton Avenue, the said distance being measured at right angles to Castleton Avenue; thence eastwardly and always distant 100 feet northerly from and parallel with the northerly line of Castleton Avenue to the intersection with the prolongation of a line distant 100 feet easterly from and parallel with the easterly line of Havenwood Road, the said distance being measured at right angles to Havenwood Road; thence southwardly along the said line parallel with Havenwood Road and along the prolongation of the said line to the intersection with a line distant 100 feet northerly from and parallel with the northerly line of Frelinghuysen Road, as this street adjoins Haven Esplanade on the west, the said distance being measured at right angles to Frelinghuysen Road; thence eastwardly along the said line parallel with Frelinghuysen Road and along the prolongation of the said line to the intersection with the centre line of Haven Esplanade; thence southwardly along the centre line of Haven Esplanade to the intersection with the southerly line of Barrett Boulevard; thence westwardly along the southerly lines of Barrett Boulevard and of Brighton Avenue to the intersection with the easterly line of Greenwood Avenue; thence southwardly along the easterly line of Greenwood Avenue a distance of 591.59 feet; thence westwardly at right angles to Greenwood Avenue to the intersection with the easterly line of University Place; thence southwardly along the easterly line of University Place to the intersection with the southerly line of Laurel Avenue; thence westwardly along the southerly line of Laurel Avenue to the intersection with the easterly line of Lakewood Road; thence southwardly along the easterly line of Lakewood Road and the prolongation thereof a distance of 760 feet; thence westwardly at right angles to Lakewood Road a distance of 350 feet; thence southwestwardly in a straight line to a point on the easterly line of Bard Avenue distant 2,360 feet southerly from the southerly line of Forest Avenue, the said distance being measured along the line of Bard Avenue; thence westwardly at right angles to Bard Avenue to a point distant 100 feet westerly from its westerly side; thence northwardly and always distant 100 feet westerly from and parallel with the westerly line of Bard Avenue to a point distant 100 feet northerly from the northerly line of Forest Avenue, the said distance being measured at right angles to Forest Avenue; thence eastwardly and always distant 100 feet northerly from and parallel with the northerly line of Forest Avenue to the intersection with a line distant 100 feet westerly from and parallel with the westerly line of Hoyt Avenue, as this street is laid out between Forest Avenue and Prospect Avenue, the said distance being measured at right angles to Hoyt Avenue; thence northwardly along the said line parallel with Hoyt Avenue and along the prolongation of the said line to a point distant 100 feet northerly from the northerly line of Castleton Avenue, the said distance being measured at right angles to Castleton Avenue; thence eastwardly and always distant 100 feet northerly from and parallel with the northerly line of Castleton Avenue to a point distant 320 feet easterly from the easterly line of Bard Avenue, the said distance being measured at right angles to Bard Avenue; thence northwardly and always distant 320 feet easterly from and parallel with the easterly line of Bard Avenue to the intersection with the centre line of Henderson Avenue; thence eastwardly along the centre line of Henderson Avenue to the intersection with the prolongation of a line distant 100 feet westerly from and parallel with the westerly line of Kissel Avenue as this street is laid out north of Henderson Avenue, the said distance being measured at right angles to Kissel Avenue; thence northwardly along the said line parallel with Kissel Avenue and along the prolongation of the said line to a point distant 350 feet northerly from the northerly line of Henderson Avenue, the said distance being measured at right angles to Henderson Avenue; thence westwardly at right angles to Kissel Avenue to a point distant 160 feet easterly from the easterly line of Bard Avenue, the said distance being measured at right angles to Bard Avenue; thence northwardly and always distant 160 feet easterly from and parallel with the easterly line of Bard Avenue and the prolongation thereof to the intersection with the southerly bulkhead line of Kill Van Kull; thence eastwardly along the said bulkhead line to the point or place of beginning.

(The lines of the streets hereinbefore referred to which have not been incorporated upon the City Map are intended to be those as in use and as commonly recognized.)

Fourth.—That, provided there be no objections filed to either of said abstracts, our final report herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof for the hearing of motions, to be held in the County Court House in the Borough of Brooklyn, in The City of New York, on the 22nd day of June, 1916, at the opening of the Court on that day.

Fifth.—In case, however, objections are filed to either of said abstracts of estimate and assessment, the notice of motion to confirm our final report herein will stand adjourned to the date to be hereafter specified, and of which notice will be given to all those who have theretofore appeared in this proceeding, as well as by publication in the "City Record," pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 658 of the Laws of 1906.

Dated, New York, March 27th, 1916.

JOHN S. DAVENPORT, Chairman; SAMUEL M. RICHARDSON, JAMES BURKE, JR., Commissioners.

JOEL J. SQUIER, Clerk. m30,a15

In the Matter of the Application of The City of New York, relative to acquiring title wherever the same has not been heretofore acquired for the same purpose in fee to the lands, tenements and hereditaments required for the opening and extending of HANCOCK STREET, from Vernon Avenue near 12th Street northwardly to Vernon Avenue north of Sandford Street; and the PUBLIC PLACE bounded by the easterly line of Vernon Avenue, the northwesterly line of Hancock Street and the northeasterly line of Nott Avenue, in the First Ward, Borough of Queens, City of New York.

NOTICE IS HEREBY GIVEN TO ALL PERsons interested in the above entitled proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First.—That the undersigned, Commissioners of Estimate, have completed their supplemental and amended estimate of damage, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing duly verified, with them at their office, in the Municipal Building, Court House Square, Long Island City, in the Borough of Queens, in the City of New York, on or before the 19th day of April, 1916, and that the said Commissioners will hear parties so objecting, and for that purpose will be in attendance at their said office on the 24th day of April, 1916, at 3 o'clock P. M.

Second.—That the undersigned, Commissioner of Assessment, has completed his supplemental and amended estimate of benefit and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with him at his office, in the Municipal Building, Court House Square, Long Island City, in the Borough of Queens, in the City of New York, on or before the 19th day of April, 1916, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 25th day of April, 1916, at 3 o'clock P. M.

Third.—That the Commissioner of Assessment has assessed any or all such lands, tenements and hereditaments and premises as are within the area of assessment fixed and prescribed as the area of assessment for benefit by the Board of Estimate and Apportionment on the 4th day of December, 1908, and that the said area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of Queens, in the City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point on a line midway between Eleventh street and Twelfth street where it is intersected by a line bisecting the angle formed by the intersection of the prolongations of the southeasterly line of Hancock street and the westerly line of the boulevard as laid out between Twelfth street and Bodine street, and running thence westwardly along the said line midway between Eleventh street and Twelfth street, and the prolongation thereof, to a point distant 200 feet westerly from the westerly line of Vernon avenue; thence northwardly and always parallel with and distant 200 feet from the westerly line of Vernon avenue to the intersection with a line midway between Nott avenue and Thirteenth street; thence eastwardly along the said line midway between Nott avenue and Thirteenth street to the intersection with a line midway between Hamilton street and Hancock street; thence northeastwardly along the said line midway between Hamilton street and Hancock street to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the centre lines of Hamilton street and Hancock street as laid out between Jane street and Harsell street; thence northeastwardly along the said bisecting line to the intersection with a line midway between Hamilton street and Hancock street as laid out between Freeman avenue and Harsell street; thence northeastwardly and along a line always midway between Hamilton street and Hancock streeet, and along the prolongation thereof to the intersection with the northwesterly line of Vernon avenue; thence northwestwardly at right angles to Vernon avenue a distance of 100 feet; thence northeastwardly and parallel with Vernon avenue to the intersection with a line at right angles to Vernon avenue, and passing through a point on its northwesterly side where it is intersected by the prolongation of a line midway between Hancock street and the boulevard; thence southeastwardly along the said line at right angles to Vernon avenue to its northwesterly side; thence southwesterly along the aforesaid line midway between Hancock street and the boulevard, and the prolongation thereof, to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the southeasterly line of Hancock street and the northwesterly line of the boulevard as these streets are laid out between Harsell street and Freeman avenue; thence southwestwardly along the aforesaid bisecting line to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the southeasterly line of Hancock street and the northwesterly line of the boulevard as these streets are laid out between Harsell street and Jane street; thence southwestwardly along the aforesaid bisecting line to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the southeasterly line of Hancock street and the northwesterly line of the boulevard as laid out between Harris avenue and Jane street; thence southwestwardly along the aforesaid bisecting line to the intersection with the prolongation of a line midway between Hancock street and the boulevard as laid out between Bodine street and Harris avenue; thence southwestwardly along the said line midway between Hancock street and the boulevard to the intersection with a line bisecting the angle formed by the intersection of the prolongations of the southeasterly line of Hancock street and the westerly line of the boulevard as laid out between Twelfth street and Bodine street; thence southwestwardly along the said bisecting line to the point or place of beginning.

Fourth.—That the abstracts of said supplemental and amended estimate of damage and of said supplemental and amended assessment for benefit together with the damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by the Commissioners of Estimate and by the Commissioner of Assessment in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, in the Municipal Building, Court House Square, in the Borough of Queens, in said City, there to remain until the 24th day of April, 1916.

Fifth.—That, provided there be no objections filed to either of said supplemental and amended abstracts, the reports as to awards and as to assessments for benefit herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof for the hearing of motions, to be held in the County Court House in the Borough of Brooklyn, in the City of New York, on the 15th day of June, 1916, at the opening of the Court on that day.

Sixth.—In case, however, objections are filed to the foregoing supplemental and amended abstracts of estimate and assessment or to either of them the motion to confirm the reports as to awards and as to assessments shall stand adjourned to the date to be hereafter specified in the notice provided in such cases to be given in relation to filing the final reports, pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 658 of the Laws of 1906.

Dated, New York, March 27th, 1916.

JOHN C. MYERS, LUKE OTTEN, CHAS. A. BRODEK, Commissioners of Estimate. LUKE OTTEN, Commissioner of Assessment.

WALTER C. SHEPPARD, Clerk. m30,a15

In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of ROCKAWAY TURNPIKE, from the Conduit to the City line (Hook Creek), in the 4th Ward, Borough of Queens, City of New York.

