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THE CITY RECORD.

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GEORGE B. McCLELLAN, MAYOR.

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PATRICK J. TRACY, SUPERVISOR.

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PUBLIC SERVICE COMMISSION FOR THE FIRST DISTRICT,

No. 154 Nassau Street, New York City.

CALENDAR OF HEARINGS.

The following hearing will be held during the remainder of the week commencing Monday, July 12, 1909:

Friday, July 16—2:30 p. m.—Room 305—Case No. 1129.—OCEAN ELECTRIC RAILWAY
COMPANY—Nathan Fernscher, Complainant. "Inadequate service
on the Belle Harbor Extension."—Commissioner Bassett.

2:30 p. m.—Room 310—Case No. 1135.—METROPOLITAN STREET Ry. Co. also
CENTRAL PARK, NORTH & EAST RIVER R. R. Co.—"Hearing under
Order No. 615, as to transit conditions on surface tracks at South
Ferry."—Commissioner Eustis.

Regular meeting of the Commission will be held on Tuesday, July 13th, at 11:30
a. m., in Room 310.

ART COMMISSION.

MINUTES OF SPECIAL MEETING OF ART COMMISSION HELD AT 10
OFFICES, ROOM 21, CITY HALL, ON FRIDAY, JULY 2, 1909, AT 10
O'CLOCK A. M.

Present—President de Forest, Presiding; Hon. George B. McClellan, Mayor
Commissioners Pine, Millet and Pratt.

On communications from Commissioners Bigelow, Healy, Brunner, Russell and
Adams, explaining their absence, they were excused.

Minutes of meetings of May 27 and June 8 were presented and approved.

The President's report was presented stating that the following Committees had
been appointed since the last meeting, June 8:

Submission 932.

Rollins Portrait—Commissioners Millet, Chairman; de Forest and Pratt. Appointed June 17, 1909.

Submission 933.

Guggerd Portrait—Commissioners Millet, Chairman; de Forest and Pratt. Appointed June 17, 1909.

Submission 934.

Bellevue Hospital Pavilions—Commissioners Brunner, Chairman; Pine and Pratt. Appointed June 17, 1909.

Submission 935.

One Hundredth Street Foot Bridge—Commissioners Brunner, Chairman; Millet and de Forest. Appointed June 17, 1909.

Submission 936.

Borough Hall Table—Commissioners Millet, Chairman; de Forest and Pratt. Appointed June 23, 1909.

Submission 937.

Riverside Drive Extension—Commissioners Pine, Chairman; Millet and Pratt. Appointed June 23, 1909.

Submission 938.

Public School 68 Tablet—Commissioners Millet, Chairman; Pratt and Pine. Appointed June 23, 1909.

Submission 939.

Carlton Avenue Engine House—Commissioners Pine, Chairman; Pratt and de Forest. Appointed June 23, 1909.

Submission 940.

Kings Highway Engine House—Commissioners Pine, Chairman; Pratt and de Forest. Appointed June 23, 1909.

Submission 941.

Public School 92 Relief—Commissioners Pine, Chairman; Pratt and de Forest. Appointed June 23, 1909.

Submission 942.

Brown Road Bridge—Commissioners Pine, Chairman; Pratt and de Forest. Appointed June 23, 1909.

Submission 943.

Pennsylvania Station Escalators—Commissioners Pine, Chairman; Pratt and de Forest. Appointed June 23, 1909.

Submission 944.

Brownson Memorial—Commissioners Pine, Chairman; Pratt and Millet. Appointed June 23, 1909.

Submission 945.

Drinking Fountains—Commissioners Adams, Chairman; Pratt and Pine. Appointed June 23, 1909.

Submission 946.

Bronx Court House Sculpture—Commissioners Adams, Chairman; Pine and de Forest. Appointed June 23, 1909.

Submission 947 and 948.

Central Park Electrolights—Commissioner Russell, Chairman; Pine and Pratt. Appointed June 15, 1909.

Submission 949.

East Fifth Street Engine House—Commissioners Pine, Chairman; Pratt and de Forest. Appointed July 2, 1909.

Submission 950.

The Committee on Central Park Electrolights recommended that the designs of new works of art submitted by Hon. John H. O'Brien, Commissioner of Water Supply, Gas and Electricity, be disapproved.

On motion, the following resolution was adopted:

Certificate 951.

Resolved, That the Art Commission hereby disapproves the designs for electrolights to be placed in Central Park, represented by Exhibits "413-A," "413-B," "413-C," "413-D," "413-E," "413-F," "413-G," and "413-H," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. John H. O'Brien, Commissioner of Water Supply, Gas and Electricity.

Submission 947 and 948.

The Committee on Central Park Electrolights recommended that the designs submitted by Hon. Henry Smith, Commissioner of Parks, for the Boroughs of Manhattan and Richmond, be approved.

On motion, the following resolution was adopted:

Certificate 952.

Resolved, That the Art Commission hereby approves the designs for electrolights to be placed in Central Park, represented by Exhibits "413-L," "413-M," "413-K," and "413-L," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. Henry Smith, Commissioner of Parks for the Boroughs of Manhattan and Richmond.

The Committee was thenupon discharged.

Submission 944.

The Committee on Brownson Memorial presented the following report upon designs of a new work of art submitted by Hon. Henry Smith, Commissioner of Parks for the Boroughs of Manhattan and Richmond.

The Committee in which was referred Submission 944, consisting of bronze bust of Irene, wife of Oscar A. Brownson, which is offered to the City as a gift, to be placed either:

1. On the west side of Riverside Drive, north of Seventy-second street, or

2. On the northwest corner of Seventy-ninth street and Riverside Drive, east or south of the path leading to Riverside Park, or

3. On the east side of Riverside Drive, between Ninety-second and Ninety-third streets; or

4. On Schuyler square, between One Hundred and Sixth and One Hundred and Seventh streets, West End avenue and Broadway.

—respectfully report that your Committee have visited and examined all of the proposed sites and do not consider that the work of art is suitable for any of these sites.

In explanation of this opinion and in order that all the facts may be placed before the Commission, your Committee beg to state that the Brownson bust is of more than usual heroic size, and might almost be called colossal, as it is five feet high, and that it is to be placed upon a massive granite or marble pedestal nine feet three inches high, having a base measurement of six feet by eight feet, so that the total height, including the bust, is fourteen feet three inches, and that wherever placed it will be a conspicuous object. Before reaching a conclusion, your Committee took occasion to observe the bronze busts of Massini and Beethoven, which are now in Central Park, which are similar in their general character as works of art to the proposed bust and pedestal of Brownson, though possibly somewhat smaller, and they were impressed by the unsuitability of sculpture of this description for any site where lawns, shrubs and trees are the principal and natural features. The examples mentioned seem to your Committee to illustrate the inappropriateness of placing busts and pedestals of the character now offered in such locations, and to demonstrate that such statuary is a detriment rather than an addition to our public parks. It is the conviction of the Committee that works of art of the character of that before us are entirely unsuitable for such sites, irrespective of their individual artistic merit, and that the Commission cannot consistently approve their acceptance therefor.

Your Committee therefore recommend the disapproval of the submission.

The report was received and ordered placed on file.

On motion, the following resolution was adopted:

Certificate 953.

Resolved, That the Art Commission hereby disapproves the designs of the Brownson Memorial for the following locations: Riverside Drive at Seventy-second street, Seventy-ninth street, Ninety-third street and One Hundred and Sixth street and Broadway, represented by Exhibits "123-Q," "123-R," "123-S," "123-T," and "123-U," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. Henry Smith, Commissioner of Parks for the Boroughs of Manhattan and Richmond.

On motion, the Assistant Secretary was directed to transmit a copy of the report of the Committee to Commissioner Smith for his information.

The Committee was thenupon discharged.

Submission 954.

The Committee on Bellevue Hospital Pavilion recommended that the designs submitted by Dr. John W. Brauer, President of Bellevue and Allied Hospitals, be approved.

On motion, the following resolution was adopted:

Certificate 884.

Resolved, That the Art Commission hereby approves, but as preliminary drawings only, the designs and location of four pavilions for the Bellevue Hospital, represented by Exhibits "127-BF," "127-BG," "127-BH," "127-BI," "127-BJ," "127-BK," "127-BL," "127-BM," "127-BN," "127-BO," "127-BP," "127-BQ," "127-BR," "127-BS" and "127-BT," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Dr. John W. Brannan, President of Bellevue and Allied Hospitals.

On motion, the Assistant Secretary was directed to notify Dr. Brannan that when working drawings have been prepared, they should be submitted to the Art Commission for final approval, as the foregoing resolution is only preliminary action thereon.

The committee was thereupon discharged.

Submission 937.

The Committee on Riverside Drive Extension recommended that the designs submitted by Hon. John F. Ahern, President of the Borough of Manhattan, be approved.

On motion, the following resolution was adopted:

Certificate 885.

Resolved, That the Art Commission hereby approves the designs for the extension and improvement of Riverside Drive, from One Hundred and Fifty-ninth street to the Madison Memorial Bridge, represented by Exhibits "428-A," "428-B," "428-C," "428-D," "428-E," "428-F," "428-G," "428-H," "428-I," "428-J," "428-K," "428-L," and "428-M," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. John F. Ahern, President of the Borough of Manhattan.

The committee was thereupon discharged.

Submission 942.

The Committee on Hudson River Bridge recommended that the designs submitted by Hon. James W. Stevenson, Commissioner of Bridges, be approved.

On motion, the following resolution was adopted:

Certificate 886.

Resolved, That the Art Commission hereby approves the designs and location of a steel bridge on the line of the Boston Post road over the Hutchinson River, represented by Exhibits "432-A" and "432-B," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. James W. Stevenson, Commissioner of Bridges.

The committee was thereupon discharged.

Submission 943.

The Committee on Pennsylvania Station (Electrolite) recommended that the designs (of new works of art) submitted by Messrs. McKim, Mead & White, architects, be approved.

On motion, the following resolution was adopted:

Certificate 887.

Resolved, That the Art Commission hereby approves the designs for electrolites in the streets around the Pennsylvania Station building, represented by Exhibits "433-A," "433-B" and "433-C," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Messrs. McKim, Mead & White, architects.

The committee was thereupon discharged.

Submission 939.

The Committee on Carlton Avenue Engine House recommended that the designs submitted by Mr. Alexander Stevens, Superintendent of Buildings for the Fire Department, be approved.

On motion, the following resolution was adopted:

Certificate 888.

Resolved, That the Art Commission hereby approves the designs and location of an engine house at No. 169 Carlton Avenue, Brooklyn, represented by Exhibits "407-F," "407-G" and "407-H," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. Nicholas J. Hayes, Fire Commissioner.

The committee was thereupon discharged.

Submission 940.

The Committee on Kings Highway Engine House recommended that the designs submitted by Mr. Alexander Stevens, Superintendent of Buildings for the Fire Department, be approved.

On motion, the following resolution was adopted:

Certificate 889.

Resolved, That the Art Commission hereby approves the designs and location of an engine house on East Fourteenth street, near Kings Highway, represented by Exhibits "430-A," "430-B," "430-C" and "430-D," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. Nicholas J. Hayes, Fire Commissioner.

The committee was thereupon discharged.

Submission 949.

The Committee on East Fifth Street Engine House presented the following report upon designs submitted by Mr. Alexander Stevens, Superintendent of Buildings for the Fire Department:

"Your Committee on East Fifth Street Engine House, Submission 949, begs to report that they recommend that preliminary approval be given to the designs with the suggestion that the designs be restudied, especially with reference to the reduction of the parapet and the modification of the entablature over the door."

The report was received and ordered placed on file.

On motion, the following resolution was adopted:

Certificate 890.

Resolved, That the Art Commission hereby approves, but as preliminary drawings only, the designs and location of an engine house at No. 342 East Fifth street, Manhattan, represented by Exhibits "434-A," "434-B," "434-C" and "434-D," of record in this matter, and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. Nicholas J. Hayes, Fire Commissioner.

On motion, the Assistant Secretary was directed to transmit a copy of the report of the committee to Commissioner Hayes and to notify him that when the drawings have been restudied they should be submitted to the Art Commission for final approval, as the foregoing resolution is only preliminary action thereon.

The committee was thereupon discharged.

Submission 935.

The Committee on One Hundredth Street Foot-bridge recommended that the designs submitted by Mr. George W. Kittridge, Chief Engineer of the New York Central and Hudson River Railroad Company, be approved.

On motion, the following resolution was adopted:

Certificate 891.

Resolved, That the Art Commission hereby approves the designs for a foot-bridge over the Harlem Division tracks at Park Avenue and East One Hundredth street, rep-

resented by Exhibits "426-A" and "426-B," of record in this matter; and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Mr. George W. Kittridge, Chief Engineer of the New York Central and Hudson River Railroad Company.

The committee was thereupon discharged.

Submission 936.

The Committee on Borough Hall Tablet recommended that the designs (of a new work of art) submitted by Hon. Bird S. Coler, President of the Borough of Brooklyn, be approved.

On motion, the following resolution was adopted:

Certificate 892.

Resolved, That the Art Commission hereby approves the designs and location of a tablet containing Lincoln's Gettysburg address, represented by Exhibits "427-A," "427-B," "427-C" and "427-D," of record in this matter; and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. Bird S. Coler, President of the Borough of Brooklyn.

The Committee was thereupon discharged.

Submission 938.

The Committee on Public School 68 Tablet recommended that the designs submitted by Mr. C. B. J. Snyder, Superintendent of School Buildings, be approved.

On motion the following resolution was adopted:

Certificate 893.

Resolved, That the Art Commission hereby approves the designs and location of a bronze tablet containing Lincoln's Gettysburg address, in Public School 68, Manhattan, represented by Exhibits "429-A" and "429-B," of record in this matter; and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Mr. C. B. J. Snyder, Superintendent of School Buildings.

The Committee was thereupon discharged.

Submission 941.

The Committee on Public School 92 Reliefs recommended that the designs (of a new work of art), submitted to Mr. C. B. J. Snyder, Superintendent of School Buildings, be approved.

On motion the following resolution was adopted:

Certificate 894.

Resolved, That the Art Commission hereby approves the designs and location of two plaster casts on the walls of the auditorium of Public School 92, Brooklyn, represented by Exhibits "431-A," "431-B" and "431-C," of record in this matter; and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Mr. C. B. J. Snyder, Superintendent of School Buildings.

The Committee was thereupon discharged.

Submissions 932 and 933.

The Committee on Rollins Portrait and Fitzgerald Portrait recommended that the designs (of new works of art), submitted by Mr. John W. Alexander, be approved.

On motion the following resolution was adopted:

Certificate 895.

Resolved, That the Art Commission hereby approves the designs and location of the portraits of Surrogate Rollins and Surrogate Fitzgerald in the Surrogate's Court Room, Hall of Records, represented by Exhibits "424-A" and "424-B," and "425-A" and "425-B," of record in this matter; and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Mr. John W. Alexander, who made the submission.

The Committee was thereupon discharged.

Submission 945.

The Committee on Drinking Fountains reported that Hon. Henry Smith, Commissioner of Parks for the Boroughs of Manhattan and Richmond, asked to substitute the design, represented by Exhibit "401-B" for the fountain now in place at Abingdon square, Eighth Avenue and Hudson street, and recommended that the substitution be approved.

On motion the following resolution was adopted:

Certificate 896.

Resolved, That the Art Commission hereby approves the designs and location of a drinking fountain at Abingdon square, Eighth Avenue and Hudson street, represented by Exhibits "401-B" and "401-E," of record in this matter; and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Hon. Henry Smith, Commissioner of Parks for the Boroughs of Manhattan and Richmond.

The Committee was thereupon discharged.

Submission 950.

The President presented the submission of a bridge over the Long Island Railroad tracks submitted by Mr. J. R. Savage, Chief Engineer of the Long Island Railroad Company.

The President appointed a Committee consisting of Commissioners Pine, Chairman, Pratt and de Forest, on this submission.

The Committee recommended the approval of the designs.

On motion the matter was immediately considered and the following resolution was adopted:

Certificate 897.

Resolved, That the Art Commission hereby approves the designs and location of a bridge over an unnamed street on the property of the Man Estate, west of Lefferts Avenue, represented by Exhibits "377-W," "377-X" and "377-Y," of record in this matter; and that the action of the Commission be certified, with return of duplicates of exhibits herein noted, to Mr. J. R. Savage, Chief Engineer of the Long Island Railroad Company.

The Committee was thereupon discharged.

The President presented a communication, referred to the Art Commission by Hon. John F. Ahern, President of the Borough of Manhattan, from Hon. Nicholas J. Hayes, Fire Commissioner, requesting the loan of the portrait of Harry Howard, now hung in the Committee Room of the Aldermanic Chamber, to be hung in a prominent position in the Fire Headquarters Building.

On motion the request to transfer the portrait of Harry Howard to the Fire Headquarters Building was granted.

The following Committees reported progress:

Submission 946.

Committee on Bronx Court House Sculpture.

Committee on Relocation of Portraits, Borough Hall.

Committee on Restoration of Governor's Room.

Committee on Catalogue of Works of Art belonging to the City.

Committee on Quarters and Staff.

A communication was presented from the Secretary of the Board of Estimate and Apportionment regarding the Budget for 1910.

On motion this communication was referred to the President with power.

On motion the meeting adjourned subject to the call of the President.

J. Q. ADAMS, Assistant Secretary.

BOROUGH OF MANHATTAN.

WASHINGTON HEIGHTS DISTRICT.

At a meeting of the Board of Local Improvements of the Washington Heights District, held June 22, 1909, the following members were present: Aldermen Stormont, Mulcahy and Acting President Cloughen.

The Acting President presented for the Board's consideration the matter of fencing vacant lots on the west side of Edgecombe avenue, between One Hundred and Sixty-sixth and One Hundred and Sixty-sixth streets.

On motion of Alderman Mulcahy this matter was laid over for two weeks.

The Acting President presented for the Board's consideration the matter of constructing receiving basins in Nagle avenue, between Dyckman and Academy streets, and one in Nagle avenue at the intersection of Dyckman street.

The following resolution was introduced by Alderman Stormont:

Whereas, A petition for a local improvement described below has been received by the President of the Borough of Manhattan; and

Whereas, He has appointed a time for a meeting of this Local Board not more than fifteen days after the receipt by him of the said petition, at which meeting the said petition would be submitted by him to the said Local Board, and he has caused a notice to be published in the City Record that said petition has been presented to him and is on file in his office for inspection, and of the time when and the place where there would be a meeting of this Local Board at which the said petition would be submitted by him to the said Board, which time was not less than ten days after the publication of this notice; and

Whereas, The said petition was duly submitted thereafter to the said Local Board, which did duly consider the same and give a full hearing thereon; now therefore it is

Resolved, by the Local Board of the Washington Heights District, pursuant to titles 2 and 3 of chapter 10 of the Greater New York Charter, That the said petition be and the same hereby is granted; and it is hereby

Resolved, That this Board does hereby initiate proceedings for the said local improvement, to wit:

To construct receiving basins on both sides of Nagle avenue about 270 feet north of Dyckman street, and on the southeast corner of Nagle and Hillside avenues; and it is hereby further

Resolved, That a copy of this resolution be transmitted forthwith to the Board of Estimate and Apportionment for its approval.

Which was adopted.

The Acting President presented for the Board's consideration the matter of regulating, grading, etc., One Hundred and Thirty-fourth street, between Broadway and Five-sixth avenue.

The following persons appeared in opposition to this work being carried on at the present grade, but in favor of a change in the grade:

Francis M. Snowder; Mr. Stern, representing the Higgins interests, owners of 775 feet; representatives of the White estate; Mr. Hensle.

On motion of Alderman Stormont this matter was laid over for two weeks.

The Acting President presented for the Board's consideration the matter of changing the grade of One Hundred and Thirty-fourth street so as to make a uniform grade from Riverside drive to Broadway.

The following persons appeared in support of the petition:

F. M. Snowder; Mr. Stern, representing the Higgins interests; representatives of the White estate; Mr. Hensle.

On motion of Alderman Stormont this matter was laid over for two weeks.

The Acting President presented for the Board's consideration the matter of paving with asphalt block pavement, curbing, etc., Emerson street, from Seaman avenue to Broadway. Estimated cost, \$8,830. Assessed valuation of property affected, \$220,000.

The following resolution was introduced by Alderman Mulcahy:

Whereas, A petition for a local improvement described below has been received by the President of the Borough of Manhattan; and

Whereas, He has appointed a time for a meeting of this Local Board not more than fifteen days after the receipt by him of the said petition, at which meeting the said petition would be submitted by him to the said Local Board, and he has caused the notice to be published in the City Record that said petition has been presented to him and is on file in his office for inspection, and of the time when and of the place where there would be a meeting of this Local Board, at which the said petition would be submitted by him to the said Board, which time was not less than ten days after the publication of this notice; and

Whereas, The said petition was duly submitted thereafter to the said Local Board, which did duly consider the same and give a full hearing thereon; now therefore it is

Resolved, by the Local Board of the Washington Heights District, pursuant to titles 2 and 3 of chapter 10 of the Greater New York Charter, That the said petition be and the same hereby is granted; and it is hereby

Resolved, That this Board does hereby initiate proceedings for the said local improvement, to wit:

To pave with asphalt block pavement on concrete foundation, curb and resurface Emerson street, from Broadway to Seaman avenue; and it is hereby further

Resolved, That a copy of this resolution be transmitted forthwith to the Board of Estimate and Apportionment for its approval.

Which was adopted.

On motion, the Board adjourned.

BERNARD DOWNSING, Secretary.

BOROUGH OF MANHATTAN.

Meetings of the Boards of Local Improvements of the Washington Heights, Greenwich and Kips Bay Districts, called for July 6, 1909, were postponed, there being no quorum of any of the above Boards present.

BERNARD DOWNSING, Secretary.

BOROUGH OF MANHATTAN.

KIPS BAY DISTRICT.

At a meeting of the Board of Local Improvements of the Kips Bay District, held June 22, 1909, the following members were present: Aldermen Kenneally, Lons, Baldwin and Acting President Cloughen.

The Acting President presented for the Board's consideration the matter of reconstruction of barrel sewer under pier at the foot of Twenty-sixth street, East River. Estimated cost, \$20,000; assessed valuation of property affected, \$4,899,000.

The following resolution was introduced by Alderman Lons:

Whereas, A petition for a local improvement described below has been received by the President of the Borough of Manhattan; and

Whereas, He has appointed a time for a meeting of this Local Board not more than fifteen days after the receipt by him of the said petition, at which meeting the said petition would be submitted by him to the said Local Board, and he has caused the notice to be published in the City Record that said petition has been presented to him and is on file in his office for inspection, and of the time when and of the place where there would be a meeting of this Local Board, at which the said petition would be submitted by him to the said Board, which time was not less than ten days after the publication of this notice; and

Whereas, The said petition was duly submitted thereafter to the said Local Board, which did duly consider the same and give a full hearing thereon; now therefore it is

Resolved, by the Local Board of the Kips Bay District, pursuant to titles 2 and 3 of chapter 10 of the Greater New York Charter, That the said petition be and the same hereby is granted, and it is hereby

Resolved, That this Board does hereby initiate proceedings for the said local improvement, to wit:

To reconstruct sewer under pier at foot of Twenty-sixth street, East River; and it is hereby further

Resolved, That a copy of this resolution be transmitted forthwith to the Board of Estimate and Apportionment for its approval.

Which was adopted.

The Acting President presented for the Board's consideration the matter of laying out extension of Avenue A, from Fifty-third to Fifty-fourth street.

On motion of Alderman Baldwin this matter was laid over for two weeks.

On motion the Board adjourned.

BERNARD DOWNSING, Secretary.

BOROUGH OF MANHATTAN.

HUDSON DISTRICT.

At a meeting of the Board of Local Improvements of the Hudson District, held June 22, 1909, the following members were present: Aldermen McCann and Acting President Cloughen.

The President presented for the Board's consideration the matter of reconstruction of outlet sewer under pier at the foot of Forty-fifth street, North River. Estimated cost, \$10,000; assessed valuation of property affected, \$45,849,000.

The following resolution was introduced by Alderman McCann:

Whereas, A petition for a local improvement described below has been received by the President of the Borough of Manhattan; and

Whereas, He has appointed a time for a meeting of this Local Board not more than fifteen days after the receipt by him of the said petition, at which meeting the said petition would be submitted by him to the said Local Board, and he has caused the notice to be published in the City Record that said petition has been presented to him and is on file in his office for inspection, and of the time when and of the place where there would be a meeting of this Local Board, at which the said petition would be submitted by him to the said Board, which time was not less than ten days after the publication of this notice; and

Whereas, The said petition was duly submitted thereafter to the said Local Board, which did duly consider the same and give a full hearing thereon; now therefore it is

Resolved, by the Local Board of the Hudson District, pursuant to titles 2 and 3 of chapter 10 of the Greater New York Charter, That the said petition be and the same hereby is granted, and it is hereby

Resolved, That this Board does hereby initiate proceedings for the said local improvement, to wit:

To reconstruct outlet sewer under pier at foot of Forty-fifth street, North River; and it is hereby further

Resolved, That a copy of this resolution be transmitted forthwith to the Board of Estimate and Apportionment for its approval.

Which was adopted.

On motion, the Board adjourned.

BERNARD DOWNSING, Secretary.

BOROUGH OF MANHATTAN.

GREENWICH DISTRICT.

At a meeting of the Board of Local Improvements of the Greenwich District, held June 22, 1909, the following members were present: Alderman Flynn and Acting President Cloughen.

The Acting President presented for the Board's consideration the matter of construction of sewer in Theatre alley, between Ann and Beekman streets.

On motion of Alderman Flynn, this matter was laid over for two weeks.

The Acting President presented for the Board's consideration the matter of reconstructing sewer under Pier 40, North River. Estimated cost, \$5,000. Assessed valuation of property affected, \$247,377,000.

The following resolution was introduced by Alderman Flynn.

Whereas, A petition for a local improvement described below has been received by the President of the Borough of Manhattan; and

Whereas, He has appointed a time for a meeting of this Local Board not more than fifteen days after the receipt by him of the said petition, at which meeting the said petition would be submitted by him to the said Local Board, and he has caused the notice to be published in the City Record that said petition has been presented to him and is on file in his office for inspection, and of the time when and of the place where there would be a meeting of this Local Board, at which the said petition would be submitted by him to the said Board, which time was not less than ten days after the publication of this notice; and

Whereas, The said petition was duly submitted thereafter to the said Local Board, which did duly consider the same and give a full hearing thereon; now therefore it is

Resolved, by the Local Board of the Greenwich District, pursuant to titles 2 and 3 of chapter 10 of the Greater New York Charter, That the said petition be and the same hereby is granted, and it is hereby

Resolved, That this Board does hereby initiate proceedings for the said local improvement, to wit:

To reconstruct sewer under Pier 40, North River; and it is hereby further

Resolved, That a copy of this resolution be transmitted forthwith to the Board of Estimate and Apportionment for its approval.

Which was adopted.

The Acting President presented for the Board's consideration the matter of reconstruction of sewer under Pier (old) 8, North River. Estimated cost, \$7,000. Assessed valuation of the property affected, \$28,114,000.

The following resolution was introduced by Alderman Flynn.

Whereas, A petition for a local improvement described below has been received by the President of the Borough of Manhattan; and

Whereas, He has appointed a time for a meeting of this Local Board not more than fifteen days after the receipt by him of the said petition, at which meeting the said petition would be submitted by him to the said Local Board, and he has caused the notice to be published in the City Record that said petition has been presented to him and is on file in his office for inspection, and of the time when and of the place where there would be a meeting of this Local Board, at which the said petition would be submitted by him to the said Board, which time was not less than ten days after the publication of this notice; and

Whereas, The said petition was duly submitted thereafter to the said Local Board, which did duly consider the same and give a full hearing thereon; now therefore it is

Resolved, by the Local Board of the Greenwich District, pursuant to titles 2 and 3 of chapter 10 of the Greater New York Charter, That the said petition be and the same hereby is granted, and it is hereby

Resolved, That this Board does hereby initiate proceedings for the said local improvement, to wit:

To reconstruct sewer under Pier (old) 8, North River; and it is hereby further

Resolved, That a copy of this resolution be transmitted forthwith to the Board of Estimate and Apportionment for its approval.

Which was adopted.

Resolutions for the following were introduced by Alderman Flynn:

To repair sidewalk at the northwest corner of Barrow and Hudson streets.

To repair sidewalk at Nos. 97, 99 and 101 Barrow street.

To repair sidewalk at No. 328 West Eighteenth street.

To repair sidewalk at Nos. 173 and 175 Perry street.

To repair sidewalk at the southeast corner of Twenty-seventh street and Tenth avenue.

All of which were adopted.

On motion, the Board adjourned.

BERNARD DOWNSING, Secretary.

THE BOARD OF ALDERMEN OF THE CITY OF NEW YORK.

STATED MEETING.

Tuesday, July 13, 1909, 1:30 o'clock p. m.

The Board met in the Aldermanic Chamber, City Hall.

In the absence of the President the Vice-Chairman took the chair.

Present:

Aldermen

Timothy P. Sullivan, Vice-Chairman;
 Thomas P. Baldwin, Thomas F. Harton, Francis P. Bent, Herman W. Beyer, H. W. B. Brown, James W. Brown, Michael J. Carter, L. Harton Case, Charles P. Cole, Daniel R. Cosenza, George A. Cogan, John J. Callan, William V. Corbett, Matthew J. Crowley, Percy L. Davis, Charles Delaney, John Dwyer, Reginald S. Egan, Frank L. Dowling, Kilkenny J. Dowling, William Dresler, George Ewing, C. Grant Fletcher, George C. Gammie, President, Borough of Richmond; Lawrence Gesser, President, Borough of Queens; Louis J. Harton, President, Borough of The Bronx; Fred S. Collier, President, Borough of Brooklyn, by Thomas R. Farrell, Commissioner of Public Works; John J. Ahern, President, Borough of Manhattan.

The Clerk proceeded to read the minutes of the stated meeting of July 6, 1909. The motion of Alderman Dougall relative to reading was dispensed with, and the minutes were approved as presented.

MESSAGES FROM HIS HONOR THE MAYOR.

The Vice-Chairman laid before the Board the following message from His Honor the Mayor:

No. 2136

City of New York, Office of the Mayor, December 12, 1906.

To the Honorable the Board of Aldermen of The City of New York:

Gentlemen—I return herewith, with my disapproval, a resolution adopted by your Honorable Board December 4, 1906, entitled:

"Ordinance providing for distinguishing marks for City automobiles."

The enactment of this ordinance would seriously interfere with the use of departmental cars for the purpose of inspection. The existence of a conspicuous sign on a machine would only serve as a warning to the presence of some municipal official, and would obviously frustrate one of the very objects for which the cars are employed. For example, I am informed by the Police Commissioner that its passage would give a stop to the use of the Police Department automobiles for the purposes of detecting violations of the speed law and the arrest of the offenders. The Health Commissioner has also protested against its enactment on the ground that it would seriously interfere with the efficiency of his work of inspection.

I heartily agree with your recommendation that the official cars of the City Department should be used solely and exclusively for the City's business, but I believe that the good taste of the departmental heads can be trusted to prevent the unlawful employment of public machines for private purposes.

Respectfully,

J. G. B. McCLELLAN, Mayor.

City of New York, Office of the Mayor, July 13, 1909.

To the Honorable the Board of Aldermen of The City of New York:

Gentlemen—I return herewith, disapproved, proposed ordinance No. 2136, entitled: "Ordinance providing for the marking of automobiles, motor cars and motor trucks belonging to the City," etc.

I find from the records of the Mayor's Office that Mayor McClellan disapproved a similar proposed ordinance on December 12, 1906. The reasons given at that time for the disapproval were the objections to any conspicuous identification of automobiles made by the Police Department and the Department of Health. In the course of his communication Mayor McClellan said: "I believe that the good taste of departmental heads can be trusted to prevent the unlawful employment of public machines for private purposes."

I have before me protests against this proposed ordinance filed both by the Commissioner of Health and the Police Commissioner. It would therefore appear that the same reasons for disapproving the present proposed ordinance exist that were before Mayor McClellan in 1906.

As Acting Mayor, I do not consider it proper for me to approve a resolution which would in fact censor the heads of Departments appointed by the Mayor. I know that he has confidence in his appointees and relies on their discretion and good judgment.

It has been my personal opinion, for a long time, that automobiles owned by the City should be assigned to Boroughs, and separate garages maintained in the different localities, where the City machines would be at the call of heads of Departments when required for City purposes.

I send you herewith a copy of the vein message of Mayor McClellan, dated December 12, 1906.

Following the precedent established by Mayor McClellan, I therefore return the proposed ordinance disapproved.

Respectfully,

P. F. McGOWAN, Acting Mayor.

The Committee on Laws and Legislation, to which was referred on April 27, 1909 (Minutes, page 296), the annexed ordinance for the marking of automobiles, motor cars and motor trucks belonging to the City with the names of the Departments by which they are used, respectfully

REPORTS:

That there is undoubtedly an impression in the mind of the public that the use of the automobiles by the various Departments of the City is not always confined to the business of the City, and while your Committee is not able to say whether this is or is not so, it is of the opinion that this impression should be removed, and believes that the adoption of the proposed ordinance compelling the marking of the name of the Department on the automobile will prevent the improper use of it. Your Committee therefore recommends the adoption of the ordinance.

AN ORDINANCE providing for the marking of automobiles, motor cars and motor trucks belonging to the City with the names of the Departments by which they are used.

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

Section 1. Every automobile, motor car and motor truck belonging to the City shall have painted on the outside of the body thereof, in conspicuous lettering, the name of the City Department by which the same is used, and such name shall at all times be openly displayed so as to be readily distinguished.

Sec. 2. Any person using an automobile, motor car or motor truck belonging to the City upon which the name of the City Department shall not be displayed, as provided in the foregoing section, shall be liable to a penalty of fifty dollars for each occasion upon which the same shall be so used.

Sec. 3. This ordinance shall take effect immediately.

JAMES W. REDMOND, JOSEPH SCHLOSS, JOHN S. GAYNOR, MAX S. LEVINE, JOS. D. KAVANAGH, JOHN McCANN, JOHN J. REARDON, Committee on Laws and Legislation.

Which was laid over, ordered to be printed in the minutes and published in full in the CITY RECORD.

On motion of Alderman R. W. B. Brown, the subject matter thereof was referred to the Committee on Laws and Legislation.

PETITIONS AND COMMUNICATIONS.

No. 2726

Tucker & Vinton,
Terminal Building, Forty-first Street and Park Avenue,
New York, July 10, 1909.

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

Gentlemen—We understand that the revised Building Code, which is to come before you for action on Tuesday next, is so written as to give a practical monopoly to hollow tile for fireproofing purposes, in that it puts such unfair and unnecessary restrictions on cinder concrete and stone concrete as to make these two well-known forms of fireproofing prohibitory on account of the costs.

The requirements of design for reinforced concrete are also of such a nature as to make this form of construction uneconomical expensive, and in this way has the effect of giving an undue advantage to hollow tile.

Under the Code as changed as to be fair to all forms of construction, we respectfully but emphatically protest against the adoption by you of the Code.

Yours truly,

TUCKER & VINTON,
T. M. Vinton, President.

Which was ordered on file.

No. 2727

Douglas & Armitage, Counselors at Law,
No. 280 Broadway,
New York, July 12, 1909.

Hon. PATRICK F. McGOWAN, President, Board of Aldermen, City Hall, New York City:

Sir—At the last meeting of the Board of Estimate and Apportionment an appropriation was made to appropriate some two million and a half dollars for water distribution in the Borough of The Bronx. This matter, of course, must have the sanction of the Board of Aldermen before Revenue Bonds can be issued, and it is questionable whether the Board of Aldermen has not the entire authority in the matter. I represent the section of Riverdale and Spuyten Duyvil, and for the last year and a half have been endeavoring to have the water supply there increased. Our mains are but 6 inches and are now supplying a large territory which is rapidly becoming populated, and the \$250,000 of the appropriation in The Bronx could be used to increase these mains from 6 to 12 inches.

I presented last year, on behalf of the citizens of this section, a petition to the Department of Water Supply, Gas and Electricity, and as a result of this that Department recommended to the Department of Finance the issuing of the Bonds as above. The Department of Finance Engineers made a recommendation which was placed before the Board of Estimate and Apportionment and passed, authorizing the issuing of Bonds as above.

We should very deeply appreciate action on this matter by the Board of Aldermen, and may I respectfully request that your Board take the necessary steps to pass a resolution authorizing Revenue Bonds for this purpose as early in the future as possible, as the matter not only affects my comfort but our health as well throughout that community.

Yours respectfully,

ARCHIBALD DOUGLAS.

Which was ordered on file.

COMMUNICATIONS FROM CITY, COUNTY AND BOROUGH OFFICERS

The Vice-Chairman laid before the Board the following communications from the Board of Estimate and Apportionment:

No. 2728

Board of Estimate and Apportionment, City of New York,
Office of the Secretary, No. 277 Broadway,
July 6, 1909.

Hon. PATRICK F. McGOWAN, President, Board of Aldermen:

Dear Sir—At a meeting of the Board of Estimate and Apportionment held July 2, 1909, a report was presented from the Comptroller, to whom, on June 25, 1909, was referred the resolution of the Board of Aldermen relative to fixing the salary of Michael C. Dexter as Engineer at the Ludlow Street Jail, Borough of Manhattan, with salary at the rate of \$1,642.50 per annum, which was referred back to the Board of Aldermen for consideration and action, in accordance with the recommendation contained in the Comptroller's report.

I transmit herewith copy of said report.

Yours very truly,

JOSEPH HAAG, Secretary.

Department of Finance—City of New York,
Bureau of Municipal Investigation and Statistics,
June 25, 1909.

To the Honorable the Board of Estimate and Apportionment:

Gentlemen—In reference to a resolution of the Board of Aldermen adopted June 15, 1909, recommending to your Board the establishment of the grade of the position of Engineer in the Ludlow Street Jail, at the rate of sixteen hundred and forty-two dollars and fifty cents (\$1,642.50), for Michael C. Dexter (one incumbent), referred to me for consideration, I would report as follows:

The official designation of the employee whose salary grade is asked to be changed is Assistant Engineer. While the compensation for the positions of Engineer and Assistant Engineer, assuming that the latter has an engineer's license, and is performing services as such, are the same, viz., four dollars and fifty cents (\$4.50) per day, the title of the employee interested being Assistant Engineer and not that of Engineer, the resolution appears to be in error. On this account and for the further reason that the City Charter provides for the recommending of the fixing of salary grades to the Board of Aldermen by the Board of Estimate and Apportionment (which recommendations are uniformly predicated upon formal request from the heads of departments and not from subordinate employees), I recommend that this matter be returned to the Board of Aldermen, together with a copy of this report.

Yours truly,

H. A. METZ, Comptroller.

Which was referred to the Committee on Salaries and Offices.

No. 2729.

Board of Estimate and Apportionment, City of New York,
Office of the Secretary, No. 257 Broadway,
July 12, 1909.

Mr. PATRICK F. MCGOWAN, President, Board of Aldermen:

Dear Sir—I transmit herewith certified copy of resolution adopted by the Board of Estimate and Apportionment July 2, 1909, amending the resolution adopted by the Board on June 21, 1907, recommending the issue of \$1,300,000 Corporate Stock for the erection of new buildings, additions, improving and permanently bettering and equipping existing buildings and new steamboats under the jurisdiction of the Commissioner of Public Charities, by striking therefrom the item "Hospital Pavilion, City Home, Blackwell's Island, \$40,000," and inserting in place thereof the items as follows:

"Hospital Pavilion, City Home, Blackwell's Island, Construction of, \$35,000.

"Hospital Pavilion, City Home, Blackwell's Island, Furniture, \$5,000."

I also enclose copy of report of the Comptroller relative thereto, together with form of resolution for adoption by the Board of Aldermen to indicate its concurrence thereto.

Yours very truly,
JOSEPH HAAS, Secretary.

June 30, 1909.

To the Honorable the Board of Estimate and Apportionment:

Gentlemen—In the matter of a communication from the Commissioner of Public Charities, dated June 19, 1909, in which he requests permission to expend \$5,000 from the Corporate Stock Fund authorized for the erection of a new hospital pavilion on Blackwell's Island, in the purchase of furniture for said pavilion, I submit the following report:

Your Board, on June 21, 1907, and June 26, 1908, authorized issues of Corporate Stock in \$40,000 and \$25,000 respectively, to provide means for the erection of a new hospital pavilion at the City Home, Blackwell's Island. The building is about completed, and the total cost of construction, exclusive of furnishings, is estimated at \$50,000, leaving an approximate balance of \$15,000 of the Corporate Stock originally authorized. Before the Department can enter into occupancy, the new pavilion will have to be supplied with furniture, for which funds are required. The Commissioner therefore requests that he be allowed to use \$5,000 of the \$15,000 balance remaining of the Corporate Stock authorized for purposes of construction in the purchase of such furniture and other original equipment as may be necessary.

In view of the facts as stated herein, I recommend that the request of the Commissioner of Public Charities be approved, and that the resolution of the Board of Estimate and Apportionment adopted June 21, 1907, authorizing the issue of Corporate Stock to the amount of \$40,000 for the erection of an hospital pavilion, City Home, Blackwell's Island, be amended in accordance with a resolution hereto appended.

Yours respectfully,
H. A. METZ, Comptroller

Resolved, That the Board of Aldermen hereby approves of and concurs in the following amended resolution adopted by the Board of Estimate and Apportionment July 2, 1909:

Resolved, That the resolution of the Board of Estimate and Apportionment adopted June 21, 1907, which reads as follows:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York, in an amount not exceeding one million three hundred thousand dollars (\$1,300,000), for the purpose of providing means for the erection of new buildings, additions, improving and permanently bettering and equipping existing buildings and new steamboats under the jurisdiction of the Commissioner of Public Charities, said sum to be expended as follows:

Staff House, Metropolitan Hospital, Blackwell's Island.	\$80,000.00
Extension of two tuberculosis infirmaries, Metropolitan Hospital, Blackwell's Island	180,000.00
Morgue, Metropolitan Hospital, Blackwell's Island	40,000.00
Improvement of operating rooms, Metropolitan Hospital, Blackwell's Island	20,000.00
Plastering and machinery, City Hospital, Blackwell's Island	15,000.00
Hospital Pavilion, City Home, Blackwell's Island	40,000.00
Addition to laundry, City Home, Blackwell's Island	30,000.00
Lesling House, Manhattan (additional appropriation)	50,000.00
New steamboat	75,000.00
Thomas S. Brennan (steamboat), repairs to	25,000.00
Nurses' Home and Training School, Kings County Hospital	250,000.00
Alterations, etc., to building recently vacated by New York State	75,000.00
Kings County Hospital	200,000.00
Nurses' Home, Children's Hospital, Randal's Island	200,000.00
Additional dormitories, City Colony, Richmond	200,000.00
Pavilion for the care of insane, City Colony, Richmond	20,000.00
	\$1,300,000.00

—and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding one million three hundred thousand dollars (\$1,300,000), the proceeds whereof to be applied to the purposes aforesaid.

—be and the same is hereby amended by striking therefrom the words and figures,

Hospital Pavilion, City Home, Blackwell's Island, \$40,000.00

—and inserting in place thereof the words and figures,

Hospital Pavilion, City Home, Blackwell's Island, Construction of, \$35,000.00

Hospital Pavilion, City Home, Blackwell's Island, furniture, 5,000.00

Which was referred to the Committee on Finance.

The Vice-Chairman laid before the Board the following communication from the Police Commissioner:

No. 2730.
Police Department, No. 300 Mulberry Street, July 8, 1909.

To the Honorable Board of Aldermen:

Gentlemen—The following proceedings were this day directed by me:
Whereas, The Board of Aldermen at a meeting held May 11, 1909, adopted resolution as follows:

"AN ORDINANCE providing for an issue of Corporate Stock in the sum of seventy-five thousand dollars (\$75,000) to provide means for the furniture and for the equipment of the new headquarters building for the Police Department, located at Grand and Centre streets, Borough of Manhattan.

"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 April 16, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 seventy-five thousand dollars (\$75,000) to provide means for the furniture and for the equipment of the new headquarters building for the Police Department, located at Grand and Centre streets, Borough of Manhattan, and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding seventy-five thousand dollars (\$75,000), the proceeds whereof to be applied to the purposes aforesaid."

Whereas, In the purchase of the necessary furniture and equipment for the occupancy of said building it is impracticable to contract for the same under advertisement for competing bids.

Ordered, That the Board of Aldermen be and is hereby respectfully requested to authorize the Police Commissioner to purchase in the open market, without advertising for competing bids, such furniture, partitions, railing, shelving, lockers, bookcases, awnings, carpet, linoleum, matting, electrical and mechanical appliances, and such other equipment as may be necessary for the purpose of the new headquarters building, in amount not exceeding the sum of seventy-five thousand dollars (\$75,000).