NOTICE IS HEREBY GIVEN TO ALL PERsons interested in the above-entitled proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First.—That the undersigned, Commissioners of Estimate, have completed their estimate of damage, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with them at their office, in the Municipal Building, Court House Square, Long Island City, in the Borough of Queens, in The City of New York, on or before the 19th day of April, 1916, and that the said Commissioners will hear parties so objecting, and for that purpose will be in attendance at their said office on the 24th day of April, 1916, at 2.00 o'clock P. M.

Second.—That the undersigned, Commissioner of Assessment, has completed his estimate of benefit and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with him at his office, in the Municipal Building, Court House Square, Long Island City, in the Borough of Queens, in The City of New York, on or before the 19th day of April, 1916, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 25th day of April, 1916, at 2.00 o'clock P. M.

Third.—That the Commissioner of Assessment has assessed any or all such lands, tenements and hereditaments and premises as are within the area of assessment fixed and prescribed as the area of assessment for benefit by the Board of Estimate and Apportionment on the 10th day of July, 1913, and that the said area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of Queens, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point on the City line distant 1,000 feet easterly from the easterly line of Rockaway road, the said distance being measured at right angles to Rockaway road, and running thence generally westwardly along the City line to the intersection with a line distant 1,000 feet westerly from and parallel with the westerly line of Rockaway road as this street adjoins the City line, the said distance being

measured at right angles to Rockaway road; thence northwardly along the said line parallel with Rockaway road to the intersection with a line distant 1,000 feet southwesterly from and parallel with the southwesterly line of Rockaway road, as this street is laid out immediately northwesterly from Hook Creek, the said distance being measured at right angles to Rockaway road; thence generally northwestwardly and always distant 1,000 feet southwesterly from and parallel with the southwesterly line of Rockaway road and its prolongation northwardly as laid out where it adjoins the Conduit lands, to the intersection with a line at right angles to the prolongation of Rockaway road, and passing through a point on the prolongation of its southwesterly side distant 1,000 feet northwesterly from its intersection with the southerly boundary of the Conduit lands; thence northeastwardly along the said line at right angles to Rockaway road to a point distant 1,000 feet northeasterly from the prolongation of its northeasterly side; thence generally southeastwardly and always distant 1,000 feet northeasterly from and parallel with the northeasterly line of Rockaway road and with its prolongations northwardly as laid out at the Conduit to the point or place of beginning.

Fourth.—That the abstracts of said estimate of damage and of said assessment for benefit, together with the damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by the Commissioners of Estimate and by the Commissioner of Assessment in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, in the Municipal Building, Court House Square, in the Borough of Queens, in said City, there to remain until the 24th day of April, 1916.

Fifth.—That, provided there be no objections filed to either of said abstracts, the reports as to awards and as to assessments for benefit herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof for the hearing of motions, to be held in the County Court House in the Borough of Brooklyn, in The City of New York, on the 22nd day of June, 1916, at the opening of the Court on that day.

Sixth.—In case, however, objections are filed to the foregoing abstracts of estimate and assessment or to either of them the motion to confirm the reports as to awards and as to assessments shall stand adjourned to the date to be hereafter specified in the notice provided in such cases to be given in relation to filing the final reports, pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 658 of the Laws of 1906.

Dated, New York, March 14th, 1916.

WILLIAM W. GILLEN, Chairman: GEORGE E. COGSWELL, LOUIS KNIERIEM, JR., Commissioners of Estimate. WILLIAM W. GILLEN, Commissioner of Assessment.

WALTER C. SHEPPARD, Clerk. m30,a15

In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of FIFTY-FIFTH STREET, from 16th Avenue to 19th Avenue, and FIFTY-FOURTH STREET, from Fort Hamilton Avenue to 11th Avenue, from New Utrecht Avenue to 13th Avenue, and from 15th Avenue to 19th Avenue, excluding in each case the right-of-way of the Long Island Railroad, in the 30th Ward, Borough of Brooklyn, The City of New York.

NOTICE IS HEREBY GIVEN TO ALL PERsons interested in the above-entitled proceeding, and to the owner or owners, occupant or occupants, of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First.—That the undersigned, Commissioners of Estimate, have completed their amended and supplemental estimate of damage, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with them at their office, No. 166 Montague Street, in the Borough of Brooklyn, in The City of New York, on or before the 10th day of April, 1916, and that the said Commissioners will hear parties so objecting, and for that purpose will be in attendance at their said office on the 11th day of April, 1916, at 3.30 o'clock P. M.

Second.—That the undersigned, Commissioner of Assessment, has completed his amended and supplemental estimate of benefit and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with him at his office, No. 166 Montague Street, in the Borough of Brooklyn, in the City of New York, on or before the 10th day of April, 1916, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 12th day of April, 1916, at 3.30 o'clock P. M.

Third.—That the Commissioner of Assessments has assessed any or all of such lands, tenements and hereditaments and premises as are within the area of assessment fixed and prescribed as the area of assessment for benefit by the Board of Estimate and Apportionment on the 21st day of March, 1912, and that the said area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of Brooklyn, in The City of New York, which, taken together, are bounded and described as follows, viz.:

1. Bounded on the northeast by a line midway between 53d street and 54th street; on the southeast by the northwesterly line of 11th avenue; on the southwest by a line midway between 54th Street and 55th street; and on the northwest by the southeasterly line of 10th avenue.

2. Bounded on the northeast by a line midway between 53d street and 54th street; on the southeast by a line distant 100 feet southeasterly from and parallel with the southeasterly line of 13th avenue, the said distance being measured at right angles to 13th avenue; on the southwest by a line midway between 54th street and 55th street; and on the west by the easterly line of New Utrecht avenue.

3. Beginning at a point on the southeasterly line of 15th avenue midway between 53d street and 54th street, and running thence southeasterly along a line always midway between 53d street and 54th street to the intersection with a line distant 100 feet southeasterly from and parallel with the southeasterly line of 19th avenue, the said distance being measured at right angles to 19th avenue; thence southwestwardly along the said line parallel with 19th avenue to the intersection with the prolongation of a line midway between 55th street and 56th street, as these streets are laid out between 17th avenue and 18th avenue; thence northwestwardly along the said line midway between 55th street and 56th stret, and along the prolongation of the said line, to the intersection with a line distant 100 feet northwesterly from and parallel with the northwesterly line of 16th avenue, the said distance being measured at right angles to 16th avenue; thence northeastwardly along the said line parallel with 16th avenue to the intersection with a line midway between 54th street and 55th street as these streets are laid out between 15th avenue and 16th avenue; thence northwestwardly along the said line midway between 54th street and 55th street to the intersection with the southeasterly line of 15th avenue; thence northeastwardly along the southeasterly line of 15th avenue to the point or place of beginning.

Fourth.—That the abstracts of said amended and supplemental estimate of damage and of said assessment for benefit, together with the damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by the Commissioners of Estimate and by the Commissioner of Assessment in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, No. 166 Montague Street, in the Borough of Brooklyn, in said City, there to remain until the 15th day of April, 1916.

Fifth.—That, provided there be no objections filed to either of said amended and supplemental abstracts, the reports as to awards and as to assessments for benefit herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof, to be held in the County Court House in the Borough of Brooklyn, in The City of New York, on the 31st day of May, 1916, at the opening of the Court on that day.

Sixth.—In case, however, objections are filed to the foregoing abstracts of estimate and assessment, or to either of them, the motion to confirm the reports as to awards and as to assessments shall stand adjourned to the date to be hereafter specified in the notice provided in such cases to be given in relation to filing the final reports, pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 658 of the Laws of 1906.

Dated, New York, March 29th, 1916.

ALMET REED LATSON, ELMER G. SAMMIS, Commissioners of Estimate. ALMET REED LATSON, Commissioner of Assessment.

ANDREW C. TROY, Clerk. m29,a8

In the Matter of the Application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of TROY AVENUE, from Crown Street to Holy Cross Cemetery; EAST 45TH STREET, from Rutland Road to Holy Cross Cemetery; EAST 46TH STREET, from Rutland road to Holy Cross Cemetery, and SCHENECTADY AVENUE, from the old City line to the southerly line of Canarsie Lane, and from a line distant 321.58 feet south of Avenue F to the unnamed street located northerly from and adjoining the right-of-way of the Long Island Railroad, in the 24th and 29th Wards, Borough of Brooklyn, The City of New York.

NOTICE IS HEREBY GIVEN TO ALL PERsons interested in the above-entitled proceeding, and to the owner or owners, occupant or occupants, of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First.—That the undersigned, Commissioners of Estimate, have completed their estimate of damage, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing duly verified, with them at their office, No. 166 Montague Street, in the Borough of Brooklyn, in The City of New York, on or before the 13th day of April, 1916, and that the said Commissioners will hear parties so objecting, and for that purpose will be in attendance at their said office on the 17th day of April, 1916, at 3.30 o'clock P. M.

Second.—That the undersigned, Commissioner of Assessment, has completed his estimate of benefit and that all persons interested in this proceeding or in any of the lands, tenements and hereditaments and premises affected thereby, having any objection thereto, do file their said objections in writing, duly verified, with him at his office, No. 166 Montague Street, in the Borough of Brooklyn, in the City of New York, on or before the 13th day of April, 1916, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 18th day of April, 1916, at 3.30 o'clock P. M.

Third.—That the Commissioner of Assessments has assessed any or all of such lands, tenements and hereditaments and premises as are within the area of assessment fixed and prescribed as the area of assessment for benefit by the Board of Estimate and Apportionment on the 9th day of January, 1913, and that the said area of assessment includes all those lands, tenements and hereditaments and premises situate and being in the Borough of Brooklyn, in The City of New York, which, taken together, are bounded and described as follows, viz.:

1. Beginning at a point on a line midway between Troy Avenue and Albany Avenue distant 100 feet northerly from the northerly line of Crown Street and running thence eastwardly and parallel with Crown Street to a point midway between Schenectady Avenue and Utica Avenue; thence southwardly and always midway between Schenectady Avenue and Utica Avenue to the intersection with the southerly line of Canarsie Lane as this street is in use and commonly recognized; thence westwardly along the southerly line of Canarsie Lane to the intersection with a line midway between Troy Avenue and Schenectady Avenue; thence northwardly along the said line midway between Troy Avenue and Schenectady Avenue and along the prolongation of the said line to a point distant 100 feet southerly from the northerly property line of Holy Cross Cemetery, the said distance being measured at right angles to the said property line; thence westwardly along a line parallel with the northerly property line of Holy Cross Cemetery to the intersection with the prolongation of a line midway between Albany Avenue and Troy Avenue as these streets are laid out south of Vernon Avenue; thence northwardly along a line always midway between Albany Avenue and Troy Avenue and the prolongations thereof to the point or place of beginning.

2. Bounded on the north by a line distant 321.58 feet southerly from and parellel with the southerly line of Avenue F, the said distance being measured at right angles to Avenue F; on the east by a line midway between Schenectady Avenue and Utica Avenue and by the prolongation of the said line; on the south by the centre line of the right of way of the Long Island Railroad, and on the west by a line midway between Troy Avenue and Schenectady Avenue and by the prolongation of the said line.

Fourth.—That the abstracts of said estimate of damage and of said assessment for benefit together with the damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by the Commissioners of Estimate and by the Commissioner of Assessment in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, No. 166 Montague Street, in the Borough of Brooklyn, in said City, there to remain until the 22nd day of April, 1916.

Fifth.—That, provided there be no objections filed to either of said abstracts, the reports as to awards and as to asssessments for benefit herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof, to be held in the County Court House in the Borough of Brooklyn, in The City of New York, on the 24th day of May, 1916, at the opening of the Court on that day.

Sixth.—In case, however, objections are filed to the foregoing abstracts of estimate and assessment, or to either of them the motion to confirm the reports as to awards and as to assessments shall stand adjourned to the date to be hereafter specified in the notice provided in such cases to be given in relation to filing the final reports, pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 658 of the Laws of 1906.

Dated, New York, March 24th, 1916.

WILLIAM McKINNEY, FRANCIS STOCKTON McDIVITT, WM. H. TAYLOR, Commissioners of Estimate. WILLIAM McKINNEY, Commissioner of Assessment.

ANDREW C. TROY, Clerk. m24,a10

Application for Appointment of Commissioners.

In the Matter of the Application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of SCHROEDER PLACE, from Queens Boulevard to Woodside Avenue, in the Second Ward, Borough of Queens, City of New York.

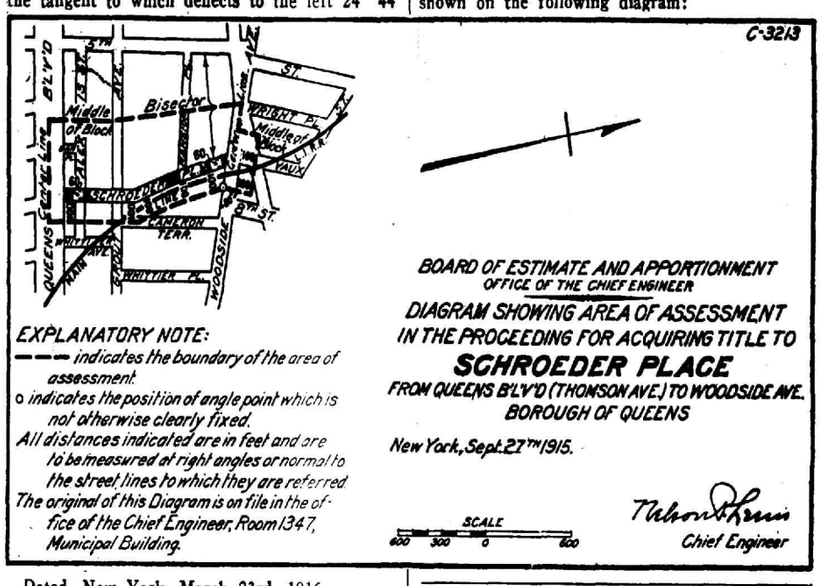
NOTICE IS HEREBY GIVEN THAT AN application will be made to the Supreme Court of the State of New York, Second Judicial District, at a Special Term of said Court, to be held at Trial Term, Part I, in the County Courthouse, in the County of Queens, in the Borough of Queens, in The City of New York, on the 4th day of April, 1916, at the opening of the Court on that day, or as soon thereafter as counsel can be heard thereon, for the appointment of Commissioners of Estimate and a Commissioner of Assessment in the above-entitled matter.

The nature and extent of the improvement hereby intended is the acquisition of title by The City of New York, in fee, for the use of the public, to all the lands and premises, with the buildings thereon and the appurtenances thereunto belonging, required for the opening and extending of Schroeder Place, from Queens Boulevard to Woodside Avenue, in the Second Ward, Borough of Queens, City of New York. The real property title to which is proposed to be acquired is more particularly bounded and described as follows, to wit:

Beginning at a point formed by the intersection of the westerly line of Schroeder Place with the northerly line of Queens Boulevard. Running thence northerly for 481.78 feet along the westerly line of Schroeder Place. Thence northerly, deflecting to the left on the arc of a circle, the tangent to which deflects to the left 24° 44' 35" from the last-mentioned course, which arc is concave to the east, and the radius of which is 1,935.00 feet, for 349.11 feet along the westerly line of Schroeder Place to the southerly line of Mansion Place. Thence northerly, deflecting to the right from the tangent to the last-mentioned course 0° 17' 03" for 53.45 feet along the westerly line of Schroeder Place. Thence northerly, deflecting to the right 0° 01' 56" for 326.74 feet along the westerly line of Schroeder Place to the southerly line of the old Woodside Avenue. Thence easterly, deflecting to the right 111° 46' 44" for 13.97 feet along the southerly line of old Woodside Avenue. Thence easterly, deflecting to the right 4° 34' 13" for 52.48 feet along the southerly line of old Woodside Avenue to the easterly line of Schroeder Place. Thence southerly, deflecting to the right 63° 39' 03" for 341.04 feet along the easterly line of Schroeder Place. Thence southerly, deflecting to the left on the arc of a circle tangent to the last-mentioned course, the radius of which is 1,875.00 feet for 361.70 feet, along the easterly line of Schroeder Place. Thence southerly, deflecting to the right from the tangent to the last-mentioned course 25° 08' 32" for 493.17 feet along the easterly line of Schroeder Place to the northerly line of Queens Boulevard. Thence westerly for 60.03 feet along the northerly line of Queens Boulevard to the westerly line of Schroeder Place, the point or place of beginning.

Schroeder Place, extending from Queens Boulevard to Woodside Avenue, in the Second Ward, Borough of Queens, City of New York, is laid down upon Section 10 of Final Maps of the Borough of Queens, approved by the Board of Estimate and Apportionment November 2, 1911, by the Mayor November 18, 1911, copies of which were filed at the office of the President of the Borough of Queens February 28, 1912, at the office of the County Clerk of Queens County at Jamaica February 26, 1912, and at the office of the Corporation Counsel of The City of New York February 27, 1912, and upon Section 11 of Final Maps of the Borough of Queens, approved by the Board of Estimate and Apportionment October 17, 1912, by the Mayor October 24, 1912, copies of which were filed at the office of the President of the Borough of Queens April 23, 1913, at the office of the County Clerk of Queens County at Jamaica April 22, 1913, and at the office of the Corporation Counsel of The City of New York April 19, 1913.

The Board of Estimate and Apportionment by a resolution adopted on the 3d day of December, 1915, determined that the whole cost and expense of this proceeding shall be assessed upon the property deemed to be benefited thereby, and that the area of assessment for benefit in this proceeding be fixed and determined to be as shown on the following diagram:



Dated, New York, March 23rd, 1916.

LAMAR HARDY, Corporation Counsel, Municipal Building, Borough of Manhattan, City of New York. m23,a3

In the Matter of the Application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of CLERMONT AVENUE, from Maurice Avenue to Fresh Pond Road; COX PLACE, from Flushing Avenue to Broad Street; MARABEL AVENUE, from Maurice Avenue to Maspeth Avenue, together with the PUBLIC PARK bounded by Clermont Avenue, Hebberd Avenue and Fresh Pond Road, in the Second Ward, Borough of Queens, City of New York.

NOTICE IS HEREBY GIVEN THAT AN application will be made to the Supreme Court of the State of New York, Second Judicial District, at a Special Term of said Court, to be held at Trial Term, Part I, in the County Courthouse, in the County of Queens, in the Borough of Queens, in The City of New York, on the 4th day of April, 1916, at the opening of the Court on that day, or as soon thereafter as counsel can be heard thereon, for the appointment of Commissioners of Estimate and a Commissioner of Assessment in the above-entitled matter.

The nature and extent of the improvement hereby intended is the acquisition of title by The City of New York, in fee, for the use of the public, to all the lands and premises, with the buildings thereon and the appurtenances thereunto belonging, required for the opening and extending of Clermont Avenue, from Maurice Avenue to Fresh Pond Road; Cox Place, from Flushing Avenue to Broad Street; Marabel Avenue, from Maurice Avenue to Maspeth Avenue, together with the Public Park bounded by Clermont Avenue, Hebberd Avenue and Fresh Pond Road, in the Second Ward, Borough of Queens, City of New York. The real property title to which is proposed to be acquired is more particularly bounded and described as follows, to wit:

COX PLACE.