Respectfully,

WM. F. BAKER, Police Commissioner.

Which was referred to the Committee on Public Letting.

REPORTS OF STANDING COMMITTEES

Reports of Committee on Finance—

No. 2384.

The Committee on Finance, to which was referred on June 1, 1909 (Minutes, page 882), the annexed ordinance in favor of an issue of four thousand five hundred dollars (\$4,500) to replace bulkheads at Arverne, in the Borough of Queens, respectively.

REPORTS

That it believes the proposed issue of stock to be necessary in order to meet the emergency occasioned by sea damage to the coast line, where delay may prove to be very costly, and therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of forty-five hundred dollars (\$4,500) to provide means for replacing bulkheads on the ocean front at St. John's, Jerome, Stratton, Alexander and Seaview avenues, Borough of Queens.

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 of the Board of Estimate and Apportionment adopted May 28, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 forty-five hundred dollars (\$4,500) to provide means for replacing bulkheads on the ocean front at St. John's, Jerome, Stratton, Alexander and Seaview avenues, Arverne, Borough of Queens, and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding forty-five hundred dollars (\$4,500), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Crowley, Delaney, Doull, Dowling, Drescher, Enauer, Finnigan, Hand, Jefferson, Hickey, Hines, Hochdorffer, Kennedy, Kenney, Levine, Loos, McAlister, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Redmond, Rend, Sandford, Smith, Stapleton, Volen, Walsh; President Cromwell, President Gresser, President Harten, President Ahern and the Vice-Chairman—45.

No. 2385.

The Committee on Finance, to which was referred on June 1, 1909 (Minutes, page 885), the annexed ordinance in favor of an issue of \$10,000 Corporate Stock for fitting up Administration Building in Bronx Zoological Park, respectively.

REPORTS

That, having examined the subject, it believes the proposed improvement to be necessary, and it therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of ten thousand dollars (\$10,000), to provide means for the construction and improvement of the Zoological Park in the Borough of The Bronx to fitting up the Administration Building in said park.

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 of the Board of Estimate and Apportionment adopted May 28, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 ten thousand dollars (\$10,000), to provide means for the construction and improvement of the Zoological Park in the Borough of The Bronx by fitting up the Administration Building in said Park, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding ten thousand dollars (\$10,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The President put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Crowley, Delaney, Doull, Dowling, Drescher, Enauer, Finnigan, Hand, Jefferson, Hickey, Hines, Hochdorffer, Kennedy, Kenney, Levine, Loos, McAlister, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Redmond, Rend, Sandford, Smith, Stapleton, Volen, Walsh; President Cromwell, President Gresser, President Harten, President Ahern and the Vice-Chairman—45.

No. 2473.

The Committee on Finance, in which was referred on June 8, 1909 (Minutes, page 991), the annexed amended ordinance in favor of an issue of eight thousand dollars (\$8,000) Corporate Stock for topsoiling and sodding central plots on Prospect Avenue in the Borough of The Bronx, respectively.

REPORTS

That no extra expense is sought to be incurred and the modification in the plans of improvements for which this money is to be applied seems to be well considered and desirable.

It therefore recommends that the said amended ordinance be adopted.

Resolved, That the Board of Aldermen hereby approves of and concurs in the following amended resolution adopted by the Board of Estimate and Apportionment May 28, 1909:

"Resolved, That the resolution adopted by the Board of Estimate and Apportionment July 6, 1906, which authorized an issue of \$8,000 Corporate Stock for the purpose of providing means for topsoiling or sodding central plots on Prospect Avenue, between East One Hundred and Forty-ninth Street and Crotona Park, Borough of The Bronx, under the jurisdiction of the President of The Bronx, be and the same is hereby amended to read as follows:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 eight thousand dollars (\$8,000), for the purpose of providing means for topsoiling or sodding central plots on Prospect Avenue, between East One Hundred and Forty-ninth Street and Crotona Park, Borough of The Bronx, under the jurisdiction of the President of The Bronx, to be and the same is hereby amended to read as follows:

dent of the Borough of The Bronx, of which amount the sum of one thousand dollars (\$1,000) is to provide for the construction of a crossing opposite Public School 40, located on the westerly side of Prospect avenue, between Jennings street and Ritter place, and to erect railings around the centre plots on said block; and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding eight thousand dollars (\$8,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The President put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doall, Dowling, Drescher, Eininger, Finnigan, Handy, Heffernan, Hickey, Hines, Hochdorffer, Kenneally, Kenney, Levine, Liss, McAtee, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2520, 2615, 2678.

The Committee on Finance, to which was referred on June 15, 29 and July 6, 1909 (Minutes, pages 1240, 1400 and 22), the annexed ordinances in favor of an issue of Corporate Stock, \$200,000 for improvements in buildings under jurisdiction of the Board of Health, respectively.

REPORTS

That, having examined the subject, it believes the proposed improvements to be necessary, as set forth in ordinance No. 2678, Dr. Head of the Health Department appeared before the Committee and urged the adoption of the ordinance as amended. The Committee recommends that the said ordinance be adopted, and that Nos. 2520 and 2615 be placed on file.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of five hundred thousand dollars (\$500,000), for the construction of buildings, etc., under the jurisdiction of the Department of Health.

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 June 11, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 five hundred thousand dollars (\$500,000), to be expended by the Board of Health, as follows:

For the construction of four pavilions on North Brother Island, in the Borough of The Bronx (Riverside Hospital), to accommodate 240 patients. \$110,000.00
For the construction of two pavilions on the grounds of the Willard Parker and Reception Hospital, 1001 of East Sixteenth street, Borough of Manhattan, to accommodate 120 patients. 50,000.00
For the construction of four pavilions, necessary administration buildings, power plants, sewage disposal plant, etc., on property owned by the Department of Health, in the Borough of Queens, and known as the "Haacke Farm," to accommodate 240 patients. 230,000.00
For sewage disposal plant, additional water supply and extension of water lines, fire protection system with water tanks, dining hall, kitchen and infirmary for the women's unit for 200 patients, greenhouses, seed houses, bulb cellar and gardener's cottage, extension in stablehouse extension to horses, hay and feed barn in connection with the dairy barns, for additional patients at the dairy unit, dairyman's cottage, extension at the dairy farm, extensions and alterations to existing buildings and permanent equipment at the Sanatorium for the care and treatment of persons living in The City of New York, suffering with tuberculosis, located at Ossining, Town of Mount Hope, Orange County, N. Y. 100,000.00
\$500,000.00

—and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding five hundred thousand dollars (\$500,000), the proceeds whereof to be applied to the purposes aforesaid.

Resolved, That the Board of Aldermen hereby approves of and concurs in the following amended resolution adopted by the Board of Estimate and Apportionment July 2, 1909.

Resolved, That the resolution adopted by the Board of Estimate and Apportionment June 28, 1909, which reads as follows:

Resolved, That the resolution adopted by the Board of Estimate and Apportionment June 11, 1909, which authorized the issue of \$500,000 Corporate Stock for the construction of buildings, etc., under the jurisdiction of the Board of Health, be and the same is hereby amended to read as follows:

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter as amended, 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 two hundred thousand dollars (\$200,000), to be expended by the Board of Health, as follows:

For the construction of four pavilions on North Brother Island, in the Borough of The Bronx (Riverside Hospital), to accommodate 240 patients. \$110,000.00
For the construction of two pavilions on the grounds of the Willard Parker and Reception Hospital, 1001 of East Sixteenth street, Borough of Manhattan, to accommodate 120 patients. 60,000.00
For the construction of four pavilions, necessary administration buildings, power plants, sewage disposal plant, etc., on property owned by the Department of Health, in the Borough of Queens, and known as the "Haacke Farm," to accommodate 240 patients. 230,000.00
For sewage disposal plant. 12,000.00
For additional water supply and extended water lines. 15,000.00
For fire protection system with water lines. 10,000.00
For dining hall, kitchen and infirmary for the women's unit for 200 patients. 25,000.00
For greenhouse, seedhouse, bulb cellar and gardener's cottage. 4,000.00
For extension in stablehouse. 3,000.00
For extension to horse barn. 3,000.00
For hay and feed barn in connection with the dairy. 5,000.00
For sheds for additional patients at the dairy unit. 10,000.00
For dairyman's cottage. 1,500.00
For isolates at the dairy barn. 1,500.00
For extensions and alterations to existing buildings and permanent equipment at the Sanatorium for the care and treatment of persons living in The City of New York, suffering with tuberculosis, located at Ossining, Town of Mount Hope, Orange County, N. Y. 10,000.00
\$500,000.00

—and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding five hundred thousand dollars (\$500,000), the proceeds whereof to be applied to the purposes aforesaid.

—be and the same is hereby further amended by striking therefrom the item, For the construction of four pavilions, necessary administration building, power plants, sewage disposal plant, etc., on property owned by the Department of Health, in the Borough of Queens, and known as the "Haacke Farm," to accommodate 240 patients. \$200,000.00

—and inserting in place thereof the item:

For the improvement of property owned by the Department of Health, in the Borough of Queens, and known as the "Haacke Farm," to accommodate 240 patients, as follows:

Construction of four pavilions, at \$45,000 each.	\$180,000.00
Construction of Administration Building.	30,000.00
Construction of sewage system.	15,000.00
Construction of power plant.	35,000.00

\$280,000.00

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doall, Dowling, Drescher, Eininger, Finnigan, Handy, Heffernan, Hickey, Hines, Hochdorffer, Kenneally, Kenney, Levine, Liss, McAtee, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2521 and 2620.

The Committee on Finance, to which was referred on June 15 and 29, 1909 (Minutes, pages 1243 and 1415), the annexed resolution in favor of an issue of \$27,000 Corporate Stock for dumping boards for the Department of Street Cleaning, respectively.

REPORTS

That, having examined the subject, it believes the proposed improvements to be necessary in order to conveniently dispose of garbage collected in the several neighborhoods affected. It therefore recommends that resolution No. 2620 be adopted, and that No. 2521 be placed on file.

Resolved, That the Board of Aldermen hereby approves of and concurs in the following amended resolution adopted by the Board of Estimate and Apportionment June 25.

Resolved, That the resolution adopted by the Board of Estimate and Apportionment June 11, 1909, which reads as follows:

Whereas, The Commissioner of the Department of Street Cleaning in a communication dated May 14, 1909, has made requisition for an issue of bonds to the amount of thirty thousand dollars (\$30,000) for new stock or plant for said Department, as provided by section 546 of the Greater New York Charter, therefore be it

Resolved, That, subject to the concurrence herewith by the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding twenty thousand dollars (\$20,000) to provide means for the following purposes:

For the construction of a dumping board at the foot of One Hundred and Fifty-eighth street, North River, Borough of Manhattan.	\$4,000.00
For the construction of a dumping board at the foot of One Hundred and Thirty-fourth street, North River, Borough of Manhattan.	4,000.00
For the construction of a dumping board at the foot of Ninety-seventh street, North River, Borough of Manhattan.	12,000.00

\$20,000.00

—be and the same is hereby amended by striking therefrom the item, For the construction of a dumping board at the foot of Clinton Avenue, Borough of Brooklyn, \$7,000, and by striking out the words and figures, wherever they appear, twenty thousand dollars (\$20,000), and inserting in place thereof the words and figures, twenty seven thousand dollars (\$27,000).

Resolved, That the Board of Aldermen hereby approves of and concurs in the following resolution adopted by the Board of Estimate and Apportionment June 11, 1909.

Whereas, The Commissioner of the Department of Street Cleaning in a communication dated May 14, 1909, has made requisition for an issue of bonds to the amount of thirty thousand dollars (\$30,000) for new stock or plant for said Department, as provided by section 546 of the Greater New York Charter, therefore be it

Resolved, That, subject to the concurrence herewith by the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding twenty thousand dollars (\$20,000) to provide means for the following purposes:

For the construction of a dumping board at the foot of One Hundred and Fifty-eighth street, North River, Borough of Manhattan.	\$4,000.00
For the construction of a dumping board at the foot of One Hundred and Thirty-fourth street, North River, Borough of Manhattan.	4,000.00
For the construction of a dumping board at the foot of Ninety-seventh street, North River, Borough of Manhattan.	12,000.00

\$20,000.00

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doall, Dowling, Drescher, Eininger, Finnigan, Handy, Heffernan, Hickey, Hines, Hochdorffer, Kenneally, Kenney, Levine, Liss, McAtee, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2523.

The Committee on Finance, to which was referred on June 15, 1909 (Minutes, page 1246), the annexed ordinance in favor of an issue of Corporate Stock to the amount of \$22,371.72 to meet payment of awards, interest, etc., acquisition of property for storage yard in the Borough of Brooklyn, respectively.

REPORTS

That, having examined the subject, it believes the proposed improvement to be necessary, and upon statements made by Engineer Smith, in conformity with the report of the Comptroller already printed, it recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of \$22,371.72 Corporate Stock for the payment of awards, the interest thereon and the costs in the matter of acquiring title to property bounded by Chambers street, Marion street, Hopkins avenue and Rockaway avenue, Borough of Brooklyn, selected for use as a storage yard for the Bureau of Highways, Borough of Brooklyn.

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 June 11, 1909,

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, pursuant to the provisions of section 47 of the Greater New York Charter as amended, 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 twenty-two thousand three hundred and seventy-one dollars and seventy-two cents (\$22,371.72) for the purpose of providing means for the payment of the awards, the interest thereon and the costs in the matter of acquiring title to certain lands in the block bounded by Chancery street, Marion street, Hopkinson avenue and Rockaway avenue, in the Borough of Brooklyn, City of New York, duly selected according to law for use as a storage yard for the Bureau of Highways, Borough of Brooklyn, and that when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding twenty-two thousand three hundred and seventy-one dollars and seventy-two cents (\$22,371.72), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Enser, Finnigan, Handy, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Reutl, Sandford, Smith, Stanleton, Velen, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2616

The Committee on Finance, to which was referred on June 29, 1909 (Minutes, page 1410), the annexed ordinance in favor of an issue of \$26,641.33 Corporate Stock to the wall to North Brother Island, respectively

REPORTS:

That, in view of the explanation by the Comptroller, it believes the proposed improvement to be necessary, and therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of \$26,641.33 for the purpose of providing means for the construction of a sea wall and the necessary filling at Riverside Hospital, North Brother Island (in addition to the issue of \$52,000 authorized on March 31, 1905), under the jurisdiction of the Board of Health.

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 June 25, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter as amended, 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 twenty-six thousand six hundred and forty-one dollars and thirty-three cents (\$26,641.33), for the purpose of providing means for the construction of a sea wall and the necessary filling at Riverside Hospital, North Brother Island (in addition to the issue of \$52,000 authorized on March 31, 1905), under the jurisdiction of the Board of Health, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding twenty-six thousand six hundred and forty-one dollars and thirty-three cents (\$26,641.33), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Enser, Finnigan, Handy, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Reutl, Sandford, Smith, Stanleton, Velen, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2617

The Committee on Finance, to which was referred on June 29, 1909 (Minutes, page 1411), the annexed ordinance in favor of an issue of Corporate Stock to the amount of \$65,000 for improvements to Bronx Zoological Park, respectively

REPORTS:

That, having examined the subject, it believes the proposed improvement to be necessary, and inasmuch as this entails no additional appropriation it recommends that the said ordinance be adopted.

Resolved, That the Board of Aldermen hereby approves of and concurs in the following amended resolution adopted by the Board of Estimate and Apportionment June 25, 1909:

Resolved, That the resolution adopted by the Board of Estimate and Apportionment June 19, 1908, which authorized the issue of \$65,000 Corporate Stock to provide means for the completing and planting of the concourse, grading, new walks, etc., in the Zoological Garden in Bronx Park, be and the same is hereby amended to read as follows:

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York, to the amount of sixty-five thousand dollars (\$65,000), to provide means for completing and planting the concourse, grading, new walks, etc., and for the erection of a public comfort station (at a cost of \$12,500, or as much thereof as may be necessary) in the Zoological Garden in Bronx Park, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to the amount of sixty-five thousand dollars (\$65,000), the proceeds whereof to be applied to the purposes aforesaid."

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Enser, Finnigan, Handy, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Reutl, Sandford, Smith, Stanleton, Velen, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2618

The Committee on Finance, to which was referred on June 29, 1909 (Minutes, page 1413), the annexed ordinance in favor of an issue of \$7,000 Corporate Stock for fire alarm system, Bellevue and Allied Hospitals, respectively

REPORTS:

That, having examined the subject, it believes the proposed improvement to be necessary. Dr. Brannan appeared before the Committee and stated that this amount was requested upon the report of an expert from the Fire Department.

The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of seven thousand dollars (\$7,000) to provide means for the installation of a fire alarm system in the Bellevue and Harlem Hospitals.

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 June 25, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter as amended, 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 seven thousand dollars (\$7,000) to provide means for the installation of a fire alarm system in the Bellevue and Harlem Hospitals, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding seven thousand dollars (\$7,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Enser, Finnigan, Handy, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Reutl, Sandford, Smith, Stanleton, Velen, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2619

The Committee on Finance, to which was referred on June 29, 1909 (Minutes, page 1414), the annexed ordinance in favor of an issue of \$10,000 Corporate Stock for bridge over Hutchinson River, The Bronx, respectively

REPORTS:

That the details of this application are set forth in the report of the 3, unnumbered, already printed. Commissioner Steverson appeared before the Committee and urged the adoption of the ordinance.

The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of ten thousand dollars (\$10,000) to provide means for making cost lighter and place for a bridge over the Hutchinson River on the line of East Two Hundred and Twenty-second street, Borough of The Bronx.

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 June 25, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter as amended, 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 ten thousand dollars (\$10,000) to provide means for making cost lighter and place for a bridge over the Hutchinson River on the line of East Two Hundred and Twenty-second street, Borough of The Bronx, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding ten thousand dollars (\$10,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Enser, Finnigan, Handy, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Reutl, Sandford, Smith, Stanleton, Velen, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2621

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 16), the annexed ordinance in favor of an issue of \$23,356.70 Corporate Stock for new mains, etc., Department of Water Supply, Gas and Electricity, Borough of Brooklyn, respectively

REPORTS:

That Deputy Commissioners Langman and Custer appeared before the Committee and stated that there was urgent necessity for this work in Brooklyn, especially in the substitution of the new mains.

The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of six hundred and twenty-three thousand three hundred and fifty-six dollars and seventy cents (\$623,356.70), to provide means for an additional supply of water for the Borough of Brooklyn.

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 July 2, 1909, 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, pursuant to the provisions of section 178 of the Greater New York Charter, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York to the amount of six hundred and twenty-three thousand three hundred and fifty-six dollars and seventy cents (\$623,356.70) for the purpose of providing means for an additional supply of water for the Borough of Brooklyn, as set forth in said section 178 of the Charter, apportioned as follows:

Replacing with new and adequate mains the old one of small section in Evergreen, Lee, Marcy, Sumner, Bedford and Throop avenues, and in Forest and Roebling streets..... \$109,491.60
Replacing mains in Bushwick, Hopkinson, Howard, Rest, Lewis, Lexington, Reid, Stuyvesant, Sixth and Cypress avenues, Beaver, Marion and Union streets, and in the Park place and Eastern parkway, Hauling and setting fire hydrants..... \$55,000.00
Fencing, mounding and improving City's lands occupied by reservoirs, conduits, pumping stations..... \$4,000.00
Two driven well stations, Parkville and Flatlands, in the Borough of Brooklyn, together with their equipment..... \$75,000.00
Total..... \$223,356.70

—and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Charter, to an amount not exceeding six hundred and twenty-three thousand three hundred and fifty-six dollars and seventy cents (\$23,386.70), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Barton, Colgan, Delaney, Doull, Dowling, Downing, Drescher, Emmer, Finnigan, Flynn, Hanly, Heffernan, Hickey, Hines, Hochdorffer, Hogan, Kavanagh, Kennedy, Kenney, Levine, Linde, Loos, Marx, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulligan, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Rend, Smith, Stapleton, Veltel, Walsh, President Grasser, President Haffen, President Cromwell, President Gresser, President Ahern and the Vice-Chairman—46.

Negatives—Alderman Morrison—1.

No. 2670.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 131), the annexed ordinance in favor of an issue of \$75,000 Corporate Stock for Jamaica Bay improvements, respectively.

REPORTS.

That, having examined the subject, it believes the proposed improvement to be necessary. The details are set forth in the report of the Comptroller and Engineer of the Board of Estimate and Apportionment already printed.

It therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of seventy-five thousand dollars (\$75,000) to provide means for the necessary expenses of the Commission appointed by the Mayor, pursuant to resolution of the Board of Estimate and Apportionment adopted June 7, 1907, in connection with the general improvement and development of Jamaica Bay, in the Boroughs of Brooklyn and Queens and the general condition of the water-front of the Boroughs of The Bronx, Brooklyn, Queens and Richmond.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 seventy-five thousand dollars (\$75,000), to provide means for the necessary expenses of the Commission appointed by the Mayor, pursuant to a resolution of the Board of Estimate and Apportionment, adopted June 7, 1907, in connection with the general improvement and development of Jamaica Bay, in the Boroughs of Brooklyn and Queens, and the general condition of the water-front of the Boroughs of The Bronx, Brooklyn, Queens and Richmond, to be expended as follows:

For hydrographic surveys along and adjacent to the bulkhead line already negatively adopted	\$30,000.00
For topographical surveys to determine the amount of filling needed	5,000.00
For removing and shifting the bulkhead line and connecting it with the street system of the City	2,500.00
For the preparation of plans showing types of bulkhead, general treatment of the shore front, provision for railway connections and terminals, for office expense and for post and subsequent compensation and disbursements of the Commission	37,500.00
	\$75,000.00

and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding seventy-five thousand dollars (\$75,000), the proceeds whereof to be applied to the purposes aforesaid.

R. S. DOULL, JAMES J. DUGAN, JAMES W. REDMOND, JOHN MULVANEY, WM. P. KENNEALLY, FRANK L. DOWLING, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Finnigan, Hanly, Heffernan, Hickey, Hines, Hochdorffer, Kennedy, Kenney, Levine, Linde, Loos, Marx, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Rend, Smith, Stapleton, Veltel, Walsh, President Grasser, President Haffen, President Cromwell, President Gresser, President Ahern and the Vice-Chairman—45.

No. 2672.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 29), the annexed ordinance in favor of an issue of \$2,026,100 Corporate Stock for Department of Water Supply, Gas and Electricity Boroughs of Manhattan and The Bronx, respectively.

REPORTS.

That Deputy Commissioner Longfellow appeared before the Committee and reiterated the statements set forth in the report of the Comptroller already printed. The Committee believes these improvements to be urgently needed, and, therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of two million and twenty-six thousand one hundred dollars (\$2,026,100), to provide means for the furnishing and laying of water mains in the Boroughs of Manhattan and The Bronx, under the jurisdiction of the Department of Water Supply, Gas and Electricity.

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 July 2, 1909, 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, pursuant to the provisions of section 178 of the Greater New York Charter, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York, to the amount of two million and twenty-six thousand one hundred dollars (\$2,026,100), for the purpose of providing means for the furnishing and laying of water mains in the Boroughs of Manhattan and The Bronx, as set forth in said section 178 of the Charter, apportioned as follows:

Borough of Manhattan	\$180,400.00
Borough of The Bronx	944,600.00
East of The Bronx	406,100.00
Three hundred double nozzle hydrants to be set by emergency gangs	45,000.00
Water mains in Grand Concourse, from One Hundred and Sixty-first street to Van Cortlandt avenue, 20-inch and 12-inch lines	450,000.00
	\$2,026,100.00

and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount

not exceeding two million and twenty-six thousand one hundred dollars (\$2,026,100), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Finnigan, Hanly, Heffernan, Hickey, Hines, Hochdorffer, Kennedy, Kenney, Levine, Linde, Loos, Marx, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Rend, Smith, Stapleton, Veltel, Walsh, President Grasser, President Haffen, President Cromwell, President Gresser, President Ahern and the Vice-Chairman—51.

Negative—Alderman Morrison—1.

No. 2673.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 24), the annexed ordinance in favor of an issue of Corporate Stock to the amount of \$25,000, for various improvements in the New York Botanical Gardens, respectively.

REPORTS.

That, having examined the subject, it believes the proposed improvement to be necessary. Mr. Britton appeared before the Committee and endorsed the statements set forth in the report of the Comptroller already printed.

The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of twenty-five thousand dollars (\$25,000), for various improvements within the grounds of the New York Botanical Gardens, under the jurisdiction of the Department of Parks, Borough of The Bronx.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 twenty-five thousand dollars (\$25,000), to provide means for various improvements within the grounds of the New York Botanical Gardens, under the jurisdiction of the Department of Parks, Borough of The Bronx, to the sums and for the purposes hereinafter specifically set forth:

1. 5,000 cubic yards rock excavation and disposal within the grounds, at \$1.50 per cubic yard	\$7,500.00
2. 8,000 cubic yards earth excavation and disposal within the grounds, at \$1.50 per cubic yard	4,000.00
3. 1,000 cubic yards broken trap rock for road the Telford foundations for which have either been completed, or will be completed within a short time, at \$2 per cubic yard	2,000.00
4. 800 cubic yards trap rock screenings for surfacing roads and paths, at \$2 per cubic yard	1,600.00
5. 4,000 linear feet, 6-inch cast iron water pipe laid, at \$1 per linear foot	4,000.00
6. 2,000 linear feet guard rail, at 50 cents per linear foot	1,000.00
7. Small concrete shelter houses on the shore of the upper lake, plans for which have received the approval of the Commissioner of Parks of the Borough of The Bronx, and of the Municipal Art Commission	2,500.00
8. Telford foundation for linear feet, path ten feet wide, being 40,000 square feet, at 6 cents per square foot	2,400.00
	\$25,000.00

and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding twenty-five thousand dollars (\$25,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Finnigan, Hanly, Heffernan, Hickey, Hines, Hochdorffer, Kennedy, Kenney, Levine, Linde, Loos, Marx, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Rend, Smith, Stapleton, Veltel, Walsh, President Grasser, President Haffen, President Cromwell, President Gresser, President Ahern and the Vice-Chairman—45.

No. 2674.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 29), the annexed ordinance in favor of Corporate Stock to the amount of \$10,000 to provide and install a drainage system in Crotona Park, The Bronx, respectively.

REPORTS.

That, having examined the subject, it believes the proposed improvement to be necessary. Commissioner Berry appeared before the Committee and endorsed the statements set forth in the report of the Comptroller, already printed. The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of eighteen thousand dollars (\$18,000) to provide and install a drainage system in Crotona Park, Borough of The Bronx.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock to an amount not exceeding eighteen thousand dollars (\$18,000) to provide and install a drainage system in Crotona Park, Borough of The Bronx, and that when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding eighteen thousand dollars (\$18,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Finnigan, Hanly, Heffernan, Hickey, Hines, Hochdorffer, Kennedy, Kenney, Levine, Linde, Loos, Marx, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Reardon, Redmond, Rend, Smith, Stapleton, Veltel, Walsh, President Grasser, President Haffen, President Cromwell, President Gresser, President Ahern and the Vice-Chairman—45.

Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2675.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 30), the annexed ordinance in favor of issuing fifteen thousand dollars (\$15,000) Corporate Stock for fences in Mount Morris Park, in the Borough of Manhattan, respectfully.

REPORTS.

That the old fences are in a dilapidated condition and urgently require renewal. It recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of fifteen thousand dollars (\$15,000) to provide means for erecting pipe rail fences to enclose the grass plots in Mount Morris Park, Mount Morris to Madison Avenue, One Hundred and Twentieth to One Hundred and Twenty-fourth street, Borough of Manhattan, under the jurisdiction of the Commissioner of Parks, Boroughs of Manhattan and Richmond.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter as amended, 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 fifteen thousand dollars (\$15,000), for the purpose of erecting pipe rail fences to enclose the grass plots in Mount Morris Park, Mount Morris to Madison Avenue, One Hundred and Twentieth to One Hundred and Twenty-fourth street, Borough of Manhattan, under the jurisdiction of the Commissioner of Parks, Boroughs of Manhattan and Richmond, and that when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, in an amount not exceeding fifteen thousand dollars (\$15,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doall, Dowling, Dreher, Emoner, Finnigan, Hand, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2677.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 30), the annexed ordinance in favor of an issue of Corporate Stock to the amount of \$143,000 for improvements in Bronx Park, respectfully.

REPORTS.

That, having examined the subject, it believes the proposed improvements to be necessary. Commissioner Berry appeared before the Committee and urged the adoption of the ordinance, reiterating the statements made in the report of the Comptroller already printed. The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of one hundred and forty-three thousand dollars (\$143,000) to be expended by the Commissioner of Parks, Borough of The Bronx, for the improvement of parks, etc., in the Borough of The Bronx.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 one hundred and forty-three thousand dollars (\$143,000), to be expended by the Commissioner of Parks, Borough of The Bronx, for the following purposes:

Additional greenhouses for propagating purposes, Bronx Park.

Filling, draining and improving the lowlands east of the Music Pavilion, Bronx Park.

Construction of granite steps to replace wooden steps, St. Mary's Park.

Fireproofing vaults, office building, Claremont Park.

Erection of a drinking fountain and improvement of surrounding grounds, in addition to \$3,000 now available, Macombs Dam Park.

Granite steps and walks, from Jerome Avenue to Ogden Avenue, Macombs Dam Park.

Comfort station and additional bath houses at Orchard Beach, Pelham Bay Park.

Raising and improving Colonial Garden, including replanting, Van Cortlandt Park.

Providing steps at Webster Avenue Bridge, Mosholu Parkway.

Railing around small parks and along walks and drives in other parks.

Construction of nature pits adjacent to park stations.

Drinking fountains in various parks.

\$18,000.00
15,000.00
8,000.00
5,000.00
3,000.00
7,000.00
25,000.00
20,000.00
7,000.00
10,000.00
20,000.00
5,000.00
\$143,000.00

and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding one hundred and forty-three thousand dollars (\$143,000), the proceeds whereof to be applied to the purposes aforesaid; and he it further

Resolved, That the Commissioner of Parks, Borough of The Bronx, he and he is hereby directed to have the above specified work performed by contract wherever it is possible to do so.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doall, Dowling, Dreher, Emoner, Finnigan, Hand, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2679.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 37), the annexed ordinance in favor of issuing ten thousand dollars (\$10,000) Corporate Stock to pay for plans for the Riverside extension, respectfully.

REPORTS:

That it believes the proposed issue of stock to be necessary to provide for the proper initiatory proceedings toward the accomplishment of this great public work and therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of ten thousand dollars (\$10,000), to provide means for engineering work in the preparation of plans for the improvement of lands lying west of the tracks of the New York Central and Hudson River Railroad Company, in Riverside Park.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 ten thousand dollars (\$10,000), to provide means for engineering work in the preparation of plans for the improvement of the land lying between Seventy-second street and One Hundred and Twenty-ninth street, between the builded line and the line of the New York Central and Hudson River Railroad Company in Riverside Park, known as the Riverside Park extension, under the jurisdiction of the Commissioner of Parks, Boroughs of Manhattan and Richmond, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller he 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, to an amount not exceeding ten thousand dollars (\$10,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doall, Dowling, Dreher, Emoner, Finnigan, Hand, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2680.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 39), the annexed ordinance in favor of an issue of \$30,000 Corporate Stock for surveys, etc., Department of Water Supply, Gas and Electricity, Borough of Brooklyn, respectfully.

REPORTS

That, having examined the subject, it believes the proposed investigation to be necessary to establish proper sites for wells and stations in the fast growing Borough of Brooklyn, and it therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of thirty thousand dollars (\$30,000) for the purpose of providing means for making surveys, test wells and investigations in order to determine the most advantageous sites for wells and stations in connection with the water supply of the Borough of Brooklyn.

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 July 2, 1909, 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, pursuant to the provisions of section 178 of the Greater New York Charter, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York to the amount of thirty thousand dollars (\$30,000) for the purpose of providing means for making surveys, test wells and investigations, in order to determine the most advantageous sites for wells and stations in connection with the water supply of the Borough of Brooklyn, as set forth in said section 178 of the Charter, and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding thirty thousand dollars (\$30,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doall, Dowling, Dreher, Emoner, Finnigan, Hand, Heffernan, Hickey, Hines, Hochschild, Kennedy, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvane, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh, President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2681.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 40), the annexed ordinance in favor of an issue of \$500,000 Corporate Stock for new Bellevue Hospital, respectfully.

REPORTS

That Dr. Brannan appeared before the Committee and stated that this was a further amount toward the total allowance for the new hospital, the stock being issued as required.

The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of five hundred thousand dollars (\$500,000) to provide means for the erection of the new Bellevue Hospital.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 five hundred thousand dollars (\$500,000) to provide means for the erection of the new Bellevue Hospital, and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding five hundred thousand dollars (\$500,000), the proceeds whereof to be applied to the purposes aforesaid; and he it further

Resolved, That the Board of Trustees, Bellevue and Allied Hospitals, he and is hereby directed to expend no portion of the proceeds of the issue of Corporate Stock as above until the completed plans and specifications for the Pavilions I, K, L and M of said new Bellevue Hospital have been approved by the Board of Estimate and Apportionment.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Best, J. W. Brown, Colgan, Lunnus, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Flannigan, Handly, Heffernan, Hickey, Hines, Hochdorffer, Kennelly, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2682.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 42), the annexed ordinance in favor of an issue of \$100,000 Corporate Stock for Natural History Museum, respectfully.

REPORTS:

That, having examined the subject, it believes the proposed improvement to be necessary. The details of the application are set forth in the report of the Comptroller already printed. Commissioner Smith and Mr. Fouke of the museum appeared before the Committee and urged the passage of the ordinance. The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of one hundred thousand dollars (\$100,000) to provide means for furnishing and equipping the American Museum of Natural History, Seventy-seventh street and Central Park west, Borough of Manhattan.

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 July 2, 1909, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes thereto specified.

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York in an amount not exceeding one hundred thousand dollars (\$100,000) to provide means for furnishing and equipping the American Museum of Natural History, Seventy-seventh street and Central Park west, Borough of Manhattan, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding one hundred thousand dollars (\$100,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULI, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently, Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Best, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Flannigan, Handly, Heffernan, Hickey, Hines, Hochdorffer, Kennelly, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2683.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 43), the annexed ordinance in favor of an issue of \$20,000 Corporate Stock for Department of Water Supply, Gas and Electricity, Borough of Brooklyn, respectfully.

REPORTS:

That, having examined the subject, it believes the proposed improvement to be necessary. It therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of twenty thousand dollars (\$20,000) to provide means for the improvement of the water supply system of the Borough of Brooklyn by installing five (5) additional water meters, two (2) at the Ridgewood pumping station and three (3) at the Miallawn station.

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 of the Board of Estimate and Apportionment adopted July 2, 1909, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes thereto specified.

Resolved, That, pursuant to the provisions of section 178 of the Greater New York Charter, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York in an amount not exceeding twenty thousand dollars (\$20,000) to provide means for the improvement of the water supply system of the Borough of Brooklyn as set forth in said section 178 of the Charter by installing five (5) additional water meters, two (2) at the Ridgewood pumping station and three (3) at the Miallawn station, and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding twenty thousand dollars (\$20,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULI, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently, Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Best, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Flannigan, Handly, Heffernan, Hickey, Hines, Hochdorffer, Kennelly, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2684.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 44), the annexed ordinance in favor of an issue of \$60,500 Corporate Stock for Department of Water Supply, Gas and Electricity, Borough of Queens, respectfully.

REPORTS:

That, having examined the subject, it believes the proposed improvements to be necessary at Whitestone and Flushing in order to inaugurate a better and more economical system of water supply at these points, which are centers of population in the Borough of Queens.

It therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of sixty thousand five hundred dollars (\$60,500), for the purpose of providing means for improving the water supply system of the Borough of Queens.

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 July 2, 1909, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes thereto specified.

Resolved, That, pursuant to the provisions of section 178 of the Greater New York Charter, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York, to the amount of sixty thousand five hundred dollars (\$60,500), for the purpose of providing means for improving the water supply system of the Borough of Queens, as set forth in said section 178 of the Charter, apportioned as follows:

For installation of additional wells and machinery at the Whitestone Pumping Station	\$20,500 00
For wells and machinery at the Flushing Pumping Station	40,000 00
	60,500 00

—and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding sixty thousand five hundred dollars (\$60,500), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULI, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently, Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Best, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Flannigan, Handly, Heffernan, Hickey, Hines, Hochdorffer, Kennelly, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2685.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 46), the annexed ordinance in favor of an issue of forty thousand dollars (\$40,000) Corporate Stock for a bridge over the Bronx River at East One Hundred and Eighth street, in the Borough of The Bronx, respectfully.

REPORTS:

That it believes the proposed improvement to be necessary, full explanations of the need of such facilities in connection with the development of new streets in the neighborhood having been supplied by the President, and therefore recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of forty thousand dollars (\$40,000) to provide means for the construction of a bridge over the Bronx River at East One Hundred and Eighth street, Borough of The Bronx.

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 July 2, 1909, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes thereto specified.

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 forty thousand dollars (\$40,000) to provide means for the construction of a bridge over the Bronx River at East One Hundred and Eighth street, Borough of The Bronx, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is 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, to an amount not exceeding forty thousand dollars (\$40,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULI, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently, Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Best, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Flannigan, Handly, Heffernan, Hickey, Hines, Hochdorffer, Kennelly, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2686.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 49), the annexed ordinance in favor of an issue of \$50,000 Corporate Stock for approaches to bridge crossing the Harlem River and Putnam Division of the New York Central Railroad, respectfully.

REPORTS:

That the details of this application are set forth in the report of the Comptroller, already printed. Commissioner Steppon appeared before the Committee and urged the adoption of the ordinance. The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of fifty thousand dollars (\$50,000) to provide means for the construction of approaches to and footwalks on the bridge crossing the Harlem River and the Putnam Division of the New York Central Railroad at One Hundred and Fifty-eighth street (the granting of said appropriation being conditional upon the securing of easement in perpetuity from the New York Central and Hudson River Railroad Company permitting the erection of said structures).

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 July 2, 1909, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes thereto specified.

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 fifty thousand dollars (\$50,000) to provide means for the construction of approaches to and footwalks on the bridge crossing the Harlem River and the Putnam Division of the New York Central Railroad at One Hundred and Fifty-eighth street (the granting of said appropriation being conditional upon the securing of easement in perpetuity from the New York Central and Hudson River Railroad Company permitting the erection of said structures), and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding fifty thousand dollars (\$50,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOULI, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently, Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Best, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Drescher, Emmer, Flannigan, Handly, Heffernan, Hickey, Hines, Hochdorffer, Kennelly, Kenney, Levine, Loos, McAleer, McCann, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltin, Walsh; President Cromwell, President Gresser, President Haffen, President Ahern and the Vice-Chairman—45.

No. 2687.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 52), the annexed ordinance in favor of an issue of Corporate Stock to the amount

at \$15,000 to provide means to reconstruct highway bridge over Garretson's Creek, Borough of Brooklyn, respectfully.

REPORTS:

That, having examined the subject, it believes the proposed improvement to be necessary to reconstruct this bridge, which was burned last Decoration Day. It is in accord with natural progression to erect an up-to-date bridge in place of the former wooden one. The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of fifteen thousand dollars (\$15,000) for the purpose of providing means to reconstruct the highway bridge over Garretson's Creek at Avenue U, Borough of Brooklyn.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 fifteen thousand dollars (\$15,000) for the purpose of providing means to reconstruct the highway bridge over Garretson's Creek at Avenue U, Borough of Brooklyn, and when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 109 of the Greater New York Charter, to an amount not exceeding fifteen thousand dollars (\$15,000), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently, Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Dohle, Dowling, Dresler, Egan, Flanagan, Flanigan, Flannery, Hickey, Hines, Hochdorffer, Kenneally, Kenny, Levine, Lusk, McAleer, McLean, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltman, Walsh, President Crosswell, President Gresser, President Halpin, President Ahern and the Vice-Chairman—45.

No. 2689.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 53), the annexed ordinance in favor of an issue of \$21,15 Corporate Stock for expenses in acquiring title to lands required for bridge purposes in Brooklyn, respectfully.

REPORTS:

That the Commissioner of Bridges appeared before the Committee and stated that this amount was to pay the costs and expenses in acquiring title, as allowed by the Supreme Court, for lands for the construction of Brooklyn Bridge. The Committee recommends that the said ordinance be adopted.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of nine hundred and twenty-one dollars and fifteen cents (\$21,15) for the purpose of providing means for the payment of the costs and expenses in the matter of acquiring title by The City of New York to certain lands and premises situated on southwesterly side of Front street, 170 feet 5 inches west of Garrison street, Brooklyn, for bridge purposes.

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 July 2, 1909, 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, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, 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 nine hundred and twenty-one dollars and fifteen cents (\$21,15), for the purpose of providing means for the payment of the costs and expenses in the matter of acquiring title by The City of New York to certain lands and premises situated on the southwesterly side of Front street, 170 feet 5 inches west of Garrison street, in the Borough of Brooklyn, duly selected for bridge purposes according to law, and when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 109 of the Greater New York Charter, to an amount not exceeding nine hundred and twenty-one dollars and fifteen cents (\$21,15), the proceeds whereof to be applied to the purposes aforesaid.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said ordinance.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Bent, J. W. Brown, Colgan, Collins, Corbett, Crowley, Delaney, Dohle, Dowling, Dresler, Egan, Flanagan, Flanigan, Flannery, Hickey, Hines, Hochdorffer, Kenneally, Kenny, Levine, Lusk, McAleer, McLean, McDonald, Moskowitz, Mulcahy, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Redmond, Rendt, Sandford, Smith, Stapleton, Veltman, Walsh, President Crosswell, President Gresser, President Halpin, President Ahern and the Vice-Chairman—45.

No. 2707—(G. O. No. 242).

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 93), the annexed resolution in favor of paying the bill of A. W. Gross for engraving resolutions, respectfully.

REPORTS:

That the work has been performed in an artistic and satisfactory manner and it therefore recommends that the said resolution be adopted.

Resolved, That the Comptroller be and he is hereby authorized and requested to draw a warrant in favor of Adolph W. Gross for the sum of one hundred and twenty-five dollars (\$125), the said sum to be payment in full for engraving resolutions on the death of ex-President Grover Cleveland, adopted June 30, 1908, approved July 9, 1908; said sum to be charged to and paid out of the appropriation entitled City Contingencies, 1908.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 2720—(G. O. No. 243).

The Committee on Finance, to which was referred on May 25, 1909 (Minutes, page 766), a communication from the Commissioner of Parks, Brooklyn and Queens, requesting an issue of fourteen hundred and ninety-eight dollars (\$1,498) Special Revenue Bonds to pay for an Elevatorman and Laborers to care for the Prison Ship Martyrs' Monument, respectfully.

REPORTS:

That in order to protect this memorial from injury and to fulfil its purpose toward educational patriotism, provision should be made for the employees asked for by the Commissioner. 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 is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to the amount of fourteen hundred and ninety-eight dollars (\$1,498), the proceeds

whereof to be used by the Commissioner of Parks, Brooklyn and Queens, for the purpose of paying for the services of an Elevatorman and two Laborers to care for the Prison Ship Martyrs' Monument, on Fort Greene.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 252—(G. O. No. 244).

The Committee on Finance, to which was referred on June 15, 1909 (Minutes, page 1250), a communication from the Health Department requesting an issue of \$6,000 Special Revenue Bonds for indexing the marriage records from 1866 to 1891, respectfully.

REPORTS:

That, as represented by the Department, the present indices are not in keeping with modern advanced methods, and believes the proposed issue of bonds to be necessary, in order that better facilities in rapidity of consultation and superior accuracy in results may be obtained. 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 six thousand dollars (\$6,000), the proceeds whereof to be used by the Board of Health for the purpose of indexing the marriage records of the old City of New York, from the year 1866 to the year 1891, inclusive.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 252—(G. O. No. 245).

The Committee on Finance, to which was referred on June 15, 1909 (Minutes, page 1252), a request of the Department of Parks, The Bronx, to carry out the provisions of law respecting leave of absence to per diem employees, respectfully.

REPORTS:

That this application is in order to provide for compliance with a law passed this year by the State Legislature. The details thereof are set forth in the accompanying statement of the Department.

The Committee 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 eight thousand eight hundred dollars and eighty cents (\$8,800), the proceeds whereof to be used by the Commissioner of Parks for the Borough of The Bronx for the purpose of employing a sufficient force to enable his Department to grant to the per diem men the leave of absence as required by law.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 268—(G. O. No. 246).

The Committee on Finance, to which was referred on June 29, 1909 (Minutes, page 1425), a communication from the Trustees of Bellevue and Allied Hospitals requesting an issue of three thousand dollars (\$3,000) Special Revenue Bonds to pay for a covered passageway between the old Bellevue Hospital and new Pavilions, respectfully.