Beginning at a point formed by the intersection of the southerly line of Grand Street with the easterly line of Cox Place. Running thence southerly for 10.00 feet along the easterly line of Cox Place to the northerly line of Cox Place. Thence easterly, deflecting to the right 90° 00' 00" for 144.54 feet along the northerly line of Cox Place. Thence easterly, deflecting to the left 0° 36' 10" for 214.30 feet along the northerly line of Cox Place. Thence easterly, deflecting to the right 0° 25' 07" for 441.34 feet along the northerly line of Cox Place and prolongation thereof to the northwesterly line of old Flushing Avenue. Thence southwesterly, deflecting to the right 143° 41' 27" for 84.44 feet along the northwesterly line of old Flushing Avenue to the prolongation of the southerly line of Cox Place. Thence westerly, deflecting to the right 36° 18' 33" for 373.11 feet along the southerly line of Cox Place. Thence westerly, deflecting to the left 0° 25' 07" for 214.38 feet along the southerly line of Cox Place. Thence westerly, deflecting to the right 0° 36' 10" for 302.48 feet along the southerly line of Cox Place to the southerly line of Grand Street. Thence easterly, deflecting to the right 162° 38' 54" for 57.09 feet along the southerly line of Grand Street. Thence easterly for 111.79 feet along the southerly line of Grand Street to the easterly line of Cox Place, the point or place of beginning.

MARABEL AVENUE.

Beginning at a point formed by the intersection of the northerly line of Maspeth Avenue with the easterly line of Marabel Avenue. Running thence westerly for 50.00 feet along the northerly line of Maspeth Avenue to the westerly line of Marabel Avenue. Thence northerly, deflecting to the right 89° 59' 19" for 1,831.17 feet along the westerly line of Marabel Avenue to the southeasterly line of Maurice Avenue. Thence northeasterly, deflecting to the right 39° 30' 53" for 78.58 feet along the southeasterly line of Maurice Avenue to the easterly line of Marabel Avenue. Thence southerly for 1,891.80 feet along the easterly line of Marabel Avenue to the northerly line of Maspeth Avenue, the point or place of beginning.

CLERMONT AVENUE.

Parcel "A."

Beginning at a point formed by the intersection of the northerly line of Grand Street with the easterly line of Clermont Avenue. Running thence westerly for 65.25 feet along the northerly line of Grand Street to the westerly line of Clermont Avenue. Thence northerly, deflecting to the right 108° 13' 26" for 375.05 feet along the westerly line of Clermont Avenue to the southerly line of Maspeth Avenue. Thence northerly, deflecting to the right 35° 23' 33" for 65.27 feet along the westerly line of Clermont Avenue to the northerly line of Maspeth Avenue. Thence northerly, deflecting to the left 23° 13' 42" for 1,685.12 feet along the westerly line of Clermont Avenue to the southerly line of Borden Avenue. Thence northerly, deflecting to the left 22° 35' 42" for 100.45 feet along the westerly line of Clermont Avenue to the northerly line of Borden Avenue. Thence northerly, deflecting to the right 19° 07' 37" for 771.42 feet along the westerly line of Clermont Avenue to the southeasterly line of Maurice Avenue. Thence northeasterly, deflecting to the right 30° 24' 51" for 118.52 feet along the southeasterly line of Maurice Avenue to the easterly line of Clermont Avenue. Thence southerly, deflecting to the right 149° 35' 09" for 893.22 feet along the easterly line of Clermont Avenue to the northerly line of Borden Avenue. Thence southerly, deflecting to the left 13° 33' 36" for 93.97 feet along the easterly line of Clermont Avenue to the southerly line of Borden Avenue. Thence southerly, deflecting to the right 17° 01' 41" for 1,672.11 feet along the easterly line of Clermont Avenue to the northerly line of Maspeth Avenue. Thence southerly, deflecting to the right 15° 09' 49" for 62.15 feet along the easterly line of Clermont Avenue to the southerly line of Maspeth Avenue. Thence southerly, deflecting to the left 27° 22' 11" for 137.46 feet along the easterly line of Clermont Avenue. Thence southerly for 204.65 feet along the easterly line of Clermont Avenue to the northerly line of Grand Street, the point or place of beginning.

Parcel "B."

Beginning at a point formed by the intersection of the southerly line of Grand Street with the westerly line of Clermont Avenue. Running thence easterly for 62.80 feet along the southerly line of Grand Street to the easterly line of Clermont Avenue. Thence southerly, deflecting to the right 107° 10' 37" for 106.18 feet along the easterly line of Clermont Avenue. Thence southerly, deflecting to the left 16° 09' 13" for 137.01 feet along the easterly line of Clermont Avenue to the northerly line of old Flushing Avenue. Thence westerly, deflecting to the right 75° 05' 28" for 62.11 feet along the northerly line of old Flushing Avenue to the

westerly line of Clermont Avenue. Thence northerly, deflecting to the right 104° 52′ 39″ for 161.17 feet along the westerly line of Clermont Avenue. Thence northerly for 96.48 feet along the westerly line of Clermont Avenue to the southerly line of Grand Street, the point or place of beginning.

Parcel "C."

Beginning at a point formed by the intersection of the southerly line of Flushing Avenue with the easterly line of Clermont Avenue. Running thence southerly for 402.83 feet along the easterly line of Clermont Avenue. Thence southerly, deflecting to the right 15° 04′ 06″ for 173.59 feet along the easterly line of Clermont Avenue. Thence southerly, deflecting to the left 2° 04′ 49″ for 125.06 feet along the easterly line of Clermont Avenue. Thence southerly, deflecting to the left 31° 27′ 25″ for 293.52 feet along the easterly line of Clermont Avenue to the southerly line of Hebberd Avenue. Thence easterly, deflecting to the left 57° 57′ 32″ for 9.40 feet along the southerly line of Hebberd Avenue to the westerly line of Fresh Pond Road. Thence southerly, deflecting to the right 88° 52′ 12″ for 112.84 feet along the westerly line of Fresh Pand Road to the westerly line of Clermont Avenue. Thence northerly, deflecting to the right 149° 05′ 20″ for 241.06 feet along the westerly line of Clermont Avenue. Thence northerly, deflecting to the left 2° 58′ 41″ for 155.37 feet along the westerly line of Clermont Avenue. Thence northerly, deflecting to the right 34° 26′ 06″ for 303.39 feet along the westerly line of Clermont Avenue. Thence northerly, deflecting to the left 11° 57′ 52″ for 400.38 feet along the westerly line of Clermont Avenue to the southerly line of Flushing Avenue. Thence easterly for 55.05 feet along the southerly line of Flushing Avenue to the easterly line of Clermont Avenue, the point or place of beginning.

Cox Place, extending from Flushing Avenue to Broad Street; Marabel Avenue, extending from Maurice Avenue to Maspeth Avenue, and Clermont Avenue, extending from Maurice Avenue to Fresh Pond Road, in the Second Ward, Borough of Queens, City of New York, is laid down upon the following sections of Final Maps of the Borough of Queens:

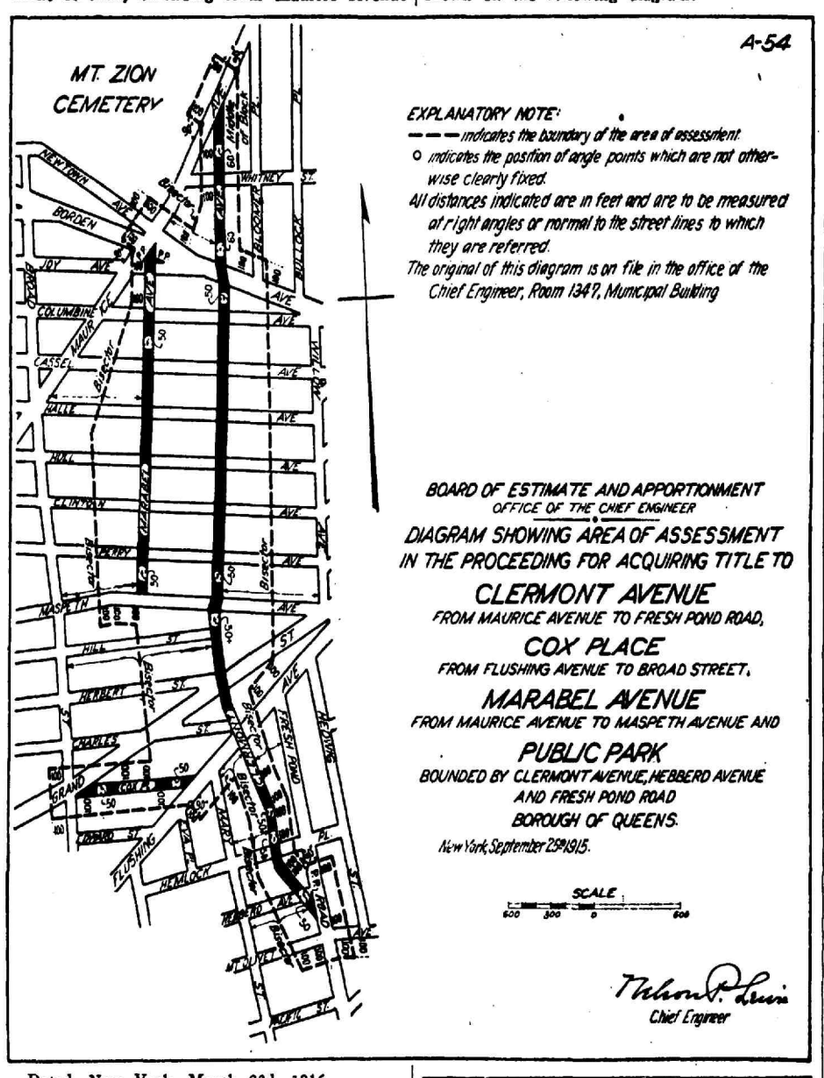
Section No. 12. Adopted by Board of Estimate and Apportionment May 21, 1909. Approved by the Mayor June 4, 1909. Filed at County Clerk's Office, Queens, Aug. 10, 1909. Filed at Corporation Counsel's Office Aug. 9, 1909. Filed at Borough President's Office, Queens, Aug. 13 1909.

Section No. 16. Adopted by Board of Estimate and Apportionment Feb. 8, 1912. Approved by the Mayor Feb. 26, 1912. Filed at County Clerk's Office, Queens, Sept. 30, 1912. Filed at Corporation Counsel's Office Sept. 30, 1912. Filed at Borough President's Office, Queens, Oct. 7, 1912.