REPORTS:

That it believes the proposed improvement to be necessary, as set forth by Dr. Brahma, in order to protect patients from exposure in transit from the admitting office of the hospital to the wards where they are to receive treatment, and 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 thousand dollars (\$3,000), the proceeds whereof to be used by the Trustees of Bellevue and Allied Hospitals for the purpose of paying for the construction of a covered passageway to connect the admitting office of the old Bellevue Hospital with the new buildings.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 267—(G. O. No. 247).

The Committee on Finance, to which was referred on June 29, 1909 (Minutes, page 1426), a request from the President of the Borough of Manhattan for an issue of four hundred and fifty dollars (\$450) to pay the Custodian of the Governor's room and her assistant their salaries for the year 1909, respectfully.

REPORTS:

That it is obviously necessary to provide the requisite compensation to the officials authorized by the Board of Estimate and Apportionment, with whose action this Board of Aldermen has concurred. It therefore recommends that the accompanying resolution be adopted.

Resolved, That, pursuant to the provisions of subdivision 8, section 188, of the Greater New York Charter, the Board of Estimate and Apportionment is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to the amount of four hundred and fifty dollars (\$450), to provide for the salaries of Custodian and Assistant Custodian for six months ending December 31, 1909, to be assigned to the Governor's room, City Hall, Borough of Manhattan.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 264—(G. O. No. 248).

The Committee on Finance, to which was referred on June 29, 1909 (Minutes, page 1423), the annexed resolution in favor of issuing twelve thousand dollars (\$12,000) Special Revenue Bonds to fit up offices for the City Revenue and the Marriage License Bureau, respectfully.

REPORTS:

That the crowded condition of the approaches to the Marriage License Bureau, an inconvenience to the public, if not an affront to the dignity of candidates for matrimony, is obvious to every person visiting the City Hall. The removal of this Bureau is eminently desirable to the quarters now occupied by the delivery department of the City Revenue, for which accommodation can be elsewhere found.

It therefore recommends that the said 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 twelve thousand dollars (\$12,000), the proceeds whereof to be used by the President of the Borough of Manhattan for the purpose of fitting up premises at Nos. 96 and 98 Beale street, for use as supply room for the City Revenue, and Room 2 in the basement of the City Hall for the use of the Marriage License Bureau of the City Clerk's office.

T. P. SULLIVAN, R. S. DOUILL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 266—(G. O. No. 249).

The Committee on Finance, to which was referred on June 6, 1909 (Minutes, page 11), a communication from the Fire Commissioner requesting an issue of twelve hundred dollars (\$1,200) Special Revenue Bonds for the maintenance of the Rosedale Chemical Fire Engine Company 1 of Rosedale, Borough of Queens, respectfully.

REPORTS:

That it believes the proposed issue of bonds to be necessary in aid of this duly incorporated volunteer body of firemen, and 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 twelve hundred dollars (\$1,200), the proceeds whereof to be used by the Fire Commissioner for the purpose of aiding in the maintenance of the Rosedale Chemical Fire Engine Company 1 of Rosedale, Borough of Queens.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 2704—(G. O. No. 250).

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 75), a communication from the President of the Borough of The Bronx, requesting an issue of two thousand six hundred and thirty-nine dollars (\$2,639) for maintenance of the public bath in Elton avenue in the said Borough, respectfully

REPORTS:

That, as fully explained in the letter of the President, the largely increased attendance at this wholsome addition to public comfort requiring more help, it believes the proposed issue of bonds to be necessary, and 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 two thousand six hundred and thirty-nine dollars (\$2,639), the proceeds whereof to be used by the President of the Borough of The Bronx for the purpose of providing adequate help for the proper administration of the new public bath in Elton avenue in the aforesaid Borough.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 2705.

The Committee on Finance, to which was referred on July 6, 1909 (Minutes, page 76), a communication from the President of the Borough of The Bronx requesting an issue of four thousand two hundred and fifty dollars (\$4,250) for the removal of a retaining wall in the said Borough, respectfully

REPORTS:

That this request is in the advice of the Corporation Counsel that the City is liable to the owner of property on which the City has encroached with this wall which it is sought to be removed.

It is evident that the remedy must be found and the Committee 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 four thousand two hundred and fifty dollars (\$4,250), the proceeds whereof to be used by the President of the Borough of The Bronx for the purpose of removing a retaining wall erected by the City on the property of a citizen at the northeast corner of Tremont and Howeswell avenues, in the Borough of The Bronx.

T. P. SULLIVAN, R. S. DOULL, WM. P. KENNEALLY, JOHN J. COLLINS, FRANK L. DOWLING, JAMES W. REDMOND, Committee on Finance.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Barton, Bent, J. W. Brown, Cole, Colgan, Collins, Crowley, Delaney, Doull, Dowling, Downing, Drescher, Esterbrook, Flynn, Flanagan, Flannigan, Flynn, Gaynor, Goldschmidt, Gunther, Handy, Heffernan, Hickey, Hines, Hochdorfer, Hogan, Kavanagh, Kennedy, Levine, Lunde, Mars, McAleer, McCann, McDonald, Moskowitz, Mulligan, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Pender, Redmond, Reindl, Sandford, Schloss, Smith, Stapleton, Veltin, Walsh, Weston, President Cromwell, President Gresser, President Haffen, President Ahearn and the Vice-Chairman—61.

Report of Committee on Public Letting—

No. 238.

The Committee on Public Letting, to which was referred on May 25, 1909 (Minutes, page 762), a communication from the Board of Health asking for authority to do extra work on office building, Borough of Brooklyn, without public letting, respectfully

REPORTS:

That Dr. Bensel appeared before the Committee and stated that this extra work was caused by incomplete plans prepared by the architect whose contract has since been cancelled and consists of many small changes which can be done on the whole much cheaper by the original contractor, who is still working on this job.

The Committee recommends that the accompanying resolution be adopted.

Resolved, That, in pursuance of the provisions of section 419 of the Greater New York Charter, the Board of Health of the City of New York be and it is hereby authorized to enter into contract without public letting to the extent not to exceed the sum of seven thousand five hundred dollars (\$7,500) for certain extra work, supplies and alterations incident to the completion of an office building for the Department of Health, in the Borough of Brooklyn, upon a site bounded by Willoughby street, the Flushing Avenue Extension, Fleet street and Fleet place.

FRANK L. DOWLING, ROBERT E. DOWLING, JACOB J. VELTEN, JOHN DEMER, JOHN S. GAYNOR, G. A. COLGAN, FREDERICK C. HOCHDORFER, P. F. FLYNN, Committee on Public Letting.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Barton, Bent, Beyer, J. W. Brown, Cole, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Downing, Drescher, Esterbrook, Flynn, Flannigan, Flanagan, Flynn, Gaynor, Goldschmidt, Gunther, Handy, Heffernan, Hickey, Hines, Hochdorfer, Hogan, Kavanagh, Kennedy, Levine, Lunde, Mars, McAleer, McCann, McDonald, Moskowitz, Mulligan, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Pender, Redmond, Reindl, Sandford, Schloss, Smith, Stapleton, Veltin, Walsh, Weston, President Cromwell, President Gresser, President Haffen, President Ahearn and the Vice-Chairman—61.

No. 2626—(G. O. No. 251).

The Committee on Public Letting, to which was referred on June 29, 1909 (Minutes, page 1423), a communication from the Board of Health asking for authority to purchase an automobile for the Sanitary Superintendent, at a cost not to exceed \$3,500, without public letting, respectfully

REPORTS:

That Dr. Bensel appeared before the Committee and stated that this machine was for his own use; that the machine he now used was over two years in the service and had outlived its usefulness owing to the great quantity of work it was called upon to do. He also stated that it was practically impossible to secure the type of machine he required at public letting.

The Committee recommends that the accompanying resolution be adopted.

Resolved, That, in pursuance of the provisions of section 419 of the Greater New York Charter, the Board of Health of the Department of Health of The City of New York be and it is hereby authorized and empowered to purchase in the open market

without public letting, at the lowest price obtainable, one automobile for the use of the Sanitary Superintendent, at a cost not exceeding three thousand five hundred dollars (\$3,500).

FRANK L. DOWLING, FREDERICK C. HOCHDORFER, G. A. COLGAN, JACOB J. VELTEN, THOS. J. MULLIGAN, MAX S. LEVINE, Committee on Public Letting.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

Reports of Committee on Salaries and Offices—

No. 2709—(G. O. No. 252).

The Committee on Salaries and Offices, to which was referred on July 6, 1909 (Minutes, page 93), the annexed resolution in favor of appointing Martin Bernhardt a City Surveyor, respectfully

REPORTS:

That this applicant having furnished the customary letters of reference from competent authorities, it therefore recommends that the said resolution be adopted.

Resolved, That Martin Bernhardt, of No. 31 Currie place, New Brighton, in the Borough of Richmond, be and he is hereby appointed a City Surveyor.

R. S. DOULL, JOHN DEMER, G. A. COLGAN, J. SCHNEIDER, A. H. MURPHY, P. F. FLYNN, EDW. V. HANCOCK, Committee on Salaries and Offices.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

No. 2327.

The Committee on Salaries and Offices, to which was referred on May 25, 1909 (Minutes, page 774), the annexed resolution establishing grade of Assistant Clerk, Court of Special Sessions, Second Division, respectfully

REPORTS:

That an unsealed resolution covering this position has been reported and passed the Board of Aldermen on June 15, 1909 (No. 2421). It therefore recommends that the said resolution be placed on file.

Whereas The Board of Estimate and Apportionment at a meeting held May 21, 1909, adopted the following resolution:

Resolved, That the Board of Estimate and Apportionment, in accordance with the provisions of section 56 of the Greater New York Charter, hereby recommends to the Board of Aldermen the establishment of the grade of position of Assistant Clerk in the Court of Special Sessions, Second Division, in addition to those already existing theron, with salary at the rate of eighteen hundred dollars (\$1,800), for one (1) incumbent.

Resolved, That the Board of Aldermen hereby approves of and concurs in the above resolution and fixes the salary of said position as set forth therein.

R. S. DOULL, G. A. COLGAN, J. SCHNEIDER, A. H. MURPHY, P. F. FLYNN, EDW. V. HANCOCK, SAMUEL MARX, Committee on Salaries and Offices.

Under Rule 21, consideration of this report was deferred. Subsequently this report was accepted.

No. 209.

The Committee on Salaries and Offices, to which was referred on July 6, 1909 (Minutes, page 70), the annexed resolution in favor of fixing the grade of a Clerk under the Fire Commissioner, respectfully

REPORTS:

That in view of the excellent record of the proposed beneficiary of this resolution, verified by the Select Committee of the Board of Estimate and Apportionment, who were evidently impressed by his merits, it recommends that the said resolution be adopted.

Whereas The Board of Estimate and Apportionment at a meeting held July 2, 1909, adopted the following resolution:

Resolved, That the Board of Estimate and Apportionment, in accordance with the provisions of section 56 of the Greater New York Charter, hereby recommends to the Board of Aldermen the establishment of the grade of position of Clerk in the Fire Department, in addition to those already existing theron, with salary at the rate of three thousand dollars (\$3,000) per annum for one incumbent.

Resolved, That the Board of Aldermen hereby approves of and concurs in the above resolution and fixes the salary of said position as set forth therein.

R. S. DOULL, T. P. SULLIVAN, A. H. MURPHY, MICHAEL STAPLETON, P. F. FLYNN, SAMUEL MARX, Committee on Salaries and Offices.

Under Rule 21, consideration of this report was deferred. Subsequently Alderman Dowling moved the adoption of this report.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Barton, Bent, Beyer, J. W. Brown, Cole, Colgan, Collins, Corbett, Crowley, Delaney, Doull, Dowling, Downing, Drescher, Esterbrook, Flynn, Flannigan, Flanagan, Flynn, Gaynor, Goldschmidt, Gunther, Handy, Heffernan, Hickey, Hines, Hochdorfer, Hogan, Kavanagh, Kennedy, Levine, Lunde, Mars, McAleer, McCann, McDonald, Moskowitz, Mulligan, Mulvaney, Murphy, Nagle, Nugent, O'Reilly, Pender, Redmond, Reindl, Sandford, Schloss, Smith, Stapleton, Veltin, Walsh, Weston, President Cromwell, President Gresser, President Haffen, President Ahearn and the Vice-Chairman—30.

Report of Committee on Laws and Legislation—

No. 2553—(G. O. No. 253).

The Committee on Laws and Legislation, to which was referred on June 15, 1909 (Minutes, page 1322), the annexed ordinance in favor of amending the General Laws Ordinance relative to newsstands, etc., respectfully

REPORTS:

That it believes the proposed amendment to be necessary, and therefore recommends that the said ordinance be adopted.

AN ORDINANCE to amend rule 3 of chapter 7 of the Code of Ordinances relating to "The Granting and Regulation of Licenses."

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

Section 1. Title 3, chapter 7 of Part I of the Code of Ordinances of The City of New York is hereby amended by inserting therein a new section to be known and styled as follows:

See 36A. Stands for the sale of newspapers and periodicals only may be erected adjacent to and on the sides of the entrances, and under the stairways thereof where elevated, of the subway rate ads in The City of New York, in the same manner, under the same conditions and on payment of the same license fee as stands within stoop lines, except that the dimensions of such stands shall not exceed the space of five feet long and three feet wide and that the consent of the owner of the abutting or adjacent premises shall not be required. Such stands, however, shall not be permitted at points where their location may create congestion of traffic or interfere with the free use of the sidewalks by the public.

See 2. This ordinance shall take effect immediately.

JAMES W. REDMOND, JOHN F. WALSH, JOS. D. KAVANAGH, JOHN J. REARDON, JOHN McCANN, JOHN J. MULCAHY, Committee on Laws and Legislation.

Under Rule 21, consideration of this report was deferred. Subsequently this report was laid over.

MAJORITY AND MINORITY REPORTS OF COMMITTEE ON BUILDINGS

No. 2275.

The Committee on Buildings, to which were referred on May 18, 1909 (Minutes, page 405), majority and minority reports of the Building Code Revision Commission, respectfully

REPORTS:

That the Committee held a number of public hearings which were largely attended and has since considered the objections raised in parts of the majority report, with the result that a number of amendments have been submitted to and approved by the Committee. The Committee recommends that the accompanying Code be adopted.

AN ORDINANCE Adopting the Building Code of The City of New York.
Be it Ordained by the Board of Aldermen of The City of New York as follows:

CHAPTER I.

THE BUILDING CODE OF THE CITY OF NEW YORK.

SECTION 1.

Title of Code.

The Building Code—The following provisions shall constitute the Building Code of The City of New York, and shall presumptively provide for all matters which affect and relate to the construction, alteration or removal of buildings or structures erected or to be erected in said city, and may be cited as the Building Code.

SECTION 2.

Remedial Code.

This code is hereby declared to be remedial and is to be construed liberally.

SECTION 3.

Construction.

In construing this Code, except where a contrary intent is expressly declared in the provisions to be construed, or plainly apparent from the context thereof, the Statutory Construction Law, Laws of 1892, chapter 677, entitled "An Act relating to the construction of statutes, constituting chapter one of the general laws," the Real Property Law, Laws of 1896, chapter 547, entitled "An Act relating to real property constituting chapter forty-six of the general laws," and chapter twenty-two of the Code of Civil Procedure, and acts supplemental thereto and amendatory thereof, apply to the provisions of this code.

SECTION 4.

Definitions.

(1) Words used in this code in the present tense include the future as well as the present; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural the singular; the word "person" includes a corporation as well as a natural person; "writing" includes printing, printed or type-written matter; "oath" includes affirmation or declaration; "signature" or "subscription" includes "mark," when the person cannot write, his name being written near it.

The following terms used in this code have the significance attached to them in this section, unless otherwise apparent from the context:

(2) The word "attorney" signifies an attorney of the Supreme Court of this State, duly licensed to practice as such.

(3) The term "corporation" includes every association having any corporate rights, whether created by special acts of the Legislature or under general laws.

(4) The terms "suit," "affidavit," "petition" and "application" include every mode authorized by law of ascertaining the truth of that which is stated.

(5) The term "swear" includes every mode authorized by law for administering an oath.

(6) The term "file" includes to properly endorse, keep on file and index.

(7) The terms "Superintendent of Buildings" and "Bureau of Buildings" shall be construed to mean the Superintendent of Buildings or the Bureau of Buildings of the Borough where the property is situated.

(8) The term "owner" includes his duly authorized agent or attorney, a purchaser, devisee and a person entitled to an interest in property.

(9) The term "violation" includes a failure to comply with a departure from, the doing or assisting in an act against, or omitting to perform an act under the provisions of this code, or notice, rule, regulation or direction thereunder.

(10) The term "occupied" as used in this code, as applied to any building, shall be construed as though followed by the words: "or intended, arranged or designed to be occupied."

(11) The term "approval" as used in this code, as applied to any material, manner or mode of construction, shall be construed as though followed by the words: "by the Superintendent of Buildings."

(12) The term "standard" as used in this code shall be construed to mean standards as approved by the Superintendent of Buildings.

(13) The terms "building," "structure" and "appurtenance" include city, public or private buildings, structures and appurtenances, parts or portions thereof, or one in connection therewith on, above or below a public highway; excludes all others on, above or below a public highway, and fixtures, except as otherwise provided in this code.

(14) The term "building" includes the terms "structure" and "appurtenance."

(15) The term "structure" includes the term "appurtenance" and a wall, platform, staging and flooring used for standing or setting purposes, shed, fence, sign and billboard on city, public or private property or on, above or below a public highway.

(16) The term "appurtenance" includes plumbing, boiler erecting, drainage and sewerage, gas and water piping, a meter, an auxiliary fire appliance, an elevator, escalator, a dumbwaiter, a fire-escape and a vault and a passageway on, above or below a public highway in connection with a building on city, public or private property.

(17) The term "erect" includes the term "construct"; the term "alter" includes the term "convert"; the term "remove" includes the term "demolish."

(18) Ordinary repairs shall not be construed to include cutting away any stone, concrete or brick wall, or any portion thereof; removal or cutting any beams or supports, or the removal, change or closing of any stair, or opening in an exterior wall, or the alteration or removal of any house sewer, private sewer or drainage system, or the construction of soil, waste or vent pipe.

(19) The term "street" includes sidewalk, highway, avenue, road, alley, boulevard, concourse, parkway, public square and public place, docks and ferries.

(20) Wherever the word "lot" is used in this code, it shall be construed to mean the entire area devoted to one building, including all yards, courts, light and vent shafts.

(21) Wherever the word "curb" applying to the height of building, to the definition of a basement or a cellar or to an excavation is used, it shall be construed to mean the curb level at the centre of the front of the building, in the case of a building fronting on one street only; in the case of a building fronting on two or more streets the curb level at the centre of the front facing on the highest curb shall be taken.

(22) The height of a building is the vertical distance measured in a straight line from the top of the highest point of the roof beams in the case of flat roofs, and from the average height of the gable in the case of roofs having a pitch of more than twenty degrees with a horizontal plane, to the curb level. When a building does not abut the street, the measurement for height shall be taken to the average level of the ground adjoining such building.

(23) In measuring the height of a wall the height of the parapet wall down to the top of the roof beams shall not be included.

(24) The length of any building shall be its greatest horizontal dimension.

(25) The width of any building shall be its next greatest horizontal dimension.

(26) The width of a street shall be construed to mean the distance between the street building lines on opposite sides of the street, measured at right angles to the centre line of the street at the middle of the lot.

(27) A story is that part of any building comprised between any floor and the floor or roof next above. In case any floor or the combined area of floors at any one level extends over less than twenty per cent. of the horizontal area included within the outside walls at that level the same shall not be considered as a floor for the purpose of determining story heights.

(28) A cellar is a story more than one-half below the level of the curb. It shall not be considered as a story in determining the height of buildings.

(29) A basement is a story partly but not more than one-half below the level of the curb. It shall not be considered as a story in determining the height of buildings unless more than one-half above the curb.

(30) A yard is an open and unoccupied space on the same lot with a building, between the extreme rear line of the building and the rear line of the lot.

(31) A court is an open and unoccupied space other than a yard on the same lot with a building.

(32) A public hall is a hall, corridor or passageway for the use of the general public.

(33) A stair hall shall include the stairs, stair landings and those portions of the public halls through which it is necessary to pass in going between the entrance floor and the roof of any building.

(34) A shaft includes exterior and interior shafts whether for air, light, elevator, dumbwaiter or any other purpose.

(35) A bulkhead is a structure erected on the roof of a building only for the purpose of inclosing staircases to roofs, elevator machinery, water tanks, ventilating apparatus and exhaust chambers or any other machinery. Bulkheads, when used only for the above mentioned purposes, and when they are only of sufficient height and area to properly inclose any of the above apparatus, equipment or stairs, may be erected on the roof of any building and need not be considered in determining the height of the building.

(36) A pent house is any structure other than a bulkhead, erected on the roof of a building. A pent house shall not exceed ten feet in height nor more than twenty-five per centum of the total lot area nor shall it be used for sleeping accommodations unless such increased area or occupancy is approved by the Superintendent of Buildings.

(37) The term skylight shall be taken to mean and include flat, hipped, lantern, monitor, turret, dome, vertical or pitched, saw-tooth construction and all other covers placed over openings on roofs for the admission of light.

(38) A bearing wall shall be taken to mean one on which a beam, girder, truss, column, or other interior load of a building, rests.

(39) A non-bearing wall shall be taken to mean one which supports no other load than its own weight.

(40) A retaining wall shall be taken to mean one constructed to resist the thrust of earth, water or other substance.

(41) A foundation wall shall be taken to mean any wall or pier built below the curb level, or nearest tier of beams to the curb, or average ground level, to serve as a support for beams, girders, trusses, columns, floors, or other interior load of a building.

(42) A party wall shall be taken to mean a wall used, or built to be used, in common for two or more buildings.

(43) An enclosing wall shall be taken to mean every outside wall, or vertical enclosure of a building, other than a party wall.

(44) Exterior wall (see enclosing wall).

(45) Enclosure walls shall be taken to mean non-bearing walls built between steel columns and supported wholly or in part by steel girders.

(46) A division wall shall be taken to mean any wall, other than an exterior wall or a party wall, which extends the full height of a building.

(47) A partition wall shall be taken to mean any interior wall other than a division wall.

(48) A curtain wall shall be taken to mean any non-bearing wall between columns or piers.

(49) A fire wall shall be taken to mean any wall built for the purpose of resisting fire.

(50) A parapet wall shall be taken to mean that portion of any wall which extends above the roof line.

(51) Frame Building—A frame building is a building of which the exterior walls or a portion thereof are of wood.

(52) Bath House—Bath house shall be construed to mean any building or portion of a building used or intended to be used for the accommodation of bathers, having sleeping accommodations connected therewith.

(53) Detention Building—A detention building is any building or portion thereof in which persons are harbored or detained for purposes of receiving medical, charitable or other care or treatment, or by reason of public or civic duty, by commitment or for correctional purposes, and shall include, among others, Jails, Police Stations and Prisons.

(54) Theatres and Opera Houses, etc.—See section 137.

(55) Church—A church is any building or portion thereof designed or intended for or used solely as a place of assembly of a number of people for the holding of meetings or gatherings of a religious character.

(56) Amusement Hall—Any building or portion thereof that is designed for, intended or used as a place of recreation, or amusement, or as a concert hall, ball room, or as a place of public assembly other than theatres and opera houses, shall for the purposes of this code be defined as an amusement hall.

(57) Exhibition Building—An exhibition building is any building or part thereof that is intended or designed to be used for fairs and exhibition purposes, or as a tower for observation purposes, or for any similar use or occupancy, whether temporary or permanent in character.

(58) Hotel—A hotel is any building, or portion thereof, intended, designed or used for supplying food and shelter to residents or guests, and having a general public dining room and containing also more than ten sleeping rooms above the first story.

(59) Lodging House—A lodging house is a building as defined in section 1305 of the Greater New York Charter.

(60) Tenement House—A tenement house is a building as defined in the Tenement House Act, chapter 344 of the Laws of 1901 as amended.

(61) Apartment House—An apartment house shall be construed as and hereafter referred to as a tenement house and shall be subject to the same requirements.

(62) Boarding House—For the purposes of this code, a boarding house shall be classed as a "dwelling," provided that not more than ten sleeping rooms in any one building shall be used for the accommodation of boarders. If more than ten sleeping rooms in any one building shall be used for the accommodation of boarders it shall be classed as a "Hotel."

(63) Dwelling—A dwelling is a residence building intended or designed for, or used as, the home or residence of not more than two separate and distinct families.

(64) Stable—A stable is any building, or portion thereof, that is intended or designed for or used for the sheltering or harboring of horses or live stock, or for the storage of vehicles not driven by their own power.

(65) Garage—A garage is any building, or part thereof, in which any power driven vehicle is kept.

(66) Coal Pocket—A coal pocket is any structure that is intended or designed for or used for the storage or handling of coal and which is of sufficient height to discharge the contents thereof by gravity into a wagon or other vehicle.

(67) Temporary structures shall be taken to mean and include platforms, stands, tiers of seats, elevation and other booths, temporary buildings and circus tents.

(68) Shed—A shed is a roofed structure, open on one or more sides, which does not exceed fifteen feet in height nor more than twenty-five hundred square feet in area.

(69) Outhouses—Outhouses shall be construed to mean and include all structures built of wood not more than eight feet in height nor more than one hundred and fifty square feet in area.

CHAPTER II.

BOARD OF EXAMINERS, BOARD OF REGISTRATION AND COMMITTEE OF SURVEYS.

SECTION 5.

Board of Examiners.

(1) Qualifications; Appointment—There shall be a Board of Examiners consisting of one member of the New York Chapter of the American Institute of Architects, one member of the New York Board of Fire Underwriters, two members of the Mechanics and Traders' Exchange of The City of New York, one of whom shall be a master mason and one a master carpenter, one member of the Society of Architectural Iron Manufacturers of said city, and one member of the Real Estate Owners and Builders' Association of said city, who shall be an architect or builder, all of whom shall be appointed by their respective associations and so certified to annually to the Mayor of The City of New York, and the Chief of the Fire Department of The City of New York. The said Examiners shall each take the usual oath of office before entering upon the performance of their duties. The Mayor shall annually designate one of said Examiners as the presiding officer of said Board. At least five affirmative votes shall be necessary to the granting of any petition by said Board. No member of said Board shall pass upon any question in which he is personally interested. The said Board shall meet at least once a week upon notice from any of the Superintendents of Buildings.

(2) Fees; Salary of Clerk—Each member of said Board of Examiners shall receive ten dollars for each attendance at a meeting of said Board, to be paid by the Comptroller from an appropriate fund to be provided by the Board of Estimate and Apportionment and the Board of Aldermen, upon the voucher of the Clerk of said Board of Examiners. The Clerk of the Board of Examiners shall be appointed and may be removed by the Mayor of The City of New York, and shall receive a salary of one thousand five hundred dollars per annum.

(3) Jurisdiction; Order Final—Upon an appeal from an order of the Superintendent of Buildings, the said Board of Examiners may reverse or affirm, wholly or partly, or may modify said order, which it is hereby authorized to review, as specified in the notice of appeal, as to any and all parties. Its decision shall be final, and a certified copy of the order thereon shall be forwarded, without charge, to the Superintendent of Buildings and the appellant.

SECTION 6.

Board of Registration.

(1) Qualifications; Clerk; Appointment—There shall be a Board of Registration of three members. One of these shall be a practising architect, one a practising consulting engineer, one a practising mason builder. They shall be personally engaged in building construction and superintendence, residents of The City of New York, and shall be appointed, and at pleasure removed, by the Mayor. Each member of the Board shall take the usual oath of office before entering upon his duties. The Mayor shall annually designate one of said Board as its presiding officer, and shall appoint, and may at pleasure remove, a Clerk thereof.

(2) Meetings; Fees; Salary of Clerk—Said Board shall meet whenever necessary. Each member shall receive ten dollars for each day's session, and the Clerk shall receive the sum of one thousand five hundred dollars per annum, payable monthly, upon the voucher of its presiding officer.

(3) Jurisdiction—Said Board is hereby authorized and empowered to examine an engineer, architect, mason or carpenter builder, and a master erector of steel or iron work, who may be either a resident or non-resident of The City of New York, as to his qualifications and competency to practice or carry on his business, trade or calling, to grant a certificate of qualification and competency, and authorize his registration in said City. For that purpose it may provide for either an oral or written examination, or both, and shall dispense with an examination upon an application verified by the applicant, and satisfactory proof, by affidavit or otherwise, of his qualifications and competency to practice or carry on his business, trade or calling, and that he has been actively engaged as an engineer, architect, mason or carpenter builder, or a master erector of steel or iron work for ten years prior to the date of the filing of said application with said Board. It may limit the examination and registration to such class of persons as it may deem proper, and may revoke and cancel a certificate of qualification and competency for a limited or unlimited term. The said Board shall have power to establish general rules and regulations for the purpose of exercising the powers and discharging the duties conferred and imposed upon it by this code, and shall have power, from time to time, to amend or repeal such rules and regulations, and notice of any change in such rules and regulations shall be published in the City Gazette once a week for five successive weeks, and during that period shall be posted on the bulletin board of the Board of Registration.

(4) Fee for Examination—Said Board is hereby authorized and empowered to charge each applicant a fee not to exceed ten dollars for an examination as to his qualifications and competency.

(5) Engineers, Architects, Builders and Master Erectors of Steel and Iron Work to Register—Within six months after the adoption of this code, a person who may desire to become a registered engineer, architect or mason or carpenter builder, or a master erector of steel or iron work, shall record his name and address at the office of the Board of Registration, and shall obtain a certificate thereof from said Board, provided, however, the said person shall have been actively engaged as an engineer, architect, mason or carpenter builder or a master erector of steel or iron work, for ten years, prior to its adoption, which fact must be shown by filing a verified application. Thereafter, no person shall be registered as an engineer, architect, mason or carpenter builder, or a master erector of steel or iron work, unless at the time of applying for such registration he shall hold a certificate of qualification and competency from said Board of Registration. A certified list of all those whose registration has been authorized shall be forwarded weekly to each Superintendent of Buildings by the Board of Registration.

(6) Applications, Plans, Drawings, Building and Supervision Thereof—Hereafter all applications, plans and drawings shall be prepared or signed by a registered engineer, registered architect or registered builder before filing under Chapter IV hereof, and every building shall be erected, altered or removed under the supervision of a registered engineer, registered architect or registered builder, and all plumbing, drainage and gas piping shall be installed or altered under the supervision of a registered master plumber.

(7) Registration, Revocation and Cancellation—Registration shall be cancelled by the Superintendent of Buildings upon revocation thereof by the Board of Registration for an intentional or wilful violation of any of the provisions of this code, or upon proof of gross untruthfulness, after a hearing before said Board, to be held after a written notice of not less than twenty days, stating the grounds of the complaint, has been personally served upon the person charged therewith.

SECTION 7.

Committee of Surveyors.

(1) Qualification of; Appointment of—A committee of surveyors shall consist of three persons, one of whom shall be the Superintendent of Buildings, or an Inspector designated in writing by said Superintendent; another of whom shall be a registered architect, appointed by the New York Chapter of the American Institute of Architects for the Borough in which an unsafe or dangerous building referred to in section 145 is situated, if in the Boroughs of Manhattan, The Bronx or Richmond, or by the Brooklyn Chapter of said institute, if situated in the Boroughs of Brooklyn or Queens; another of whom shall be a registered practising architect, engineer or builder, of at least ten years' practice, appointed by the owner of said building. In case the owner fails to appoint, or, having appointed, the said representative fails to attend according to notice, the two surveyors first named shall make the survey, and if they do not agree, they shall appoint another member, who shall be a registered practising architect, engineer or builder of at least ten years' practice.

(2) Fees of Committee—The architect appointed by the Chapter of the American Institute of Architects who may serve on a committee of surveyors, as prescribed in section 145, shall receive the sum of twenty-five dollars for each survey thereof, to be paid by the Comptroller upon the voucher of the Superintendent of Buildings. Should the owner fail to appoint and it become necessary for the Committee to appoint another member as prescribed in this section, the member so appointed shall receive the sum of twenty-five dollars for each survey, payable as above.

CHAPTER III.

POWERS AND DUTIES OF THE SUPERINTENDENT OF BUILDINGS; APPEALS; FUND.

SECTION 8.

General Powers and Duties of Superintendent of Buildings.

(1) Powers and Duties of a Superintendent of Buildings—Each Superintendent of Buildings shall have the power, and it shall be his duty, subject to the provisions of this code, to register engineers, architects, carpenter or mason builders, master erectors of iron or steel work; to approve or disapprove within a reasonable time, applications, plans, detail drawings, and amendments thereto; to issue permits, notices and certificates; to make rules and regulations; to decide upon and make orders in relation to variations and modifications; to pass upon questions relative to the mode, manner of construction or materials to be used in the erection or alteration of a building; to require that such mode, manner of construction or materials shall conform in the true intent and meaning of the several provisions of this code; to authorize the Corporation Counsel to institute any and all actions that may seem proper or necessary for the enforcement of its provisions.

(2) Accounts; Annual Estimates; Expenditures—Each Superintendent of Buildings shall keep accurate and detailed accounts, in a form approved by the Comptroller, of all moneys received and expended by him, the sources from which they are received and the purposes for which they are expended.

(3) Record of Applications; Public Documents—Each Superintendent of Buildings shall keep a record of all applications presented to him concerning, affecting or relating to the construction, alteration or removal of buildings. This record shall include the date of the filing of each application, the name and address of the applicant, the name and address of the owner of the land upon which the building mentioned in said application is situated, the name and address of the architect, engineer and builder employed thereon, a designation of the premises by street number, or otherwise, sufficient to identify the same, a statement of the nature and proposed use of such building, and a brief statement of the nature of the application, together with a memorandum of the decision of the Superintendent upon such application, and the date of such decision. The books containing such records and all papers required to be filed in the office of the Superintendent of Buildings are hereby declared to be public records, and shall be open to inspection at all reasonable times.

(4) Rules and Regulations—Each Superintendent of Buildings, by and with the approval of the President of the Borough, shall have power to establish general rules and regulations for the enforcement of the provisions of this code. Such rules and regulations shall, so far as practicable, be uniform in all the Boroughs. The Superintendent of Buildings, by and with the approval of the President of the Borough, shall have power, from time to time, to amend or repeal such rules and regulations.

(5) List of Approved Materials and Appliances to be Prepared—During the month of January of each year, each Superintendent of Buildings shall prepare a complete list of materials and appliances which have passed the necessary tests and received his approval and the necessary information as to the conditions under which said materials and appliances were tested and approved. Said list shall be filed in the office of the Superintendent of Buildings during the first week in February and shall be published in the City Record on each Monday during said month of February of each year.

(6) Seal—Each Superintendent of Buildings shall have a seal to be approved by the Mayor and shall direct its use in his Borough.

(7) Badges and Right of Entry—Each Superintendent of Buildings shall prescribe uniform badges to be worn by him, his Inspectors and other employees of the Bureau of Buildings. All officials and employees of the Bureau of Buildings, so far as it may be necessary for the performance of their respective duties, shall have the right to enter upon any real estate or building in said City upon exhibiting their badges.

(8) Superintendent and Employees' Liability—Neither the Superintendent of Buildings nor any person appointed, hired or employed by him, when acting in good faith, and without malice, shall be liable for damages by reason of anything done under the provisions of this code.

(9) Variations and Modifications of this Code by the Superintendent of Buildings—When it is claimed that there are practical difficulties in the way of carrying out the strict letter of this code, so that the spirit thereof shall be observed, public safety secured, and substantial justice done, the Superintendent of Buildings shall have power to vary or modify its provisions relating to the construction or alteration of a building, after the filing of an application setting forth the grounds for the desired variation or modification.

(10) Order; Thereon With or Without a Hearing—The Superintendent may deny the application without a hearing, or may fix a date within a reasonable time for a hearing upon such application, and shall, as soon as practicable, render a decision and enter an order thereon. Such application, decision and order, shall be filed in the office of the Superintendent of Buildings. A certified copy of the order shall be issued by the Superintendent of Buildings to the applicant.

SECTION 9.

Appeals from Orders of the Superintendent of Buildings.

(1) When an Appeal May be Had to the Board of Examiners—Whenever a Superintendent of Buildings, to whom an application has been made and a question submitted, shall disapprove the mode, manner of construction or materials proposed to be followed or used in the erection or alteration of a building, and when an order has been entered thereon, the applicant may appeal to the Board of Examiners.

(2) How Taken—An appeal shall be taken by serving upon the Superintendent of Buildings who has entered the order a written notice that the appellant appeals from the order or a specified part thereof.

(3) Limitation of Time—An appeal authorized by this section shall be taken within ten days after the Superintendent of Buildings has served notice by mail or otherwise upon the applicant that he has entered an order.

(4) Papers to be Transmitted to the Board of Examiners—When an appeal is taken from an order as prescribed in this section, the appellant must within five days after it is perfected, unless this time be extended by the Board of Examiners, cause to be filed with the Clerk of the Board the notice of appeal and the decision and order of the Superintendent of Buildings; and the Superintendent of Buildings shall, upon notification by the Board of Examiners, transmit all papers filed with him by the appellant in accordance with the requirements of chapter IV. of this code, and a copy of the testimony taken and the exhibits upon the hearing, if any has been held by him, and the appeal shall be heard upon them.

(5) How Heard; Representation by Appellant—The Board of Examiners shall fix a day within a reasonable time for a hearing upon such appeal, and render its decision, enter and file an order thereon without unnecessary delay. The parties may appear either in person, by agent or attorney.

SECTION 10.

Funds for the Bureau of Buildings.

(1) Funds for the Bureau of Buildings—The City of New York shall provide funds for the expenses and disbursements necessary to carry out the provisions of this code.

(2) The Corporation Counsel shall, on the first day of each and every month, render to each Superintendent of Buildings an account of and pay over to him the amount of all penalties and costs received by him, together with his bill for all necessary disbursements incurred, or paid in actions or proceedings, keeping a separate account for each Superintendent, and each Superintendent shall thereupon pay the amount of such penalties and costs so collected to the Comptroller of The City of New York as a fund for the use and benefit of said Bureau of Buildings for the purpose of paying any expense incurred by the said Superintendent under the provisions of this code. A separate account shall be kept by the Comptroller of the money paid to him by each Superintendent.

CHAPTER IV.

APPLICATIONS, PLANS AND DRAWINGS; ORDINARY REPAIRS WITHOUT NOTICE; DEMOLISHING BUILDINGS; CERTIFICATES OF OCCUPANCY OR USE; ALTERATION AND CHANGE IN OCCUPANCY.

SECTION 11.

Applications, Plans and Drawings.

(1) Applications; Filing—Before the erection or alteration of any building is begun, there shall be submitted to the Superintendent of Buildings a verified application in triplicate on appropriate blanks to be furnished by said Superintendent of Buildings, containing a detailed statement of the specifications and a full and complete copy of the plans of such proposed work, and such detail structural drawings thereof as the Superintendent of Buildings may require. The application shall state the full name, residence and business address (by street and number, whenever possible) of the owner of the building and of the owner of the real estate upon which the building is to be erected, altered or removed, describing the location thereof, and setting forth his authority to erect, alter or remove the same.

(2) Approval Thereof—No building shall be erected, altered or removed except in conformity with the provisions of this code, after written approval by the Superintendent of Buildings of the applications, plans and detail drawings, or the issuance of a written permit, and the work of construction or removal shall strictly conform to such applications, plans and detailed drawings, or to such permit. In case adequate plans and statements are presented, the Superintendent of Buildings may, at his discretion, issue an approval and permit for the construction of a part of a building before the approval of applications and plans of the complete structure.

(3) Amendments Thereto—Amendments to applications, plans and detail drawings may be made and the Superintendent of Buildings shall approve them, provided the applications, plans and detail drawings, when so amended, shall be in conformity with the provisions of this code, and requirements of the Superintendent of Buildings in relation thereto.

(4) Revocation of Approval—The Superintendent of Buildings shall have power to revoke any approval for any departure from the approved applications, plans and detail drawings, or in case any false statement or representation as to a material fact relating to the erection, alteration or removal of the building has been made.

(5) Additional Facts for the Superintendent of Buildings—The Superintendent of Buildings may at any time require an additional verified application, setting forth further details as to the ownership of the real estate or the building, and the tenants and occupants thereof, or may require a designation from either a resident or non-resident of The City of New York, of a resident thereof, in accordance with section 147 of this code.

(6) Limitation of One Year—All approvals of applications, plans and detail drawings, and amendments thereto, shall expire by limitation one year from the date of the original approval of the applications, plans and detail drawings, but the limitation shall not apply to the erection of a new building under approved applications, plans and detail drawings, when work thereunder has been begun and carried on with reasonable continuity within one year from the original approval thereof, when the work to be performed is lawful, and can be carried on without violating any provision of this code.

SECTION 12.

Ordinary Repairs Without Notice.

Ordinary repairs to a building may be made without notice to the Superintendent of Buildings. See section 4 (18).

SECTION 13.

Demolishing Buildings.

(1) Application—Before the demolition or removal of any building is begun a verified application, on appropriate blanks to be furnished by the Superintendent of Buildings, containing a statement of the facts in relation thereto, and as to the ownership and location thereof, shall be filed with the Superintendent of Buildings, and a written permit obtained from him. Such permit shall expire by limitation two months from the date of its issue. The Superintendent of Buildings shall be given not less than twenty-four hours' notice before the demolition of any building is begun.

(2) Demolishing the Building—In demolishing any building, story after story shall be completely removed. No material shall be placed upon a floor of any building in the course of demolition, but the bricks, timbers and other parts of each story shall be lowered to the ground immediately upon displacement. The material to be removed shall be properly wet to lay the dust incident to its removal.

SECTION 14.

Certificates of Occupancy.

(1) Certificates of Occupancy—It shall be the duty of the Superintendent of Buildings, provided the building shall have been erected or altered pursuant to the applications, plans and drawings filed and approved, to issue to the owner of the real estate or building, as the case may be, a certificate of occupancy, stating the class to which said building belongs. No building shall be occupied for any purpose whatsoever except the purposes of the class certified to by the Superintendent not until the issuance of the certificate.

(2) Temporary Certificate—The Superintendent of Buildings shall issue a temporary certificate of occupancy providing for the occupancy of a portion of any building, provided said portion has been constructed in accordance with the approved applications, plans and drawings therefor and amendments thereto, and the occupancy does not endanger life, limb or property.

SECTION 15.

Alteration and Change in Occupancy.

No building shall hereafter be altered or occupied in violation of the provisions of this code; and the Superintendent of Buildings shall cause any building so altered or occupied to be vacated, and it shall not again be occupied until it, or its occupancy, as the case may be, conforms to the requirements of this code.

CHAPTER V.

CLASSIFICATION.

SECTION 16.

Classification of Buildings.

(1) For the purposes of this ordinance all buildings coming under its provisions shall be divided as to their occupancy into three general classes, to be known as Public Buildings, Residence Buildings and Business Buildings; these general classes shall in turn be subdivided into six classes, as designated in this section. Unless special exception is made, every provision of this ordinance applying in the erection of any building of a class shall apply to all buildings of that class, either when the general class or class designated alphabetically is referred to. In case any building is not specifically provided for or there is any doubt as to its classification the Superintendent of Buildings shall decide the class to which it belongs, the classification to be determined by the character of the building and the purposes for which it is intended. Whenever the purpose or use of a building is such that one part of it would come under one class and one part under another class it shall be so constructed that its various parts will comply with all the provisions relating to their respective classes as determined by the Superintendent of Buildings.

Public Buildings.

(2) Public buildings shall be construed to mean and include all structures to which the general public has access, or in which there may be a congregation of people for civic, political, educational, religious or amusement purposes, and shall include the following:

Class A—Municipal Buildings, Court Houses, Armories, Detention Buildings, Bath Houses, Fire Houses, Schools, Colleges, Libraries, Museums, Railroad Passenger Depots, Theatres, Hospitals, Asylums. All buildings of this class hereafter erected shall be of fireproof construction.

Class B—Churches, Amusement Halls, Public Halls, Lodge Rooms, Exhibition Buildings. All buildings of this class hereafter erected over thirty-six feet six inches in height shall be of fireproof construction. When under thirty-six feet six inches in height the first floor shall be of fireproof construction. Spires exceeding seventy-five feet in height shall be of fireproof material.

Residence Buildings.

(3) Residence buildings shall be construed to mean and include all structures in which sleeping accommodations are provided and shall include the following:

Class C—Hotels, Lodging Houses, Club Houses with sleeping accommodations other than those for Janitor or Caretaker, Studios, Dormitories. All buildings of this class hereafter erected over thirty-six feet six inches in height shall be of fireproof construction. When under thirty-six feet six inches in height the first floor shall be of fireproof construction.