Section No. 17. Adopted by Board of Estimate and Apportionment June 26, 1908. Approved by the Mayor Aug. 5, 1908. Filed at County Clerk's Office, Queens, Aug. 14, 1908. Filed at Corporation Counsel's Office Aug. 19, 1908. Filed at Borough President's Office, Queens, Sept. 11, 1908.

—and upon Map of the Territory bounded by Broad Street, Maspeth Avenue, Grand Street, Flushing Avenue, Fresh Pond Road, Mount Olivet Avenue, Mary Street, Flushing Avenue and Edward Street, adopted by the Board of Estimate and Apportionment March 27, 1914; approved by the Mayor April 10, 1914, and filed at the office of the County Clerk of Queens County at Jamaica July 24, 1914, at the office of the Corporation Counsel of The City of New York July 23, 1914, and at the office of the President of the Borough of Queens July 27, 1914.

The Board of Estimate and Apportionment by a resolution adopted on the 3d day of December, 1915, determined that the whole cost and expense of this proceeding shall be assessed upon the property deemed to be benefited thereby, and that the area of assessment for benefit in this proceeding be fixed and determined to be as shown on the following diagram:



Dated, New York, March 23d, 1916.
LAMAR HARDY, Corporation Counsel, Municipal Building, Borough of Manhattan, City of New York. m23,a3

In the Matter of the Application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of SEVENTEENTH STREET, from Queens Boulevard to Jackson Avenue, in the Second Ward, Borough of Queens, City of New York.

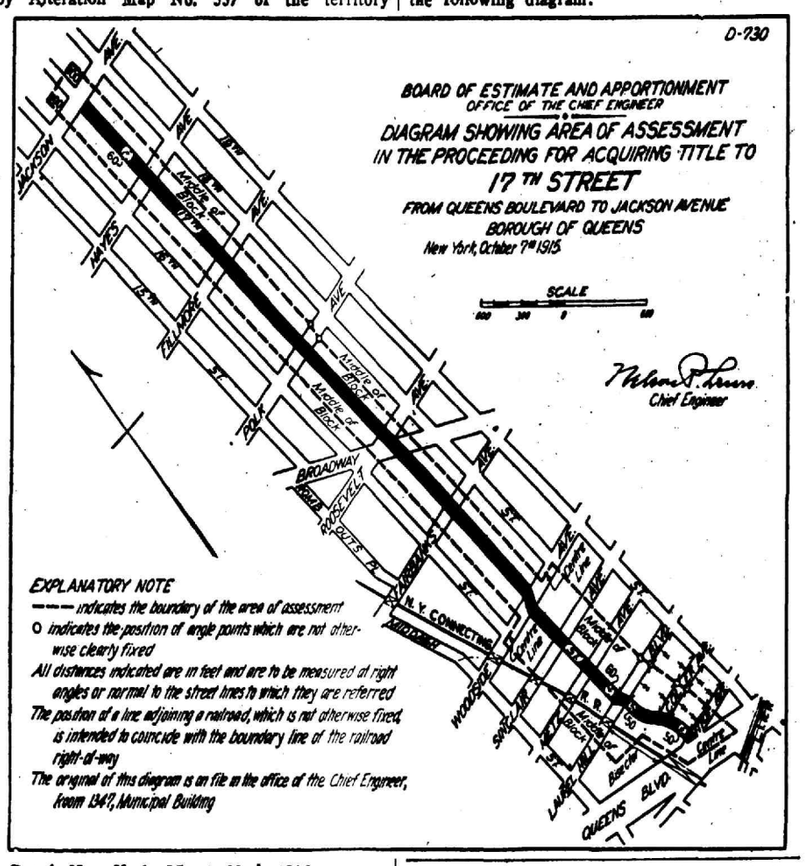
NOTICE IS HEREBY GIVEN THAT AN application will be made to the Supreme Court of the State of New York, Second Judicial District,, at a Special Term of said Court, to be held at Part I, Motions, in the County Courthouse, in the County of Kings, in the Borough of Brooklyn, in The City of New York, on the 3d day of April, 1916, at the opening of the Court on that day, or as soon thereafter as Counsel can be heard thereon, for the appointment of Commissioners of Estimate and a Commissioner of Assessment in the above-entitled matter.

The nature and extent of the improvement hereby intended is the acquisition of title by The City of New York, in fee, for the use of the public, to all the lands and premises, with the buildings thereon and the appurtenances thereto belonging, required for the opening and extending of Seventeenth Street, from Queens Boulevard to Jackson Avenue, in the Second Ward, Borough of Queens, City of New York. The real property title to which is proposed to be acquired is more particularly bounded and described as follows, to wit:

Beginning at a point formed by the intersection of the easterly line of Seventeenth Street with the southerly line of Jackson Avenue. Running thence southerly for 2,050.00 feet along the easterly line of Seventeenth Street to the northerly line of Polk Avenue. Thence southerly, deflecting to the right 18° 21′ 01″ for 79.02 feet along the easterly line of Seventeenth Street to the southerly line of Polk Avenue. Thence southerly, deflecting to the left 18° 49′ 13″ for 2,077.00 feet along the easterly line of Seventeenth Street to the northerly line of old Woodside Avenue. Thence southwesterly, deflecting to the right 35° 55′ 11″ for 75.31 feet along the southeasterly line of Seventeenth Street to the southerly line of old Woodside Avenue. Thence southerly, deflecting to the left 36° 20′ 34″ for 909.40 feet along the easterly line of Seventeenth Street to the northerly line of Laurel Hill Boulevard. Thence southeasterly, deflecting to the left 22° 19′ 24″ for 71.35 feet along the northeasterly line of Seventeenth Street to tth southerly line of Laurel Hill Boulevard. Thence southerly, deflecting to the right 22° 19′ 24″ for 58.00 feet along the easterly line of Seventeenth Street. Thence southeasterly, deflecting to the left on the arc of a circle tangent to the last-mentioned course, the radius of which is 206.60 feet for 133.82 feet along the northeasterly line of Seventeenth Street. Thence southerly, deflecting to the right on the arc of a circle tangent to the last-mentioned course, the radius of which is 325.25 feet, for 331.70 feet along the easterly line of Seventeenth Street to the northerly line of Queens Boulevard. Thence westerly, deflecting to the right 91° 24′ 32″ for 50.02 feet along the northerly line of Queens Boulevard to the westerly line of Seventeenth Street. Thence northerly on the arc of a circle concave to the west, the tangent of which deflects 88° 20′ 06″ to the right from the last-mentioned course, the radius of which is 275.35 feet, for 279.50 feet along the easterly line of Seventeenth Street. Thence northwesterly, deflecting to the right on the arc of a circle tangent to the last-mentioned course, the radius of which is 256.60 feet, for 166.21 feet along the southwesterly line of Seventeenth Street. Thence northerly, on a tangent to the last-mentioned course, for 58.00 feet along the westerly line of Seventeenth Street to the southerly line of Laurel Hill Boulevard. Thence northwesterly, deflecting to the left 29° 20′ 29″ for 75.71 feet along the southwesterly line of Seventeenth Street to the northerly line of Laurel Hill Boulevard. Thence northerly, deflecting to the right 29° 20′ 29″ for 806.50 feet along the westerly line of Seventeenth Street to the southerly line of old Woodside Avenue. Thence northeasterly, deflecting to the right 36° 20′ 17″ for 75.28 feet along the northwesterly line of Seventeenth Street to the northerly line of old Woodside Avenue. Thence northerly, deflecting to the left 35° 54′ 54″ for 2,080.85 feet along the westerly line of Seventeenth Street to the southerly line of Polk Avenue. Thence northerly, deflecting to the right 18° 49′ 18″ for 79.02 feet along the westerly line of Seventeenth Street to the northerly line of Polk Avenue. Thence northerly, deflecting to the left 18° 21′ 06″ for 2,050.00 feet along the westerly line of Seventeenth Street to the southerly line of Jackson Avenue. Thence easterly for 60.00 feet along the southerly line of Jackson Avenue to the easterly line of Seventeenth Street, the point or place of beginning. The property affected by this proceeding is located in Blocks Nos. 1265, 1266, 1651, 1652, 1670, 1671, 1736, 1737, 1741, 3129, 3130, 3128, 3131, 3146, 3147, 3155, 3156, 3154, 3157, 3172, 3173 and 3174 of the Land Map of The City of New York, Borough of Queens.

Seventeenth Street, extending from Queens Boulevard to Jackson Avenue, in the Second Ward Borough of Queens, City of New York, is laid down upon Section 9 of the Final Maps of the Borough of Queens, approved by the Board of Estimate and Apportionment February 8, 1912, by the Mayor February 26, 1912, copies of which were filed at the office of the President of the Borough of Queens June 1, 1912, at the office of the County Clerk of Queens County at Jamaica May 28, 1912, and at the office of the Corporation Counsel of The City of New York May 28, 1912; upon Section 10 of the Final Maps, approved by the Board of Estimate and Apportionment November 2, 1911, by the Mayor November 18, 1911, copies of which were filed at the office of the President of the Borough of Queens February 28, 1912, at the office of the County Clerk of Queens County at Jamaica February 26, 1912, and at the office of the Corporation Counsel of The City of New York February 27, 1912, and upon Section 19 of the Final Maps, approved by the Board of Estimate and Apportionment June 17, 1910, by the Mayor June 24, 1910, copies of which were filed at the office of the President of the Borough of Queens August 23, 1910, at the office of the County Clerk of Queens County at Jamaica August 23, 1910, and at the office of the Corporation Counsel of The City of New York October 24, 1910, as amended by Alteration Map No. 557 of the territory bounded by Fisk Avenue, Fairbanks Avenue, Eighteenth Street, etc., approved by the Board of Estimate and Apportionment November 12, 1915, by the Mayor November 12, 1915, copies of which were filed at the office of the President of the Borough of Queens February 16, 1916, at the office of the County Clerk of Queens County at Jamaica February 14, 1916, at the office of the Corporation Counsel of The City of New York February 14, 1916.