Class D—Tenement Houses, Dwellings, Club Houses other than specified in Class C. All buildings of this class hereafter erected over seventy-five feet in height, or more than six stories, shall be of fireproof construction. When the ceiling of any cellar or basement is not more than two feet above the curb level the story below the last mentioned ceiling shall not be considered under this paragraph as a story of any building of Class D. All buildings of this class hereafter erected more than fifty feet in height, or more than four stories, shall have the first floor of fireproof construction. Such portions of the first story as are occupied for stores or other

business purposes shall be enclosed by fireproof partitions, and that portion of the second floor which is situated above stores or other spaces occupied for business purposes shall also be of fireproof construction. All plaster on ceilings and stud partitions below the first floor beams, where these are of wood, shall be on three-quarter inch grounds on metal lath, or other approved fireproof material.

Business Buildings.

(4) Business buildings shall be construed to mean and include all structures used for, or adapted to, the transaction of business, the operation of machinery, the manufacture or storage of machinery or materials, the housing of horses or live stock, or for any other industrial purpose, and shall include the following:

Class E—Office Buildings, Lots, Stores, Warehouses, Restaurants, Markets, Stables, Factories, Work Shops, Printing Houses. All buildings of this class hereafter erected over seventy-five feet in height shall be of fireproof construction. The first floor of every non-fireproof building of this class hereafter erected shall be of fireproof construction.

Class F—Light and Power Plants, Car Barns, Garages, Railroad Freight Depots, Foundries. All buildings of this class hereafter erected shall be of fireproof construction.

(5) Special Industry Buildings—Buildings hereafter erected and occupied exclusively for a special purpose or industry, including Ice Making Plants, Refrigerating Plants, Slaughter Houses, Rendering Plants, Breweries, Sugar Refineries, Smoke Houses, Coal Pockets, Laboratories, Observatorys, Oil Houses, Oil Refineries, and Grain Elevators, shall be of fireproof construction. Ice Houses intended exclusively for the storage of ice, shall be of such construction and materials as shall be required by the Superintendent of Buildings. The thickness of walls, the floor construction, the number and width of stairways, the number and size of standpipes and the installation of automatic sprinklers in all the above buildings shall be as required by the Superintendent of Buildings.

SECTION 17.

Classification of Construction.

For the purposes of this code the various types of construction shall be classified as Frame, Non-Fireproof, Mill, Reinforced Concrete and Fireproof Construction.

(a) Frame Construction—For description of Frame Buildings see section 4 (51).

For requirements as to frame buildings, see Chapter XXII.

(b) Non-Fireproof Construction—The term "Non-Fireproof Construction" shall apply to all buildings or structures with exterior walls of stone, brick, concrete or other approved masonry, and floors, interior supports and other interior construction wholly or in part of wood or other combustible materials.

(c) Mill Construction—The term "Mill Construction" shall apply to buildings having brick walls not less than twelve inches in thickness for the top story and increasing in thickness according to section 133 of this code. Floors shall be of not less than three-inch spined plankings covered with one-inch top flooring laid crosswise or diagonally, properly nailed. Between the top flooring and the plankings shall be placed not less than two thicknesses of approved building paper carefully laid to break joints. Size and spacing of floor timbers shall be suitable for the load to be carried, but the timbers shall in no case be less than eight inches in the least dimension, and shall rest on top of girders or on iron or steel plates or stone timbers in the wall. Girders shall rest on iron or steel plates or stone timbers in the walls and on iron or steel caps on columns, so arranged as to be self-releasing. All columns and posts shall rest on pinnacles, and the size and spacing thereof shall be suitable for the load to be carried, but no column or post for the top story shall be less than six inches in the least dimension or eight inches for all other stories. Columns, girders and beams, if of wood, shall be of solid material, and if of iron or steel shall be prepared as called for in section 16 of this code. All elevators, stairs and vent shafts passing through floors shall be enclosed with brick walls not less than twelve inches in thickness, or other approved fireproof material, and all openings therein shall be protected by approved fire doors. Buildings of Mill Construction shall not exceed seventy-five feet in height.

(d) Reinforced Concrete Construction—For description of reinforced concrete construction see Chapter XX of this code. Buildings with walls, columns, girders, beams, roof, floors and partitions of reinforced concrete shall be deemed to be fireproof. They shall not exceed eighty-five feet in height.

Buildings having steel columns and girders protected as called for in sections 115, 116 and 117 of this code with reinforced concrete beams and floor slabs may, unless otherwise provided, extend to a height not exceeding one hundred feet.

No steel or cast-iron column shall be permitted on top of a concrete column, *vice versa*, or any of these on wood construction.

(e) Fireproof Construction—For description of fireproof construction, see Chapter XIX of this code.

CHAPTER VI.

SECTION 18.

Fire Limits.

(1) Fire Limits—No frame building except provided in section 130, shall be built hereafter in The City of New York within the following limits:

Borough of Manhattan.

(2) All the Borough of Manhattan, bounded as follows: Beginning at a point on the North River at the Battery, thence running northerly along the headland line to the Harlem River Ship Canal; thence northerly and easterly through Spuyten Duyvil Creek to Harlem River; thence easterly and southerly along the headland line of Harlem River and Bronx Kill to East River; thence southerly along East River, passing to the east of Randall's Island and Blackwell's Island, and thence continuing by the headland line of the East River to place of beginning.

Borough of The Bronx.

Beginning at a point on the eastern headland line of the Harlem River 300 feet south of East One Hundred and Sixty-first street, running thence easterly and parallel with East One Hundred and Sixty-first street to the east side of Sheridan Avenue and 100 feet therefrom; thence north on the west side of Sheridan Avenue to a point 100 feet north of the north line of East One Hundred and Sixty-first street, thence easterly and parallel to East One Hundred and Sixty-first street and 100 feet therefrom to a point 100 feet west of Park Avenue; thence northerly and parallel to Park Avenue and 100 feet therefrom in a point distant 100 feet west of Webster Avenue; thence northerly and parallel to Webster Avenue and 100 feet therefrom to a point 100 feet northerly of East One Hundred and Seventy-seventh street; thence easterly and parallel to East One Hundred and Seventy-seventh street and 100 feet therefrom to Third Avenue; thence northerly along the westerly boundary line of Crotona Park, and thence easterly along the southerly boundary line of Crotona Park, to a point distant 100 feet east of Prospect Avenue; thence along Prospect Avenue and 100 feet east therefrom to Westchester Avenue; thence along Westchester Avenue and 100 feet east therefrom to a point 100 feet east of the easterly line of Robbins Avenue; thence southerly and parallel to Robbins Avenue 100 feet east therefrom to the Port Morris Branch Railroad; thence southerly along the Port Morris Branch Railroad in the East River; thence southwesterly along the East River, northwesterly along the Bronx Kill and northerly along the Harlem River, to the point of beginning.

Borough of Brooklyn.

Beginning at a point formed by the intersection of Sixtieth Street and New York Bay; thence running easterly on a line drawn 100 feet south of and parallel with the southerly side of Sixtieth Street to Sixth Avenue; thence running northerly on a line drawn 100 feet east of and parallel with the easterly side of Sixth Avenue to Thirty-sixth Street; thence running westerly through the centre line of Thirty-sixth Street to Fifth Avenue; thence running northerly through the centre line of Fifth Avenue to Twenty-fourth Street; thence running easterly through the centre line of Twenty-fourth Street to Sixth Avenue; thence running northerly through the centre line of Sixth Avenue to Twenty-third Street; thence running easterly through the centre line of Twenty-third Street to Seventh Avenue; thence running northerly through the centre line of

Seventh avenue to Twentieth street; thence running easterly through the centre line of Twentieth street to Ninth avenue, or Prospect Park West; thence running northerly through the centre line of Ninth avenue, or Prospect Park West to Prospect avenue; thence running easterly through the centre line of Prospect avenue to Eleventh avenue; thence running easterly through the centre line of Eleventh avenue to Fifteenth street; thence running westerly through the centre line of Fifteenth street to Ninth avenue, or Prospect Park West; thence northerly through the centre line of Ninth avenue, or Prospect Park West, to Flatbush avenue; thence southerly along the centre line of Flatbush avenue to Ocean avenue; thence southerly on a line drawn 100 feet west of and parallel with the west side of Flatbush avenue to Avenue E; thence easterly through the centre line of Avenue E to Flatbush avenue; thence northwesterly on a line drawn 100 feet east of and parallel with the easterly side of Flatbush avenue to Franklin avenue; thence northerly on a line drawn 100 feet east of and parallel with the easterly side of Franklin avenue to Crown street; thence easterly on a line drawn 100 feet south of and parallel with the southerly side of Crown street to East New York avenue; thence easterly on a line drawn 100 feet south of and parallel with the southerly side of East New York avenue to Gillen place; thence northerly on a line drawn 100 feet east of and parallel with the easterly side of Gillen place to Broadway; thence northerly on a line drawn 100 feet east of and parallel with the east side of Broadway to Pilling street; thence easterly through the centre line of Pilling street to Central avenue; thence northwesterly on a line drawn 100 feet east of and parallel with the easterly side of Central avenue to Flushing avenue; thence westerly from a line drawn 100 feet north of and parallel with the northerly side of Flushing avenue to Bushwick avenue; thence northerly on a line drawn 100 feet east of and parallel with the easterly side of Bushwick avenue to Metropolitan avenue; thence westerly on a line drawn 100 feet north of and parallel with the northerly side of Metropolitan avenue to Graham avenue; thence northerly on a line drawn 100 feet east of and parallel with the easterly side of Graham avenue to Skillman avenue; thence westerly on a line drawn 100 feet north of and parallel with the northerly side of Skillman avenue to Union avenue; thence northerly on a line drawn 100 feet east of and parallel with the easterly side of Union avenue to North Ninth street; thence northwesterly on a line drawn 100 feet northeast of and parallel with the northeasterly side of North Ninth street to Bedford avenue; thence easterly on a line drawn 100 feet south of and parallel with the southerly side of Bedford avenue to North Eleventh street; thence northwesterly on a line drawn 100 feet northeast of and parallel with the northeasterly side of North Eleventh street to the East River; thence in Van Brunt street; thence northerly on a line drawn 100 feet east of and parallel with the easterly side of Van Brunt street to King street; thence southerly on a line drawn 100 feet south of and parallel with the southerly side of King street to Columbia street; thence northeasterly on a line drawn 100 feet east of and parallel with the easterly side of Columbia street to Launer street; thence easterly on a line drawn 100 feet south of and parallel with the southerly side of Launer street to Hamilton avenue; thence southerly on a line drawn 100 feet west of and parallel with the west side of Hamilton avenue to Court street; thence southwesterly on a line drawn 100 feet east of and parallel with the easterly side of Court street to Gowanus Bay and New York Bay to the point of beginning.

Also beginning at a point formed by the intersection of East River and Noble street; thence running easterly on a line drawn 100 feet south of and parallel with the southerly side of Noble street to Lorimer street; thence southerly on a line drawn 100 feet west of and parallel with the westerly side of Lorimer street to Nassau avenue; thence easterly on a line drawn 100 feet south of and parallel with the southerly side of Nassau avenue to Oakland street; thence northerly on a line drawn 100 feet east of and parallel with the easterly side of Oakland street to Newtown Creek to the East River, to the point of beginning.

In that part of the Twenty-ninth Ward bounded by Coney Island avenue on the west, by New York avenue on the east and in the lines of said ward on the north and south, on one of two or more unoccupied frame houses, dwellings or buildings shall be permitted to be erected; and no frame house or building shall be erected on any lot or building plot covering more than eighty per cent. in width of any such lot or building plot.

That part of the Eighth Ward, Borough of Brooklyn, which includes the territory between the south side of Forty-fifth street and the north side of Sixtieth street, and the easterly side of Sixth avenue and the westerly side of Seventh avenue.

Any frame building erected hereafter in the territory included within the following boundary—all in the Thirtieth Ward of the Borough of Brooklyn—namely: Beginning at the Shore road and Bay Ridge avenue; along Bay Ridge avenue, including both sides of said avenue, to Fourteenth avenue; along Fourteenth avenue, including both sides, to Eighty-sixth street; along Eighty-sixth street, including both sides, to Third avenue; along Third avenue, including both sides, to Ninety-second street; along Ninety-second street, including both sides, to Shore road; along the said Shore road to the point of beginning—shall not occupy more than eighty (80) per cent. in width of the lot on which said building is erected.

Borough of Queens.

The territory bounded on the south by Newtown Creek, on the north by the south-easterly line of Nott avenue, on the west by the East River, and on the east by the westerly line of Van Alst avenue.

CHAPTER VII.

LIMITS OF AREA; LIGHT AND VENTILATION.

SECTION 20.

Limit of Area.

(1) Except as hereinafter provided all buildings hereafter erected shall be provided with uncovered spaces for providing light and air. These spaces shall be open to the sky from the top of the second story floor beams except when sleeping accommodations are provided in the first story, in which cases the uncovered spaces shall start at the top of the first story floor beams.

(2) The uncovered spaces of all theatres, opera houses and other buildings described in section 137 of this code shall be in accordance with the requirements of that section.

(3) The uncovered spaces of all tenement houses shall be in accordance with the requirements of the Tenement House Act.

(4) For all buildings of Class C hereafter erected on lots other than corner lots the total area of such spaces shall be not less than twenty per centum of the total lot area for buildings not exceeding seventy-five feet in height, nor less than twenty-five per centum of the total lot area for buildings not exceeding one hundred and fifty feet in height, nor less than thirty per centum of the total lot area for buildings more than one hundred and fifty feet in height. No interior court or shaft for any building of Class C shall be less than six feet in its least horizontal dimension.

(5) For all buildings hereafter erected, other than those mentioned above, when built on lots other than corner lots, the total area of such spaces shall be not less than ten per centum of the total lot area for buildings not exceeding seventy-five feet in height, nor less than twelve and one-half per centum of the total lot area for buildings not exceeding one hundred and fifty feet in height, nor less than fifteen per centum of the total lot area for buildings more than one hundred and fifty feet in height.

(6) For any building hereafter erected on a corner lot not exceeding two thousand and five hundred square feet in area the total area of such spaces shall be not less than five per centum of the total lot area for buildings not exceeding seventy-five feet in height, nor less than seven and one-half per centum of the total lot area for buildings not exceeding one hundred and fifty feet in height, nor less than ten per centum of the total lot area for buildings more than one hundred and fifty feet in height.

(7) When buildings hereafter erected are on corner lots more than two thousand five hundred square feet in area, that portion of the building upon the excess lot area over and above two thousand five hundred square feet shall be in accordance with the requirements of paragraph 4 or paragraph 5, as the case may be, of this section.

(8) All buildings (other than theatres, opera houses, tenement houses and buildings of Class C) which occupy corner lots fronting upon three or more streets may occupy the entire lot area provided the maximum width of the building does not exceed seventy-five feet.

(9) The total area of the uncovered spaces of all buildings (except theatres, opera houses and tenement houses) hereafter erected, which are more than seventy-five feet in width and occupy an entire block front facing upon three or more streets may be less by twenty-five per centum than is required by the provisions of paragraphs (4), (5), (6) and (7) of this section.

(10) When buildings not exceeding one hundred feet in width occupy an entire block no uncovered space shall be required.

(11) There shall be a clear space not less than five feet in width, at and above the second story floor beams, between the rear line of every building and the rear line of every lot except corner lots. This shall not apply to buildings which extend through from one street to another.

(12) In every court the distance between opposite boundary walls shall be not less than five feet at any point for a height not exceeding seventy-five feet, and shall be at least one-half inch greater throughout its height for every additional foot above seventy-five feet.

(13) When existing buildings are extended or increased in area the ratio of total uncovered space to the area of the lot shall not be required to be greater than it would be were the entire building erected in accordance with this code.

Where buildings are increased in height on portion of the addition, except the corner, shall extend into or over any uncovered space.

SECTION 21.

Floor Areas Between Fire Walls.

(1) In all non-fireproof buildings hereafter erected, except tenement houses, the floor area between fire walls at least twelve inches in thickness shall not exceed the following: When fronting on one street seven thousand five hundred square feet; when fronting on two streets, eleven thousand two hundred and fifty square feet; when fronting on three or more streets, fifteen thousand square feet.

(2) The floor area between fire walls at least twelve inches in thickness of all fireproof buildings hereafter erected, except tenement houses, and such buildings as are occupied for offices, hotels, railroad depots, armories, churches, light and power stations, exhibition buildings, theatres and such buildings as are herein otherwise provided for, shall not exceed the following: When fronting on one street, ten thousand five hundred square feet; when fronting on two streets, fourteen thousand square feet; when fronting on three or more streets, seventeen thousand five hundred square feet.

(3) The floor area between fire walls at least twelve inches in thickness of all fireproof buildings occupied as stores shall not exceed above or below the first story the general limits of area as herein provided for fireproof buildings. The area on the first floor may, however, be increased, but shall not exceed thirty thousand square feet between fire walls.

(4) No opening in any fire wall of such buildings shall exceed eighty square feet in area. No two openings in the same wall shall be nearer than forty feet on centers.

(5) The floor area between fire walls at least twelve inches in thickness of all car barns shall not exceed twenty thousand square feet and the distance between such walls shall not exceed fifty feet. Openings in such fire walls shall not exceed forty-eight square feet in area and shall not be placed opposite each other or nearer than one hundred feet on centers.

(6) All openings in fire walls shall be protected by an approved fire door on each side of the wall.

SECTION 22.

Light and Ventilation.

(1) In all buildings hereafter erected every sleeping room shall be provided with a window or windows opening directly upon a street, yard or court. The total window area shall be not less than twelve square feet between stop heads and shall be so arranged that it can be opened to the extent of about one-half its area. Such sleeping room shall be for three-fourths of its area not less than nine feet high from the finished floor to the finished ceiling and shall be not less than seven feet in width and not less than seventy square feet in area, except that in hotels the area shall be no less than eighty square feet.

(2) No sleeping room shall be hereafter placed in a cellar the ceiling of which is less than two feet above the curb.

CHAPTER VIII.

ENTRANCES, STAIRS, FIRE ESCAPES.

SECTION 23.

Entrances.

(1) Every building hereafter erected or altered shall have at least one entrance direct to a street, yard or court communicating directly with the street.

(2) In all buildings hereafter erected, except dwellings and tenement houses, all doors in the first story giving admission to or egress from the building, including the doors of vestibules, shall be so hung as to swing outwards when opening. This requirement shall not be construed to prohibit the use upon doors of double hinges which permit the door to swing half inwards and outwards, nor of sliding doors in stables, garages and the shipping rooms and receiving rooms of manufacturing and mercantile buildings.

(3) Every revolving door at the entrance or exit of any building shall be an approved revolving door having a mechanical device by which it can be readily transformed into an open exit.

(4) Where buildings are connected every opening between them shall be provided with an approved self-closing standard fire door on each side of the wall.

Entrance to Cellar or Basement.

(5) Every building of Class D hereafter erected that is arranged to be occupied by more than two families above the first story shall be provided with an entrance to the cellar or basement thereof from the outside of the building.

(6) Every building of Class D hereafter erected which is not over forty-eight feet or four stories in height and is not arranged to be occupied by more than two families on any floor, the stairs leading to the cellar or basement may be located inside the building, provided they are enclosed with approved fireproof partitions and approved self-closing metal doors.

SECTION 24.

Interior Stairs.

(1) Number Regulated by Area of Building—In all buildings hereafter erected the number of stairs in each story shall be regulated by the area of each story measured on the outside of walls, except as hereinafter mentioned. All stairways shall be continuous from the top floor to the curb level, and the main stairway shall extend to the roof. Exits from all stairs shall be provided as the Superintendent of Buildings may direct. Where more than one stairway is required the stairs shall be remote from each other. When the ground floor area exceeds that of the floors above, the number of stairs required for this story shall be determined by the area of the story next above.

(2) In all Municipal Buildings, Court Houses, Detention Buildings, Schools, Colleges, Hospitals, Asylums, Churches, Amusement Halls, Lodge Rooms, Exhibition Buildings, Hotels, Lodging Houses, Club Houses, Studios, Dormitories, Dwellings, Laundries, Stores, Restaurants, Factories, Workshops and Printing Houses, there shall be the following number of stairs for stories not exceeding the given areas:

Not exceeding 2,500 square feet in area, one stairway.

Not exceeding 5,000 square feet in area, two stairways.

Not exceeding 10,000 square feet in area, three stairways.

Not exceeding 20,000 square feet in area, four stairways.

(3) In all Bath Houses, Fire Houses, Libraries, Museums, Office Buildings, Warehouses, Stables, there shall be the following number of stairs for stories not exceeding the given areas:

Not exceeding 3,750 square feet in area, one stairway.

Not exceeding 7,500 square feet in area, two stairways.

Not exceeding 15,000 square feet in area, three stairways.

Not exceeding 30,000 square feet in area, four stairways.

(4) In all Armories, Railroad Passenger Depots, Markets, Light and Power Plants, Car Barns, Garages, Railroad Freight Depots and Foundries, there shall be the following number of stairs for stories not exceeding the given area:

Not exceeding 5,000 square feet in area, one stairway.

Not exceeding 10,000 square feet in area, two stairways.
Not exceeding 20,000 square feet in area, three stairways.
Not exceeding 40,000 square feet in area, four stairways.

(5) Where the area of any story exceeds the above requirements for four continuous lines of stairs, such extra number of stairs, outside fire stairs or fire escapes shall be provided as the Superintendent of Buildings shall direct.

(6) At the discretion of the Superintendent of Buildings the allowable area for any given number of stairs as mentioned above may be increased as he shall direct between the given areas.

(7) In all Theatres or Opera Houses hereafter erected stairs of such number and of such width shall be provided as called for in section 137 of this code.

(8) In all Tenement Houses hereafter erected stairs of such number and width shall be provided and enclosed as called for in the Tenement House Act.

(9) The width of the stairs required by this section shall in no case be less than three feet and two inches from wall to centre of hand rail, or from centre to centre of parallel hand rails, and shall be greater if required by the Superintendent of Buildings.

(10) All stairs shall have treads and risers of uniform width and height throughout in each flight and the rise shall be not more than eight inches, and the tread, exclusive of nosing, not less than nine inches.

(11) All stairs shall be provided with proper banisters or railings and hand-rails.

(12) Each flight of stairs in every story which exceeds a height of twelve feet in the clear shall have a proper intermediate landing. When stairs have a straight run the landing shall be placed at the central portion thereof.

(13) The space beneath every staircase shall be left entirely open and kept free from combustibles, except that the space beneath any first story staircase, from the foot of same to a point on the outfit, which is not more than five feet above the floor, may be surrounded by an enclosure which shall be without openings of any kind.

(14) If there are two or more flights of stairs, one outside fire stairs erected in accordance with section 25 of this code shall be considered the equivalent of one inside flight of stairs as herein provided, but no outside fire escape shall be accepted in lieu of such stairs.

(15) *Stone and Slate Treads to be Supported*—In all buildings hereafter erected where the treads and landings of metal stairs are of slate, marble or other stone, there shall be placed directly underneath each tread and each landing for their entire length and width a steel plate made solid, or having openings not exceeding four square inches in same, of adequate strength, but not less than one-eighth of an inch in thickness, and securely fastened to the strings with bolts or rivets, or to both the strings and risers if the treads be more than three and one-half feet long. If stairs are of other fireproof material than metal, and the slate, marble or other stone treads and landings are not solidly supported for their entire length and width by the materials comprising such stairs, steel supports shall not be required.

SECTION 25

Outside Fire Stairs.

(1) Any building hereafter erected or altered which exceeds thirty-six feet and six inches in height, and is required to have two or more staircases, as specified in section 24 of this code, may have, when approved by the Superintendent of Buildings in place of one inside stairs an outside fire staircase, which shall be accessible to all occupants.

(2) Such outside fire stairs shall be entirely of suitable iron or steel. They shall extend from the curb, court or yard level to the roof, and shall in no case be in front of openings in the wall. At each story there shall be access to the stairway. Access shall be only by doorways connecting with steel or iron balconies on the outside walls of the building. Doors shall be self-closing, at least three feet wide, metal covered, with metal-covered jambs and casings, and shall swing outwards to open, and be provided with locks or latches, with visible fastenings that require no keys.

(3) Direct outlet shall be provided at roof and curb level. Where staircases end in a court or yard there shall be a fireproof passageway not less than three feet wide and six feet six inches high, leading direct to the street. There shall be no steps within this passageway.

(4) The staircase shall be at least three feet wide in the clear and have treads not less than nine inches wide, exclusive of nosings, and risers of not more than eight inches. Landings the full width of the stairs shall be provided at vertical intervals of not more than twelve feet. All treads shall be of uniform width. No winders shall be permitted. The connecting balconies, which shall be provided in addition to any stair landing and at the same level therewith, shall be at least three feet six inches wide in the clear, and not more than two inches below the door sill. The top surface of treads, landings and balconies shall have an approved roughened surface to prevent slipping. Stairs shall have substantial banisters, railings and handrails. All parts of stairways and balconies shall receive not less than three coats of paint, one before and two after erection, and shall be kept painted and in good repair. Stairways, balconies and all passageways connecting thereto shall at all times be kept free from incumbrance, as required in section 26 for fire escapes.

SECTION 26

Fire Escapes.

(1) Sufficient fire escapes, fire stairs or other means of egress which shall be satisfactory to the Superintendent of Buildings shall be provided as directed by him upon the following buildings: Boarding houses which have more than fifteen sleeping rooms above the basement floor; every hotel, lodging house, factory, mill, workshop, store, detention building and school more than three stories in height, and every office building which is more than four stories in height. Tenement houses shall be provided with fire escapes as required by the Tenement House Act.

All existing buildings in whole or in part occupied or used as specified in section 25 of this code, not already provided with outside fire stairways, shall have such good and sufficient fire escapes, stairways or other means of egress in case of fire as shall be directed by the Superintendent of Buildings, except that in tenement houses fire escapes shall be erected as required by the Tenement House Act. All other buildings not herein specified which exceed seventy-five feet in height, shall have two separate means of escape or exit. The Superintendent of Buildings shall have full and exclusive power to require that fire escapes and other means of egress be provided upon and within said buildings, or any of them, except as herein otherwise provided. The owner of any building upon which a fire stairway or fire escape is erected shall keep the same in good repair and properly painted.

(2) Fire escapes on the outside of buildings shall consist of open iron balconies and stairways satisfactory to the Superintendent of Buildings, and may project into the public highway to a distance not greater than four feet beyond the building line.

(3) Incumbrances on Fire Escapes—No person shall place any incumbrance before or upon any fire escape, fire stairway, balcony or ladder. It shall be the duty of every fireman and policeman who shall find any fire escape, fire stairway, balcony or ladder of any fire escape or fire stairway incumbered in any way to forthwith report the same to the commanding officer of his company or precinct, and such commanding officer shall forthwith cause the occupant of the premises or apartment to which said fire escape, fire stairway, balcony or ladder is attached, or for whose use the same are provided, to be notified, either verbally or in writing, to remove such incumbrance and keep the same clear. If said notice shall not be complied with by the immediate removal of the incumbrance, and keeping said fire escape, fire stairway, balcony or ladder free from incumbrance, then it shall be the duty of said commanding officer to apply to the nearest Magistrate for a warrant for the arrest of the occupant or occupants of the said premises or apartments of which the fire escape or fire stairway forms a part, and the said parties shall be brought before the Magistrate as for a misdemeanor; and on conviction the occupant or occupants of said premises or apartments shall be fined not more than ten dollars for each offense, or may be imprisoned not to exceed ten days, or both, in the discretion of the Court.

(4) In constructing all fire stairways and balcony fire escapes the manufacturer thereof shall securely fasten thereto, in a conspicuous place, a metal plate with suitable raised letters reading as follows: "Notice: Any person placing any incumbrance on this balcony is liable to a penalty of ten dollars and imprisonment for ten days."

SECTION 27

Engineers' Stationary Ladders.

Every building in which high pressure steam boilers are placed in the cellar or lowest story shall have stationary iron ladders or stairs from such story leading direct to a manhole through the sidewalk or other outside exit.

CHAPTER IX.

ENCLOSURES FOR STAIRWAYS AND ELEVATORS; SHAFTS.

SECTION 28.

Enclosures for Stairways.

In all fireproof buildings, and all buildings of Class E, the stair halls above the first story shall be enclosed throughout with approved fireproof material, not less than four inches thick, exclusive of plastering. Such partitions shall be anchored at top, bottom and ends, to form an enclosure, the floor area of which shall not be more than three times the total area of the floor openings for the elevators and stairs in each enclosure in each story.

SECTION 29.

Enclosures for Elevators.

(1) All elevators hereafter placed in any building shall be enclosed by partitions of brick, terra cotta block, reinforced concrete or other approved fireproof material, built in accordance with section 120 of this code and carried by suitable foundations of masonry, concrete or steel. In every existing non-fireproof hotel in which any existing elevator is not enclosed in a fireproof shaft it shall be placed in a masonry enclosure, constructed and arranged as required in this section.

(2) The bottom of every elevator shaft shall be fireproof. Where the elevator shaft extends into the cellar or lowest story it shall be enclosed in that story with brick walls not less than eight inches thick.

(3) If not used as bearing walls the partitions enclosing elevators, when of brick, shall be not less than eight inches in thickness for the uppermost forty feet and shall increase four inches in thickness for each lower forty feet or part thereof; or when wholly supported by suitable steel framing at vertical intervals of not over forty feet, they may be eight inches in thickness throughout their height. If not used as bearing walls such walls when of terra cotta block, wholly supported by steel framing at vertical intervals of not over twenty-four feet, and suitable spaced upright members shall be not less than four inches in thickness. If not used as bearing walls such walls, when of reinforced concrete, shall be not less than six inches for the uppermost thirty feet, and shall increase four inches in thickness for each lower forty feet or part thereof; or when suitably supported at vertical intervals of not over twenty-four feet, such partitions may be six inches in thickness throughout their height. Such walls or partitions when of other approved fireproof material shall be constructed and supported as may be directed by the Superintendent of Buildings. The inside surface of all elevator shafts shall be flush, smooth and free from protruding sills, ledges or breaks.

(4) Window openings in elevator enclosures shall open to the outer air. All door openings shall be provided with approved fireproof doors. The doors opening into elevator enclosures in dwellings intended for the occupancy of one family may be of wood covered on the inner surface and edges with metal, but the openings in the cellar and above the roof in such enclosures, shall have their entire surface covered with metal.

(5) Where elevator enclosures extend through the roof of a building the roof of the enclosure shall be of approved fireproof material with a thickness of at least three-fourths of the area in the shaft. Where they do not extend through the roof the top of the enclosure shall be of fireproof material. If any elevator shaft in a non-fireproof building extends to the top floor it shall be carried through the roof and three feet above it.

(6) When the compartment which contains the machinery for operating an elevator communicates with the elevator shaft it shall be enclosed with approved partitions, as required for the shaft, and shall have standard fire doors.

SECTION 30.

Enclosures for Dumbwaiters.

(1) All dumbwaiter shafts to be fireproof placed in any building, except shafts which do not extend more than three stories above the cellar or basement floor in dwelling houses, shall be enclosed by suitable walls of brick, terra cotta or other approved fireproof material. Terra cotta block shall be built on suitable steel framing between floors. Other fireproof material shall be stiffened and lined with suitable metal of a form and construction approved by the Superintendent of Buildings. Such walls or partitions shall rest upon masonry or concrete foundations, or upon suitable steel framing.

(2) Where the dumbwaiter shaft extends into the cellar or lowest story of a non-fireproof building it shall be enclosed in that story with brick walls not less than eight inches thick.

(3) The bottom of all dumbwaiter shafts shall be fireproof, and where such shaft does not extend through the roof the top shall be fireproof.

(4) When dumbwaiter shafts extend through the roof they shall extend at least three feet above the roof, and shall be covered with fireproof material and have a metal frame skylight at least three-fourths the area of the shaft.

(5) All openings in shaft walls shall be provided with self-closing standard fireproof doors, with fireproof jambs and trim.

(6) In dwelling houses where dumbwaiter shafts are not fireproof, as heretofore provided in this section, the entire interior shall be covered with metal lath, or other approved fireproof material, and plastered.

SECTION 31.

Light and Vent Shafts.

In all buildings hereafter erected or altered, except frame dwellings, all the walls or partitions forming interior light or vent shafts shall be built in accordance with section 120 of this code. The walls of all light or vent shafts, whether exterior or interior, hereafter erected, shall be carried up not less than three feet above the level of the roof and shall be cored.

CHAPTER X.

STANDPIPES; AUTOMATIC SPRINKLERS; FIRE SHUTTERS AND DOORS.

SECTION 32.

Standpipes.

(1) In every existing building, except as provided for in section 127, exceeding eighty-five and not over one hundred and twenty-five feet in height, which is not provided with a three-inch or larger standpipe, and in all buildings hereafter erected exceeding eighty-five and not exceeding one hundred and twenty-five feet in height there shall be provided a vertical standpipe not less than four inches in diameter.

(2) In every existing building exceeding one hundred and twenty-five feet in height which is not provided with a three-inch or larger standpipe, and in all buildings hereafter erected exceeding one hundred and twenty-five feet in height, there shall be provided a vertical standpipe not less than six inches in diameter, or two vertical standpipes each not less than four inches in diameter.

(3) All standpipes now erected or hereafter erected shall have on each floor a two and one-half inch hose connection, with hand valve, and upon an approved tank or reel, sufficient hose to reach any part of the floor. There shall be sufficient hose at the valve on the top floor to reach any part of the roof. Standpipes and fittings shall be of galvanized wrought iron or steel, or of brass, and shall be able to safely withstand a water pressure of three hundred pounds per square inch when installed and ready for service. Standpipes shall be located to the satisfaction of the Superintendent of Buildings in stair halls wherever practicable.

(4) In buildings over one hundred feet deep and fronting one or more streets, there shall be a standpipe at each end of the building; and in buildings exceeding eight thousand square feet in area there shall be one standpipe for each stairway. Where two or more standpipes are required they shall be connected at the base by pipes the size of the largest standpipes, so that water from any source will supply all standpipes.

(5) Hose shall be two and one-half inches in diameter and able to safely withstand a water pressure of three hundred pounds per square inch. It shall be in fifty foot lengths, and have at each end a standard coupling with the thread used by the Fire Department, and shall have at least a three-quarter inch standard nozzle. There shall be two hose spanners at each hose connection.

(6) Every standpipe shall have at the street level a siamese connection the size of the standpipe. The connection for hose shall have an area equal to the standpipes and the thread on the hose connections shall be that used by the Fire Department. All siamese connections shall be fitted with check valves and a metal plate, secured to the wall, shall designate the point to which they lead.

(7) In each connecting pipe just inside the building, in a horizontal section, shall be placed a straightway check valve, but not a gate valve. A drip pipe and valve shall be placed between the check valve and the steamer connection. Besides the steamer connections the standpipes may be supplied with water from the street mains, at points where the pressure therein is sufficient, and they shall be connected with an approved automatic fire pump with a capacity of not less than five hundred gallons per minute, a suitable elevated tank or an approved steel pressure tank equipment of not less than five thousand gallons capacity.

(8) Where a standpipe is connected to a tank there shall be a straightway check valve in a horizontal section of pipe between the first hose outlet in the connecting pipe and the tank. The tank shall be supplied by a separate pipe, and not through the standpipe.

(9) Pumps which supply standpipes shall be placed not less than two feet above the floor level, and boilers which supply steam for pumps shall be protected against the flooding of fires.

(10) In every building exceeding one hundred feet in height at least one elevator shall at all times be in readiness for immediate use by the Fire Department.

(11) All existing buildings, and those hereafter erected, which exceed seventy feet in height, shall be provided with such wrenches, fire extinguishers, hooks, axes and pails as may be required by the Fire Department.

SECTION 33.

Automatic Sprinklers.

(1) In all buildings of Classes E and F, the height of which exceeds seventy-five feet, except office buildings, restaurants, light and power plants, and any portion of lot buildings used for office or dwelling purposes, there shall be provided in addition to standpipes a standard equipment of automatic sprinklers, placed at ceiling of each story and extending the full depth and breadth of the building. Said sprinkler pipes shall be connected with a pipe not less than four inches in diameter leading to the outside of building, and there provided with an approved siamese steamer connection, the latter to be installed under the requirements set forth in section 32 of this code, and to be under the control of and for the use of the Fire Department. A suitable iron plate with raised letters shall be attached to the wall near said steamer connection reading "Automatic Sprinklers."

(2) Car Barns—All buildings that are designed or intended for or used as car barns for the storage or repair of cars shall be provided with a standard equipment of automatic sprinklers.

SECTION 34.

Fire Shutters and Doors.

(1) Every building within the fire limits which is more than thirty-six feet six inches in height, except buildings of Classes A and D, schools and churches, shall have standard fire doors, blinds or shutters or their equivalent, as required in this section, on every exterior window and opening above the first floor, except on openings fronting on streets, which are more than thirty feet in width, or where an other building is within thirty feet of such opening.

(2) If an approved metal window frame and approved metal sash, with approved wire glass, are built in a window opening, fire shutters may be omitted.

(3) All shutters opening on fire escapes and at least one row vertically in every three vertical rows on the front window openings shall be so arranged that they can be readily opened from the outside. Rollback iron or steel shutters shall be carefully counterbalanced, and so arranged that they can be readily opened from the outside.

(4) All buildings hereafter erected or altered, except those excepted in the first paragraph of this section, which have encorage in interior walls, shall, when required by the Superintendent of Buildings, be provided with standard fire doors on both sides of the wall; such fire doors to have approved self-closing devices. All occupants of buildings shall close all exterior and interior fire doors and blinds at the close of each business day.

CHAPTER XI.

GENERAL REQUIREMENTS.

SECTION 35.

Cellars to Be Connected with Sewers.

Before the walls of buildings are carried above the curb, the cellars shall be connected with the street sewer. Should there be no sewer in the street, or if the cellar is below water level or below the sewer level, provision shall be made to prevent water accumulating in the cellar, to the injury of the foundation.

SECTION 36.

Cellar and Ground Floors.

In all buildings hereafter erected the floor of the cellar or lowest story shall be covered with stone or gravel concrete no less than four inches thick.

Where wood floors are to be laid in such cellars or lowest stories, the sleepers shall be placed on top of the concrete, and the space between sleepers shall be filled, flush with top of sleepers, with stone or cinder concrete.

SECTION 37.

Cellar Partitions in Buildings of Classes C and D.

(1) In all buildings of Classes C and D hereafter erected, having a floor with a clear span of over twenty feet between bearing walls, which supports stud partitions above, there shall be constructed in the cellar, or lowest story, at least one partition of brick, concrete, terra cotta blocks or other approved material, not less than eight inches thick, or piers of brick or concrete with openings arched below the under side of the first tier of beams.

(2) If the height of basement or cellar exceeds nine feet in the clear, this partition wall shall be not less than twelve inches thick. Girders of steel, with iron or steel columns, or piers of masonry, may be used in place of partitions.

(3) All partitions in cellars shall be fireproof.

SECTION 38.

Cellar Ceilings.

The wood beams of the ceiling of the cellar or lowest story of every building of Class D, less than fifty feet in height, hereafter erected or altered, shall be covered with metal lath or other approved fireproof material, as specified in section 119, and plastered with two or more coats of mortar.

SECTION 39.

Vaults Under Sidewalks.

In buildings where the space under the sidewalk is utilized, a sufficient stone or brick wall, or brick arches between steel beams, shall be built to retain the roadway of the street, and side, end or party walls of sufficient thickness shall extend under the sidewalk to such wall. The roofs of all vaults shall be of approved incombustible material. If openings in the roofs of vaults are covered with glass, each glass shall measure not more than sixteen square inches. Iron covers shall have a rough surface, and be rebated flush with the sidewalk. All vaults shall be properly ventilated.

SECTION 40.

Arches.

All areas shall be either protected with suitable railings, or covered. When areas are covered, iron or iron and glass combined, stone or other approved incombustible materials shall be used, and properly supported.

SECTION 41.

Bay, Oriel and Show Windows.

(1) Bay, Oriel, and Show Windows—Bay, oriel and show windows which extend more than three feet above the second floor, or more than twenty feet above the curb level, shall have outside enclosures of fireproof material and be roofed with sheet metal or other fireproof material. Plate glass may be used for the fronts and sides of show windows, provided all supports are of solid metal, and the frame and sash, if of wood, are metal covered.

(2) Bay, oriel and show windows, when otherwise located on any building, shall be constructed of such materials and in such manner as to meet the approval of the Superintendent of Buildings.

(3) Bay Windows Projecting Beyond the Building Line—Bay windows projecting beyond the building line as they are defined in section 224 of the Code of Ordinances, and ornamental projections which project beyond the building line as they are defined in section 225 of the Code of Ordinances, may be constructed and maintained, provided permits therefor are obtained, pursuant to sections 224 to 245, inclusive, of the Code of Ordinances.

SECTION 42.

Roofs.

(1) Every building except frame buildings, and the tops and sides of every dormer window except those on frame buildings, shall be covered and roofed with such fireproof roofing as the Superintendent of Buildings may approve. Nothing in this section shall be construed to prohibit the repairing of any single roof, provided the building is not altered in height, but this shall not permit the renewal of a shingle roof. The wood planking and sheathing of roofs shall not in any case extend across any side or party walls.

(2) If mansard or other roofs of like character, having a pitch of over sixty degrees, be placed on buildings over thirty-six feet six inches high, except frame buildings, they shall be constructed of iron or steel frames filled with fireproof material. The outside of such roofs shall be covered with metal, slate, tile or other incombustible material.

(3) Every opening in a roof shall have a suitable covering or enclosure.

SECTION 43.

Cornices and Gutters.

(1) On all buildings hereafter erected within the fire limits the exterior cornices, inclusive of those on show windows and gutters, shall be of sheet metal, well soldered and riveted, or other fireproof material. All cornices shall be well secured to the walls with metal anchors, spaced not over four feet apart, and extending four inches into the wall at top and bottom, independent of any woodwork. The tops of cornices shall not extend above the tops of the walls to which they are attached.

(2) All exterior wooden cornices within the fire limits which are found to be unsafe shall be taken down, and, if replaced, shall be of sheet metal or other fireproof material. All exterior cornices and gutters of wood that may be damaged to the extent of one-half, shall be taken down, and, if replaced, shall be of sheet metal or other fireproof material. If not damaged to the extent of one-half they may be repaired with the same kind of material of which they were originally constructed.

SECTION 44.

Roof Leaders.

All buildings shall be provided with proper metal leaders for conducting water from the roofs. In no case shall the water from leaders be allowed to flow upon the sidewalk, but it shall be conducted by pipe to the sewer. If there be no sewer in the street upon which such buildings front, the water from the leader shall be conducted by proper pipe below the surface of the sidewalk to the street gutter.

SECTION 45.

Tanks.

Tanks containing more than five hundred gallons of water or other fluid hereafter placed within or on the roof or above the roof of any building herebefore or hereafter erected, shall be supported by steel beams or masonry of sufficient strength to safely carry the same, and the beams shall rest at both their ends on steel girders or iron or steel columns, walls or piers of masonry. Underneath any such water tank or on the side near the bottom of the same there shall be a pipe or outlet, not less than four inches in diameter, fitted with a suitable quick opening valve to permit ready discharge of the contents from the tank. Such tanks shall be placed when practicable at a corner of a building, and shall not be placed over a line of stairs or elevator shaft. Covers of tanks placed on roofs, if of wood, shall be covered with metal. Tanks made of wood shall be covered with metal humps round in section. All water tanks containing more than one hundred gallons placed inside of buildings shall be properly insulated. All roof tanks shall be cleaned and inspected semi-annually and kept in proper repair, and the cover on same shall be securely locked.

SECTION 46.

Scuttles on Roofs.

Upon the roof of every building more than fifteen feet high there shall be a scuttle or bulkhead, with stairs or substantial stationary iron ladder leading thereto, which shall at all times be easily accessible to all occupants. All non-fireproof scuttles shall be covered on the top and edges with sheet metal or other approved fireproof material. The openings shall be at least two feet by three feet in area.

SECTION 47.

Pent Houses and Bulkheads.

All inclosures upon roofs for tanks, elevators or elevator machinery, and all pent houses and bulkheads hereafter erected, shall be fireproof, and covered on all outside surfaces with approved incombustible weatherproof material, including all surfaces and edges of doors and jambs. Where door jambs are blocked out from the fireproofing, the space between the jamb and the fireproofing shall be filled in solid with approved incombustible material, or in lieu of same the back of jamb shall be metal covered. Stairs with suitable hand rails shall lead to the pent house or bulkhead.

For definition of bulkheads and pent houses, see section 4, paragraphs 35 and 36.

SECTION 48.

Ducts for Pipes.

In all buildings the ducts for pipes, wires, cables and for similar purposes shall in all cases be separately inclosed on all sides with fireproof material. All such chases shall be fire-stopped at each floor. No pipes, wires, cables or similar material shall be inclosed within or imbedded in the fireproof protection of columns or other structural members.