The Board of Estimate and Apportionment by resolutions adopted on the 1st day of July, 1915, and the 12th day of November, 1915, duly determined that the whole cost and expense of this proceeding shall be assessed upon the property deemed to be benefited thereby, and that the area of assessment for benefit in this proceeding be fixed and determined to be as shown on the following diagram:



Dated, New York, March 22nd, 1916.
LAMAR HARDY, Corporation Counsel, Municipal Building, Borough of Manhattan, City of New York. m22,a1

In the Matter of the Application of The City of New York reative to acquiring tite, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, teneements and hereditaments required for the opening and extending of LAKE STREET, from Junction Avenue to Alburtis Avenue, and BANTA STREET, from Van Dine Street to Junction Avenue, in the Second Ward, Borough of Queens, City of New York.

NOTICE IS HEREBY GIVEN THAT AN application will be made to the Supreme Court of the State of New York, Second Judicial District, at a Special Term of said Court, to be held at Trial Term, Part I, in the County Courthouse, in the County of Queens, in the Borough of Queens, in The City of New York, on the 4th day of April, 1916, at the opening of the Court on that day, or as soon thereafter as counsel can be heard thereon, for the appointment of Commissioners of Estimate and a Commissioner of Assessment in the above-entitled matter.

The nature and extent of the improvement hereby intended is the acquisition of title by The City of New York, in fee, for the use of the public, to all the lands and premises, with the buildings thereon and the appurtenances thereunto belonging, required for the opening and extending of Lake Street, from Junction Avenue to Alburtis Avenue, and Banta Street, from Van Dine Street to Junction Avenue, in the Second Ward, Borough of Queens, City of New York. The real property title to which is proposed to be acquired is more particularly bounded and described as follows, to wit:

BANTA STREET.

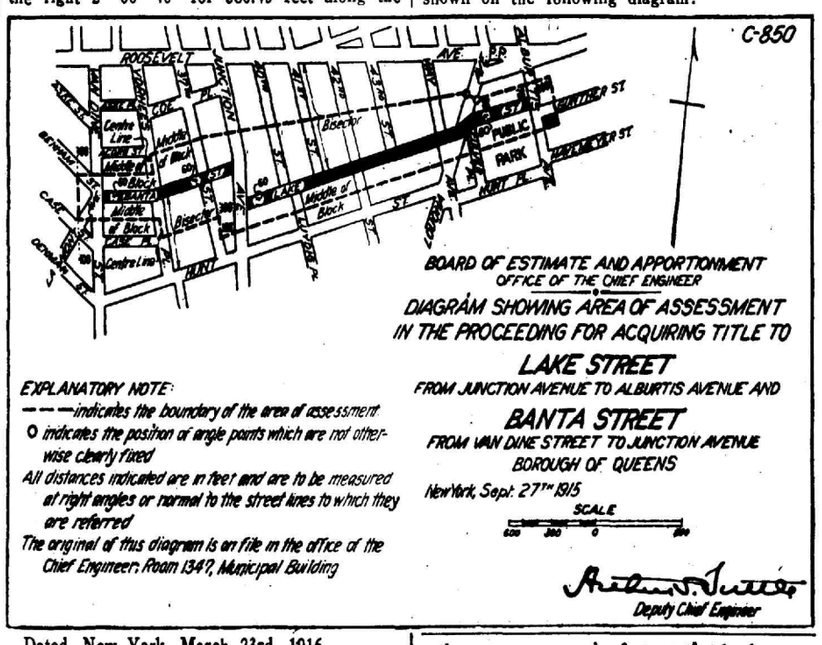
Beginning at a point formed by the intersection of the easterly line of Van Dine Street with the northerly line of Banta Street. Running thence easterly for 368.44 feet along the northerly line of Banta Street to the westerly line of Voorhees Place. Thence easterly, deflecting to the left 0° 59′ 22″ for 60.99 feet to the easterly line of Voorhees Place. Thence easterly, deflecting to the left 13° 26′ 05″ for 496.75 feet along the northerly line of Banta Street to the westerly line of old Junction Avenue. Thence southerly, deflecting to the right 105° 51′ 29″ for 62.37 feet along the westerly line of old Junction Avenue to the southerly line of Banta Street. Thence westerly, deflecting to the right 74° 08′ 31″ for 482.96 feet along the southerly line of Banta Street to the easterly line of Voorhees Place. Thence westerly, deflecting to the right 12° 24′ 47″ for 60.80 feet to the westerly line of Voorhees Place. Thence westerly, deflecting to the right 2° 00′ 40″ for 380.45 feet along the southerly line of Banta Street to the easterly line to Van Dine Street. Thence northerly for 60.00 feet to the northerly line of Banta Street, the point or place of beginning.

LAKE STREET.

Beginning at a point formed by the intersection of the westerly line of Alburtis Avenue and the southerly line of Lake Street. Running thence westerly for 400.00 feet along the southerly line of Lake Street to the easterly line of Culver Place. Thence southwesterly, deflecting to the left 21° 20′ 50″ for 64.42 feet to the westerly line of Culver Place. Thence southwesterly, deflecting to the left 1° 27′ 09″ for 151.87 feet to the prolongation of the easterly line of Way Avenue. Thence northerly, deflecting to the right 112° 47′ 59″ for 23.92 feet along the prolongation of the easterly line of Way Avenue to the prolongation of the southerly line of Lake Street. Thence westerly, deflecting to the left 90° 02′ 48″ for 1,462.19 feet along the southerly line of Lake Street to the easterly line of old Junction Avenue. Thence northerly, deflecting to the right 101° 20′ 29″ for 16.25 feet along the easterly line of old Junction Avenue. Thence northerly, deflecting to the right 1° 57′ 46″ for 45.28 feet along the easterly line of old Junction Avenue to the prolongation of the northerly line of Lake Street. Thence easterly, deflecting to the right 76° 41′ 45″ for 1,509.08 feet along the northerly line of Lake Street to the westerly line of Louona Avenue. Thence northeasterly, deflecting to the left 22° 29′ 30″ for 152.17 feet to the easterly line of Louona Avenue. Thence easterly, deflecting to the right 22° 32′ 18″ for 399.00 feet along the northerly line of Lake Street to the westerly line of Alburtis Avenue. Thence southerly for 60.00 feet along the westerly line of Alburtis Avenue to the southerly line of Lake Street, the point or place of beginning.

Lake Street, extending from Junction Avenue to Alburtis Avenue, and Banta (Canton) Street, extending from Van Dine Street to Junction Avenue, in the Second Ward, Borough of Queens, City of New York, is laid down upon Section 25 of Final Maps of the Borough of Queens, approved by the Board of Estimate and Apportionment June 17, 1910, by the Mayor June 24, 1910, and filed at the office of the President of the Borough of Queens October 29, 1910, at the office of the County Clerk of Queens County in Jamaica October 29, 1910, and the office of the Corporation Counsel of The City of New York October 24, 1910.

The Board of Estimate and Apportionment by a resolution adopted on the 3d day of December, 1915, determined that the whole cost and expense of this proceeding shall be assessed upon the property deemed to be benefited thereby, and that the area of assessment for benefit in this proceeding be fixed and determined to be as shown on the following diagram:



Dated, New York, March 23rd, 1916.
LAMAR HARDY, Corporation Counsel, Municipal Building, Borough of Manhattan, City of New York. m23,a3

In the Matter of the Application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired for the same purpose in fee, to the lands, tenements and hereditaments required for the opening and extending of VAN PELT STREET, from Borden Avenue to Skillman Avenue, in the First Ward, Borough of Queens, City of New York.

NOTICE IS HEREBY GIVEN THAT AN application will be made to the Supreme Court

of the State of New York, Second Judicial District, at a Special Term of said Court, to be held at Part I, Motions, in the County Court-house, in the County of Kings, in the Borough of Brooklyn, in The City of New York, on the 3rd day of April, 1916, at the opening of the Court on that day, or as soon thereafter as counsel can be heard thereon, for the appointment of Commissioners of Estimate and a Commissioner of Assessment in the above-entitled matter.

The nature and extent of the improvement hereby intended is the acquisition of title by The City of New York, in fee, for the use of the public, to all the lands and premises, with the buildings thereon and the appurtenances thereunto belonging, required for the opening and extending of Van Pelt Street, from Borden Avenue to Skillman Avenue, in the First Ward, Borough of Queens, City of New York. The real property title to which is proposed to be acquired is more particularly bounded and described as follows, to wit:

PARCEL "A."

Beginning at a point formed by the intersection of the westerly line of Van Pelt Street and the southerly line of Hunterspoint Avenue. Running thence easterly for 60.00 feet along the southerly line of Hunterspoint Avenue to the easterly line of Van Pelt Street. Thence southerly, deflecting to the right 90° for 127.40 feet along the easterly line of Van Pelt Street to the northerly line of old Borden Avenue. Thence westerly, deflecting to the right 84° 49′ 44″ for 60.25 feet along the northerly line of old Borden Avenue to the westerly line of Van Pelt Street. Thence northerly for 132.83 feet along the westerly line of Van Pelt Street to the southerly line of Hunterspoint Avenue, the point or place of beginning.

PARCEL "B."

Beginning at a point formed by the easterly line of Van Pelt Street with the northerly line of Hunterspoint Avenue. Running thence westerly for 65.00 feet along the northerly line of Hunterspoint Avenue to the westerly line of Van Pelt Street. Thence northerly, deflecting to the right 67° 23′ 30″ for 386.44 feet along the westerly line of Van Pelt Street to the southerly line of Greenpoint Avenue. Thence easterly, deflecting to the right 54° 01′ 30″ for 74.14 feet along the southerly line of Greenpoint Avenue to the easterly line of Van Pelt Street. Thence southerly for 454.98 feet along the easterly line of Van Pelt Street to the northerly line of Hunterspoint Avenue, the point or place of beginning.

PARCEL "C."

Beginning at a point formed by the intersection of the easterly line of Van Pelt Street with the northerly line of Greenpoint Avenue. Running thence westerly for 74.14 feet along the northerly line of Greenpoint Avenue to the westerly line of Van Pelt Street. Thence northerly, deflecting to the right 125° 58′ 30″ for 704.15 feet along the westerly line of Van Pelt Street to the southerly line of Anable Avenue. Thence easterly, deflecting to the right 90° for 60.00 feet along the southerly line of Anable Avenue to the easterly line of Van Pelt Street. Thence southerly for 660.60 feet along the easterly line of Van Pelt Street to the northerly line of Greenpoint Avenue, the point or place of beginning.

PARCEL "D."

Beginning at a point formed by the intersection of the easterly line of Van Pelt Street with the northerly line of Anable Avenue. Running thence westerly for 60.00 feet along the northerly line of Anable Avenue to the westerly line of Van Pelt Street. Thence northerly deflecting to the right 90° for 600.05 feet along the westerly line of Van Pelt Street to the southerly line of Nelson Avenue. Thence easterly, deflecting to the right 90° for 60.00 feet along the southerly line of Nelson Avenue to the easterly line of Van Pelt Street. Thence southerly for 600.05 feet along the easterly line of Van Pelt Street to the northerly line of Anable Avenue, the point or place of beginning.

PARCEL "E."

Beginning at a point formed by the intersection of the easterly line of Van Pelt Street with the northerly line of Nelson Avenue. Running thence westerly for 60.00 feet along the northerly line of Nelson Avenue to the westerly line of Van Pelt Street. Thence northerly, deflecting to the right 90° for 600.10 feet along the westerly line of Van Pelt Street to the southerly line of Queens Boulevard. Thence easterly, deflecting to the right 90° for 60.00 feet along the southerly line of Queens Boulevard to the easterly line of Van Pelt Street. Thence southerly for 600.10 feet along the easterly line of Van Pelt Street to the northerly line of Nelson Avenue, the point or place of beginning.

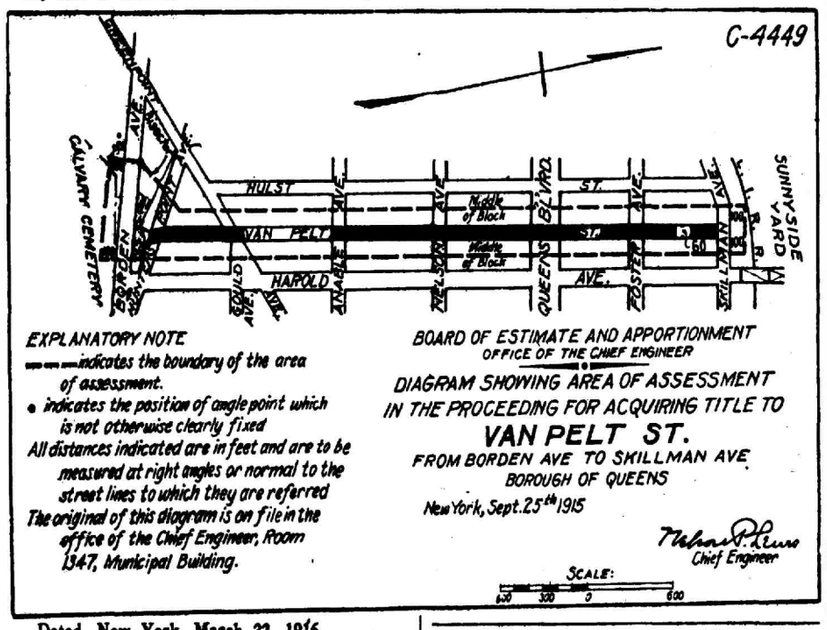
PARCEL "F."

Beginning at a point formed by the intersection of the westerly line of Van Pelt Street with the southerly line of Skillman Avenue. Running thence easterly for 60.00 feet along the southerly line of Skillman Avenue to the easterly line of Van Pelt Street. Thence southerly, deflecting to the right 90° 11′ 00″ for 1,213.58 feet along the easterly line of Van Pelt Street to the northerly line of old Thomson Avenue. Thence westerly, deflecting to the right 90° for 60.00 feet along the northerly line of old Thomson Avenue to the westerly line of Van Pelt Street. Thence northerly for 1,213.39 feet along the westerly line of Van Pelt Street to the southerly line of Skillman Avenue, the point or place of beginning.

Van Pelt Street, extending from Borden Avenue to Skillman Avenue, in the First Ward, Borough of Queens, City of New York, is laid down upon the Commissioners Map of Long Island City, filed with the City Clerk of Long Island City December 31, 1875, as amended by Final Map, Section No. 2, approved by the Board of Estimate and Apportionment July 1, 1910, by the Mayor July 13, 1910, copies of which were filed at the office of the President of the Borough of Queens October 29, 1910, at the office of the County Clerk of Queens County at Jamaica October 29, 1910, and at the office of the Corporation Counsel of The City of New York October 24, 1910, and by Final Map Section No. 314, approved by the Board of Estimate and Apportionment October 1, 1915, by the Mayor October 18, 1915, copies of which were filed at the office of the President of the Borough of Queens on February 16, 1916, at the office of the County Clerk of Queens County at Jamaica on February 14, 1916, and at the office of the Corporation Counsel of The City of New York on February 14, 1916.

The land required for Van Pelt Street, from Borden Avenue to Skillman Avenue, is located in Block Nos. 604, 605, 616, 617, 640, 641, 654, 655, 733, 734, 735, 736, 737 and 738 of the Land Map of the Borough of Queens, City of New York.

The Board of Estimate and Apportionment by a resolution adopted on the 22d day of October, 1915, determined that the whole cost and expense of this proceeding shall be assessed upon the property deemed to be benefited thereby, and that the area of assessment for benefit in this proceeding be fixed and determined to be as shown on the following diagram:



Dated, New York, March 22, 1916.

LAMAR HARDY, Corporation Counsel, Municipal Building, Borough of Manhattan, City of New York. m22,a1

BOARD OF WATER SUPPLY.

Proposals.

SEALED BIDS WILL BE RECEIVED BY the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers Streets, New York City, until 11 A. M. on

TUESDAY, APRIL 11, 1916,

for

CONTRACT 164.

FOR FURNISHING AND INSTALLING STEAM-HEATING SYSTEMS IN THE ASHOKAN LOWER GATE-CHAMBER AND THE KENSICO LOWER EFFLUENT CHAMBER. THE EQUIPMENT CONSISTS OF BOILERS, PIPES; RADIATORS AND ACCESSORIES. THE WORK IS LOCATED IN THE TOWNS OF OLIVE, ULSTER COUNTY, AND MT. PLEASANT, WESTCHESTER COUNTY, NEW YORK.

A statement of the work required and further information are given in the Information for Bidders, forming part of the contract. At the above place and time the bids will be publicly opened and read. The award of the contract, if awarded, will be made by the Board as soon thereafter as practicable. The Board reserves the right to reject any and all bids.

A bond in the sum of Four Thousand Dollars ($4,000) will be required for the faithful performance of the contract.

No bid will be received and deposited unless accompanied by a certified check upon a National or State Bank, drawn to the order of the Comptroller of The City of New York, to the amount of Five Hundred Dollars ($500).

Time allowed for the completion of the work is 5 consecutive months from the service of notice by the Board to begin work.

Pamphlets containing information for bidders, forms of proposal and contract, specifications, contract drawings, etc., can be obtained at the above address, at the office of the Secretary, upon application in person or by mail, by depositing the sum of Ten Dollars ($10) in cash or its equivalent for each pamphlet. This deposit will be refunded upon the return of the pamphlets in acceptable condition within thirty days from the date on which bids are to be opened.

For further particulars apply to the office of the Principal Assistant Engineer, at the above address.

CHARLES STRAUSS, President; CHARLES N. CHADWICK, JOHN F. GALVIN, Commissioners of the Board of Water Supply.

GEORGE FEATHERSTONE, Secretary.

NOTE: SEE GENERAL INSTRUCTIONS TO BIDDERS ON LAST PAGE, LAST COLUMN, OF THE CITY RECORD, SO FAR AS APPLICABLE HERETO AND NOT OTHERWISE PROVIDED FOR. m23,a11

SEALED BIDS WILL BE RECEIVED BY the Board of Water Supply, at its offices, twenty-second floor, Municipal Building, Park Row, Centre and Chambers streets, New York City, until 11 A. M. on

TUESDAY, APRIL 11, 1916,

for

CONTRACT 171.

FOR SURFACING WITH BITUMINOUS MACADAM AND VITRIFIED BRICK BLOCKS ABOUT 3 MILES OF HIGHWAYS AT THE KENSICO RESERVOIR, IN THE TOWN OF MT. PLEASANT, WESTCHESTER COUNTY, NEW YORK. THE GRADING FOR THESE HIGHWAYS HAS BEEN LARGELY DONE UNDER OTHER CONTRACTS.

An approximate statement of the quantities of the various items of work and further information are given in the Information for Bidders, forming part of the contract. At the above place and time the bids will be publicly opened and read. The award of the contract, if awarded, will be made by the Board as soon thereafter as practicable. The Board reserves the right to reject any and all bids.

A bond in the sum of twenty thousand dollars ($20,000) will be required for the faithful performance of the contract.

No bid will be received and deposited unless accompanied by a certified check upon a National or State Bank, drawn to the order of the Comptroller of The City of New York, to the amount of one thousand dollars ($1,000).

Time allowed for the completion of the work is eight consecutive months from the service of notice by the Board to begin work.

Pamphlets containing information for bidders, forms of proposal and contract, specifications, contract drawings, etc., can be obtained at the above address, at the office of the Secretary, upon application in person or by mail, by depositing the sum of ten dollars ($10) in cash or its equivalent for each pamphlet. This deposit will be refunded upon the return of the pamphlets in acceptable condition within thirty days from the date on which bids are to be opened.

For further particulars apply to the office of the Principal Assistant Engineer, at the above address.

CHARLES STRAUSS, President; CHARLES N. CHADWICK, JOHN F. GALVIN, Commissioners of the Board of Water Supply.