SECTION 49.

Wainscoting.

When wainscoting is used in buildings hereafter erected or altered, the surface of the walls or partitions behind the wainscoting shall be plastered flush with the grounds and down to the floor line.

SECTION 50.

Floor Lights.

Floor lights shall be constructed of metal frames and bars or plates, or re-enforced concrete or other approved fireproof material. Glass shall be not less than three quarters of an inch in thickness. If any glass measures more than sixteen square inches, there shall be a mesh of wire, either in the glass or under the same. Floor lights shall be of the same strength as the floors in which they are placed.

SECTION 51.
Skylights.

(1) All skylights shall have frames and sash of metal. All skylight frames and parts thereof shall be riveted or otherwise securely fastened, in addition to soldering.

(2) *Skylights Over Public Passageways.*—Skylights hereafter placed in buildings of a public character over any passageway or room of public resort shall have immediately underneath the glass thereof a wire netting of not less than No. 8 galvanized wire and not more than one and one-half inch mesh set in substantial channel iron frames.

SECTION 52.

Skylight and Roof Protection.

(1) When walls are carried up two stories or more above the roofs of adjoining buildings, proper means shall be provided and used by the person erecting the walls for the protection of the skylights and roofs of such adjoining buildings.

(2) Should the owner of such adjoining buildings refuse to grant permission to have his roofs and skylights properly protected, such refusal shall be reported in writing to the Superintendent of Buildings and it shall then be the duty of the owner refusing such permission to make his skylights and roofs safe at his own expense, to the satisfaction of the Superintendent of Buildings.

SECTION 53.

Shed Coverings for the Protection of Pedestrians.

Whenever buildings shall be erected or increased to over thirty-six feet six inches in height, upon or along any street, the person erecting or altering such buildings shall cause to be erected and maintained during such construction or alteration, a shed over the sidewalk in front of the said premises. The shed shall extend from area line to curb for the full frontage of the building, and the roof thereof shall be strong and tight, so as to protect persons using such streets. The street side of such covered way shall be left open for a height not less than six feet above the curb. Said sheds and enclosures shall be subject to the inspection of the Superintendent of Buildings.

SECTION 54.

Outside Scaffolds.

(1) Whenever outside scaffolds are used on buildings over thirty-six feet six inches in height, whether the same be constructed of poles, thrust-outs or suspended scaffolds, there shall be erected on their outer edges and ends, an enclosure of substantial wire netting of not over two-inch mesh, or of boards not less than seven-eighths of an inch thick, placed not over one and one-half inches apart, well secured to uprights not less than two inches by four inches fastened at bottom to planks or timbers on the outer edges and ends of the scaffolding and braced by diagonal stays fastened to platform and top of uprights. The said enclosure shall extend three feet above the working platform of the scaffold.

(2) Timber thrust-outs shall be not less than three inches by ten inches and as much larger as may be required for the load to be carried. They shall be thoroughly braced and secured.

(3) The flooring of all scaffolds shall be tightly constructed with plank. Where poles, put-logs or thrust-out scaffolding are used, the floor and enclosure shall not be removed until a like floor and enclosure are prepared and in position on the story above.

CHAPTER XII.

1900 LOADS, WIND PRESSURE.

SECTION 55.

Floor Loads.

(1) The dead loads in all buildings shall consist of the actual weight of walls, framing, floors, roofs and all permanent construction except partitions not over six inches in thickness.

(2) The live loads shall consist, (a) live load bearing other than the weight of the material entering into the construction of the building.

(3) Every floor shall be of sufficient strength to bear safely the weight to be imposed thereon in addition to the weight of the materials of which the floor is composed. Each floor of every building shall be of sufficient strength in all its parts to bear safely upon each and every square foot of its surface a minimum of not less than the live loads specified in the following table:

Class of Building	Ground and Lower Floors, Pounds Per Square Foot	Upper Floors, Pounds Per Square Foot
Foundries, Light and Power Plants, Printing and Lithographing Houses, Railroad Freight Depots	250	250
Warehouses	250	200
Car Barns, Factories, Garages, Work Shops	150	150
Fire Houses	150	60
Armories, Exhibition Buildings, Lofts, Markets, Stables, Stores, Public Halls	125	125
Railroad Passenger Depots	125	90
Office Buildings	125	75
Court Houses	100	100
Amusement Halls, Churches, Colleges, Libraries, Municipal Buildings, Museums, Schools, Theatres	90	90
Asylums, Bath Houses, Club Houses, Detention Buildings, Dormitories, Dwellings, Hospitals, Hotels, Lodge Rooms, Lodging Houses, Restaurants, Studios, Tenant Houses	90	60

(4) The roofs of all buildings having a pitch of less than twenty degrees shall be proportioned to bear safely fifty pounds upon every square foot of their surface in addition to the weight of materials composing same. If the pitch be more than twenty degrees, the live load shall be assumed to be thirty pounds upon every square foot measured on a horizontal plane.

(5) For sidewalks between the curb and area lines, live loads shall be taken at three hundred pounds per square foot.

(6) Every column, post or other vertical support shall be of sufficient strength to bear safely the combined live and dead loads of the portion of each and every floor which depends upon it for support.

(7) In buildings which are more than five stories in height and have steel columns, with the exception of those buildings where the live floor loads are required to be one hundred and twenty-five pounds per square foot or over, the following reductions are permissible: For columns supporting roof and top floor, no reduction; for columns supporting each succeeding floor, a reduction of five per centum of the total live load may be made until fifty per cent is reached, which reduced load shall be used for the columns supporting all remaining floors. When the columns are designed for this reduced load, all beam and girder connection to columns and all column connections shall be riveted.

(8) No steel beam shall be placed in any building of Class E that is not capable of sustaining a live load at the centre of said beam of at least four thousand pounds, plus whatever dead load the beam may have to carry. This is intended to provide for the moving of and support of safes.

(9) In all buildings of Classes A, E and F, the plans filed in the Bureau of Buildings shall designate the actual purpose for which each floor is intended to be used, giving the maximum distributed and concentrated loads to be imposed thereon. In all cases where the actual loads exceed the loads designated in this code, the strength of the floors shall be increased so as to safely bear the actual loads to be imposed upon them.

(10) No safe shall be placed on a stair landing or in a stair hall, nor shall its weight be carried by any beam which also carries the floor of any landing or stair hall.

SECTION 56.

Strength of Existing Floors to be Computed.

In all buildings of Classes A, E and F now existing or hereafter erected, the weight that each floor will safely sustain upon each square foot thereof, or upon each varying part of such floor, shall be computed. Such computation shall be reduced to writing on printed forms, furnished by the Bureau of Buildings, stating the material, size, distance apart and span of beams and girders, posts or columns to support floors, and its correctness shall be sworn to by the person making the same, and it shall thereupon be filed in the office of the Superintendent of Buildings. If the Superintendent of Buildings shall have cause to doubt the correctness of said computation, he may reject it. When the correct weight which the floors in any building will safely sustain has been ascertained and approved, the owner of said building shall post a copy of such approved computation in a conspicuous place on each story, as designated by the Superintendent of Buildings.

SECTION 57.

Wind Pressure.

(1) All buildings of skeleton construction in which the height is more than four times the minimum horizontal dimension shall be designed to resist a horizontal wind pressure of thirty pounds for every square foot of vertical surface measured from the ground to the top of the structure, including roof, allowing for wind in any direction, and if the connections and main members of the steel frame are not of sufficient strength to safely sustain this wind load without exceeding the safe allowable unit stresses as hereinbefore given, then such bracing and additional material shall be provided as may be necessary.

(2) If the height of the structure is less than four times the minimum horizontal dimension, the wind pressure per square foot may be reduced to fifteen pounds, except in determining the overturning moment, when thirty pounds per square foot shall be used.

(3) The overturning moment due to wind pressure shall not exceed seventy-five per centum of the moment of stability of the structure, unless the structure is securely anchored to the foundation, the anchors to be of sufficient strength to safely carry the excess overturning moment, without exceeding the allowable unit stresses as given in this code.

(4) In determining the overturning moment of structures, a wind pressure of thirty pounds per square foot shall be assumed. Unless the stress due to the wind is any number amounts to fifty per centum of the total live and dead loads, it may be neglected. When the stress due to the wind exceeds fifty per centum of the stress due to live and dead loads combined, all these stresses shall be added together and the allowable unit stress for the total may be taken at fifty per centum in excess of the values stated in Chapter XIV. of this code.

CHAPTER XIII.

MATERIALS, QUALITY, TESTS, WEIGHTS.

SECTION 58.

Brick.

(1) The brick used in all buildings shall be good, hard, well burnt brick and thoroughly wet before being laid, except in freezing weather, when they shall be perfectly dry. Not more than five per centum shall be laid in broken brick.

(2) When old brick are used they shall be thoroughly cleaned and wet before being laid. They shall be whole and good, hard, well burnt brick.

SECTION 59.

Hollow Building Blocks.

(1) Molded hollow building blocks, of concrete or other hard incombustible material, may be used for non-bearing walls in any building not more than thirty feet in height, provided the materials are not assumed beyond the safe limits fixed in this code. No such blocks shall be used until satisfactory tests have been made by the manufacturer, under the direction of the Superintendent of Buildings, in accordance with the requirements of section 67 of this code, and the use of such blocks has been approved. In no case shall the hollow spaces of a block exceed thirty-three and one-third per centum of its gross volume. The thickness of walls or webs of such blocks shall be not less than one-fourth of the height of the blocks, and in no case less than one inch.

(2) The thickness of the walls of any building in which hollow blocks are used shall not be less than is required by this code. All such walls shall be laid in cement mortar. No wall composed of hollow blocks shall be loaded in excess of one hundred pounds per square inch of the cross section of the wall. The cross section may be computed as for a solid wall.

SECTION 60.

Sand.

All sand used for building construction shall be sharp, clean, coarse, silicious, free from clay, loam, dirt or other foreign material, and shall not be finer than standard samples kept in the Bureau of Buildings.

SECTION 61.

Lime Mortar.

Lime mortar shall be made of one part of washed lime and not more than four parts of sand. All lime used for mortar shall be thoroughly burnt, of good quality, and properly slaked before it is mixed with the sand.

SECTION 62.

Cement and Cement Mortar.

Portland Cement.—The term Portland Cement shall be applied to the finely pulverized product obtained from the heating or calcining up to incipient fusion of intimate mixtures properly proportioned, either natural or artificial, of argillaceous with calcareous substances, and to which no addition greater than three per centum has been made subsequent to calcination.

All samples shall be taken from packages in the open market and secured by a representative of the Bureau of Buildings, and shall be taken from the centre of at least three different packages. Not less than fifteen pounds will be considered a sample for an official test, and shall be put immediately into a metal container with a tight fitting cover, and a sample number given it; said number shall be put on the outside of a sealed envelope containing the sworn statement by whom the sample was secured, when secured, date, and for what purpose the cement is to be used. Said envelope and sample shall be delivered direct to the Superintendent of Buildings.

The specific gravity of Portland cement shall not be less than three and ten one-hundredths, and shall not show a loss on ignition at a low red heat of more than four per cent.

Ninety-two per centum of the cement shall pass through a sieve having ten thousand meshes per square inch, and seventy-five per centum through a sieve having forty thousand meshes per square inch; the sieves shall be of woven brass wire having diameter of .0045 inch and .0024 inch, respectively.

The cement shall not acquire its initial set in less than thirty minutes and shall have acquired its final set in not less than one hour and not more than ten hours.

This time of setting shall be determined by the Vicat needle apparatus. This consists of a frame bearing a movable rod, with a cap at one end, and at the other a needle, one centimeter in diameter, the cap, rod and cylinder weighing three hundred grammes. The rod carries an indicator, which moves over a scale (graduated to centimeters) attached to the frame. The paste is held by a conical hard rubber ring, seven centimeters in diameter at the base, four centimeters high, resting on a glass plate, about ten centimeters square. The initial set shall be taken as the time which elapses, after mixing the cement paste and when the needle ceases to pass a point five millimeters above the upper surface of the glass plate, and the final set shall be taken as the total time after mixing when the needle ceases to sink visibly into the paste.

Pots of neat cement about three inches in diameter, one-half inch thick at the centre, and tapering to a thin edge, shall be kept in moist air for a period of twenty-four hours.

(a) A pot is then kept in air at normal temperature and observed at intervals for at least twenty-eight days.

(b) Another pot is kept in water maintained at near seventy degrees Fahrenheit as practicable, and observed at intervals for at least twenty-eight days.

(c) A third pot is exposed in any convenient way in an atmosphere of steam, above boiling water, in a loosely closed vessel for two hours.

These pots, to pass satisfactorily the requirements, shall remain firm and hard and show no signs of distortion, cracking, or disintegrating.

The failure to meet the requirements of test "c" may or may not reject the cement, at the option of the Superintendent.

The minimum requirements for tensile strength for briquettes one square inch in section shall be as follows, and shall show no retrogression in strength within the period specified:

Age.	Neat Cement.	Pounds.
24 hours in moist air.		175
7 days (1 day in moist air, 6 days in water).		500
28 days (1 day in moist air, 27 days in water).		660
Sand Test.		
One Part Cement, Three Parts Standard Sand.		
7 days (1 day in moist air, 6 days in water).		175
28 days (1 day in moist air, 27 days in water).		250

The tensile strength shall be determined on not less than fifteen briquettes from each sample; nine for the neat cement tests and six for the sand tests.

All briquettes, pots and test pieces during the time of setting shall be maintained in moist air, except as otherwise above provided.

The sand used for testing shall be crushed quartz or Ottawa sand screened to pass through a sieve having twenty meshes to the linear inch and retained on a sieve having thirty meshes per linear inch; the wires having diameters equal to one-half the width of the openings in such sieve. Sand having passed the twenty mesh sieve shall be considered standard when not more than one per centum passes the thirty mesh sieve after one minute continuous sifting of a five hundred grain sample.

The cement shall be mixed on glass and worked with the hands for five minutes, using from eighteen per centum to twenty-five per centum of fresh water for the neat cement test, and from eight per centum to twelve per centum for the sand test, so that the mass shall be of sufficient plasticity as not to admit of running and packing, but shall be put into the moulds with thumb pressure only, and struck off smooth on both sides. Standard moulds of one inch square section shall be used for all tests.

The Portland cement shall not contain more than one and seventy-five hundredths per centum of anhydrous sulphate and not more than four per centum of magnesia.

Natural Cement—This term shall be applied to the finely pulverized product resulting from the calcination of an artesian limestone at a temperature only sufficient to drive off the carbonic acid gas.

Fineness—It shall leave by weight a residue of not more than ten per centum on the number one hundred, and thirty per centum on the number two hundred sieve.

Time of Setting—It shall develop initial set in not less than ten minutes, and hard set in not less than thirty minutes and not more than three hours.

Tensile Strength—The minimum requirements for tensile strength for briquettes one inch square in cross section shall be within the following limits, and shall show no retrogression in strength within the periods specified.

Age.	Neat Cement	Strength.
24 hours in moist air.		50
7 days (1 day in moist air, 6 days in water).		100
28 days (1 day in moist air, 27 days in water).		200
One Part Cement, Three Parts Standard Sand.		
7 days (1 day in moist air, 6 days in water).		25
28 days (1 day in moist air, 27 days in water).		75

Constancy of Volume—Pots of neat cement about three inches in diameter, one-half inch thick at centre, tapering to a thin edge, shall be kept in moist air for a period of twenty-four hours.

(a) A pot is then kept in air at normal temperature.

(b) Another is kept in water maintained at near seventy degrees Fahrenheit as practicable.

These pots shall be observed at intervals for at least twenty-eight days, and, to satisfactorily pass the tests, shall remain firm and hard and show no signs of distortion, cracking, or disintegrating.

The metric system of weights and measures shall be used on account of the relation of the gramme to the value unit.

Tests of cement used in building operations shall be made from time to time under the supervision of the Superintendent of Buildings, in accordance with the preceding specifications. All Portland and natural cements meeting the above requirements shall be approved, but the Superintendent of Buildings shall reject or disapprove the cement failing to meet any of the above requirements. A record of the cements which shall meet the requirements of this section and of these specifications, shall be kept in the Bureau of Buildings for the public's information. A representative of the manufacturer may be present at the making of the tests and in case of failure, the Superintendent may, at the request of the manufacturer, order the tests repeated at some recognized testing laboratory in the manner above specified. All expenses of such tests shall be paid by the manufacturer, or the user, and the same samples shall be used in these tests as were used in the previous tests. No brand of cement which has not been tested under the provisions of this section, or which has not met the requirements, shall be used in building operations, except that the Superintendent of Buildings, at his discretion, may permit the use of "non-staining" or other uncommon varieties of cement intended to be used under special or unusual conditions.

Cement Mortar.

Cement mortar shall be made of Portland or natural cement and sand, in the proportion of one part of cement and not more than three parts of sand by volume, and shall be used immediately after being thoroughly mixed. All materials shall be measured; three and seven-tenths cubic feet shall be considered as the contents of a barrel, and four bags of cement of ninety-five pounds each shall be considered one barrel. The cement and sand shall be measured and thoroughly mixed before adding water.

Briquettes of one inch square in section, made from mortar taken from the mixing box shall show a tensile strength of at least seventy per centum of the minimum requirements for mortars made with standard sand as previously specified.

Mortars failing to meet this requirement shall be rejected.

SECTION 63

Cement and Lime Mortar.

Cement and lime mortar shall be made of one part of unslaked lime, one part of cement, and not more than three parts of sand to each. All materials shall be measured.

SECTION 64

Concrete.

(1) All concrete for footings shall be made of at least one part of Portland cement, and not more than three parts of sand, and five parts of broken stone or gravel.

(2) All other concrete which supports dead loads shall be made of at least one part of Portland cement and not more than two parts of sand and five parts of broken stone or gravel.

(3) Crushed stone shall be granite, trap rock or equally hard stone, approved by the Superintendent of Buildings. Where gravel is used it shall be thoroughly washed.

(4) Where concrete in mass is to be used for foundations, the stone or gravel shall be of such size as will pass through a two-inch ring.

(5) The stone or gravel to be used for reinforced concrete construction shall pass through a three-quarter inch ring.

(6) The concrete shall be immediately placed in forms and shall not be used after it has been mixed more than one hour. It shall be deposited in horizontal layers not exceeding eight inches in thickness, and thoroughly tamped.

(7) All forms and centering shall be built plumb and in true lines in a substantial manner and with joints sufficiently tight to prevent the leakage of the cement mortar. They shall be properly supported and braced in such a manner as to safely stand both the dead load and the load that may be placed upon them during construction.

(8) Before the placing of concrete is suspended, the joint to be formed shall be made in such a manner as will not injure the strength of the completed structure. Whenever fresh concrete joins concrete which has set, or partially set, the surface of the old concrete shall be roughened, cleaned and thoroughly wetted.

(9) Concrete shall not be mixed or deposited in a temperature lower than twenty-eight degrees Fahrenheit, at the point where the work is in progress. No materials containing frost, or that are frozen, shall be used. Precaution shall be taken to prevent the concrete from freezing. After it has been placed in position, the temperature of the concrete must be maintained, by artificial means if necessary, at not less than thirty-two degrees Fahrenheit, until the concrete has set.

(10) Centering shall remain in place until the set of the concrete has reached a point where it may be removed with safety.

SECTION 65

Quality of Timber.

All timbers and wood beams used in buildings shall be of good, sound material, free from rot, large and loose knots, shakes, or any imperfection whereby the strength may be impaired, and be of such size and carrying capacity as to support the loads for which the building is intended.

SECTION 66

Structural Material.

(1) Rivet Steel shall have an ultimate strength of from fifty thousand to sixty thousand pounds per square inch, an elastic limit of not less than fifty per centum of the ultimate strength, an elongation of not less than twenty-eight per centum in eight inches, and a reduction of area of not less than fifty per centum. A rivet rod must be capable of being bent and cold-hammered down on itself without fracture.

(2) All other structural steel shall show an ultimate strength of from sixty thousand to seventy thousand pounds per square inch, and an elastic limit of not less than fifty per centum of the ultimate strength. It shall have an elongation of not less than twenty-five per centum in eight inches, and fifty per centum reduction of area.

(3) No rolled iron shapes shall be used in any structure.

(4) No second-hand rolled shapes shall be used in any structure without the written permission of the Superintendent of Buildings.

(5) Steel Castings shall be made from open hearth steel, and shall be practically free from blow-holes, with a reasonably clear skin and sharpness to pattern. The steel shall not contain over eight-hundredths of one per centum of phosphorus. Steel castings shall be tested for strength and ductility from runners cast with the pieces and annealed with the castings, if the work is annealed. Such runners shall be turned down to not less than one-half square inch cross section for a length of about six inches, and show in the testing machine an ultimate strength of sixty thousand to seventy thousand pounds per square inch, a yield point of not less than fifty per centum of the ultimate, and an elongation of twenty per centum in two inches. They shall bend cold at right angles on a round corner to a radius of the diameter of the test piece.

(6) Cast iron shall be of good foundry mixture, producing a clean, tough, gray iron. Sample bars five feet long, one inch square, cast in sand moulds, placed on supports four feet six inches apart, shall bear a central load of four hundred and fifty pounds before breaking. Castings shall be free from serious blow-holes, cinder spots and cold shuts. Their ultimate tensile strength shall be not less than sixteen thousand pounds per square inch when tested in small specimens.

SECTION 67

Tests of New Materials, Methods and Appliances.

(1) The provisions of this section shall apply to all such new materials, methods and appliances as are proposed to be used in building construction.

(2) Before any new material is used in buildings in the same manner as and for the purposes for which natural stones, brick and concrete are now authorized, whenever said new material departs from the general shape, dimensions and composition of ordinary building brick an application for its use and for a test shall be filed with the Superintendent of Buildings. A description of the material and a brief outline of its manufacture shall be embodied in the application.

(3) The material shall be subjected to the following tests: Transverse, compression, absorption, freezing and fire. Additional tests shall be made when, in the judgment of the Superintendent, they may be necessary. All such tests shall be made at some laboratory of recognized standing, under the supervision of the Superintendent of Buildings or his representative. The tests shall be at the expense of the applicant.

(4) The results of the tests shall be placed on file in the Bureau of Buildings.

(5) For the purpose of the tests samples or test pieces shall be provided as required. Such samples shall represent the ordinary commercial product. They shall be selected from stock by the Superintendent of Buildings, or his representative, or may be made in his presence, at his discretion. The samples shall be approximately eight inches long, four inches wide and two inches thick. In cases where the material is made and used in special shapes or forms, full size samples may also be called for and tested in such manner as may be directed by the Superintendent of Buildings.

(6) The samples shall in no case be tested later than sixty days after manufacture.

(7) The weight per cubic foot of the material shall be determined.

(8) These tests shall be made in series of at least five, except that in the fire tests a series of two shall be sufficient. The transverse tests shall be made of full sized samples. The resulting half samples then shall be used for the compression and absorption tests, but in no case shall both halves of the same piece be used in either series. Half samples may also be used for the freezing and fire tests under the same restrictions. The remaining samples are to be kept in reserve in case unusual flaws or exceptional conditions make it necessary to discard certain of the tests. All the samples shall be marked for identification and comparison.

(9) The following requirements shall be complied with before the approval of the materials: The modulus of rupture must average at least four hundred, and must not fall below three hundred and twenty-five. The ultimate compression strength must average at least two thousand five hundred pounds per square inch, and must not fall below two thousand.

(10) The percentage of absorption (being the weight of water absorbed divided by the weight of the dry sample) shall not average higher than fifteen per centum and must not exceed twenty per centum in any case.

(11) The reduction of compressive strength shall not be more than thirty-three and one-third per centum, except that when the lower figure is still above two thousand five hundred pounds per square inch the loss in strength may be disregarded.

(12) The freezing and thawing process shall not cause a loss in weight greater than ten per centum, nor a loss in strength of more than thirty-three and one-third per centum.

(13) The fire test shall not cause the material to disintegrate.

(14) The Superintendent of Buildings shall approve such materials as successfully pass the tests prescribed in this section. The approval of any material shall require that:

(a) A brand mark for identification shall be impressed on or otherwise attached to the material.

(b) The name of the applicant for the test shall be placed on file with the Superintendent of Buildings, and any change in the quality or composition of the material shall be promptly reported to the Superintendent of Buildings.

(15) No materials, methods or appliances, except those which shall pass satisfactory tests and be approved by the Superintendent of Buildings, shall be furnished, erected and installed in buildings. The materials, methods or appliances so approved shall be installed in the completed condition in which they were approved.

SECTION 68.

Weights of Materials.

	Pounds Per Cubic Foot.
Brickwork	115
Concrete—Cinder, used for floor arches, or slabs	100
Concrete—Cinder, used for filling over fireproof floors	60
Concrete—Stone	135
Granite, Samstone, White Marble and other kinds of building stone	160
Oak	50
Spruce	30
White Pine	25
Yellow Pine, Longleaf	45
Yellow Pine, Shortleaf	35

CHAPTER XIV.

STRENGTH OF MATERIALS AND COLUMNS.

SECTION 69.

Computations for Strength of Materials.

(1) The required dimensions of each piece of material to be used in buildings shall be ascertained by computation, according to the rules prescribed by this code.

(2) Factors of Safety—Where the unit stress for any material is not prescribed in the code, the relation of allowable unit stress to ultimate strength shall be determined by the Superintendent of Buildings.

SECTION 70.

WORKING STRESSES.

The safe carrying capacity of the various materials of construction shall be determined by the following working stresses in pounds per square inch of sectional area:

STEEL AND IRON.

Direct Compression in Short Blocks.

	Pounds.
Rolled steel	16,000
Cast steel (annealed)	16,000
Cast steel (not annealed)	10,000
Cast iron (in short blocks)	16,000
Steel pins, shop and power driven held rivets (shearing)	18,000
Steel held rivets (driven by hand)	16,000

Tension.

	Pounds.
Rolled steel	16,000
Cast steel (annealed)	16,000
Cast steel (not annealed)	10,000
Cast iron	5,000

Shear.

	Pounds.
Steel web plates	9,000
Steel shop and power driven held rivets and pins	10,000
Steel held rivets (driven by hand)	8,000
Steel held bolts	7,000
Cast steel (annealed)	9,000
Cast steel (not annealed)	6,000
Cast iron	3,000

Safe Extreme Fibre Stress.

	Pounds.
Rolled steel beams	16,000
Rolled steel pins, rivets and bolts	20,000
Riveted steel beams	14,000
Cast iron compression side	16,000
Cast iron tension side	3,000

Concrete.

Compression.

	Pounds.
Concrete, Portland cement, 1; sand, 2; stone, 4; with steel reinforcement	550
Concrete, Portland cement, 1; sand, 2; stone, 4	400
Concrete, Portland cement, 1; sand, 2; stone, 5	300
Concrete, Portland cement, 1; sand, 3; stone, 5	250
Concrete, natural Rosendale cement, 1; sand, 2; stone, 4	100
Concrete, natural Rosendale cement, 1; sand, 2; stone, 5	80

Shear.

	Pounds.
Shearing stress in Portland cement, concrete per square inch	75

Safe Extreme Fibre Stress.

	Pounds.
Concrete, Portland cement, 1; sand, 2; stone, 4	50
Concrete, Portland cement, 1; sand, 2; stone, 5	40
Concrete, Rosendale cement, 1; sand, 2; stone, 4	10
Concrete, Rosendale cement, 1; sand, 2; stone, 5	8

Stone and Brick Work.

Compression.

	Pounds.
Brick work in Portland cement mortar, cement, 1; sand, 3	250
Brick work in Rosendale cement mortar, cement, 1; sand, 3	175
Brick work in lime and Portland cement mortar, cement, 1; lime, 1; sand, 6	160
Brick work in lime mortar, lime, 1; sand, 4	110
Rubble stone work in Portland cement mortar	110
Granites, according to test	1,000 to 2,400
Greenwich stone	1,200
Quartz	1,300
Limestones, according to test	700 to 2,300
Marbles, according to test	600 to 1,200
Sandstones, according to test	400 to 1,600
Bluestones, North River	2,000
Brick	200
Slate	1,000

Safe Extreme Fibre Stress.

	Pounds.
Brick	50
Brick work in Portland cement	70
Granite	100
Greenwich stone	150

	Pounds.
Granite	150
Limestone	150
Slate	400
Marble	120
Sandstone	100
Bluestone, North River	300

Timber.
Direct Compression.

	With Grain.	Across Grain.
Oak	1,400	500
Yellow pine longleaf	1,200	325
Yellow pine shortleaf and North Carolina pine	1,000	250
White pine	800	200
Spruce	800	200

Tension.

	With Grain.	Across Grain.
Yellow pine longleaf	1,200	—
Yellow pine shortleaf	900	—
White pine	800	—
Spruce	800	—
Oak	1,000	—

Shear.

	With Fibre.	Across Fibre.
Oak	100	300
Yellow pine longleaf	70	300
Yellow pine shortleaf	50	200
White pine	40	150
Spruce	50	200

Safe Extreme Fibre Stress, Herring.

	Pounds.
Yellow pine, longleaf	1,200
Yellow pine, shortleaf, and North Carolina pine	900
White pine	700
Spruce	900
Oak	1,200

SECTION 71.

Working Stresses for Columns.

	Working Stresses Per Square Inch of Section.		
	L 1,000—40— D	R 800—15— D	L 900—17— D
When the Length Divided by Least Radius of Gyration Equals—			
120			8,240
110			8,820
100			9,400
90			9,980
80			10,560
70	6,200		11,140
60	6,600		11,720
50	7,000		12,300
40	7,400		12,880
30	7,800		13,460
20	8,200		14,040
10	8,600		14,620
L equals length in inches. D equals least radius of gyration.			

SECTION 73.

Strength of Temporary Supports.

Every temporary support placed under any structure, wall, girder or beam, during the erection, alteration, demolition or repairing of any building or any part thereof, shall be of sufficient strength to safely carry the load to be placed thereon.

CHAPTER XV.

STRUCTURAL STEEL AND IRON.

SECTION 74.

Rolled Steel Columns.

(1) No part of a rolled steel column shall be less than five-sixteenths of an inch thick.

(2) No rolled steel column shall have an unsupported length of more than forty times its least lateral dimension or diameter, except as modified by section 71 of this code.

(3) The ends of all columns shall be faced to a plane surface at right angles to the axis of the columns. Wherever practicable, the connections between them shall be made with splice plates. When the sections of the columns to be spliced are such that splice plates cannot be used, a connection formed of plates and angles designed to properly distribute the stress, may be used.

(4) No rolled steel column shall contain material (whether in the body of the column or used as lattice-bar or stay-plate) of less thickness than one-thirty-second of its unsupported width measured between centres of rivets transversely, or one-sixteenth the distance between centres of rivets in the direction of the stress.

(5) Stay-plates are to have not less than four rivets, and are to be spaced so that the ratio of length to the least radius of gyration of the parts connected shall not exceed forty; the distance between nearest rivets of two stay-plates shall in this case be considered as length.

(6) Steel columns shall be made in one, two or three-story lengths, and the materials shall be rolled in one length wherever practicable to avoid intermediate splices.

(7) Where any part of the section of a column projects beyond that of the column above, the differences shall be made up by filling plates secured to the column by the proper number of rivets.

(8) Shoes of iron or steel, as described for cast iron columns, or built shoes of plates and shapes may be used.

SECTION 75.

Cast Iron Columns.

(1) All cast iron columns shall be of good workmanship and material. The thickness of metal shall not be less than one-twelfth of the greatest lateral dimension of cross section, nor less than three-quarters of an inch.

(2) Cast iron columns shall not have a smaller outside diameter or side than six inches nor shall they have an unsupported length of more than twenty times their least lateral dimension or diameter, except as modified by section 71 of this code.

(3) Seats and lugs shall be cast with the column and shall be of ample strength, reinforced by fillets and brackets; they shall be not less than one inch in thickness when finished.

(4) All columns shall be machine faced at the ends to a true surface perpendicular to the axis.

(5) Where square or rectangular cast-iron columns are placed one on top of another, the top flange shall project not less than three inches from the outer surfaces of the columns on all sides, and the shape and dimensions of bottom flange of the column immediately above shall be the same as those of the top flange of the column below. If the column is round or many-sided, the top flange shall project not less than three inches at its least projection from the outer surface of the column and be square or rectangular in shape, and the bottom flange of the column immediately above the same shall be of the same shape and dimensions as the top flange of the column below. Each flange shall be reinforced with brackets cast centrally on the column, and with fillets on both the bracket and flange. In case the column is placed on the lot line, the flanges on that side only may be omitted, if approved by the Superintendent of Buildings.

(6) Between the joints of cast-iron columns placed vertically over each other there shall be a solid steel plate not less than one-half inch in thickness, of the same dimensions as the flanges of the columns, and true on both sides. The columns shall be bolted together with bolts not less than three-quarters of an inch in diameter passing through the two flanges and the intermediate plate, the bolts being of sufficient length to allow the nuts to be screwed up tightly, and as each column is placed in position the bolts shall also be placed in position and the nuts shall be tightly screwed up. One bolt shall be placed at each corner of the plate and flanges, and the number of bolts shall be never less than four. The holes for these bolts shall be drilled to a template.

(7) Where cast-iron columns are placed vertically one on top of the other, the diameter or sides shall not be decreased more than one inch for each story.

(8) If the core of a column below a joint is larger than the core of the column above, the core of the lower column shall be tapered up for a distance of not less than six inches, to the size of the core of the column above, or a joint plate may be inserted of sufficient strength to distribute the load.

(9) Wherever the core of cast-iron column has shifted more than one-fourth the thickness of the shell, the strength shall be computed assuming the thickness of metal all around equal to the thinnest part, and the column shall be condemned if this computation shows the strength to be less than required by this code.

(10) Wherever blowholes or imperfections reduce the area of the cross section of a cast-iron column at any point more than ten per centum, such column shall be condemned.

(11) Cast-iron posts or columns not cast with one open side or back, before being set up in place, shall have three three-eighths of an inch holes drilled in the shaft of each post or column by the manufacturer or contractor furnishing the same, to exhibit the thickness of the castings, and any other similar sized hole or holes which the Superintendent of Buildings may require shall be drilled in the said posts or columns by the said manufacturer or contractor at his own expense.

(12) Iron or steel shoes or plates planed true on top shall be used under the bottom tier of columns to properly distribute the load on the foundation.

(13) Cast-iron columns shall not be filled with any material.

(14) Cast-iron columns shall not be used in any building exceeding seventy-five feet in height.

(15) Cast-iron columns shall not be used in any case where the load is so eccentric as to cause tension in the cast-iron.

(16) Steel columns shall not be placed upon cast-iron columns and vice versa.

(17) All holes in cast-iron columns shall be drilled; no cored or cored and reamed holes shall be permitted. The diameter of holes shall not exceed that of the bolts by more than one-sixteenth of an inch.

SECTION 76.

Buildings with Cast-iron Fronts.

In buildings hereafter constructed with a front or other exterior wall of cast-iron, the cast-iron portion shall not extend more than thirty-six feet six inches above the curb, and the walls above this height shall be of masonry. The cast-iron portion shall be backed up with not less than twelve inches of brickwork or masonry, to which it shall be firmly anchored. This restriction shall not prevent the use, above the height of thirty-six feet six inches, of millions or ornamental panels of cast-iron, provided they do not serve as bearing members.

SECTION 77.

Cast-iron Lintels.

(1) Cast-iron lintels shall not be used for spans exceeding eight feet.

(2) Cast-iron lintels shall be not less than three-fourths of an inch in thickness in any of their parts.

SECTION 78.

Steel Girders.

(1) Rivets in flanges shall be spaced so that the least value of a rivet for either shear or bearing is equal to or greater than the increment of stress due to the distance between adjoining rivets. All other rules for riveting given in this code shall be followed. The length of rivets between heads shall be limited to four times the diameter.

(2) The compression flange of plate girders shall be secured against buckling, if its length exceeds thirty times its width, or the allowed unit stresses in the top flange shall be reduced by the column formulae as given in section 71.

(3) If splices are used, the splice plates or angles and rivets shall be equal in strength to the members spliced in either tension or compression. No reliance shall be placed on the bearing of milled joints.

(4) In determining the flange area no portion of the web is to be inclined.

(5) Stiffeners shall be provided over supports and under concentrated loads; they shall be of sufficient strength, as a column, to carry the loads, and shall be connected with a sufficient number of rivets to transmit the stresses in the web plate. Stiffeners shall fit so as to support the flanges of the girders. Intermediate stiffeners shall be provided where necessary.

(6) When rolled steel beams are used in pairs to form girders, they shall be connected together by bolts and iron or steel separators at intervals of not more than five feet.

(7) All beams twelve inches and over in depth shall have at least two bolts in each separator.

SECTION 79.

Rolled Steel Floor and Roof Beams.

(1) All rolled steel beams used in building shall be of full weight, free from distortion and injurious defects.

(2) The beams of floors and roofs shall be so designed as in spacing and length that the load to be supported by them, together with the weight of the materials composing the floor or roof shall not cause in any beam a greater deflection under the total load than one-thirtieth of an inch per foot of span.

(3) In fireproof floors and roofs of buildings of Classes E and F, the spacing of the steel beams shall not exceed five feet on centres; in all other buildings not otherwise provided for in this code, the spacing of the beams shall not exceed eight feet on centres.

(4) Beams supported by girders shall be riveted to the same wherever practicable and in all other cases shall be securely bolted in place. Floor and roof beams shall be tied together with suitable tie-rods, placed at intervals of not more than eight times the depth of the beams, which distance shall not exceed six feet. Holes for tie-rods shall be not more than one-sixteenth of an inch larger than the rod itself and be as near the centre of thrust as practicable. When channels or other rolled shapes are used as skewbacks, they shall have a sufficient resisting moment to take up the thrust.

(5) Every beam, lintel or girder supported by a wall shall be properly anchored thereto and shall rest upon a steel, iron or granite template so designed as to properly distribute the load over the masonry, excepting that for beams not exceeding six inches in depth, placed not more than thirty inches on centres, no template shall be required.

SECTION 80.

Framing and Connecting Structural Work.

(1) Steel girders, columns, beams, trusses and other steel work of floors and roofs shall be well and firmly connected together, and to the walls.

(2) All beams framed into and supported by other beams or girders shall be connected thereto either by angles or knees of a proper size and thickness, and have sufficient bolts or rivets in both legs of each connecting angle to transmit the entire weight or load coming on the beam to the supporting beam or girder; or a seat sufficiently strong to carry the full load with a sole angle or knee to hold the beam in place may be used.

(3) In no case shall the shearing value of the bolts or rivets or the bearing value of the connection angles, provided for in section 70 of this code, be exceeded.

SECTION 81.

Riveting of Structural Steel.

(1) The distance from centre of a rivet hole to the edge of the material shall be not less than—

3/4 of an inch for 1/2-inch rivets.

1 inch for 5/8-inch rivets.

1 1/4 inches for 3/4-inch rivets.

1 1/2 inches for 7/8-inch rivets.

1 3/4 inches for 1-inch rivets.

Wherever possible the distance shall be equal to two diameters.

(2) All rivets, wherever practicable, shall be machine driven. Rivets shall be proportioned and placed to suit the stresses. The pitch of rivets shall never be less than three diameters of the rivet, nor more than six inches. In the direction of the stress it shall not exceed sixteen times the least thickness of the outside member. At right angles to the stress it shall not exceed thirty-two times the least thickness of the outside member.

(3) All holes shall be punched accurately, so that, upon assembling, a cold rivet will enter the hole without straining the material by drifting. Occasional slight errors shall be corrected by reaming.

(4) The rivets shall fill the holes completely; the heads shall be hemispherical and concentric with the axis of the rivet.

(5) Wherever required gussets shall be provided of sufficient thickness and size to accommodate the number of rivets necessary to make a connection.

SECTION 82.

Bolting of Structural Steel.

(1) Where riveting is not practicable, connections may be made by bolts, which shall be of wrought iron or mild steel, with United States standard threads. The threads shall be full and clean, the nut shall be truly concentric with the bolt, and the thread shall be of sufficient length to allow the nut to be screwed up tightly.

(2) When bolts go through bevel flanges, bevel washers to match shall be used so that head and nut of bolt are parallel.

(3) When bolts are used for suspenders, the working stresses shall be reduced for steel to twelve thousand pounds per square inch of net area, and the load shall be transmitted into the head or nut by washers, distributing the pressure evenly over the entire surface of the same.

SECTION 83.

Trusses.

(1) Trusses shall be so designed that the stresses in each member can be calculated.

(2) All trusses shall be held rigidly in position by efficient systems of lateral and sway bracing, struts being spaced so that the maximum limit of length to least radius of gyration, established in Section 71 of this code, is not exceeded.

(3) Any member of a truss subjected to transverse stress, in addition to direct tension or compression, shall have such stresses added to the direct stresses coming on the member, and the sum of these stresses shall not exceed the working stresses stated in this code.

SECTION 84.

Riveted Steel Trusses.

(1) For tension members the actual net area only, after deducting rivet holes, one-eighth inch larger than the rivets, shall be considered as resisting the stress.

(2) The number of rivets shall be determined as prescribed in Sections 70 and 81 of this code.

(3) If the axes of two adjoining members do not intersect within the line of chords, sufficient area shall be added to the chords to take up the bending stresses, or the web members shall be connected by plates so arranged that the axes of the web members prolonged will intersect on the centre of gravity of the chord.

(4) No bolts shall be used in the connection of riveted trusses, except when riveting is impracticable, and then the holes shall be drilled or reamed.

SECTION 85.

Steel Pin-Connected Trusses.

(1) All compression members in pin-connected trusses shall be proportioned, using seventy-five per centum of the permissible working stress for columns. The heads of all eye-bars shall be made by upsetting or forging. No weld will be allowed in the body of the bar. Steel eye-bars shall be annealed. Bars shall be straight before boring.

(2) All pin-holes shall be bored true and at right angles to the axis of the members, and must fit the pin within one-thirty-second of an inch. The distances of pin-holes from centre to centre for corresponding members shall be alike, so that when piled upon one another pins will pass through both ends without forcing. Eyes and screw-ends shall be so proportioned that upon test to destruction fracture will take place in the body of the member. All pins shall be accurately turned.

(3) Pin-plates shall be provided wherever necessary to reduce the stresses on bearings in the working stresses prescribed in this code. These pin-plates shall be connected to the members by rivets of sufficient size and number to transmit the stresses without exceeding the allowable working stresses.

(4) All rivets in members of pin-connected trusses shall be machine driven. All rivets in pin-plates which are necessary to transmit stress shall be also machine driven.

(5) The main connections of members shall be made by pins. Other connections may be made by rivets. If there is a combination of riveted and pin-connected members in one truss these members shall comply with the requirements for pin-connected trusses; but the riveting shall comply with the requirements of Section 84 of this code.

SECTION 86.

Painting of Structural Work.

(1) Where surfaces in riveted work come in contact with each other, they shall be painted with two coats of paint before assembling.

(2) Structural metal work shall not be painted when it is to be thoroughly imbedded in concrete or cement grout.

(3) All metal structural work shall be cleaned of all scale, dirt and rust. After erection all such work shall be painted at least one additional coat, of a different shade.

(4) Cast-iron columns shall not be painted or covered until after inspection by the Bureau of Buildings.

(5) All iron or steel used under water shall be imbedded in concrete.

CHAPTER XVI.

TIMBER CONSTRUCTION AND WOODWORK.

SECTION 87.

Wood Beams.

(1) Every wood beam and timber in any wall of stone, brick or concrete shall be separated from any other beam or timber in the wall by at least four inches of solid masonry. Such separation may be obtained by corbeling or staggering the beams.

(2) No wood floor or roof beam used in any building hereafter erected shall be of a less thickness than three inches.

(3) All wood trimmer and header beams shall be proportioned to carry with safety the loads they are intended to sustain, and shall be properly framed; if over four feet in length they shall be hung in suitable metal stirrups.

(4) Every wood beam, except header and tail beams, shall rest at each end four inches in a wall, or on a corbel, a beam, girder or column.

(5) The ends of all wood floor and roof beams, which rest on walls, shall be cut to a level of three inches in their depth.

(6) Neither end of a floor or roof beam shall be supported on stud partitions, except in frame buildings.

(7) All wood floor and roof beams shall be properly bridged with cross bridging. The distance between bridging or between bridging and bearing shall not exceed eight feet.

(8) All wood beams shall be trimmed away from flues and chimneys. The trimmer beam shall be not less than eight inches from the inside face of a flue and four inches from the outside of a chimney breast, and the header beam not less than two inches from the outside face of the brick or stone work of the same, for the smoke flues of boilers and furnaces, where the brick work is required to be more than eight inches in thickness, the trimmer beam shall be not less than four inches from the outside of the brick work, and the header beam shall be not less than four inches from the outside of the brick work.

(9) The header beam carrying the tail beams of a floor and supporting the trimmer arch in front of a fireplace shall be not less than twenty inches from the face of the chimney breast.

(10) The safe carrying capacity of wood beams shall be determined by their resistance to bending and shear in accordance with the unit stresses fixed by Section 70 of this code.

SECTION 88.

Anchors and Straps for Wood Beams and Girders.

(1) Each tier of beams shall be anchored to the walls at intervals of not more than six feet with steel or wrought iron anchors not less than one and one-half inches by one-quarter of an inch in size, with pins at the wall ends not less than five-eighths of an inch in diameter and ten inches long, fastened to the beams by three or more nails made of steel or wrought iron at least one-quarter of an inch in diameter. Said anchors shall extend into the brick walls at least eight inches.

(2) Where the beams are supported by girders, the girders shall be anchored to the walls and fastened to each other by suitable iron straps.

(3) The ends of wood beams resting upon girders shall be abutted together, end to end, and strapped by steel or wrought iron straps of the same size and distance apart, and in the same beam, as the wall anchors, and shall be fastened in the same manner as the wall anchors. Or they may lap each other at least twelve inches and be well spiked or bolted together where lapped.

(4) Each tier of beams running parallel to enclosing walls shall have at suitable intervals hard wood anchor strips dovetailed into the beams diagonally, which strips shall cross at least four beams and be one inch thick and four inches wide. No anchor strips shall be let in within four feet of the centre line of the beams. Or wood strips may be nailed on the top of the beams and kept in place until the floors are laid.

(5) Every pier shall be well anchored to the beams of each story, with the same size anchors as are required for walls.

SECTION 89.

Wood Columns and Posts and Timber for Trusses.

(1) All timber columns and posts shall be squared at the ends perpendicular to their axes, and timber, iron or steel cap plates or pintles and base plates shall be provided. The safe carrying capacity of timber columns and posts shall be determined by the working stresses fixed by section 70 of this Code.

(2) Where the cap plate of a wood column or post supports a wood girder, and directly on top of the girder is an iron or steel base plate of the wood column or post above, the cap and base plates shall be connected by pintles of metal passing through the girder; these pintles may be of round bars of steel of proper size and not less than four in number, or a hollow cast iron pinte of proper thickness may be used, in all cases adequate to transmit the load. Additional iron or steel cheek plates shall be placed between the cap and base plates, and bolted to the girders when required to transmit the loads with safety.

(3) When timber members of trusses are in compression or tension they shall be stressed in the direction of the fibre only.

(4) The working stress in timber struts of pin-connected trusses shall not exceed seventy-five per centum of the working stresses established in section 70 of this code.

(5) All bolts used in connection with timbers and wood beams shall be provided with washers of such proportions as will reduce the compression on the wood at the face of the washer to that allowed in section 70 of this code, supposing the bolt to be stressed to its limit.

SECTION 90.

Stud Partitions.

Where stud partitions rest directly over each other, and are not parallel with wood floor beams, they shall run down between the floor beams and rest on the top

plate of the partition below, and shall have the studding filled in solid between the uprights, to the depth of the floor beams, with approved incombustible materials.

CHAPTER XVII.

EXCAVATIONS AND FOUNDATIONS.

SECTION 91.

Excavations.

(1) The person causing any excavation for a building to be made shall have the same properly guarded and protected. Wherever necessary he shall properly sheath pile and at his own cost erect sufficient retaining wall to permanently support the adjoining earth. Such retaining wall shall be carried to the level of the adjoining earth and shall be properly coped.

(2) Wherever an excavation is not intended to be or shall not be carried to a depth of more than ten feet below the curb level, as defined in section 4, the owner of every adjoining or contiguous wall or structure shall protect the same, so that it shall be and remain as safe as before such excavation was begun. Such owner shall be permitted to enter upon the premises where the excavation is being made when necessary for this purpose.

(3) Wherever an excavation is intended to be or shall be carried to a depth of more than ten feet below the curb level, as defined in section 4, the person causing such excavation shall at all times from the beginning until the completion of the excavations, foundations, retaining walls or other structures to be built in such excavation, protect at his own expense every adjoining or contiguous wall or structure, and support the same by proper means. For this purpose he shall be afforded the necessary access to the adjoining premises. If access be denied by any owner of adjoining property, it shall be the duty of the person causing such excavation to notify the Superintendent of Buildings in writing to this effect. Thereafter it shall be the duty of the owner of the premises to which permission for access has been denied to make such adjoining wall or structure upon his premises safe, and to protect and support it by proper means; so that the excavation may be made; and for this purpose he shall, when necessary, be permitted to enter upon the premises where the excavation is being made.

SECTION 92.

Foundations Adjoining Party Walls.

(1) In case an adjoining party wall is intended to be used by the person causing an excavation to be made, and the footings and foundations of such party wall are in good condition and sufficient for the uses of both the existing building and the new one, then and in such case the person causing the excavation to be made shall, at his own expense, preserve such party wall from injury and support the same by proper means, so that said party wall shall be and remain as safe as before the excavation was begun.

(2) In case the footings and foundations of any such party wall are not in good condition, or not sufficient for the uses of both the existing building and the new one, it shall be the duty of the person causing such excavation to be made to extend such defective or insufficient footing or foundation, or to replace same with a new footing or foundation. Such extended or new footing shall project on each side of the party line such a distance as to bring the centre of the footing under the centre of the wall, so that the total load upon the wall may be uniformly distributed over the area of the footing. In order that this may be done, the person causing the excavation to be made shall be allowed access to the adjoining premises.

(3) In case any excavation, or the removal of any existing building, shows any adjoining wall or structure to be unsafe at the time the excavation was begun, it shall be the duty of the person causing the excavation to be made, or the building to be removed, to forthwith report the fact, in writing, to the Superintendent of Buildings, who shall, upon the receipt of such notice from any person causing any excavation to be made, or any building to be removed, forthwith cause an inspection of such adjoining premises to be made, and if such inspection prove the aforesaid wall or structure to be unsafe, it shall be the duty of the Superintendent of Buildings, acting under the provisions of sections 7 and 145 of this code, to declare such wall or structure to be unsafe and cause the same to be repaired as therein provided.

(4) If the person whose duty it shall be to preserve or protect from injury any wall or structure, shall neglect or fail to do within twenty-four hours after the receipt of a notice from the Superintendent of Buildings, then the Superintendent of Buildings shall enter upon the premises and employ such labor, and furnish such materials and take such steps as, in his judgment, may be necessary to make the premises safe and secure, or to prevent the same from becoming unsafe or dangerous, at the cost and expense of the person whose duty it is to keep the same safe and secure. Payment of such expenses shall be collected in the manner set forth in section 145 of this code.

SECTION 93.

Bearing Capacity of Soil.

(1) Applications filed in the Bureau of Buildings shall contain a statement of the character of the soil at the level of the footings. The Superintendent of Buildings shall be notified before any test is made of the sustaining power of the soil, so that he may be present or represented thereto. When doubt arises as to the safe sustaining power of the soil upon which a building is to be erected, the Superintendent of Buildings may order borings to be made or he may order tests of the sustaining power of the soil to be made by and at the expense of the owner of the proposed building.

(2) In tests of the sustaining power of the soil the ultimate test load shall be one and one-half times the load which the soil is to actually bear when the building is completed. Measurements of the settlement shall begin as soon as one-tenth of the ultimate test load has been applied, and shall be continued until a period of twenty-four hours shall have elapsed without increase of settlement under the ultimate load. On no soil shall the total allowable settlement after the application of one-tenth of the ultimate test load exceed one inch.

(3) In all cases where the foundation extends to a point less than five feet above the level of mean low water, or in any other case when required by the Superintendent of Buildings, test borings shall be made to ascertain the character of the material underlying the footings. Such test borings shall go either to rock or to a depth of at least twenty feet below the footing level. The Superintendent of Buildings or his representatives, shall inspect the material, as disclosed by such borings, and shall fix and authorize, in accordance with the provisions of this code, the safe load which the soil may bear per unit of area at the footing level. The records of such borings or tests shall be filed in the Bureau of Buildings.

(4) In the absence of actual test of the sustaining power of the soil in the satisfaction of the Superintendent of Buildings, the area of the bearing footing shall be so proportioned that the load per square foot upon the respective characters of soil shall not exceed those set forth in the following table:

Soil Under Footing	Load in Tons
Soft clay	1
Clay, sand, or clay and sand together or in layers, wet and springy	2
Loam, clay or fine sand, firm and dry	3
Coarse sand, gravel, or sand and gravel	4

SECTION 94.

Foundations.

(1) Every building except those erected upon solid rock, or upon walls or piers on the water-front, shall have foundations of brick, stone, concrete, reinforced concrete, steel or iron. When the building is erected upon solid ground the foundations shall extend not less than four feet below the surface of the earth, except in those cases in which solid rock appears above that depth. When neither solid earth nor rock is found, piles of wood or concrete may be used in accordance with section 97 of this code.

(2) Foundation walls shall be of stone, Portland cement concrete, iron or steel. If of rubble stone or concrete they shall be at least two feet thick, and for a depth

of twelve feet below the curb level, at least eight inches thicker than the wall which rests upon them. For every additional ten feet, or fraction thereof, increase of depth, they shall be increased eight inches in thickness. If of brick they shall be for a depth of twelve feet below the curb level, at least four inches thicker than the wall which rests upon them. For every additional ten feet, or fraction thereof, increase of depth they shall be increased four inches in thickness.

(3) Only Portland cement mortar shall be used in the construction of the footings and foundations of any building. No lime whatever shall be used under any conditions.

SECTION 95.

Piers Sunk to Rock or Hard Pan.

(1) When foundations are carried down through earth by piers of stone, brick or concrete in caissons, the load that the piers may carry shall be determined by the safe unit stresses allowed by this code on the respective materials, and by the safe carrying capacity of the material on which the piers rest.

(2) No allowance shall be made for steel imbedded in the piers. No timber of any kind shall remain in the permanent masonry.

(3) The excavations shall be kept free from water until the masonry of the piers has set. Free access shall be had at all times to examine the material on which the piers rest.

SECTION 96.

Footings.

(1) Foundation walls shall rest upon a footing course which shall be of footings, stones, steel grillages, concrete, concrete reinforced with steel beams, or concrete steel construction. Wood footings may be used if they are entirely below the level of mean low water. The design of every footing shall be such that the stresses in the materials employed conform in all respects to the requirements of this code.

(2) Footings shall be so designed that the loads they sustain per unit of area shall be as nearly uniform as possible. The dead loads carried by the footings shall include the actual weight of the superstructure and foundations down to the bottom of the footing. All tanks or other receptacles for water shall be figured as being full of water. All vaults or similar built-in structures shall be considered parts of the building.

(3) In warehouses, stores and buildings not over one hundred and fifty feet high, used for light manufacturing, in which the live load on the floors is not over one hundred and fifty pounds per square foot, and in churches, school houses and places of public amusement or assembly, the live load carried by the foundation shall be not less than seventy-five per centum of the total live load upon the floors contributing thereto.

(4) In office buildings, hotels, dwellings, lodging houses, tenement houses and stables, the live load carried by the foundation shall not be less than sixty per centum of the total live load on the floors contributing thereto.

(5) The live load carried by the foundations of all other buildings shall not be less than that required to be carried by the lowest tier of columns or by the foundation walls.

(6) The area of the footing which has the largest percentage of live load to total load shall be determined by dividing the total load by the unit working stress, as stated in section 93. From the area thus calculated all the other footings of the building shall be proportioned according to the ratios of their respective dead loads only. In no case shall the load per square foot under any portion of any footing due to the combined dead, live and wind loads exceed the safe sustaining power of the soil upon which the footing rests.

(7) Footing stones shall be not less than three feet long by two feet wide. Under walls their thickness shall be not less than one-fourth of their width, and in no case shall it be less than eight inches. Under piers, columns or posts the thickness of footing stone shall be not less than ten inches. The footing shall project a minimum distance of four and one-half inches beyond each side of any foundation wall, and six inches beyond each side of any pier. The footing shall be so designed that a line drawn from the outer edge of the wall or pier, at the bottom, to the outer edge of the footing, at the bottom, shall form an angle of not less than sixty degrees with a horizontal plane and shall lie within the masonry throughout its length. Footing stones shall be laid on their natural bed, crosswise, edge to edge and well bedded. No two adjacent vertical joints shall lie in the same plane.

(8) Concrete footings shall be not less than twelve inches thick and shall project not less than six inches beyond each side of any foundation wall, and twelve inches beyond each side of any pier.

(9) Stepped-up courses of brick laid upon either footing stones or concrete shall have offsets of one inch if laid in single courses, and two inches if laid in double courses. The offset of the lowest course of brick shall be equal to one-half the thickness of the footing stone or concrete base, so as to properly distribute the load throughout the same.

(10) If the nature of the ground and the character of the building are such as to make it necessary or advisable, the Superintendent of Buildings may require the use of isolated piers, instead of a continuous wall, as a support for the building. Between such piers suitable inverted arches shall be turned. These arches shall rest upon a proper bed of concrete. The thrust of the outer piers shall be taken up by suitable wrought iron or steel rods and plates.

(11) Where necessary, suitable grillage beams of steel, resting upon a bed of concrete, may be used. Such beams shall be fastened by bolts and separators and the grillage filled solid with concrete. All metal which forms part of any footing or foundation shall be thoroughly protected from rust by concrete or by the use of other approved coating.

SECTION 97.

Wood and Concrete Piles.

Wood Piles.

(1) Wood piles shall be only of spruce, oak, longleaf or yellow pine, Norway pine or fir. They shall be sound and straight. The diameter at the butt shall not be less than ten inches, and the diameter at the point shall not be less than six inches. The length shall not exceed twenty-five times the diameter at the butt.

(2) They shall be driven to refusal if possible, and the method of driving shall be such as not to impair their strength. The centre to centre distance between piles shall be not more than thirty-six inches, nor less than three times the average butt diameter. If driven to refusal, a maximum load per pile of fifteen tons may be used unless the load be otherwise determined by test. If not driven to refusal the maximum load per pile shall not exceed ten tons.

(3) The Superintendent of Buildings shall be notified before any test is made of the sustaining power of piles, so that he may be present or represented thereto. When doubt arises in regard to the safe sustaining power of piles in the soil upon which a building is to be erected, the Superintendent of Buildings shall order test piles to be driven by or at the expense of the owner of the proposed building. The record of such test shall be filed in the office of the Superintendent of Buildings.

(4) The safe sustaining power, of a pile not driven to refusal, which shall in no case exceed ten tons, shall be determined by calculation based upon the following formula:

2 W H

$L = \frac{P}{W + 1}$

in which L =the allowable load in tons (maximum ten tons).

W =the weight of the hammer in tons.

H =the fall of the hammer in feet.

P =the penetration in inches under the last blow after the pile has sunk to a point where successive blows produce equal penetrations.

(5) Piles shall be cut off so that the tops are always below the level of mean low water. Concrete shall be rammed down in the interspaces between the heads of the piles to a depth of not less than twelve inches, and laterally for a distance of not less than twelve inches on each side of the rows of piles.

(6) Under frame buildings piles may be capped with timbers; the timbers shall be of sound, hard wood, not less than six inches thick and properly joined together. The tops of all such timbers shall be below the level of mean low water, except in the case of frame buildings built over water or on soft meadow, or similar land, in which case piles may project above the water a sufficient distance to raise the building above high tide, and then the building may be placed directly thereon.

Concrete Piles.

(7) The mixture used for concrete piles shall be one part of Portland cement, two parts of sand and three parts of broken stone, which will pass through a ring three-quarters of an inch in diameter. The concrete shall be machine mixed.

(8) Steel reinforcement, which shall meet the approval of the Superintendent of Buildings, shall be provided to prevent failure by shear or bending. The steel reinforcement, when imbedded in the concrete, shall be protected by at least two inches of concrete. No allowance shall be made for steel reinforcement.

(9) The allowable bearing capacity of concrete piles shall be as determined by the Superintendent of Buildings.

CHAPTER XVIII.

MASONRY.

SECTION 98.

Walls.

(1) The walls of all buildings, other than frame buildings, shall be of stone, brick, iron, steel, Portland cement concrete in bulk, blocks or reinforced, or other approved hard, solid and incombustible material.

(2) All buildings shall be inclosed on all sides with independent, or party walls.

(3) The walls and piers of all buildings of brick or stone shall be properly and solidly bonded with close joints filled with mortar. They shall be built to a fine and carried up plumb and straight. The front, rear, side and party walls shall be properly bonded together.

(4) All brick laid in non-freezing weather shall be well wet before being laid. No brick, stone, concrete or mason work of any description shall be built when the temperature is below twenty-eight degrees Fahrenheit at the point where the work is in progress. No frozen materials shall be built upon.

(5) No wall of any building shall be carried up more than two stories in advance of any other portion of the walls of the building, except that in the case of wall bearing buildings the exterior walls may be carried up so that the interior iron or steel work shall not be, at any time, more than five stories in advance of the walls, but this provision shall not apply to buildings in which the walls are carried independently by girders at each floor. When not carried up at the same time, the perpendicular joint between the walls shall be made with four-inch offsets at every heading course, and have also iron or steel anchors at least every three feet in height. These anchors shall not be less than two-inch by one-fourth-inch metal, and shall be either bent up at the ends or have a cross-pin to form the anchorage. Anchors connecting front and rear walls with side or party walls shall extend not less than eight inches into the side or party wall, and not less than twelve inches into the front and rear walls.

(6) The walls and beams of every building during the erection or alteration thereof shall be strongly braced from the beams of each adjacent story, and when required shall also be braced from the outside until the building is enclosed.

(7) In all brick walls every sixth course shall be a heading course, except where walls are faced with brick in Flemish or running bond, in which latter case every sixth course shall be bonded into the backing by cutting the course of the face brick and putting in diagonal headers behind the same or by splitting the face brick in two and putting the same with a continuous row of headers. Where face brick is used of a different thickness from the brick used for backing, the courses of the exterior and interior brickwork shall be brought to a level led at intervals of not more than ten courses in height of the face brick, and the face brick shall be properly tied to the backing by a heading course of the face brick. In running bond, approved metal wall ties may be used in place of the diagonal headers if placed not over four courses apart vertically and twenty inches horizontally.

(8) Face brick shall be laid at the same time as the backing, and shall in no case be laid after the backing is in place.

(9) No timber, except inside timbers as described in section 113 of this Code, and brace blocks not over eight inches in length, shall be placed in any brick or masonry wall.

SECTION 99.

Piers.

(1) Piers shall be built of dimension stone, concrete, or good, hard, well-burned brick. Stone or brick piers shall be laid in Portland cement mortar. Every exterior pier shall be securely anchored to the beams or girders at the level of each tier. The height of any isolated pier shall not be greater than ten times the least horizontal dimension of the pier.

(2) Every pier of less than nine square feet in cross-section, which supports any beam, girder, arch or column upon which a wall rests, or a flintel spanning an opening over ten feet wide on which a wall rests, shall have built into it, at vertical intervals of not less than thirty inches, steel plates five-sixteenths inch thick, or four-inch limestone or granite bond-stones. Every steel plate or bond-stone shall have the same horizontal dimensions as the pier into which it is built.

(3) Every pier which supports a column or girder shall have immediately below the column or girder a suitable steel plate or granite block, to distribute the load over a sufficient area to comply with the permissible stress for the material supporting it, as determined in section 20 of this code.

SECTION 100.

Stone Walls.

(1) All stone walls shall have one header extending through the wall in every three feet in height and every three feet in length. All headers shall be good, flat stones, not less than twelve inches wide and eight inches thick.

(2) No stone shall be laid in any bearing wall in any other position than on its natural bed. No stone which does not bond or extend into the wall at least six inches shall be used. Stones shall be firmly bedded in mortar with all spaces and joints thoroughly filled.

(3) Walls built of dimension stone, with dressed level beds, shall have a thickness not less than that required for brick walls under similar conditions. Walls built of rubble stone shall have such increase of thickness over that specified for dimension stone walls as may be required by the Superintendent of Buildings. In no case shall the pressure per unit of area exceed that provided for in section 70 of this code.

SECTION 101.

Ashlar.

(1) Stone used for the facing of any building, and known as ashlar, shall not be less than four inches thick. Stone ashlar shall be anchored to the backing, and the backing shall be of such thickness as to make the walls, independent of the ashlar, conform as to thickness with the requirements of the sections of this code, unless every alternate course be at least eight inches thick and bonded into the backing, and then four inches of it may be counted as part of the thickness of the wall. No wall faced with ashlar shall be less than twelve inches thick.

(2) Where terra cotta or other approved artificial material is used instead of stone ashlar, it shall not be less than four inches thick. It shall be properly and securely anchored to the backing, and not be counted as part of the thickness of the wall.

SECTION 102.

Mortar for Walls.

(1) Foundations and footings shall be laid in Portland cement mortar only.

(2) All isolated piers, parapet walls and chimneys above roofs, shall be laid in cement mortar, but this shall not prohibit the use, in freezing weather, of a small proportion of lime.

(3) All other brick walls may be laid in lime and cement mortar.

(4) All stone walls shall be laid in Portland cement mortar.

(5) The backing-up of all ashlar shall be laid up with cement mortar. The back face of ashlar may be parged with lime mortar.

SECTION 103.

Wall Thicknesses.

(1) The minimum thickness of all bearing walls shall be in accordance with the schedules below. In determining the thickness by means of these schedules, the height of the walls shall be measured to the point of support whether this be a foundation, a beam or a girder.

For Buildings of Classes A, B, E and F.

Height of Building	Top Section		Middle Section		Bottom Section	
	Thickness	Height	Thickness	Height	Thickness	Height
75 ft. to 100 ft.	16 in.	25 ft.	20 in.	35 ft.	24 in.	40 ft.
100 ft. to 125 ft.	16 in.	30 ft.	20 in.	35 ft.	.....	.....
125 ft. to 150 ft.	12 in.	40 ft.	16 in.	20 ft.	.....	.....
150 ft. or less	12 in. throughout					

For Buildings of Classes C and D.

Height of Building	Top Section		Middle Section		Bottom Section	
	Thickness	Height	Thickness	Height	Thickness	Height
75 ft. to 100 ft.	12 in.	25 ft.	16 in.	35 ft.	20 in.	40 ft.
100 ft. to 125 ft.	12 in.	30 ft.	16 in.	35 ft.	.....	.....
125 ft. to 150 ft.	12 in.	30 ft.	16 in.	19 ft.	.....	.....
150 ft. or less	12 in. throughout					

Increased Thickness of Walls.

(1) When the height of any wall exceeds one hundred feet, it shall be increased in thickness in general accordance with the above schedules as shall be approved by the Superintendent of Buildings.

(2) When the clear span is greater than twenty-five feet, the thickness of bearing walls shall be increased four inches over that set forth in the above schedules for every twelve and one-half feet of span thereof that the said span exceeds twenty-five feet, or shall have, in lieu of this increase of thickness, such piers or buttresses as the Superintendent of Buildings may direct.

(3) Every bearing wall faced with brick laid in running bond shall be four inches thicker than specified in the foregoing schedules.

(4) If any horizontal section through any part of any bearing wall shows more than thirty per centum area of flues and openings, such wall shall be increased in thickness by four inches for every fifteen per centum, or fraction thereof, by which the total area of flues and openings exceeds thirty per centum.

(5) In all buildings, walls over one hundred and five feet in length shall be four inches thicker throughout than is required by this code, unless they are properly braced by cross walls, piers, buttresses, or similar means.

Thickness of Non-bearing Walls.

(6) The thickness of non-bearing walls may be four inches less than that of bearing walls, provided that no non-bearing wall is less than twelve inches thick, nor extends for more than fifty feet in height without an increase of thickness.

SECTION 104.

Enclosure Walls for Skeleton Structures.

In skeleton structures, walls between steel columns supported by steel girders, shall be not less than twelve inches thick, laid in cement mortar and thoroughly anchored in the steel work. When the vertical distance between supporting girders exceeds fifteen feet, the thickness of the walls shall be increased four inches for each fifteen feet or fraction thereof that the said vertical distance exceeds fifteen feet.

SECTION 105.

Curtain Walls.

Curtain walls shall be taken to mean non-bearing walls built between piers or iron or steel columns. They shall be laid in cement mortar, and be not less than twelve inches thick for the uppermost forty feet thereof, or nearest tier of beams to that height, and increased four inches for the lower section of forty feet, or nearest tier of beams to that height; and thence downward the thickness of walls shall increase as prescribed in section 103 of this code. When such walls are used, the foundations of the buildings shall be so designed that the load from the columns and the load of the walls are carried together.

SECTION 106.

Piered Walls.

All exterior and division or party walls over fifteen feet high, excepting where such walls are to be finished with cornices, gutters or crown moldings, shall have parapet walls not less than eight inches in thickness carried two feet above the roof. In warehouses, factories, stores and other buildings used for commercial or manufacturing purposes, the parapet walls shall be not less than twelve inches in thickness carried three feet above the roof. All such walls shall be coped with stone, terra cotta, cast iron or other approved material.

SECTION 107.

Hollow Walls.

In all hollow walls the same no horizontal section of stone, brick or concrete shall be used as if they were solid. The parts of hollow walls shall be connected by proper ties of brick, stone, iron or other approved metal, placed not over twenty-four inches apart, horizontally and vertically. Metal ties shall have the ends bent at right angles and be not less than one inch wide by one-quarter inch thick, and shall extend into the wall on each side not less than four inches.

SECTION 108.

Walls of One-Story Brick Buildings.

One-story structures, not exceeding a height of fifteen feet may be built with eight-inch walls when the bearing walls are not more than nineteen feet apart, and the length of the eight-inch bearing walls does not exceed fifty-five feet. One-story and basement extensions to dwellings may be built with eight-inch walls when not over twenty feet wide, twenty feet deep and fifteen feet high.

SECTION 109.

Walls of Buildings Raised, Lowered or Altered.

(1) Within the fire limits no brick dwelling house with eight-inch walls, already erected, that has a peaked roof, shall be raised for the purpose of making a flat roof thereon, unless the same be raised with the same kind of material as the building, and unless such new roof be covered with fireproofing material. The building, when so raised, shall not exceed thirty-six feet six inches in height.

(2) No brick building within the fire limits shall be enlarged or built upon unless the exterior walls of the addition be of approved incombustible materials. Such building shall be raised, lowered or altered in the manner provided for in this section.

SECTION 110.

Existing Walls.

(1) Existing Party Walls.—Walls heretofore built for or used as party walls, the thickness of which was at the time of their erection in accordance with the requirements of the existing laws, which are in good condition but are not in accordance with the requirements of this code, may be used at the discretion of the Superintendent of Buildings for the ordinary uses of party walls provided the height of the same be not increased.

(2) Lining Existing Walls.—Should it be desired to increase the height of existing party or independent walls, which are less in thickness than required under this code, this shall be done by lining with brickwork to form a combined thickness with the old wall of not less than four inches more than the thickness required for a new

wall corresponding with the total height of the wall when so increased in height. The said lining shall be supported on proper foundations and carried up to such height as the Superintendent of Buildings may require. No lining shall be less than eight inches in thickness, and all linings shall be laid up in cement mortar and thoroughly anchored to the old brick walls with suitable wrought-iron anchors, placed two feet apart and properly fastened or driven into the old walls in rows alternating vertically and horizontally with each other, the old walls being first cleaned of plaster or other coatings where any lining is to be built against the same. No rubble wall shall be lined until it has been approved by the Superintendent of Buildings.

SECTION 111.

Furred Walls and Studded-off Spaces.

(1) The inside four inches of all walls may be built of hard burned hollow brick, the dimensions of ordinary brick, properly tied and bonded into the walls. Where hollow tile or porous terra-cotta blocks are used as lining or furring for walls, they shall not be included in the measurement of the thickness of such walls. In fireproof skeleton buildings, however, hard burned hollow brick of standard size may be used to form the entire backing, provided that in no case shall the load imposed thereon exceed ten tons per square foot.

(2) In all walls furred with wood, the masonry between the ends of wood beams shall project the thickness of the furring beyond the inner face of the wall for the full depth of the beams. In cases where floor beams are parallel to a wall furred with wood, there shall be a space of not less than two and one-half inches between such wall and the nearest beam. This space shall be filled in solidly with brickwork or concrete for the full depth of the floor beams.

Studded-off Spaces.

(3) Where walls are studded off, unless fire-stops are provided as called for in this section, the space between the inside face of the wall and the studding at the floor level shall be fire-stopped with approved fireproof material. The beams directly over the studded-off space shall be deadened with not less than six inches of such material, which shall be laid on boards cut in between the beams. The under side of such beams shall be protected by a covering of metal lath, or other approved fireproof material, and plaster.

SECTION 112.

Recesses and Chases in Walls.

(1) There may be in foundation or cellar walls such recesses for stairways or elevators as the Superintendent of Buildings may approve, and such reinforcement as he may require to compensate for the diminished thickness of the walls shall be provided. The brick lacking of recesses for alcoves and similar spaces shall be not less than eight inches thick. The recesses shall be not more than eight feet in width, and arched or spanned over with iron or steel lintels, and carried not higher than eighteen inches below the bottom of the beams of the floor next above.

(2) No chase for water or other pipes shall be made in any wall more than one-third of its thickness. No horizontal recess or chase which exceeds four feet in length shall be allowed in any wall. The aggregate area of recesses and chases in any wall shall not exceed one-fourth of the whole area of the face of the wall on any story, nor shall any such recess be made within a distance of six feet from any other recess in the same wall. There shall be no chase in any pier.

SECTION 113.

Arches and Lintels.

(1) Openings for doors and windows in all buildings shall have arches of stone, brick or terra-cotta, well built and keyed, or lintels of stone, iron or steel, of sufficient strength, which shall have a bearing at each end of not less than five inches on the wall. On the inside of all openings in non-fireproof buildings in which lintels shall be less than the thickness of the wall to be supported, there may be timber lintels, which shall rest at each end not more than three inches on any wall, and be clamped at each end or cut to true arch shape on top. A suitable rowlock or keyed arch shall be turned over the timber lintel. Or the inside lintel may be of cast iron or steel, and in such case stone blocks or cast iron plates shall not be required at the ends where the lintel rests on the walls, provided the opening is not more than six feet in width.

(2) All masonry arches shall be capable of sustaining the weight and pressure which they are designed to carry, and the stress at any point shall not exceed the working stress for the material used, as given in section 20 of this code. Tie rods shall be used where necessary to secure stability.

CHAPTER XIX.

FIREPROOFING AND FIREPROOF BUILDINGS.

SECTION 114.

Fireproofing of Wall Columns and Girders.

(1) The enclosure walls of skeleton structures shall be supported by rolled steel girders at each story.

(2) All columns which support such steel girders, and all columns which are built into walls and support floors only, shall be protected against fire by a coating of masonry, which shall be not less than eight inches in thickness on the outer surfaces, and not less than four inches on the inner surfaces, and be well bonded into the masonry of the enclosure walls.

(3) The exposed surfaces of the wall girders shall have a similar coating of masonry not less than four inches in thickness on the outer surfaces and tied and bonded, but the extreme outer edges of the flanges of beams or plates or angles connected to the beams may project to within two inches of the outside surface of the masonry coating. The inside surfaces of the girders shall be similarly covered with masonry, or, if projecting inside the walls, they shall be protected by stone concrete, terra cotta or other approved fireproof material.

SECTION 115.

Fireproof Buildings.

(1) Every fireproof building hereafter erected or altered shall be constructed with walls of brick, stone, stone concrete or other approved incombustible material in which wood shall not be permanently placed, except as provided below, and with floors and roofs of incombustible materials, as provided for in sections 116, 117, 121 and 122 of this code.

(2) The space between the floor arches or slabs and the floor finish shall be filled with concrete, consisting of one part of cement, two parts of sand and not more than eight parts of steam boiler cinders or other incombustible aggregates.

(3) All stairwells, elevator wells, halls and corridors shall be enclosed and separated from the rest of the floor space by fireproof enclosures, with floor surfaces of stone, cement, tiling, rock asphalt or other approved incombustible material, and approved metal or metal covered doors, trim and sash, having wire glass where glass is used. The stairs and staircase landings shall be of brick, terra cotta, stone, Portland cement concrete, iron, steel or other approved incombustible material.

(4) No woodwork or other combustible material shall be used in any partition, furring or ceiling of a fireproof building, except that when the height of the building does not exceed one hundred feet, grounds, backs for fastening trim in place, mailing blocks, sleepers, flooring, doors, window sash with their frames, trim and casings, and the interior finish when backed solidly with fireproof material may be of wood.

(5) In all fireproof buildings exceeding one hundred feet in height hereafter erected, the floor surfaces shall be finished with stone, cement, tiling, rock asphalt or similar incombustible material in which a wood nailing strip not exceeding three inches in width and two inches thick may be imbedded. All window frames and sash, both inside and outside, doors, trim and other interior finish shall be of metal or metal covered, or of other incombustible material, and they shall be approved by the Superintendent of Buildings. Except that in office buildings and buildings of Classes C and D, trim of approved hard wood, including floors and sleepers, the inside window frames, sash, doors, baseboards, chair rails and picture moulding may be used in spaces other than stairwells, elevator wells, halls and corridors.

SECTION 116.

Fireproofing of Buildings More Than One Hundred Feet in Height.

(1) In all buildings more than one hundred feet in height and those buildings of Class E which exceed seventy-five feet in height the fireproof floor and roof construction between steel beams, except as hereinabove provided, shall consist of segmental arches of stone concrete, cinder concrete, brick or hollow tile of hard burnt clay or semi-porous or porous terra cotta. Such arches shall be designed to carry the imposed loads, with a factor of safety of not less than six, and shall have a rise of not less than one inch for each foot of span between the beams.

(2) Arches of stone concrete shall be not less than four inches in thickness at the crown. The concrete shall consist of one part Portland cement, two and one-half parts of sand, and five parts of crushed stone or gravel passing through a one-inch ring. All materials shall be measured.

(3) Arches of cinder concrete shall be used only after a satisfactory test has been approved. They shall not be less than five inches in thickness at the crown. The cinder concrete shall consist of one part of Portland cement, two parts of sand, and five parts of good, clean, anthracite, steam boiler cinders. All materials shall be measured. The cinders shall be washed, thoroughly screened, and well graded, from a size, passing through a screen of one-inch mesh down to that retained on a screen of one-quarter inch mesh. The ash, dust and refuse passing through the one-quarter inch mesh shall be rejected and not used in the concrete. The concrete shall be well mixed, thoroughly wet, and firmly tamped in place, so as to make a dense, homogeneous mass which shall be free from voids.

(4) The stone concrete arches and cinder concrete arches shall in all cases be reinforced with steel rods or bars, reticulated or meshed steel or similar steel metal weighing not less than one and one-half pounds per square foot of floor area. Such reinforcing metal shall in no case be less than one and one-quarter inches from the lower side of the concrete arch. If the reinforcing metal is in the form of rods or bars they shall be spaced not over twelve inches center to center, and if in the form of mesh it shall have no opening smaller than six square inches.

(5) Brick arches shall have a thickness of not less than four inches for spans of five feet or less, and eight inches for spans over five feet and up to eight feet. Brick arches shall be composed of good, hard, common or hollow brick or porous terra cotta without cellular spaces, the brick to be laid to a line on the centres and properly and solidly bonded. Each longitudinal line of brick shall break joints with the adjoining lines. The arches shall spring from suitably designed solid skewbacks made of the same material as the arches, and be properly keyed. The brick shall be well wetted before laying, and the joints filled in solid with Portland cement mortar consisting of one part cement and three parts of sand.

(6) Hollow tile arches of hard burnt clay, semi-porous or porous terra cotta, which shall be of uniform density and hardness of burn, shall have sufficient depth between the top and bottom surfaces to carry the load to be imposed thereon without stressing the material beyond its safe working load. Such arches shall be laid in Portland cement mortar and shall be properly keyed.

(7) Fireproof floor and roof construction between steel beams may be in the form of end construction hollow tile arches of hard burnt clay, semi-porous or porous terra cotta, having a depth of not less than one and one-quarter inches for each foot of span between the beams, this not to include any portion of the depth of tile that projects below the underside of the beams. The total depth in no case shall be less than ten inches. Such arches shall be laid in Portland cement mortar and be properly keyed, and the shells and webs shall abut one against the other in a straight line for the full span between the skewbacks.

(8) The shells of all arch blocks shall be not less than three-quarters of an inch in thickness, and all webs shall be not less than five-eighths of an inch in thickness. All arch blocks shall have at least one continuous horizontal internal web for each five inches of depth and at least one continuous vertical internal web for each four inches in width. There shall be rounded fillets at all internal intersections.

(9) Skewbacks of side construction shall be used with all forms of hollow tile arches. They shall be of such form and section as to accurately fit the beams and properly receive the thrust of the arches, and shall have shells and webs not less than three-quarters of an inch in thickness.

(10) All metal structural members which support loads or resist stresses and are not covered by brickwork to a minimum thickness of four inches or by stone masonry to a thickness of eight inches shall be fireproofed as follows: The protection of columns shall consist of stone concrete, as defined for floors, filled solidly around the columns, or of brick as defined for floors laid in Portland cement, with Portland cement mortar or stone concrete filled in solidly so as to leave no voids or spaces between the brick and the columns, or a four-inch porous terra cotta hollow blocks with shells and webs one and one-quarter inches in thickness. The blocks shall be accurately fitted, laid in Portland cement mortar, and the spaces between the terra cotta blocks and the steel shall be filled in solidly with Portland cement mortar or stone concrete. In every case the column protection shall cover the columns at all points to a thickness of not less than four inches and be continuous from the base to the top of the column. The extreme outer edges of lugs, brackets and similar supporting metal may project to within two inches of the outer surface of the protection. No pipes, wires, cables or similar material shall be encased within or embedded in the fireproof protection of columns or other structural members.

(11) The protection of girders and all members of trusses shall be of stone concrete, brick or porous terra cotta, and shall not be less than three inches thick at all points. The protection of the webs and soffits of beams, linters and other lesser structural members which support loads or resist stresses and project above or below the arches, shall be not less than two inches in thickness at any point, and may be of the same fireproof material as the floor construction. The soffits of all floor beams, not projecting below the arches, shall be protected by not less than one and one-half inches of the arch material. If of hollow tile, the protection shall consist of lugs forming part of the skewbacks, and extending around the lower flange of the beam and meeting at the centre; or of tile slabs held in position by dovetailed lugs projecting from the skewbacks, all to be laid and jointed with Portland cement mortar. No exposed metal clip or clamp of any character shall be used to support the soffit protection. Lintels and other lesser structural members supporting loads or resisting stresses shall be protected in the same manner as the soffits of floor beams.

(12) The fireproof protection of all the above structural members, if of concrete, shall be held in position by suitably designed interior steel anchors, hooked rigidly around the flanges or angles of the structural members and spaced not over sixteen inches apart, horizontally and vertically; these anchors to be made with hooked ends from steel stock weighing not less than one-quarter of a pound per linear foot, and extend to within one inch of the outside surface of the concrete.

SECTION 117.

Fireproofing of Buildings One Hundred Feet or Less in Height.

(1) In all buildings one hundred feet or less in height, except those buildings of Class E which exceed seventy-five feet in height, the fireproof floor and roof construction between steel beams shall be either arches, as described in Section 116, or flat arches or slabs with horizontal surfaces, as described in this Section, or shall be as provided in Section 118 of this code. Flat arches shall consist of stone concrete, cinder concrete, hollow tile hard burnt clay, porous or semi-porous terra cotta of uniform density and hardness of burn.

(2) Flat arches or slabs of stone concrete shall be used only after a satisfactory test has been approved. They shall consist of the same materials and be mixed in the same proportions as specified in Section 116 of this code. The depth of the slab shall be sufficient to sustain the loads to be imposed thereon, with a factor of safety of not less than six. The depth of the slab shall be not less than three-quarters of an inch for each foot of span between the beams, not including any portion of the depth of the slab projecting below the underside of the reinforcing steel, the total depth in no case to be less than four inches.

(3) Flat arches or slabs of cinder concrete shall be used only after a satisfactory test has been approved by the Superintendent of Buildings. They shall consist of cinder concrete, as described in Section 116 of this code. The depth of the slab shall be sufficient to sustain loads to be imposed thereon, with a factor of safety of not less than six. The depth of the slab shall be not less than one inch for each foot of span between the beams, not including any portion of the slab projecting below the underside of the reinforcing steel. The total depth shall in no case be less than four inches.

(4) Flat arches of stone concrete and flat arches of cinder concrete shall in all cases be reinforced with steel rods or bars, reticulated or meshed steel, or similar metal, designed so as to assure the required strength, but in no case shall such reinforcing metal weigh less than one pound per square foot of floor area. The re-

inforcing metal shall in no case be less than one and one-half inches from the underside of the concrete slab. If the reinforcing metal is in the form of rods or bars they shall be spaced not more than twelve inches, centre to centre, and if in the form of mesh it shall have no openings smaller than six square inches.

(5) All flat, hollow tile arches of hard burnt clay, porous or semi-porous terra cotta, shall have the arch blocks of a depth and sectional area sufficient to carry the load to be imposed thereon without stressing the material beyond its safe working load. The depth shall be not less than one and one-quarter inches for each foot of span between the beams, not including any portion of the depth of the tile projecting below the underside of the beams, the total depth in no case to be less than eight inches. The shells and webs of all end construction flat arch blocks shall abut against each other in a straight line for the full span between the skewbacks. The joints in all flat tile arches shall be filled solidly with Portland cement mortar, and the arches shall be so constructed that the key blocks shall always be set approximately at the centre of the span.

(6) The shells of all arch blocks shall be not less than three-quarters of an inch in thickness, and all webs shall be not less than five-eighths of an inch in thickness. All arch blocks shall have at least one continuous horizontal internal web for each five inches of depth and at least one continuous vertical internal web for each four inches in width. There shall be rounded fillets at all internal intersections.

(7) Skewbacks of side construction shall be used with all forms of hollow tile arches. They shall be of such form and section as to accurately fit the beams and properly receive the thrust of the arches, and shall have shells and webs not less than three-quarters of an inch in thickness.

(8) All metal structural members which support loads or resist stresses, and are not covered by brick or stone masonry to a thickness of four inches, shall be fireproofed as follows: The columns and girders shall be protected in the same manner as specified in Section 116, except that the thickness of the concrete, brick or hollow tile protection at all points of the columns and girders shall be not less than two inches, and at the extreme outer edges of lugs, brackets and similar supporting metal not less than one inch. Columns may also be protected by solid porous terra cotta blocks not less than two inches in thickness, or by hollow tile blocks not less than three inches in thickness, with shells and webs not less than one inch in thickness. The blocks shall be accurately fitted and laid in Portland cement mortar, and the spaces between the blocks and the column shall be filled solidly with Portland cement mortar or stone concrete.

(9) Columns may also be protected by a double layer of metal lath and plaster, as follows: The columns to be wrapped with metal lath weighing not less than five ounces per square foot, corrugated or with metal furring, so as to offset the metal lath at least three-quarters of an inch from the surface to be protected, the ends of the lath to be thoroughly secured by lapping and lacing with No. 18 galvanized steel wire. Plaster gauged with twenty-five per cent. of Portland cement shall then be applied to a minimum thickness of one inch, filling the space solidly between the metal lath and the column. Over this first layer of metal lath and plaster shall be constructed a second layer of metal lath and plaster, similar in every respect to the first layer, except that the corrugation or metal furring shall offset the metal lath at least one and one-half inches from the outside surface of the first layer, and that the first coat of cement plaster of the second layer shall be not less than three-quarters of an inch in thickness. The brown coat and the finishing coat may be of the same material as is used in the finishing of other portions of the building.

(10) No pipes, wires, cables or similar material shall be encased within or embedded in the fireproof protection of columns or other structural members.

(11) The members of all metal trusses and the webs of all floor beams projecting above or below the arches or slabs shall be protected on all sides by not less than two inches of the arch or slab material. The soffits of all floor beams shall be protected by not less than one and one-half inches of the arch or slab material. Said soffit protection, if of concrete, shall be secured in place by interior steel anchors, as defined in section 116 of this Code, or by meshed metal or metal in other forms, weighing not less than one-half pound per square foot, the said metal to be anchored by extending the ends at least two inches in the fireproof protection of the webs above. If of tile, the soffit protection shall consist of lugs forming part of the skewbacks, and extending around the lower flange of the beam and meeting at the centre; or of tile slabs held in position by dovetailed lugs projecting from the skewbacks, all to be laid and jointed with Portland cement mortar. No exposed metal clip or clamp of any character shall be used to support the soffit protection. Lintels and other lesser structural members supporting loads or resisting stresses shall be protected in the same manner as the soffits of floor beams.

(12) Before any arches other than those described in this section are used a test shall be made in accordance with the requirements of section 118 of this Code.

SECTION 118.

Tests of Fireproofing.