GEORGE FEATHERSTONE, Secretary.

NOTE: SEE GENERAL INSTRUCTIONS TO BIDDERS ON LAST PAGE, LAST COLUMN, OF THE CITY RECORD, SO FAR AS APPLICABLE HERETO AND NOT OTHERWISE PROVIDED FOR. m23,a11

FIRE DEPARTMENT, DEPARTMENT OF STREET CLEANING, DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

Proposals.

SEALED BIDS OR ESTIMATES WILL BE received by Fire Department, Department of Street Cleaning, Department of Water Supply, Gas and Electricity, at Room 1230, Municipal Building, Borough of Manhattan, City of New York, until 12 o'clock noon on

MONDAY, APRIL 10, 1916,

FOR FURNISHING AND DELIVERING ENGINEERS' AND MACHINISTS' SUPPLIES.

The time for the performance of the contract is on or before June 30, 1916.

The amount of security required is thirty (30) per cent. of the amount of the bid or estimate.

No bid will be considered unless it is accompanied by a deposit. Such deposit shall be in an amount not less than one and one-half (1½) per cent. of the total amount of the bid.

The bidder will state the price per each, gross, pound, feet or other designated unit, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder on each item or class, as stated in the schedules.

Bids must be submitted in duplicate, each in a separate envelope. No bid will be accepted unless this provision is complied with.

Blank forms and further information may be obtained at Room 1230, Municipal Building, Borough of Manhattan.

FIRE DEPARTMENT, ROBERT ADAMSON, Commissioner.

DEP'T OF STREET CLEANING, J. T. FETHERSTON, Commissioner.

DEP'T OF WATER SUPPLY, GAS AND ELECTRICITY, WILLIAM WILLIAMS, Commissioner. m29,a10

☞ **See General Instructions to Bidders on last page, last column, of the "City Record," except for the address of the office for receiving and opening bids.**

NOTICE TO BIDDERS AT SALES OF OLD BUILDINGS, ETC.

TERMS AND CONDITIONS UNDER WHICH BUILDINGS, ETC., WILL BE SOLD FOR REMOVAL FROM CITY PROPERTY.

THE BUILDINGS AND APPURTENANCES thereto will be sold to the highest bidder, who must pay cash or certified check, drawn to the order of the Comptroller of The City of New York, and must also give a certified check or cash in half the amount of the purchase price as security for the faithful performance of the terms and conditions of the sale. Where the amount of the purchase price does not equal or exceed the sum of $50, the sum of $50 shall be the amount of the security to be deposited. This security may at any time after the expiration of the contract period be applied by the City to the cost of completing any of the work required under the contract, but unfinished at the expiration of the contract period.

The purchaser shall not lease, occupy, cause or permit the building or buildings, etc., purchased by him to be used or occupied for any purpose other than that of their speedy removal nor shall he collect any rental or other revenue for the use of either the land or the buildings, etc., situated thereon. The breach of either or any of these conditions shall forthwith void the sale and cause immediate forfeiture of the purchase money and the security deposited for the faithful performance of the conditions of the sale. The placing therein or permitting the occupancy of any such building by any tenant free, for rent or otherwise, excepting the necessary watchmen or the workmen engaged in the actual demolition thereof, shall of itself be a breach of the above conditions of sale.

The sale will be as of the condition of the property on date of delivery thereof to the purchaser. The City of New York will not be responsible for any change or loss which may occur in the condition of the buildings, or their appurtenances between the time of the sale thereof and the time of delivering possession to the purchaser, after being properly vacated of all tenants. The sale and delivery to purchaser will be made as nearly together as the circumstances of vacating the structures of their tenants will permit.

All the material of the buildings, sheds, walks, structures and cellars of whatsoever nature, with their exterior and interior fixtures, appurtenances and foundations of all kinds, except the exterior walls of the buildings and their foundations and the sidewalks and curb in front of said buildings, extending within the described area, shall be torn down and removed from the premises. None of the dirt, debris or waste resulting from demolition shall be allowed to remain on the premises, except old mortar or plaster only, which may be left, but not higher at any point than two feet below the curb opposite that point. The exterior walls and their foundations shall be taken down only to a plane whose elevation shall be the level of the curb in front of the building. Where there is no curb the elevation of the surrounding ground shall be considered curb level. All wells, cesspools, sinks, etc., existing on the property must be filled to the level of the surrounding ground with clean earth.

The purchaser at the sale shall also withdraw and remove all abandoned water taps and old service mains, and in place thereof cause to be inserted a brass plug in the main water pipe in the street, in compliance with the rules and regulations of the Department of Water Supply, Gas and Electricity, and furnish the Department of Finance with a certificate from the Department of Water Supply, Gas and Electricity that this has been performed.

The purchaser at the sale shall also remove all house sewer connections to the main sewer in the street and the openings of the main sewer in street shall be properly closed in compliance with the directions of the Bureau of Sewers in the Borough in which the buildings are situated, and furnish the Department of Finance with a certificate from the Bureau of Sewers that the work has been properly performed.

The permit for all openings in the street to be obtained by and at the expense of the purchaser of the building.

Failure to remove said buildings, appurtenances, or any part thereof, within thirty days from the day of possession will work forfeiture of ownership of such buildings, appurtenances or portions as shall then be left standing, together with all moneys paid by said purchaser on account thereof at the time of the sale, and the bidder's assent to the above conditions being understood to be implied by the act of bidding, and The City of New York will, without notice to the purchaser, cause the same to be removed, and the cost and expense thereof charged against the security above mentioned.

The work of removal must be carried on in every respect in a thorough and workmanlike manner, and must be completed within thirty days from the day of possession, and the successful bidder will provide and furnish all materials of labor and machinery necessary thereto, and will place proper and sufficient guards and fences and warning signs by day and night for the prevention of accidents, and will indemnify and save harmless The City of New York, its officers, agents and servants, and each of them, against any and all suits and actions, claims and demands of every name and description brought against it, them or any of them, and against and from all damage and costs to which it, they or any of them be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the work, or in guarding the same, or from any improper or defective materials or machinery, implements or appliances used in the removal of said buildings.

Where party walls are found to exist between buildings purchased by different bidders, the materials of said party walls shall be understood to be equally divided between the separate purchasers.

Party walls and fences, when existing against adjacent property not sold, shall not be taken down. All furrings, plaster, chimneys, projecting brick, etc., on the faces of such party walls are to be taken down and removed. The walls shall be made permanently self-supporting, beam holes, etc., bricked up, and the wall pointed and made to exclude wind and rain and present a clean exterior. The roofs and adjacent buildings shall be properly flashed and painted and made watertight where they have been disturbed by the operations of the Contractor.

"No buildings, parts of buildings, fixtures or machinery sold for removal under these terms and conditions shall in any case be re-located or re-erected within the lines of any proposed street or other public improvement, and if any such buildings, parts of buildings, fixtures or machinery, etc., shall be re-located or re-erected within the lines of any proposed street or other public improvement, title thereto shall thereupon become vested in The City of New York and a resale at public or private sale may be made in the same manner as if no prior sale thereof had been made."

The Comptroller of The City of New York reserves the right on the day of sale to withdraw from sale any of the buildings, parts of buildings and machinery included therein, or to reject any and all bids; and be it further

Resolved, That while the said sale is held under the supervision of the Commissioners of the Sinking Fund, the Comptroller is authorized to cause the sale to be advertised and to direct the sale thereof as financial officer of the City.

PROPOSALS FOR BIDS AND ESTIMATES FOR THE CITY OF NEW YORK.

NOTICE TO CONTRACTORS.

GENERAL INSTRUCTIONS TO BIDDERS.

The person or persons making a bid or estimate for any services, work, materials or supplies for The City of New York, or for any of its departments, bureaus or officers, shall furnish the same in a sealed envelope, indorsed with the title of the supplies, materials, work or services for which the bid or estimate is made, with his or their name or names and the date of presentation to the President or Board or to the head of the Department at his or its office, on or before the date and hour named in the advertisement for the same, at which time and place the estimates received will be publicly opened by the President or Board or head of said Department and read, and the award of the contract made according to law as soon thereafter as practicable.

Each bid or estimate shall contain the name and place of residence of the person making the same, and names of all persons interested with him therein, and, if no other person be so interested, it shall distinctly state that fact; also, that it is made without any connection with any other person making an estimate for the same purpose, and is in all respects fair and without collusion or fraud, and that no member of the Board of Aldermen, head of a department, chief of a bureau, deputy thereof, or clerk therein, or other officer of The City of New York is, shall be or become interested, directly or indirectly, as contracting party, partner, stockholder, surety or otherwise in or in the performance of the contract, or in the supplies, work or business 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 herein are in all respects true.

No bid or estimate will be considered unless as a condition precedent to the recepion or consideration of any proposal, it be accompanied by 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 or corporate stock or certificates of indebtedness of any nature issued by The City of New York, which the Comptroller shall approve as of equal value with the security required in the advertisement to the amount of not less than three nor more than five per centum of the amount of the bond required, as provided in section 420 of the Greater New York Charter.

The amount shall be as specified in the proposals or instructions to bidders and shall not be in excess of 5 per cent.

The certified check or money should not be inclosed in the envelope containing the bid or estimate, but should be either inclosed in a separate envelope addressed to the head of the Department, President or Board, or submitted personally upon the presentation of the bid or estimate.

For particulars as to the quantity and quality of the supplies, or the nature and extent of the work, reference must be made to the specifications, schedules, plans, etc., on file in the said office of the President, Board or Department.

No bid shall be accepted from or contract awarded to any person who is in arrears to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation of the City.

The contract must be bid for separately.

The right is reserved in each case to reject all bids or estimates if it is deemed to be for the interest of the City so to do.

Bidders will write out the amount of their bids or estimates in addition to inserting the same in figures.

Bidders are requested to make their bids or estimates upon the blank forms prepared and furnished by the City, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the Department for which the work is to be done. Plans and drawings of construction work may also be seen there.