(1) Whenever required by the Superintendent of Buildings, the owner or contractor, at his own expense, shall make load or other tests to determine the efficiency of the fireproof construction. The floor arches shall in all cases develop a strength in thirty days equal to six times the load they were designed to support. The loads shall consist of such materials and be so placed as to form a uniformly distributed load over the entire area to be tested without transmitting the loads to the supports, and in case sand or similar material is to be used for loading it shall be in bulk and loose and not in sacks or packages of any kind. The section to be tested shall be the entire bay or area between the centres of two adjacent beams in one direction, and between two adjacent girders, or a wall and a girder, in a direction perpendicular to the first. Fireproof floors failing to develop the strength herein required shall be condemned by the Superintendent of Buildings and shall be replaced by the owner or the contractor by floors of the required strength.

(2) Other material that is described elsewhere in this Code may be used for fireproof construction in buildings less than one hundred feet in height, provided the manufacturer or representative thereof, at his own expense, shall make a fire and water test under the direction and to the satisfaction of the Superintendent of Buildings. The manner of the test shall be as follows:

(3) Tests of fireproof construction shall be made in a test structure with brick enclosure walls, or suitable walls of stone or cinder concrete, which shall be not less than twelve inches in thickness, and properly buttressed on all sides. The walls shall extend one foot above the top surface of the floor to be tested. At a height of not less than thirty inches or more than three feet above the ground level there shall be a properly supported metal grate covering the whole inside area of the building. There shall be draught openings in the wall below the grate level, so proportioned that their total area shall be not less than ten per centum of that of the grate surface. These openings shall be so constructed that they may be opened and closed at will. In the side of the building at right angles to the length of the floor beams there shall be placed, immediately above the grate level, a fire door about three feet six inches wide by five feet high. When the span of the floor construction under test exceeds ten feet a second fire door shall be provided. There shall be a flue at each corner of the test structure with sufficient area to provide a proper draught. The area of each flue shall not be less than one hundred and eighty square inches. The flues shall be so arranged that no portion of their weight shall rest upon the floor construction under test.

(4) The temperature shall be measured by a standard pyrometer, under direction of an experienced person. The temperature shall be measured at not less than two points, and at three points properly distributed over the floor area when the span of the floor under test exceeds ten feet. These points shall be put six inches below the lower surface of the floor and readings of the temperature at each point shall be made every three minutes during the test. The deflection of the beams shall be noted every fifteen minutes throughout the test.

(5) The floor to be tested shall contain at least three steel I beams. The span and arrangement of arches shall be that required by the particular type of construction under test, and shall conform to the provisions of this Code. The beams shall have a clear span of fourteen feet and floor arches of the material to be tested shall be built between the beams. The exposed parts of the beams shall also be fireproofed with that material, the quantity and quality of materials and the mode of construction throughout being precisely those intended to be used in actual practice. The ceiling below the floor to be tested shall be plastered as in a finished job.

(6) A distributed load of one hundred and fifty pounds per square foot shall be placed over the entire area of the arches, which shall then be subjected to a hard wood fire test developing a continuous heat for a period of four hours, the temperature aver-

aging not less than eighteen hundred degrees Fahrenheit, during which period no flames or smoke shall pass through the floor.

(7) At the end of the four-hour fire test there shall be directed against the under side of the arches a fire stream of water, discharged from one and one-eighth-inch nozzle under sixty pounds nozzle pressure, for ten minutes.

(8) After the structure has cooled a test load equal to six times the working load for which the floor under test has been designed shall be uniformly distributed over the roof of the structure, left there for one hour and removed. The maximum deflection of the supporting beams shall not exceed two and one-half inches.

(9) No system of fireproof floor construction which fails to pass the tests above prescribed shall hereafter be used in any building. The Superintendent of Buildings may from time to time prescribe other methods of testing fireproofing.

(10) The Superintendent of Buildings shall approve the use and installation in buildings of such forms or systems of fireproofing as successfully pass the tests above described. If satisfactory and authenticated records of tests of any system of fireproof protection shall be presented to the Superintendent of Buildings he may accept the same as conclusive and issue an approval therefor at his discretion.

SECTION 119.

Fireproofing, Miscellaneous Provisions.

(1) All metal lath and plaster ceilings shall be supported by hangers or clamps attached to the floor and roof beams. Hangers shall be made from steel stock weighing not less than one-half pound per linear foot, and be slotted or provided with square shoulders to support the furring bars. A sufficient number shall be provided so that not more than ten square feet of ceiling area will be supported by any single hanger. These hangers or supports shall be fastened around both sides of the bottom flanges of steel beams or girders, and shall be attached to them before the concrete or other protection is placed. The furring bars to support the metal lath and plaster shall be spaced not over sixteen inches apart, and shall be of such section and weight as will support the wet plaster without deflecting more than one-thirtieth of an inch per foot of span, and shall in no case weigh less than one-half pound per linear foot.

(2) All wire or metal lath shall be of suitable mesh to retain and form a key for the plaster and shall weigh not less than five ounces per square foot. The metal lath shall be laced to the furring at intervals not exceeding eight inches with No. 18 galvanized steel lacing wire.

(3) All metal work, including hangers, furring bars and metal lath, shall be painted with one coat of approved paint before erection.

(4) Where the fireproofing of columns is exposed to damage from the trucking or handling of merchandise, such fireproofing shall be jacketed on the outside for a height of not less than four feet from the floor with approved metal covering.

(5) Temporary centering, when used in placing fireproofing, shall not be removed until such time as the cementing material or concrete has thoroughly set. Openings through fireproof floors for pipes, conduits and similar purposes shall be shown on the plans filed in the Bureau of Buildings. After the floors are constructed, no opening greater than twelve inches square shall be cut through said floors unless steel frames supported by beams or girders are provided around the opening. After the pipes or conduits are in place, all openings shall be filled in with fireproof material.

(6) No defective or damaged fireproofing material shall be used. No cutting in or breaking away of fireproofing for anchors or supports for ceilings, ornamental plaster work, marble or other interior finish or any other purpose, shall be permitted. All fireproof construction injured or damaged after being erected shall be repaired to the satisfaction of the Superintendent of Buildings before any filling or finish is placed over same.

(7) Steel or iron columns, beams or girders, not otherwise herein provided for, which support any, wall or masonry, shall be fireproofed as described in section 117 of this code.

SECTION 120.

Fireproof Partitions.

(1) All partitions in fireproof buildings shall be of fireproof material. The height in feet to which partitions of different materials may be built and their corresponding minimum thickness shall be as follows:

	Feet.
Brick, 4 inches thick	30
Brick, 4 inches thick	18
Reinforced concrete, 6 inches thick	30
Reinforced concrete, 4 inches thick	24
Reinforced concrete, 3 inches thick	20
Metal lath and plaster, 4 inches thick	20
Hollow blocks of hard burned clay or porous terra cotta, 6 inches thick	24
Hollow blocks of hard burned clay or porous terra cotta, 4 inches thick	20

(2) Other fireproof partitions shall be as approved by the Superintendent of Buildings.

(3) The reinforcing metal or studs of partitions shall be rigidly secured or anchored at the top and bottom or at ends.

(4) Concrete shall be stone concrete as specified for floors in section 116 of this Code. Metal studding shall average not less than three-quarters of a pound in weight for each square foot, and shall not be spaced over eighteen inches apart. Metal lath for partitions shall weigh not less than five ounces per square foot.

(5) Fireproof partitions shall in all cases have sufficient bearing on the fireproof floors, supporting steel or other incombustible material, to carry the weight of said partitions. Their weight shall in no case be supported by wood sleepers or floor beams.

(6) Brick and block partitions shall be built with Portland cement mortar consisting of one part of Portland cement and three parts of sand.

(7) Hollow blocks for partitions shall have shells and webs not less than three-quarters of an inch in thickness. Block partitions built between columns, walls or piers shall be anchored to the same by substantial metal anchors weighing not less than one-quarter of a pound per linear foot, and extending at least eighteen inches into the partition and placed along the top and bottom of the partition, and also at each end, and intermediate not further apart than two feet.

(8) In concrete or other partitions without metal lath and plaster ceilings, where the partitions extend from the top of one fireproof floor to the under side of the fireproof floor above, provision shall be made for the expansion of the studs in case of fire. This may be accomplished by metal sleeves through which the studs can slide at the top or bottom, allowing for an expansion of at least one-tenth of an inch for each foot of story height. The plastering in all cases shall extend around all wood furring blocks or strips and down to the fireproof floor construction or supporting steel in all cases.

(9) The tops of all door and window openings in partitions shall be at least six inches below the ceiling line.

CHAPTER XX

REINFORCED CONCRETE CONSTRUCTION.

SECTION 121.

Reinforced Concrete.

(1) The term reinforced concrete shall mean an approved concrete mixture reinforced by steel of any shape, so combined that the concrete will take up the compression stresses and the steel the tension stresses and assist in the resistance to shear.

(2) The concrete shall consist of one part of Portland cement, two parts of sand and four parts of crushed stone or gravel, materials to be measured. The concrete used in reinforced concrete construction shall be what is usually known as a "wet" mixture.

(3) All cement used in reinforced concrete shall be Portland cement conforming to the requirements of section 62 of this code.

(4) The sand shall meet the requirements of section 60 of this code.

(5) The crushed stone or gravel shall be clean, pass through a three-quarter inch ring, and conform in every respect to the requirements of section 64 of this code. Any other material than that specified, shall first be submitted to and approved by the Superintendent of Buildings.

(6) The steel used in reinforced concrete shall meet the requirements for structural steel given in section 66 of this code.

SECTION 122.

Working Stresses and Requirements.

	Pounds.
Extreme fibre stress on concrete in compression, per square inch	550
Shearing stress in concrete, per square inch	75
Concrete in direct compression, per square inch	400
Tensile stress in steel, per square inch	16,000
Shearing stress in steel, per square inch	10,000

(2) The ratio of the moduli of elasticity of concrete and steel shall be taken as one to twelve.

(3) The following assumptions shall guide in the determination of the bending moments due to the external forces in reinforced concrete buildings. Beams and girders shall be considered as simply supported at the ends, no allowance being made for continuous construction over supports. Floor slabs, when constructed continuous and when provided with reinforcement at top of plate over the supports, may be treated as continuous beams, the bending moment for uniformly distributed loads being taken at not

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less than $\frac{1}{10}$: the bending moment may be taken at $\frac{1}{20}$ in the case of square floor slabs which are reinforced in both directions and supported on all sides by concrete beams or girders.

(4) The moment of resistance of any reinforced concrete construction under transverse loads shall be determined by formula based on the following assumptions:

(a) The bond between the concrete and steel is sufficient to make the two materials act together as a homogeneous solid.

(b) The stress in any fibre is directly proportional to the distance of that fibre from the neutral axis.

(c) The modulus of elasticity of the concrete remains constant within the limits of the working stresses fixed in this section.

(5) No allowance shall be made for the tensile strength of concrete.

(6) When the shearing stresses developed in any part of a reinforced concrete construction exceed the safe working strength of concrete, as fixed in this section, a sufficient amount of steel shall be introduced in such a position that the deficiency in the resistance to shear is overcome.

(7) When the safe limit of adhesion between the concrete and steel is exceeded, provision must be made for transmitting the stresses from the one material to the other.

(8) Reinforced concrete beams shall not be spaced further apart than eight feet on centers.

(9) All reinforcement in beams, girders and columns shall be so arranged that there can be no displacement of the same in the concrete. Where angles or beams are connected with columns, the reinforcement of the girder shall penetrate the column and be secured to it. All reinforcement shall be completely enclosed in concrete. The thickness of concrete outside of the reinforcement shall not be less than one and one-quarter inches in floor slabs, partitions or walls, and not less than two inches for all beams, three inches for all girders and columns, and not less than four inches in footings.

(10) Reinforced concrete may be used for columns in which the ratio of length to least side or diameter does not exceed fifteen, but in no case shall the effective cross section of the column be less than sixty-four square inches.

(11) All reinforced concrete columns shall have longitudinal reinforcement of a total cross sectional area equal to at least one per cent. of the effective cross sectional area of the concrete; provided, however, that the total sectional area of the reinforcing steel shall not be less than one square inch, and that no rod or bar be of less diameter or smaller dimension than one-half inch. All longitudinal reinforcement rods shall be tied together by wire at least one-quarter of an inch in diameter at intervals of twelve inches. All vertical reinforcing rods or bars shall extend upward or downward into the column above or below, lapsing the reinforcement of the column above or below to the extent of at least forty diameters of the rod or bar of the larger section.

(12) Reinforced concrete columns may be stressed four hundred pounds per square inch of the effective area, with no allowance for the compressive strength of the vertical reinforcement.

(13) In the case of columns which are further reinforced by bands or spirals wound hoops, the allowable unit working stress in direct compression shall be seven hundred and fifty pounds per square inch of the effective sectional area of the concrete; provided the bands or hoops shall be designed to resist a lateral load equivalent to one-eighth of the vertical load carried by the concrete within the reinforcing cage, and provided that the bands or hoops shall not be stressed more than sixteen thousand pounds per square inch, and provided further that the bands or hoops shall not be spaced more than one-eighth the diameter of the reinforcing cage, and also provided that the bearing stresses between the reinforcing bands and the concrete shall not exceed five hundred and fifty pounds per square inch.

(14) The effective area of a column shall be taken as the area of concrete within the lines connecting the vertical reinforcement in plain columns and within the loops or bands in the case of hooped columns.

(15) Whenever a splice occurs in a metal reinforcement of reinforced concrete, the length of the splice shall not be less than thirty diameters for columns and twenty-four diameters for beams and girders. A splice-bar may be used provided the lap on each bar shall conform to the above requirements. If the reinforcing metal is not of circular section, the largest dimension of the section shall be considered as the diameter of the bar. Nothing, however, in this section is to be construed as permitting the splicing of the main tension members in the bottom of beams, girders or floors except over the centre of supports, nor shall the centre of the splice in columns come further from the floor line than one foot.

(16) Spandrel walls supported entirely on reinforced concrete or steel girders shall have a minimum thickness of eight inches, and shall be reinforced with not less than one-half pound of steel per square foot of wall.

(17) During freezing weather reinforced concrete construction shall be carried on in accordance with section 64 of this Code.

(18) The contractor shall, on the request of the Superintendent of Buildings, make load tests, at his own expense, of any portion of a reinforced concrete building within thirty days after erection. The test must show that the construction will sustain a load of twice the live load for which it was designed without a deflection of more than one-thirtieth of an inch per foot of span. Sections of floor slabs containing not less than thirty-two square feet between beams shall be tested to five times the safe live load for which they are designed; the section tested to be cut loose from the adjoining portions of the slab.

(19) Centering shall remain in place until the set of the concrete has reached a point where it may be removed with safety.

CHAPTER XXI.

CHIMNEYS, FLUES AND FIREPLACES; HEATING PIPES AND APPARATUS.

SECTION 123.

Chimneys, Flues and Fireplaces.

(1) Every chimney hereafter erected shall be of brick, dimension stone or other approved incombustible material. Every chimney shall extend at least four feet above the highest point of contact with the roof. Every chimney shall be laid in cement mortar and shall be properly capped with terra cotta, stone, cast-iron or other approved incombustible weatherproof material.

(2) The outer walls of brick or concrete chimneys shall be not less than eight inches thick outside the flue linings, and partition walls between adjacent flues in the same chimney shall not be less than four inches thick. In non-fireproof buildings there shall be at least eight inches of masonry between the smoke flue and any wood-work. The firebacks of all fireplaces shall be of solid masonry not less than eight inches thick. There shall be an air space of not less than two inches between any metal fireback and the masonry behind it. All flues shall be properly cleaned upon the completion of a building.

(3) No chimney shall rest upon woodwork.

(4) In no case shall a chimney be corbeled more than eight inches from the wall. The corbeling shall consist of at least five courses of brick, but no corbeling more than four inches shall be allowed in eight-inch brick walls. Piers which support chimneys shall start from the foundation on the same line with the chimney breast, and shall be not less than twelve inches on the face, properly bonded into the walls. All chimneys which shall be dangerous shall be made safe or taken down.

(5) Not more than one coal or gas stove, range or grate shall be connected to a single flue. Each smoke or gas flue shall be lined with well burnt clay or terra cotta pipe, made smooth on the inside from the bottom of the flue, or from the throat of the fireplace if the flue starts from the latter, and carried up continuously the entire height of the flue. The ends of the sections of all such lining pipes shall fit closely together and the pipes shall be built in as the flues are carried up. The interior area of the flue shall not be less than thirty-six square inches.

(6) The smoke flue of every steam boiler shall be lined on all sides with not less than four inches of fire brick, laid in fire mortar, for a distance of twenty-five feet from the boiler. The smoke flue of every smelting furnace, every steam boiler and of every other device which heats the flues to a high temperature, shall be built with double walls of suitable thickness for the temperature. There shall be an air space between the walls, and the inside wall shall be of fire brick not less than four inches thick.

(7) All fireplaces and chimney breasts where mantles are placed, whether intended for ordinary fireplace uses or not, shall have trimmer arches to support hearths. The arches shall be at least twenty inches in width, measured from the face of the chimney breast, and they shall be of brick, stone, concrete or burnt clay. The length of a trimmer arch shall be not less than the width of the chimney breast. Wood centres under trimmer arches shall be removed before plastering the ceiling underneath. If a heater is placed in a fireplace the hearth shall be the full width of the heater. All fireplaces in which heaters are placed shall have approved incombustible mantels. No wood mantel or other woodwork shall be exposed back of a summer piece; the iron work of the summer piece shall be placed against the back or stonework of the fireplace. No fireplace shall be closed with a wood fireboard.

(8) Cupola chimneys of foundries or similar works, shall extend at least ten feet above the highest point of any roof within a radius of fifty feet of such cupola, and be covered on top with a heavy wire netting. No woodwork shall be placed within two feet of the cupola.

(9) If requested in writing so to do by the owner of the real property, building or structure, one erecting or altering a building to be raised more than ten feet above the adjoining and contiguous building shall, at his own expense, raise the adjacent chimneys of such adjoining building to the same level as the chimneys of his building, or shall supply sufficient flues connecting such chimneys with his own chimneys, which shall be of ample capacity to accommodate both buildings.

SECTION 124.

Heating Pipes, Pipes and Vent Ducts.

(1) Protection of Woodwork Against Smoke Pipes—No wood casing, furring or lath shall be placed against or cover any smoke flue. No smoke pipe shall pass through any wood floor. No stovetube shall be placed nearer than nine inches to any wood lath and plaster or board partition, ceiling or woodwork. Smoke pipes of laundry stoves, cooking ranges and of furnaces shall be not less than fifteen inches from any woodwork, unless they are properly enclosed by metal shields. If so guarded, stove pipes shall be not less than six inches and smoke pipes of laundry stoves, cooking ranges and of furnaces shall be one less than nine inches distant from any woodwork. Where smoke pipes pass through a lath and plaster partition, they shall be guarded by galvanized iron thimbles at least twelve inches larger in diameter than the pipes, or by galvanized iron thimbles built in at least eight inches of brickwork. No smoke pipe shall pass through any wood roof.

(2) Hot Air Pipes—All stone or brick hot air pipes and pines shall be lined with tin or other suitable sheet metal or burnt clay pipe. Metal pipes in brick, or stone walls or concrete walls, used or intended to be used to convey heated air from hot air furnaces shall be covered with brick, stone or concrete at least four inches in thickness.

(3) Hot Air Pipes in Cellars—Horizontal hot air pipes in cellar or basement shall be placed six inches below the floor beams or ceiling, if the floor beams or ceiling are plastered and protected by a metal shield, then the distance shall be not less than three inches. All shut off dampers in hot air pipes shall be at least twelve inches below the floor beams or ceiling.

(4) Protection of Woodwork Against Hot Air Pipes—Woodwork near hot air pipes shall be protected in the following manner. A hot air pipe shall be placed inside another pipe, one inch larger in diameter, or a metal shield shall be placed not less than one-half inch from the hot air pipe; the outside pipe or the metal shield shall be one and one-half inches away from the woodwork, which shall be tin lined, or, in lieu of the above protection, four inches of brickwork or concrete may be placed between the hot air pipe and the woodwork. No vertical hot air pipe shall be placed in a stud partition or in a wood inclosure, unless it be at least eight feet distant in a horizontal direction from the furnace. Hot air pipes in closets, where exposed, shall be double, with a space of one inch between them.

(5) Protection of Woodwork Against Steam and Hot Water Pipes—Steam or hot water heating pipes shall not be placed within two inches of any woodwork unless the woodwork is protected by a metal shield, in which case the distance shall be not less than one inch. Every steam or hot water heating pipe passing through combustible floors and ceilings or wood, lath and plastered partitions, shall be protected by a metal tube one inch larger in diameter than the pipe, with a metal plate at the floor. Where such pipes run in a horizontal direction between floor and ceiling, a metal shield shall be placed on the under side of the floor over them and on the sides of wood beams running parallel with the pipe. All wood boxes or casings inclosing any steam or hot water heating pipe, or wood covers to recesses in walls in which any steam or hot water heating pipe is placed, shall be lined with lock-jointed metal.

(6) Exposed Plumbing Pipes—Exposed plumbing pipes shall have the surrounding air space closed off at the ceiling and floor lines of any floor through which any such pipe shall be carried, except that hot water supply pipes may run through metal sleeves.

(7) Pipe Coverings—Coverings of all steam and hot water pipes shall be of fireproof material.

(8) Vent Flues and Ducts—Vent flues or ducts for the removal of vitiated or foul air, in which the temperature of the air cannot exceed that of the rooms, may be constructed of sheet iron, or similar incombustible material, and shall not be placed nearer than one inch to any woodwork. No such flue or duct shall be used for any other purpose. Cold air ducts of hot air furnaces shall be of metal or other approved fireproof material.

(9) Vent Ducts in Schools—In the support or construction of such ducts in a school, wood furring or other inflammable material shall not be nearer than two inches to said flues or ducts, and shall be covered on all sides other than those resting against brick, terra-cotta, or other incombustible material, with metal lath or other approved incombustible material plastered with at least two coats of mortar, and have at least one-half inch air space between the flues or ducts and the lath and plaster.

SECTION 125.

Registers.

(1) Registers over brick furnaces shall be supported by a four-inch brick shaft built up from the cover of the hot air chamber; said shaft shall be lined with a metal pipe and no wood shall be less than four inches therefrom. Every furnace shall have at least one register without valve or slats.

(2) A register placed on woodwork or other combustible material in connection with a metal pipe or duct, shall have the end of the pipe or duct flanged over on the woodwork under it. Registers connected with hot air furnaces shall have soapstone or iron borders firmly set in plaster of paris or gauged mortar. Registers connected with low pressure steam or hot water heating and ventilating apparatus need not have such borders, but shall be properly insulated from woodwork.

(3) All register boxes shall be made of metal with a flange on the top to fit the groove in the frame. There shall be an open space of two inches on all sides of the register boxes extending from the underside of the border to and through the ceiling below. The opening shall be fitted with a tight tin or galvanized iron casing, the upper end of which shall be turned under the frame. When a register box is placed in the floor over a portable furnace, the open space on all sides of the register box shall be not less than three inches.

SECTION 126.

Heating Furnaces, Boilers and Bake Ovens.

(1) No brick-set boiler, furnace or bake oven shall rest upon woodwork. (2) A portable boiler or furnace supported by combustible floors or beams shall rest on a foundation of brick laid in mortar, set upon a sheet of metal the full size of said foundation. The brick foundation of a portable boiler shall extend two feet in front of and one foot on the other side of the boiler, and shall be three courses of brick high, the middle course being laid crosswise with ventilating space, within or between the bricks of said middle course. The brick foundation of a portable furnace shall extend at least two feet beyond the furnace in front of the ash pan and under the entire furnace, and shall be two courses of brick high.

(3) Cast Iron Ash Pans and Bases—A cast iron pan shall be placed under all portable boilers, and shall have a flange turned up four inches on all sides of same, and shall be in width not less than the base of the boiler, and shall extend at least two feet in front. If a boiler is supported on a cast iron base, and is provided with a cast iron bottom, then an ash pan shall be placed in front of the said base and shall not be required to extend under it.

(4) Melting or Core Furnaces, Coffee Roasters—Any melting or core furnace, and any coal burning coffee roaster supported by combustible floors or beams, shall have a brick foundation on sheet metal, as specified above for portable boilers, and shall be placed in an iron ash pan extending at least six inches outside.

(5) Iron Electrotyping and Confectioner's Furnaces—Any iron electrotyping furnace or other portable furnace on legs in which soft metal is melted, or any portable bake oven, or confectioner's furnace supported by combustible floors or beams, shall have a brick foundation on sheet metal as specified for portable furnaces. All confectioner's furnaces shall be placed in ash pans set on brick foundations.

(6) Forges and Anvils—All combustible floors under and four feet outside of forges and anvils shall be covered with brickwork, cement or heavy iron. All forges shall have hoods connected to proper smoke flues.

(7) Vats and Pans—Every vat, pan or other container of molten metal, hot grease or liquids not otherwise herein provided for, shall be placed upon an incombustible foundation, and shall be so constructed and safeguarded as to protect those operating and about them.

(8) Protection of Woodwork—All wood lath and plaster and wood ceilings and beams over and to a distance of not less than four feet in front of all boilers shall be shielded with metal or other approved fireproof material. When smooth ceilings are to be protected there shall be an air space of not less than one inch between ceiling and fireproof material. When beams are exposed the fireproof material shall follow the contour of the beams. The distance from the top of the boiler to the shield shall be not less than twelve inches, but when the boiler is not set in brickwork the distance shall be not less than twenty-four inches, and smoke pipes leading therefrom shall be not less than twenty-four inches from the ceiling or beams. No combustible partition shall be within four feet of the sides or back, or six feet from the front of any boiler unless the partition shall be covered with metal or other approved incombustible material, to the height of at least five feet above the floor, and shall extend from the end or back of the boiler to at least five feet in front, then the distance shall not be less than two feet from the sides and back, or five feet from the front of the boiler. All portside furnaces shall be placed at least two feet from any combustible partition or ceiling, and the partitions and ceilings are properly protected by a metal shield when the distance shall not be less than one foot. Combustible ceilings or wood beams over furnaces shall be guarded by metal shields suspended three inches below said ceilings or beams and extending over the entire furnace and at least three feet beyond the front and sides.

(9) Ceilings—built of fireproof materials in accordance with section 119 shall be provided over all high-pressure boilers and over such furnaces as directed by the Superintendent of Buildings.

(10) All brick hot air furnaces shall have two covers with an air space of at least four inches between; the inner cover of the hot air chamber shall be either a brick arch or two courses of brick laid on galvanized iron or tin supported on iron bars; the outside cover or top of the furnace shall be of brick or metal supported on iron bars, and so constructed as to be perfectly tight. It shall be not less than twelve inches below any combustible ceiling or floor beams. The walls of the furnace shall be built in the following manner. One inner and one outer wall of brick, each four inches in thickness, properly bonded together, with an air space of not less than three inches. No furnace shall be within twelve inches of any woodwork.

SECTION 127.

Stoves and Ranges.

(1) When a kitchen range is placed from six to twelve inches from a wood partition, the partition shall be covered with metal from the floor to a height of not less than three feet higher than the range; if the range is within six inches of the partition the studs shall be cut away and framed three feet higher and one foot wider than the range and the space in the partition shall be filled with bricks or other approved incombustible material.

(2) All coal ranges without legs which are supported by combustible floors and beams, shall be set on foundations of not less than two courses of brick well laid in mortar. Said foundations shall extend under the entire stove or range and at least twelve inches in front of it. Small ranges, such as are used in apartment houses, and such ranges as have ash pan three inches or more above their base, shall be placed on at least one course of brickwork extending twelve inches in front. When the ash pan is less than three inches above the base of the range, a course of bricks shall be added to the foundation.

(3) Gas ranges on combustible floors and beams having gas burners at their base, shall be set on a course of bricks extending nine inches in front and all sides thereof. An equivalent thickness of slate, concrete or concrete and tile may be used instead of brick foundations under ranges. Convenient stoppings shall be placed in the supply pipes of all gas ranges so that the gas can be shut off from all burners. In buildings hereafter erected all smoke or vent pipes from gas ranges shall be connected to proper ventilating flues used for that purpose only.

(4) No range shall be placed against a wall furred with wood.

(5) All lath and plaster or wood ceilings over hotel, restaurant or other large rooms shall be guarded by metal hoods placed at least nine inches below the ceiling connected with the hood. There shall be a ventilating pipe having no connection with any other pipe and covered with one inch of asbestos or wire mesh. It shall be at least nine inches from wood lath and plaster or woodwork. The pipe shall run either outside of the building and discharge at least four feet above the roof, or shall be connected with an approved brick flue lined with burnt clay or heavy iron pipe used exclusively for the ventilating pipe of the range.

(6) Laundry stoves on combustible floors shall have a course of brick, slate or concrete on the floor under and extending twenty-four inches on all sides.

(7) All stoves for heating purposes shall be properly supported on iron legs, and be three feet from all wood lath and plaster or woodwork. If the wood lath and plaster or woodwork is properly protected by a metal shield, then the distance shall be not less than eighteen inches.

(8) A metal shield shall be placed under and twelve inches in front of the ash pan of all stoves that are placed on combustible floors.

(9) All low gas stoves shall be placed on iron stands and the burners shall be at least six inches above the base of the stove, and metal guard plates placed four inches below the burners; all woodwork underneath shall be covered with metal.

(10) Gas connections to all stoves shall be made by metal pipe unless there is no valve at stove.

(11) All receptacles for ashes shall be of incombustible material.

SECTION 128.

Drying Rooms.

All walls, floors, ceilings and partitions, including drying rooms and coal boxes when not of fireproof materials, shall be metal lathed and plastered, or covered with other approved incombustible material.

SECTION 129.

Notice as to Heating Apparatus.

Before hot water, steam, hot air or other heating apparatus or furnaces are installed in any building, or flues or fireplaces are erected or altered, notice shall be given to the Superintendent of Buildings by the owner.

CHAPTER XXII.

FRAME BUILDINGS.

SECTION 130.

Frame Buildings Within the Fire Limits.

(1) Within the fire limits, frame sheds and outhouses, as defined in section 4 of this code, and temporary one-story frame buildings for the use of builders may be erected, if permits therefor are issued by the Superintendent of Buildings.

(2) Wood porches or balconies which do not exceed eight feet in width and do not extend more than three feet above the second story floor beams, may be erected upon buildings other than frame buildings, provided the roofs of same are covered with approved noncombustible materials.

Buildings Raised, Lowered, Altered or Moved.

(3) It shall not be permitted to raise any frame building to a height in excess of thirty-six feet six inches, and when raised it shall comply with all the requirements and provisions of this code relating to frame buildings and the stresses in the material thereof shall be kept within the safe limit of stresses prescribed in Chapter XI.

(4) Within the fire limits buildings must exceed twenty-five feet in height to the peak of the main roof before raising. This shall not prohibit, however, increasing one-story and basement frame dwelling houses one additional story in height. In increasing the height of any such building the entire area which the building covers may be raised to a uniform height. An extension of less width than the main building may be increased to the full width of the main building, with the same kind of material as the main building, but shall not be increased in height. Any such building may be extended on front and rear by not more than fifteen feet. This extension shall not be higher or wider than the main building. In no case shall a frame extension be erected within three feet of a side or rear line of a lot unless the space between the studs of any such side is filled in solidly with not less than four inches of brickwork or other fireproof material.

A frame building more than two stories in height now or formerly used as a residence building, hereafter raised or altered shall be used only as a residence or for stores on the first floor. If any such building shall have been built before the year upon which it is located is graded, or if the grade is altered, such building may be raised or lowered to meet the requirements of the grade.

(5) No frame building within the fire limits shall be moved to another lot within the fire limits. No frame building shall be moved from without to within the fire limits.

(6) Frame Buildings Damaged Within the Fire Limits—Every wood or frame building with a brick or other front, which may hereafter be damaged to an amount not greater than one-half of the value thereof, exclusive of the value of the foundation, at the time of such damage, may be repaired or rebuilt. If such damage shall amount to more than one-half of such value, exclusive of the value of the foundation, such building shall not be repaired or rebuilt, but shall be taken down. In case the owner of a damaged building disagrees with a decision of the Superintendent of Buildings that the damage is greater than one-half of the value thereof, exclusive of the value of the foundation, the amount and extent of such damage shall be determined upon an examination of the building by one surveyor, who shall be appointed and paid by the Superintendent of Buildings, and one surveyor who shall be appointed by the owner of said premises, to be paid by the owner. Should these two surveyors not agree, they shall appoint a third surveyor, and an affidavit of two of them as to value shall be conclusive, and such building shall in no manner be repaired or rebuilt until after such affidavit shall have been filed.

SECTION 131.

Frame Buildings Outside of Fire Limits.

(1) Frame buildings outside the fire limits may be altered, extended, raised or lowered, provided the new portions fully comply with all the provisions of this section.

(2) Buildings with enclosed walls of hollow terra cotta blocks, laid in Portland cement mortar only, may be erected outside of the fire limits, and the details of their interior construction shall be as specified in this chapter. The blocks shall be not less than six inches thick for a one-story building, eight inches for the first story and six inches for the second in a two-story building; eight inches for the first and second and six inches for the third story in a three-story building. If the walls are exposed to the weather the blocks shall be of dense material, vitrified or burning, or they may be of light porous material, cement on the exposed side with at least one inch of Portland cement plaster. The blocks shall be well secured, secured or fastened to retain this coating.

(3) Whenever girders or joists rest upon walls so that there is a concentrated load of over two tons the blocks supporting the girder or joist shall be made solid by filling with cement concrete, mixed in proportion of one part cement, two parts sand and four parts broken stone or gravel. Whenever walls are decreased in thickness, the top course of the thicker wall shall be made solid in the same manner.

(4) No semi-porous hollow blocks shall be loaded in excess of one hundred pounds per square inch of net end section in compression or one hundred pounds per square inch if laid on the side, and if dense tiles are used they shall not be loaded in excess of 200 pounds per square inch if set on end, or one hundred and fifty pounds per square inch if set on the side. All joists and latrusses that support loads in excess of five tons shall be filled solid with cement concrete. Latrusses spanning over four feet six inches in the clear shall rest on blocks filled solid with concrete.

(5) Floor beams and rafters shall be not less than two inches in thickness. The sills of all frame residence buildings, except where the first floor is used for store or business purposes, shall be so placed that the lower side of same is not less than two feet above the ground.

(6) The roofs of all frame or wood buildings shall be covered with metal, slate, tile, gravel, shingles or other approved material.

(7) Frame tenement houses shall have the side walls brick filled as required by the Tenement House Act.

(8) No frame building without the fire limits shall be moved from one lot to another until a permit has been obtained from the Superintendent of Buildings.

Height and Area of Frame Buildings Outside of Fire Limits.

(9) Frame buildings hereafter erected or altered shall not exceed forty feet in height nor more than three stories.

(10) Frame dwellings shall not exceed four thousand square feet in area. Frame stables shall not exceed two thousand five hundred square feet in area.

(11) No other frame building shall exceed 5000 square feet in area.

(12) The combined area of frame buildings, sheds and outhouses located on any lot shall not exceed eighty per cent of the lot area. In no case shall a frame building be erected within three feet of the side or rear line of a lot, unless the space between the studs on any such side be filled in solidly with not less than two and one-half inches of brick work or other fireproof material.

SECTION 132.

Foundations for Frame Buildings.

(1) The foundation walls of frame structures exceeding fifteen feet in height shall rest on footings of stone or concrete not less than eight inches in thickness. All footings stones shall extend at least four and one-half inches outward from each side of the bottom of the foundation walls which rest upon them.

(2) The bearing capacity of soil shall be as set forth in section 93 of this code.

(3) The bottom of footings for frame buildings shall rest upon solid ground not less than four feet below the surface, unless solid rock occurs above this point, or upon piles or ranging timbers of wood where necessary. The foundation walls of frame structures extending fifteen feet in height, if of stone, shall be not less than eighteen inches thick, and if of brick or concrete, not less than twelve inches to the grade and eight inches thick to the under side of the sill. If the foundation and first story walls are constructed of brick or concrete the foundation walls shall be not less than twelve inches thick in the first tier of beams and eight inches thick from the first to the second tier of beams, or if these walls are constructed of stone, they shall be not less than twenty inches for the foundation walls and sixteen inches for the first story wall, and if the walls are faced with ashlar, the total thickness shall be four inches more than in this section specified.

SECTION 133.

Walls and Partitions in Frame Buildings.

(1) When three or more frame buildings are built in a continuous row the alternate division or party walls, which shall be not more than fifty feet on centers, shall be of brick or other approved fireproof material not less than twelve inches in thickness. These walls shall extend from front to rear, be solid, without openings, carried up not less than two feet above the roof boards and be properly coped.

When other division walls are of brick or concrete they shall be not less than eight inches thick above the foundation wall and extend two feet above the roof boards and be properly coped.

When stud partitions separate frame buildings the division studing shall be not less than four inches thick and filled solidly with brickwork or other approved fireproof materials extending from the sill to the under side of the roof beams.

(2) The ends of floor and roof beams shall be so separated that four inches of brick or concrete shall be between the beams where they rest on the wall.

(3) Posts of hard wood and wood girders may be used instead of brick floor and stiff partitions in cellars of frame buildings.

(4) The walls of all interior shafts in frame buildings, including dumbwater shafts, may be of wood, but the interior surfaces shall be covered with metal lath or other approved fireproof covering and plastered with two coats of mortar.

SECTION 134.

Cellar Ceilings in Frame Buildings.

The ceiling over every cellar or lower floor in every frame building more than one story in height hereafter erected where the beams are of wood, shall be covered with lath, and plastered with two coats of mortar.

SECTION 135.

Chimneys.

(1) All chimneys in frame buildings shall be built of brick, stone or other approved fireproof material, as provided in section 123. If of concrete or rubble masonry, the flues shall have outer walls at least eight inches thick, and the partition walls separating flues at least four inches thick, and shall be faced with hard-burnt clay or terra cotta pipe. If of brick, the flues shall have outer walls and partition walls separating flues at least four inches thick, and shall be faced with hard-burnt clay or terra cotta pipe. But when the chimneys pass through a floor or roof or are placed against any frame partition, that portion of the chimney shall be built with eight inches of brickwork between the flue and such floor, roof, frame partition or wall.

(2) All chimneys shall extend at least four feet above the highest point of contact with the roof. They shall be properly capped. Chimneys carrying two rooms on the same floor may be built in the walls or partitions. Elsewhere they shall be built on side of the frame, except in the case of outside ornamental or exposed chimneys in which case the frame may but against or intersect with them, but no flue in same are to be built within eight inches of the frame or any part thereof.

(3) All flues shall extend throughout the length of the flue. The ends of all flue linings shall be made to fit close together, and the pipes shall be built in as the flue is carried up.

CHAPTER XXIII.

PLACES OF PUBLIC AMUSEMENT AND ASSEMBLAGE.

SECTION 136.

Requirements for Public Safety.

(1) In all buildings or parts of buildings of Classes A, B, C and D, and also hotels and restaurants, occupied for purposes of assembly, amusement or instruction, other than theatres and opera houses, which are provided for in section 137, where large numbers of people are congregated, the halls, doors, stairs, exits, passageways and aisles, and all lighting and heating appliances and apparatus shall be arranged as the Superintendent of Buildings shall direct to facilitate egress in case of fire or accident, and to afford adequate security.

(2) Buildings or parts of buildings of Classes A and D, except hotels and restaurants, shall not be occupied as places of public amusement or assembly, and the Superintendent of Buildings shall have the power to vacate such buildings for violating this provision.

(3) All aisles and passageways in buildings or parts of buildings used for public and private amusement or assemblage shall be kept free from obstructions, chairs, sofas and all other obstruction, and no person shall be allowed to stand in or occupy any of said aisles or passageways during any performance or service, exhibition, lecture, ball, concert or any public assemblage. The Superintendent of Buildings may at any time serve a written or printed notice upon the owner or lessee or manager of any of said buildings, directing any act or thing to be done or proceed to do about the said buildings and the several accessories and appliances therewith connected, such as hall, doors, stairs, windows, seats, aisles, fire walls and fire apertures, and fire escapes, as he may deem necessary.

(4) Any building hereafter erected or altered to be used for public assembly, with accommodations for more than two hundred people, shall be fireproof. In all such buildings no public assemblage shall be permitted above the first story. The method of exit therefrom, and the number of exits, shall be as the Superintendent of Buildings may determine.

SECTION 137.

Theatres and Places of Public Amusement.

(1) Every theatre or opera house or other building intended to be used for theatrical or operatic purposes or for public entertainments of any kind, hereafter erected for the accommodation of more than two hundred persons, shall be built to comply with the requirements of this section. No building which, at the time of the passage of this Code, is not in actual use for theatrical or operatic purposes, and no building hereafter erected not in conformity with the requirements of this section, shall be used for theatrical or operatic purposes, or for public entertainments of any kind, until the same shall have been made to conform to the requirements of this section. And no building heretofore described shall be opened to the public for theatrical or operatic purposes, or for public entertainments of any kind, until the Superintendent of Buildings shall have approved the same in writing as conforming to the requirements of this section.

(2) Every such building shall have at least one front on the street, and in such front there shall be suitable means of entrance and exit for the audience, not less than twenty-five feet in width.

(3) In addition to the aforesaid entrances and exits on the street, there shall be reserved for service in case of an emergency an open court or space in the rear and on the side not bordering on the street, where said building is located on a corner lot, and in the rear and on both sides of said building, where there is but one frontage on the street as hereinafter provided. The width of such open court or courts shall not be less than eight feet where the seating capacity is more than two hundred and not more than eight hundred people, and ten feet in width where the seating capacity is more than eight hundred people. Said open court or courts shall extend the full length and height of the building and across on each side and rear thereof where its sides or side does not abut on a street or alley, and shall be of the same width at all points, and exits hereafter specified shall lead into such open courts.

(4) During the performance the doors or gates in the corridors shall be kept open by proper fastenings; at other times they may be closed and fastened by movable bolts or blocks. The said open courts and corridors shall not be used for storage purposes, or for any purpose whatsoever except for exit and entrance from and to the auditorium and stage, and must be kept free and clear during performances. The level of said corridors at the front entrance to the building shall be not greater than one step above the level of the sidewalk where they begin at the street entrance. The entrance of the main front of the building shall be not on a higher level from the sidewalk than four steps, unless approved by the Superintendent of Buildings.

(5) To overcome any difference of level in and between courts, corridors, lobbies, passages and sides on the ground floor, gradients shall be employed of not over one foot in ten feet, with no perpendicular rises. From the auditorium entrance into the said open courts or on the side street there shall be not less than two exits on each side in each tier from and including the parquet and back and every gallery.

Each exit shall be at least five feet in width in the clear and provided with approved fireproof doors. All of said doors shall open outwardly and shall be fastened with movable bolts, the bolts to be kept drawn during performances. There shall be balconies not less than six feet in width in the said open court or courts at each level or tier above the parquet on each side of the auditorium, of sufficient length to embrace the two exits, and from said balconies there shall be staircases extending to the ground level, with a rise of not over eight and one-half inches to a step and not less than nine inches tread, exclusive of the nosing.

(6) The staircase from the upper balcony to the next below shall be not less than forty-eight inches in width in the clear, and from the first balcony to the ground four feet in width in the clear where the seating capacity of the auditorium is for eight hundred people or less, four feet six inches in the clear where above one thousand and not more than eighteen hundred people, and five feet in the clear where above eighteen hundred people and not more than twenty-five hundred people, and not over five feet six inches in the clear where above twenty-five hundred people.

(7) All the before mentioned balconies and staircases shall be constructed of iron throughout, including the floors, and of ample strength to sustain the load to be carried by them, and they shall be covered with a metal hood or awning, to be constructed in such manner as shall be approved by the Superintendent of Buildings. Where one side of the building borders on the street, there shall be balconies and staircases of like capacity and kind, as before mentioned, carried to the ground.

(8) When located on a corner lot, that portion of the premises bordering on the side street and not required for the uses of the theatre may, if such portion be not more than twenty-five feet in width, be used for offices, stores or apartments, provided the walls separating this portion from the theatre proper are carried on solidly to and through the roof, and that a fireproof exit is provided for the theatre on each tier, equal to the combined widths of exits opening on opposite sides in each tier, communicating with balconies and staircases leading to the street in manner provided elsewhere in this section; said exit passages shall be entirely cut off by brick walls from said offices, stores or apartments, and the floors and ceilings in each tier shall be fireproof.

(9) Nothing herein contained shall prevent a roof garden, art gallery or rooms for similar purposes being placed above a theatre or public building, provided the floor of the same forming the roof over such theatre or building shall be constructed of iron or steel and approved fireproof materials, and that said floor shall have no covering boards or sleepers of wood, but be of tile or cement. Every roof over said garden or rooms shall have all supports and rafters of iron or steel, and be covered with glass or approved fireproof materials, or both, but no such roof garden, art gallery or room for any public purpose shall be placed over or above that portion of any theatre or other building which is used as a stage.

(10) No workshop, storage or general property room shall be allowed above the auditorium or stage, or under the same or in any of the fly galleries. All of said rooms or shops may be located in the rear or at the side of the stage, but in such cases they shall be separated from the stage by a brick wall, and the openings leading into said portions shall have approved fireproof doors on each side of the openings, being no iron eyes built into the wall.

(11) No portion of any building hereafter erected or altered, used or intended to be used for theatrical or other purposes as in this section specified shall be occupied or used as a hotel, boarding or lodging house, factory, workshop or manufactory, or for storage purposes, except as may be hereafter specially provided. Said restrictions relate not only to that portion of the building which contains the auditorium and the stage, but apply also to the entire structure in connection therewith.

(12) No store or room contained in the building, or the offices, stores or apartments adjoining, as aforesaid, shall be let or used for carrying on any business, dealing and articles designated as specially hazardous in the classification of the New York Board of Fire Underwriters, or for manufacturing purposes.

(13) No lodging accommodations shall be allowed in any part of the building communicating with the auditorium.

(14) Interior walls built of approved fireproof materials shall separate the auditorium from the entrance vestibule, and from any room or rooms over the same, also from lobbies, corridors, refreshment or other rooms.

(15) All staircases for the use of the audience shall be inclosed with walls of brick, or of fireproof materials approved by the Superintendent of Buildings, in the stories through which they pass, and the openings to said staircases from each tier shall be the full width of said staircases. No door shall open immediately upon a flight of stairs, but a landing at least the width of the door shall be provided between such stairs and such door.

(16) A firewall, built of brick, shall separate the auditorium from the stage. The same shall extend at least four feet above the stage roof, or the auditorium roof, if the latter be the higher, and shall be coped. Above the proscenium opening there shall be an iron girder of sufficient strength to safely support the load above, and the same shall be covered with approved fireproof materials to protect it from the heat. Should there be constructed an orchestra platform over the stage, above the proscenium opening, the said platform shall be placed on the auditorium side of the proscenium firewall, and shall be entered only from the auditorium side of said wall.

(17) The molded frame around the proscenium opening shall be formed entirely of approved fireproof materials. The proscenium opening shall be provided with a fireproof metal curtain, or a curtain of asbestos or other fireproof material approved by the Superintendent of Buildings, sliding at each end within iron grooves, securely fastened to the brick wall and extending into such grooves to a depth not less than six inches on each side of the opening. Said fireproof curtain shall be raised at the commencement of each performance and lowered at the close of said performance, and be operated by approved machinery for that purpose. The proscenium curtain shall be placed at least three feet distant from the foot-lights at the nearest point. No doorway or opening through the proscenium wall, from the auditorium, shall be allowed above the level of the first floor, and such first floor openings shall have approved fireproof doors on each face of the wall, and the doors shall be hung so as to be opened from either side at all times.

(18) There shall be provided over the stage metal skylights of an area or combined area of at least one-eighth the area of said stage, with sliding sash and double thick sheet glass, and each pane thereof measuring not less than three hundred square inches, the whole of which skylight shall be so constructed as to open instantly on the cutting or burning of a hempen cord, which shall be arranged to hold said skylights closed, or some other equally simple approved device for opening them may be provided. Immediately underneath the glass of said skylights there shall be wire netting, but wire glass shall not be used in lieu of this requirement.

(19) All that portion of the stage not comprised in the working of scenery, traps and other mechanical apparatus for the presentation of a scene, usually equal in the width of the proscenium opening, shall be built of iron or steel beams filled in between with approved fireproof material, and all girders for the support of said beams shall be of wrought iron or rolled steel. The fly-galleries entire, including pin-rails, shall be constructed of iron or steel, and the floors of said galleries shall be composed of iron or steel beams, filled with approved fireproof materials, and no wood beams or sleepers shall be used as covering over beams, but the said floors shall be entirely fireproof. The rigging loft shall be fireproof.

(20) All stage scenery, curtains and decorations made of combustible material, and all woodwork on or about the stage shall be painted or saturated with some approved non-combustible material or otherwise rendered safe against fire, and the finishing coats of paint applied to all woodwork through the entire building shall be of such kind as will resist fire to the satisfaction of the Superintendent of Buildings.

(21) The roof over the auditorium and the entire main floor of the auditorium and vestibule, also the entire floor of the second story of the front superstructure over the entrance, lobby and corridors, and all galleries and supports for the same in the auditorium shall be constructed of iron or steel and approved fireproof materials, not excluding the use of wood floorboards and necessary sleepers to fasten the same, but such sleepers shall not mean timbers of support, and the space between the sleepers, excepting a portion under the stepping in the galleries, which shall be properly firestopped, shall be solidly filled with approved incombustible material up to the under side of the floorboards.

(22) The fronts of each gallery shall be formed of approved fireproof materials, except the capping, which may be made of wood. The ceiling under each gallery shall be entirely formed of approved fireproof materials. The ceiling of the auditorium shall be formed of approved fireproof materials.

(23) All lathing, whenever used, shall be of wire or other metal.

(24) The partitions in that portion of the building which contains the auditorium, the entrance and vestibule and every room and passage devoted to the use of the audience shall be constructed of approved fireproof materials, including the furring of outside or other walls.

(25) None of the walls or ceilings shall be covered with wood sheathing, canvas or any combustible material. But this shall not exclude the use of wood wainscoting to a height not to exceed six feet which shall be filled in solid between the wainscoting and the wall with approved fireproof materials. The walls separating the actors' dressing rooms from the stage and the partitions dividing the dressing rooms, together with the partitions of every passageway from the same to the stage, and all other partitions on or about the stage, shall be constructed of fireproof material approved by the Superintendent of Buildings. All doors in any of said partitions shall be fireproof.

(26) All shelving and cupboards in each and every dressing room, property room or other storage room shall be constructed of metal, slate or some approved fireproof material. Dressing rooms may be placed in the fly-galleries provided that proper exits are secured therefrom to the fire escapes in the open courts, and that the partitions and other matters pertaining to dressing rooms shall conform to the requirements herein contained, and the stairs leading to the same shall be fireproof. All dressing rooms shall have an independent exit leading directly into a court or street, and shall be ventilated by windows in the external walls; and no dressing room shall be below the street level.

(27) All windows shall be arranged to open, and none of the windows in outside walls shall have fixed sashes, iron grills or bars.

(28) All seats in the auditorium, excepting those contained in boxes, shall be not less than thirty-two inches from back to back, measured in a horizontal direction, and firmly secured to the floor. No more than twelve seats shall be placed in any box. Boxes shall be divided by partition or rail, and shall lead to an aisle which connects with an exit or corridor. No seat in the auditorium shall have more than six seats intervening between it and an aisle on either side. No stool or seat shall be placed in any aisle.

(29) All platforms in galleries formed to receive the seats shall be not more than twenty-four inches in height of rise, nor less than thirty-one inches in width of platform. All aisles on the respective floors in the auditorium shall be not less than three feet wide where they begin, and shall be increased in width toward the exits in a ratio of one and one-half inches to five running feet.

(30) The foyers, lobbies, corridors, passages and rooms for the use of the audience, not including aisles spaced between seats, shall on the first or main floor where the seating capacity exceeds five hundred or more, be at least sixteen feet clear, back of the last row of seats, and on each balcony or gallery at least twelve feet clear of the last row of seats.

(31) Gradients or inclined planes shall be employed instead of steps where possible to overcome slight difference of level in or between aisles, corridors and passages.

(32) Every theatre accommodating two hundred persons shall have at least two exits; when accommodating five hundred persons, at least three exits shall be provided; these exits not referring to or including the exits to the open court at the side of the theatre. Doorways of exit or entrance for the use of the public shall be not less than six feet in width, and for every additional one hundred persons or portions thereof to be accommodated, in excess of five hundred, an aggregate of twenty inches additional exit width must be allowed. All doors of exit or entrance shall open outwardly and be hung to swing in such manner as not to inclose an obstruction in a passage or corridor, and no such door shall be closed and locked during any representation, or when the building is open to the public. Fins and separate places of exit and entrance shall be provided for each gallery above the first. A common place of exit and entrance may serve for the main floor of the auditorium and the first gallery, provided its capacity be equal to the aggregate capacity of the outlets from the main floor and the said gallery.

(33) No passage leading to any stairway communicating with any entrance or exit shall be less than four feet in width in any part thereof.

(34) All stairs within the building shall be constructed of approved fireproof material throughout. Stairs from balconies and galleries shall not communicate with the basement or cellar. All stairs have treads of uniform width and risers of uniform height throughout each flight. Stairways serving for the exit of fifty people shall be at least four feet wide between railings or between walls, and for every additional fifty people to be accommodated six inches must be added to their width. The width of all stairs shall be measured in the clear between hand-rails. In no case shall the risers of any stairs exceed seven and one-half inches in height, nor shall the treads, exclusive of nosings, be less than ten and one-half inches wide in straight stairs. No circular or winding stairs for the use of the public shall be permitted.

(35) Where the seating capacity is for more than one thousand people, there shall be provided at least two independent staircases, with direct exterior outlets for each gallery in the auditorium, where there are not more than two galleries, and the same shall be located on opposite sides of said galleries.

(36) Where there are more than two galleries one or more additional staircases shall be provided, the outlets from which shall communicate directly with the principal exit or other exterior outlets. All said staircases shall be of width proportionate to the seating capacity as elsewhere herein provided. Where the seating capacity is for one thousand people or less, two direct lines of staircases only shall be required, located on opposite sides of the galleries, and in both cases shall extend from the sidewalk level to the upper gallery, with outlets from each gallery to each of said staircases.

(37) At least two independent staircases, with direct exterior outlets, shall be provided for the service of the stage and shall be located on opposite sides of the same. All inside stairways leading to the upper galleries of the auditorium shall be inclosed on both sides with walls of approved fireproof materials. Stairs leading to the first or lower gallery may be left open on one side, in which case they shall be constructed as herein provided for similar stairs leading from the entrance hall to the main floor of the auditorium. In no case shall stairs leading to any gallery be left open on both sides.

(38) When straight stairs return directly on themselves, a landing of the full width of both flights, without any steps, shall be provided. The outer line of landing shall be curved to a radius of not less than two feet, to avoid square angles. Stairs turning at an angle shall have a proper landing without winders introduced at said turn. In stairs, when two side flights connect with one main flight, no winders shall be introduced, and the width of the main flight shall be at least equal to the aggregate width of the side flights.

(39) All stairs shall have proper landings introduced at convenient distances. All inclosed staircases shall have, on both sides, strong hand-rails firmly secured to the wall about three inches distant therefrom and about three feet above the stairs, but said hand-rails shall not run on level platforms and landings where the same are more in length than the width of the stairs.

(40) All staircases eight feet and more in width shall be provided with a central hand-rail of metal, not less than two inches in diameter, placed at a height of about three feet above the centre of the treads, and supported on wrought metal or brass standards of sufficient strength, placed not nearer than four feet nor more than six feet apart, and securely bolted to the treads or risers of stairs, or both, and at the head of each flight of stairs on each landing the post or standard shall be at least six feet in height, to which the rail shall be secured.

(41) Every steam boiler which may be required for heating or other purposes shall be located outside the building, and the space allotted to the same shall be inclosed by walls of masonry on all sides, and the ceiling of such space shall be constructed of approved fireproof materials.

(42) All doorways in said walls shall have fireproof doors. No floor register for heating shall be permitted. No coil or radiator shall be placed in any aisle or passage way used as an exit, but all said coils and radiators shall be placed in recesses formed in the wall or partition to receive the same. All supply, return or exhaust pipes shall be properly incased and protected where passing through floors or near woodwork.

(43) Standpipes four inches in diameter shall be provided with hose attachments on every floor and gallery as follows: One on each side of the auditorium in each tier, also on each side of the stage in each tier, and at least one in the property room and one in the carpenter's shop, if the same be contiguous to the building. All such standpipes shall be kept clear from obstruction. Said standpipes shall be separate and distinct, receiving their supply of water direct from the power pump or pumps, and shall be fitted with the regulation couplings of the Fire Department, and shall be kept constantly filled with water by means of an automatic power pump or pumps, of sufficient capacity to supply all the lines of hose when operated simultaneously, and

said pump or pumps shall be supplied from the street main and be ready for immediate use at all times during the performance in said building. In addition to the requirements contained in this section, the standpipes shall also conform to the requirements contained in section 32 of this code.

(44) A separate and distinct system of automatic sprinklers, with fusible plugs, approved by the Superintendent of Buildings, supplied with water from a tank located in the roof over the stage and not connected in any manner with the standpipes, shall be placed on each side of the proscenium opening and on the ceiling or roof over the stage at such intervals as will protect every square foot of stage surface when said sprinklers are in operation. Automatic sprinklers shall also be placed, wherever practicable, in the dressing rooms, under the stage and in the carpenter shop, paint rooms, store rooms and property room.

(45) A proper and sufficient quantity of two and one-half inch hose, not less than one hundred feet in length, fitted with the regulation couplings of the Fire Department and with nozzles attached thereto, and with hose spanners at each outlet, shall always be kept attached to each hose attachment as the Fire Commissioner may direct. There shall also be kept in readiness for immediate use on the stage, at least four casks full of water, and two buckets to each cask. Said casks and buckets shall be painted red.

(46) There shall also be provided hand pumps or other portable fire extinguishing apparatus and at least four axes and two twenty-five-foot hooks, two fifteen-foot hooks and two ten-foot hooks on each tier or floor of the stage.

(47) Every portion of the building devoted to the uses or accommodation of the public, also all outlets leading to the streets and including the open courts or corridors, shall be well and properly lighted during every performance, and the same shall remain lighted until the entire audience has left the premises. All gas or electric lights in the lobbies, corridors, lobby or any other part of said buildings used by the audience, except the auditorium, must be controlled by a separate shut-off, located in the lobby and controlled only in that particular place.

(48) Gas mains supplying the building shall have independent connections for the auditorium and the stage, and provision shall be made for shutting off the gas from the outside of the building. When interior gas lights are not lighted by electricity or other suitable appliances, to be approved by the Superintendent of Buildings, shall be provided.

(49) All suspended or bracket lights surrounded by glass in the auditorium, or in any part of the building devoted to the public, shall be provided with proper wire netting underneath. No gas or electric light shall be inserted in the walls, woodwork, ceilings, or in any part of the building, unless protected by approved fireproof materials. All lights in passages and corridors in said buildings, and wherever deemed necessary by the Superintendent of Buildings, shall be protected with proper wire network. The footlights, in addition to the wire network, shall be protected with a strong wire guard and chain, placed not less than two feet distant from said footlights, and the trough containing said footlights shall be formed of and surrounded by approved fireproof materials.

(50) All border lights shall be constructed to the approval of the Superintendent of Buildings, and shall be suspended for ten feet by wire rope. All ducts or shafts used for conducting heated air from the main chandelier, or from any other light or lights, shall be constructed of metal and made double, with an air space between.

(51) All stage lights shall have strong metal wire guards or screens not less than ten inches in diameter, or constructed so that any material in contact therewith shall be out of reach of the flames of said stage lights, and must be soldered to the fixture in all cases.

(52) The standpipes, gas pipes, electric wires, hose, footlights, and all apparatus for the extinguishing of fire or guarding against the same, as in this section specified, after being installed, shall be in charge and under control of the Fire Department, and the Commissioner of said Department is hereby directed to see that the arrangements in respect thereto are carried out and enforced. A diagram or plan of each tier, gallery or floor, showing distinctly the exits therefrom, each occupying a space not less than fifteen square inches, shall be printed in black lines in a legible manner on the programme of the performance. Every exit shall have over the same on the inside the word "Exit" painted in legible letters not less than eight inches high.

(53) The provisions of the foregoing shall not be construed to mean or made to apply to any theatre, opera house, or building intended to be used for theatrical or operatic purposes, now erected or for which plans have heretofore been approved by the Superintendent of Buildings.

CHAPTER XXIV.

ELEVATORS.

SECTION 138.

Elevators, Escalators and Amusement Devices.

(1) Elevators, escalators, amusement and similar devices, both public and private, shall be installed and maintained in accordance with the rules and regulations of the Bureau of Buildings and under its sole supervision.

(2) Repairs to elevators, escalators, amusement and similar devices may be made without the filing and approval of drawings and descriptions in the Bureau of Buildings, but such repairs shall not be construed to include the changing of the type or make of elevator or power.

(3) Any violation of the provisions of this section shall be punishable by imprisonment for not less than ten days, or a fine not less than fifty dollars, or by both such imprisonment and fine.

CHAPTER XXV.

PLUMBING AND DRAINAGE.

SECTION 139.

Plumbing, Drainage and Gas Piping.

(1) The plumbing, drainage and gas piping of all buildings, both public and private, shall be installed under the sole supervision of the Bureau of Buildings, in accordance with its rules and regulations, approved applications and plans. Notice of any change in the rules and regulations shall be published in the City Record once each week for eight successive weeks, and during this period shall be posted on the bulletin board of the Bureau of Buildings, and a public hearing shall be given before the same shall become operative.

(2) Repairs or alterations of plumbing, drainage or gas piping may be made without the filing and approval of drawings and descriptions in the Bureau of Buildings, but such repairs or alterations shall not be construed to include new house sewers, house drains, vertical or horizontal lines of soil, waste, vent, leader or gas piping. Notice of such repairs shall be given to the Superintendent of Buildings before the same are commenced as prescribed by the rules and regulations, and the work shall be done solely in accordance with said rules and regulations. No repairs or alterations shall be made or caused to be made by any person other than a duly licensed and registered plumber. Any violation of the provisions of this section shall be punishable by imprisonment for not less than ten days, or a fine of not less than fifty dollars, or by both such imprisonment and fine.

SECTION 140.

Registration of Plumbers.

(1) Once in each year every employing or master plumber desiring to perform plumbing work in The City of New York shall register his name and address at the office of the Bureau of Buildings, in any Borough of the said City, under such rules and regulations as said Bureau shall prescribe and as hereinafter provided. And thereupon he shall be entitled to receive a certificate of such registration from said Bureau, provided, however, that such employing or master plumber shall at the time of applying for such registration hold a certificate of competency from the Examining Board of Plumbers.

(2) The time for such registration shall be during the month of March in each year. Where, however, a person obtains a certificate of competency at a time other than in the month of March in any year, he may register within thirty days after obtaining such certificate of competency, but he shall also register in the month of

March in each year as herein provided. Registration in any Borough shall entitle any employing or master plumber to perform work in all Boroughs.

(3) Such registration may be cancelled by the Superintendent of Buildings for a violation of the rules and regulations for plumbing and drainage, duly adopted and in force pursuant to the provisions of this section or whenever the person so registered ceases to be a master or employing plumber, after a hearing had before said Superintendent not less than ten days after service, upon the person charged with the violation, of a notice to appear, stating the grounds of complaint.

(4) After this code takes effect no person, corporation or copartnership shall engage in or carry on the trade, business or calling of employing or master plumber in The City of New York unless the name and address of such person and the president or secretary or treasurer of such corporation and each and every member of such copartnership shall have been registered as above provided.

(5) No person shall expose the sign of "Plumber" or "Plumbing," or a sign containing words of similar import and meaning, unless he shall have obtained a certificate of competency from the Examining Board of Plumbers, and shall have registered as herein provided.

(6) A master or employing plumber within the meaning of this code is any person who hires or employs a person or persons to do plumbing work.

SECTION 141.

Gas and Water Pipes.

(1) Every building hereafter erected, and all factories, hotels, churches, theatres, schoolhouses and other buildings of a public character heretofore erected, in which gas or steam is used for lighting or heating, shall have each supply pipe leading from the street mains provided with a stopcock contained in a suitable valve box placed in the sidewalk at or near the curb. When the service pipe supplying gas to any building shall be laid so that the distance from the centre of the pipe to the surface of the ground shall be less than two feet six inches, such service pipe shall be properly covered and made frostproof by the person laying the same. Where such pipe crosses an area it must be made frostproof by covering with non-conducting insulation not less than three-fourths of an inch in thickness.

(2) The plans filed in the Bureau of Buildings shall show where the gas service pipes are intended to enter the building. Where such pipes pass through a wall they shall be surrounded by at least six inches of masonry through the full thickness of the wall. No gas, water or other pipes which may be introduced into any building shall be let into the beams unless the same be placed within thirty-six inches of the end of the beams; and in no building shall the said pipes be let into the beams more than one and one-half inches.

(3) The burners of gas brackets shall be placed at least three feet below any ceiling or woodwork, unless the same is properly protected by a suitable non-combustible shield, in which case the distance shall be not less than eighteen inches. No swinging or folding gas bracket shall be placed against any civil partition or woodwork. No gas bracket on any lath and plaster partition or woodwork shall be less than five inches in length, measured from the burner to the plaster surface or woodwork. Gas lights placed near windows, curtains or any other combustible material shall be protected by globes or wire cages.

(4) In all tenement houses hereafter erected, in which gas meters are placed within apartments, a separate valve or valve for the control of each meter shall be provided in a convenient location in the public hall of the floor on which each meter is located.

(5) No supply of gas shall be turned on in any building hereafter erected or in which gas piping has been altered until a satisfactory test has been applied and a certificate secured from the Superintendent of Buildings after a satisfactory report that the piping has been properly installed by a duly licensed and registered plumber.

CHAPTER XXVI.

FENCES, SIGNS, BILLBOARDS AND ROOF STRUCTURES.

SECTION 142.

Fences, Signs, Billboards and Roof Structures.

(1) A fence, sign or billboard shall not be at any point over ten feet above the curb in front of the ground upon which it is erected; except that when it is entirely of metal, including the uprights, supports and braces, it shall not be at any point over eighteen feet above the curb in front of the ground upon which it is placed. All fences, signs and billboards shall be erected entirely within the building line, and be properly and firmly secured, supported and braced, and shall be so constructed as not to be or become dangerous. Before the erection of any fence, sign or billboard shall be commenced, a permit shall be obtained from the Superintendent of Buildings. Each application for the erection of any fence, sign or billboard shall be accompanied by the written consent of the owner of the property upon which it is to be erected.

(2) Signs of metal or wood may be placed on the fronts of buildings, providing they are placed flat against the wall and do not extend above the roof of such buildings, and are firmly and properly secured, supported and braced, and shall be so constructed as not to be or become dangerous. No sign shall be placed upon or attached to the face of a wall of any building in such a manner as to cover in whole or in part any door or window opening.

(3) No structure shall be placed, erected, maintained or occupied upon or over the roof of any building except as provided in sections 45, 46 and 47 of this code. Whenever any fence, sign, billboard, or structure on the roof of a building, except as provided in sections 45, 46 and 47, shall be erected, placed or maintained in violation of the provisions of this code, the Superintendent of Buildings shall order the same removed. In case the owner or lessee shall neglect or refuse to remove or cause the same to be removed within ten days from the service of a notice so to do, the said Superintendent of Buildings shall have power, and it shall be his duty, to immediately remove such fence, sign, billboard or structure, and the expense of such removal by the Superintendent of Buildings shall be a first lien upon the property.

SECTION 143.

Electric Signs.

(1) Any electric letter, word, model, sign, device or representation in the nature of an advertisement, announcement or direction, erected at right angles to any building, shall be deemed to be an electric sign.

(2) Electric signs may be hung or attached at right angles to buildings and extend not to exceed six feet beyond the cornice line thereof in said space, and be ten feet in the clear above the level of the sidewalk in front of such building, upon the payment of an annual license fee of 10 cents for each square foot of sign space or part of square foot of such sign space, to be collected by the City Clerk of The City of New York. The square feet of sign space on one side of an electric sign, however, shall be deemed to be the entire number of square feet of sign space for the purpose of computing the license fee herein referred to and required to be paid.

(3) All electric signs shall be constructed entirely of metal, including the uprights, supports and braces for the same, properly and firmly attached to the building, and shall be so constructed as not to be or become dangerous.

(4) Before any permit is issued by the City Clerk, plans and statements of the proposed sign and method of attachment to the building must be filed with the Superintendent of Buildings, and his certificate of approval must be obtained as to the sufficiency of the construction and method of attachment to the building. A certificate must also be obtained from the Department of Water Supply, Gas and Electricity certifying that the proposed electric wiring and electric appliances are in conformity with the rules and regulations of that Department.

(5) No certificate shall be given by the Superintendent of Buildings, and no permit shall be issued by the City Clerk for the erection of electric signs on any building when such building adjoins a building occupied exclusively as a private residence, unless the written consent of the owner of said private residence for the erection of such electric sign be first obtained.

(6) No electric sign shall be placed, hung or maintained, except as in this ordinance provided, under a penalty of ten dollars for each offense, and a further penalty of ten dollars for each day or part of a day the same shall continue.

CHAPTER XXVII.

VIOLATIONS AND PENALTIES; UNSAFE AND DANGEROUS BUILDINGS; COURT PROCEEDINGS.

SECTION 144.

(1) Removal of Violations—Whenever the Superintendent of Buildings is satisfied that there exists in any building erected or in course of erection a violation of the provisions of this code, he may, in his discretion, authorize the Corporation Counsel to institute any appropriate action or proceeding at law or in equity, to restrain, correct, or remove such violation, prevent further work upon the building, require its removal or prevent the occupation or use of the building.

(2) Notice of Violation and Service Thereof—Notices of violation shall be issued upon the report of an inspector or engineer by the Superintendent of Buildings and have his name affixed thereto, and shall immediately be filed in his office. A Notice of Violation shall be served upon the person charged with the violation or upon the person designated in section 147, or as otherwise specified in this code. It shall contain a brief statement of the nature of the violation charged, and of the penalty or penalties that may be incurred, a brief description of the building and premises to which the notice refers, including its location and a direction to the owner requiring that the violation be removed forthwith. A copy of section 148 of this code, entitled "Duty of Occupant to Notify Owner," shall be printed thereon. If the person charged with the violation, or the person designated in section 147, cannot be found in The City of New York after diligent search, then service may be made by affixing the same in a conspicuous place on the property as to which a violation is alleged to exist, or to which such notice may refer, and by depositing in a post-office in The City of New York a copy thereof in a securely closed postage wrapper, addressed to him at his last known place of residence, or his last known place of business. If his place of residence is not known, and the Superintendent of Buildings cannot with reasonable diligence ascertain either, or a place where he would probably receive matter transmitted through the post-office, he may deposit with the deposit of any papers, and upon an affidavit thereof, the notice of violation shall be deemed served, and the same action or proceeding may be taken thereon as if he had been personally served.

(3) Penalties—A person who violates a provision of this code shall for each violation pay a penalty in the sum of fifty dollars; except that a person who shall violate a provision thereof as to chimneys, fireplaces, flues, steam or hot-air pipe-leaders or furnaces, or as to the framing or trimming of timbers, girders, beams or other woodwork in proximity to a chimney, flue, steam or hot-air pipe, boiler, furnace or fireplace, shall pay a penalty in the sum of one hundred dollars. But if said violation shall be removed within ten days after the service of a notice of violation, or shall be in process of removal within said period, and be actually removed within a reasonable time thereafter, the liability for such penalty shall cease. The Corporation Counsel on written notification by the Superintendent of Buildings of the actual removal of said violation, shall discontinue any action pending to recover such a penalty. A person who having been served with a notice of violation shall fail to comply with the requirements of said notice within ten days after service, and shall continue the violation in the respects named in the notice, shall be guilty of a misdemeanor.

(4) Courts Having Jurisdiction for Enforcement of Penalties—For the recovery of a penalty an action may be brought in the name of The City of New York in any municipal court or court of record in said city, and no court shall lose jurisdiction of any person by reason of a plea that the title to real estate is involved, provided the object of the action is to recover a penalty for a violation. When any judgment shall be rendered thereon, the same shall be collected and enforced as judgments of the court in which said action was commenced.

SECTION 145.

Unsafe Buildings.

(1) Notice to Make Safe—When it is reported to the Superintendent of Buildings that any building or part thereof is unsafe or dangerous he shall immediately cause an examination of the property to be made. If this examination shows the building or any portion thereof to be unsafe or dangerous, the result thereof shall be entered upon a docket, and the Superintendent of Buildings shall at once serve notice in the manner prescribed in section 144 of this code, upon the owner or upon the person designated in section 147 of this code. Such notice shall have printed upon it a copy of section 148 of this code and shall contain a description of the property or building deemed unsafe or dangerous, and shall require the same to be made safe and secure or removed, as may be considered necessary by the Superintendent of Buildings, and it shall require the person served therewith to immediately certify in writing to the Superintendent of Buildings his consent or refusal to secure, make safe or remove the building or part thereof. If he immediately certifies in writing his consent to comply therewith he shall be allowed until one o'clock of the day following the service of such notice in which to begin to secure, make safe or remove the building. He shall employ sufficient labor and materials, and immediately begin to secure, make safe or remove the same. The work shall be done as speedily as possible, and shall be continuously prosecuted to the satisfaction of the Superintendent of Buildings.

(2) Notice of Survey—Should the person so served with notice neglect or refuse to comply with any of the requirements of said notice to the satisfaction of the Superintendent of Buildings, a further notice, which shall have printed upon it a copy of sections 7 and 148 of this code, shall thereupon be served upon him in the manner heretofore prescribed. Said notice shall state that a survey of the premises specified therein will be made by a committee of surveyors, to be appointed as prescribed in section 7 of this code, at a stated time and place, which time shall not be less than twenty-four hours nor more than three days from the time of service of said notice, that if the owner proceeds to secure, make safe or remove the unsafe or dangerous building, or part thereof, and prosecutes the work in a manner satisfactory to the Superintendent of Buildings, the survey may be adjourned or cancelled at his discretion. But after the service of a notice of survey no adjournment thereof shall be granted unless the owner serves upon the Superintendent of Buildings a verified statement that he undertakes the work solely upon his own responsibility, and assumes all responsibility against danger to life, limb or property, and will hold The City of New York and the Superintendent of Buildings harmless.

(3) Survey—Should the Superintendent of Buildings deem it necessary a survey shall be held. The committee of surveyors shall attend at the time and place specified, examine the building and immediately report in writing its opinion thereof to the Superintendent of Buildings. Should two members of the committee report the building unsafe or dangerous, a copy of their report with a copy of the notice of survey shall forthwith be posted in a conspicuous place upon the building. A copy of their report shall also be immediately presented by the Superintendent of Buildings to the Corporation Counsel, who shall forthwith apply to the court for a precept directed to the Superintendent of Buildings, commanding him to remove the building or part thereof, or make the same safe and secure.

(4) A cause of action is hereby created for the benefit of The City of New York against the owner of said building and of the land upon which it is situated, for the amount of the fees, with interest, of the committee of surveyors, which action shall be prosecuted by the Corporation Counsel in the name of The City of New York.

(5) Court Proceedings—In any proceeding to remove an unsafe or dangerous building, or to make the same safe and secure, the written report of survey shall constitute the issue of fact. The said issue shall be brought to trial before a justice holding a Special Term of the court, who shall give this issue precedence over every other business. If the decision of the court be that the building or part thereof is unsafe or dangerous, the justice shall immediately issue a Precept commanding the Superintendent of Buildings to secure, make safe or remove the unsafe or dangerous building, or such part thereof as shall be specified, permitting him in his discretion to authorize the owner to do so, as heretofore specified, and empowering him to modify the requirements of said Precept when he shall be satisfied that such modification will secure equally well the safety of the building.

(6) Execution of Precept—The Superintendent of Buildings shall thereupon proceed to execute the precept as therein directed. He may procure the necessary materials, ways, works and means, and employ such experts, employees, mechanics, workmen and laborers as may be necessary for that purpose; or may, in his discretion, upon payment by the owner of the unsafe or dangerous building of all costs and expenses theretofore incurred in the proceeding, issue to him an authorization to carry out the requirements of the precept, and this work shall be immediately done to the satisfaction of the Superintendent of Buildings. If thereafter in his judgment it shall be necessary, the Superintendent of Buildings shall himself enter and execute said precept, as heretofore prescribed. After completion of the work the Superin-

tendent of Buildings shall cause the return to the said Special Term of the court of said precept, with an endorsement thereon of his action thereunder, and a statement of the costs and expenses thereby incurred, including preliminary searches and surveys.

(7) Costs; Disbursements; Expenses—The justice shall thereupon tax, award, adjust and allow such costs, disbursements and expenses as may have been incurred and render judgment therefor, and direct that the same be paid by the owner of the property designated in the action, and may declare the same a lien upon said property and direct that it be sold as on a judgment in foreclosure of a mortgage upon real estate or a mechanic's lien upon real property. The subsequent proceedings shall be in the same manner and with like effect as under judgments in said forms of action; and in and about all preliminary proceedings, as well as the carrying into effect of any order of the court or any precept issued by any court, said Superintendent of Buildings may make requisition upon the Comptroller of The City of New York for such amount or amounts of money as shall be necessary to meet the expenses thereof; and upon the same being approved by any judge or justice of the court from which the said order or precept was issued and presented to said Comptroller, he shall pay the same, and for that purpose shall borrow and raise, upon revenue bond, to be issued as provided in Section 188 of The Greater New York Charter, the several amounts that may from time to time be required, which shall be reimbursed by the payment of the amount and interest at six per cent, out of the judgment or judgments obtained as aforesaid, if the same shall be collected.

(8) Emergency Work—If in the opinion of the Superintendent of Buildings there shall be actual and immediate danger of the falling of any building or part thereof so as to endanger life, limb or property, or there shall be any illegal or defective work, or work in violation of or not in compliance with any of the provisions or requirements of this code, he or such person as he may authorize, shall order all further work to be stopped in and about said building and require all persons to vacate the same. He shall cause such work to be done as in his judgment may be necessary to remove the danger, and he may when necessary for the public safety temporarily close the sidewalks and streets adjacent to such building. The Commissioner of the Police Department of The City of New York, when called upon by the Superintendent of Buildings, shall enforce such orders and requirements.

(9) Recovery of Bodies—In case a building or part thereof falls and persons are known or believed to be buried in the ruins, it shall be the duty of the Superintendent of Buildings to cause a search of the premises to be made for the rescue of the living and the recovery of the bodies of the dead. For such purpose he may temporarily hire persons and temporarily hire or purchase the materials, ways, works and means which may be necessary. Whenever, in making such search, it shall be necessary to remove debris from the premises, it shall be the duty of the Commissioners of the various departments of The City of New York, when called upon by the Superintendent of Buildings, to co-operate and to provide a suitable and convenient dumping place for the deposit of such debris. The Superintendent of Buildings is hereby authorized and empowered in such cases to order and require the occupants of such building or part thereof, to vacate the same forthwith, and he may when necessary for the public safety, close the sidewalks and streets adjacent to such building, or part thereof, and prohibit the use of the same, and the Commissioner of the Police Department of The City of New York, when called upon by the Superintendent of Buildings, shall enforce such orders or requirements.

SECTION 146.

Legal Proceedings.

(1) Duty of Corporation Counsel to Proceed—Upon written request by the Superintendent of Buildings the Corporation Counsel shall sue for and collect all penalties and take charge of and conduct all legal proceedings imposed or provided for by this code; and all suits or proceedings instituted for the enforcement of any of the several provisions of this code or for the recovery of any penalty thereunder shall be brought in the name of The City of New York, by the Corporation Counsel, in whom all notices of violation shall be returned for prosecution, and it shall be his duty to take charge of the prosecution of all such suits or proceedings, collect and receive all moneys that may be collected upon judgments, suits or proceedings so instituted, or which may be paid by any parties who have violated any of the provisions of this code and upon settlement of judgment and removal of violations thereunder, execute satisfaction therefor.

(2) Temporary Injunctions—In any action or proceeding for the enforcement of the provisions of this code, The City of New York may apply to the Court for an order enjoining and restraining any violation, ordering the property vacated, or prohibiting its use for any purpose whatsoever until the hearing and determination of such action and the entry of final judgment therein.

(3) Undertaking Not Required—No undertaking shall be required from The City of New York or the Superintendent of Buildings as a condition to granting an injunction or order, or by reason thereof, in any action or proceeding.

(4) Notice of Lis Pendens; Filing by Counsel—Upon the commencement of an action or proceeding to enforce the provisions of this code, other than an action for the recovery of a penalty, the Corporation Counsel shall file in the County Clerk's office of the County where the property is situated, a notice of lis pendens, stating the names of the persons claimed to be affected thereby, with a copy of the notice of violation or notice of survey, and proof of service thereof, and a copy of the action or proceeding instituted or to be instituted. The Corporation Counsel may, however, in his discretion, file such notice at any time.

(5) Effect of Notice of Lis Pendens—A notice filed, as prescribed in the preceding paragraph, is constructive notice to an owner or encumbrancer of the property affected thereby, and to an owner or encumbrancer thereof, from or against a person with respect to whom the notice is to be filed and indexed, as prescribed in the next paragraph. A person whose conveyance or encumbrance is subsequently executed or subsequently recorded, is bound by all proceedings taken in the action, after filing of the notice, to the same extent as if he were a party to the action.

(6) Notice of Lis Pendens to be Filed and Indexed—Each County Clerk with whom such a notice is filed shall immediately file and index it in the name of the person specified in a direction appended at the foot of the notice of lis pendens, and subscribed by the Corporation Counsel, and in the property affected, and under the section number of the land map of the county where the property is situated.

(7) Cancellation of Notice of Lis Pendens—After an action is commenced, and is settled, discontinued, abated or final judgment is rendered therein, against The City of New York, and the time to appeal therefrom has expired, or if the Corporation Counsel unreasonably neglects to proceed with the action, the Court may, in its discretion, upon the application of any person aggrieved, and upon such notice as may be directed or approved by it, direct that the notice of lis pendens, filed as prescribed in the last paragraph, be cancelled of record by the County Clerk with whom it is filed. The cancellation shall be made by a note to that effect in the index to the names of each person and the property specified in the notice filed, referring to the order, or consent of counsel in this section provided, and a like note upon the notice filed. Unless the order is entered in the same clerk's office, a certified copy thereof shall be filed therein before the notice is cancelled.

(8) Before or after an action is commenced to enforce a notice of violation, the notice of pendency thereof shall be likewise cancelled upon the written consent of the Corporation Counsel, which consent shall be filed with and indexed by said County Clerk.

(9) Actions in Supreme Court—Except in an action for the recovery of a penalty or a criminal action, all actions and proceedings for the enforcement of the provisions of this code, shall be commenced in the Supreme Court of the County in which the property is situated and shall be tried, under the direction of the Court, to preference in the trial or hearing thereof, over all civil actions.

(10) All courts in which any suit or proceeding is instituted under this code shall upon the rendition of a verdict, report of a referee, or decision of a judge or justice, render judgment in accordance therewith; and the said judgment so rendered shall be and become a lien upon the premises named in the complaint in any such action, to date from the time of filing in a County Clerk's office in The City of New York, where the property affected by such action, suit, or proceeding is located, of a notice of lis pendens thereto; which lien may be enforced against said property, in every respect, notwithstanding the same may be transferred subsequent to the filing of the said notice.

(11) Remedies Not Exclusive—All actions, proceedings or orders provided for in this chapter shall not be exclusive.

SECTION 147.

Designation by an Owner of a Building.

Either a resident or a non-resident of The City of New York, of full age, owning real estate or a building thereon, may execute and acknowledge in duplicate, a written designation of a resident of said City, as a person upon whom to serve a notice of violation, notice to make safe, or notice of survey, a summons, a mandate, or any paper or process, under the provisions of this code, or either of the same, and may file the same, with the written consent of the person so designated, duly acknowledged, one in the office of the Superintendent of Buildings, and one in the office of the Clerk of the County where the real estate or building is situated. The designation must specify the residence and place of business of the person making it, and also of the person designated and the location of the property with respect to which the designation is made. It shall remain in force during the period specified therein, if any, or, if no period is specified therein, until one year after the filing thereof, but it is revoked earlier, either by the death or legal incompetency of either of the parties, or by the filing of a revocation by either of the parties, duly acknowledged, and the consent of the Superintendent of Buildings. The Clerk of the County must immediately file and index such designation, consent or revocation; and shall note, upon the original designation and index, the filing of a revocation. While the designation remains in force, as prescribed in this section, a notice of violation, notice to make safe, or notice of survey, a summons, a mandate, or any paper or process under the provisions of this code, or either of the same, may be served upon the person so designated, in like manner and with like effect, as if it were served personally upon the person making the designation, notwithstanding his presence in The City of New York.

SECTION 148.

Duty of Occupant to Notify Owner.

Should a notice of violation, a notice to make safe, or a notice of survey be served upon an occupant of real estate or a building, it shall be the duty of the person upon whom such service is made, to give immediate notice thereof to the owner of said real estate or building named in the notice, if such owner is within The City of New York, and his residence is known to such person, and if he is not within the said City, by depositing such notice in a post office in The City of New York, properly inclosed in a prepaid wrapper addressed to such owner at his then known place of residence.

SECTION 149.

Casts and Fees, Awarding, Taxation and Enforcing Payment of Costs, Disbursements and Expenses.

(1) **Neither Party Entitled to Costs and Disbursements, of Course**—Neither party is entitled to costs and disbursements, of course, in an action brought for the collection of a penalty, or to enforce the provisions of this code. The court may, in its discretion, award costs and disbursements, or either, to a party.

(2) **How Awarded and Collected**—Whenever costs and disbursements, or either, are awarded to a party, they are to be taxed by the clerk, unless directed to be taxed before the Justice. They shall be collected as provided in this code, the Code of Civil Procedure, or the Municipal Court Act of The City of New York, as the case may be.

(3) **Certain Costs, Disbursements and Expenses Shall be Taxed and Allowed**—In all cases the following disbursements and expenses shall be awarded; namely, the fees of the members of the Committee of Surveyors as prescribed in section 4 of this code, the reasonable disbursements and expenses incurred by the Superintendent of Buildings in hiring experts, employees, mechanics, workmen and laborers, and in hiring or purchasing materials, ways, works or means, pursuant to section 4 of this code.

(4) **Remission of Penalties**—The Superintendent of Buildings is hereby authorized, in his discretion, sufficient reason being shown therefor, to remit, through the Corporation Counsel, a penalty which may be incurred under the provisions of this code, also, in his discretion, to remit the costs and disbursements of an action commenced for the recovery of a penalty, but no penalty and no costs and disbursements shall be remitted until the violation shall have been removed.

SECTION 150.

Punishment for the Violation of the Provisions of this Code.

(1) **Violation a Misdemeanor**—A person who shall in the construction, alteration or removal of a building knowingly violate any of the provisions of this code, rules or regulations thereunder, shall be guilty of a misdemeanor.

(2) **False Swearing is Perjury**—Any false swearing to a material fact in any verified application or affidavit submitted in pursuance of the provisions of chapter IV of this code is perjury.

CHAPTER XXVIII.

EXISTING ACTIONS AND LIABILITIES; INVALIDITY OF SECTIONS; REPEALING AND EXACTING CLAUSES.

SECTION 151.

Existing Actions and Liabilities.

Nothing in this code contained shall be construed to affect any action or proceeding now pending in any court, nor any rights accrued, nor liability incurred, nor any cause or causes of action accrued or existing under any acts or ordinances repealed hereby. Nor shall any right or remedy of any character existing or accrued be lost, impaired or affected by this code.

SECTION 152.

Invalidity of One Section Not to Invalidate Another.

Invalidity of any section or provision of this code shall not invalidate any other section or provision hereof.

SECTION 153.

Repealing Provisions.

All ordinances, rules and regulations of the former municipal departments and public corporations consolidated into The City of New York, affecting or relating to the construction, alteration or removal of buildings, all acts and ordinances, or parts thereof, inconsistent herewith, and the Building Code of The City of New York, are hereby repealed, except that a building, an application for permission to construct or alter which, with plans and detailed drawings, shall have been filed in good faith in the Bureau of Buildings prior to the date when this code shall take effect; or in case the building be such that the application, plans and detailed drawings shall be required to be approved by the Tenement House Department, if such application, plans and detailed drawings shall have been filed in good faith in said Tenement House Department prior to the date when this code shall take effect, the building may be constructed or altered in accordance with the requirements of law in force at that time, provided always that the construction or alteration of such building is commenced within one year after the application, plans and detailed drawings are approved by the Superintendent of Buildings, and is prosecuted with reasonable continuity to the satisfaction of the Superintendent of Buildings.

SECTION 154.

When This Code Takes Effect.

The provisions of this code shall take effect immediately.

WM. P. KENNEALLY, PERCIVAL E. NAGLE, JOSEPH SCHLOSS, JAMES J. SMITH, JOHN MULVANEY, DAVID S. RENDT, Committee on Buildings.

Alderman Doull, on behalf of the minority of the committee, submitted the following:

The Committee on Buildings, to which were referred on May 18, 1909 (Bill No. 2275), the Majority and Minority Reports of the Building Code Revision Commission, begs respectfully to present the following minority report, and the accompanying ordinance entitled "The Building Code."

The object of preparing a revision to the Building Laws of The City of New York is to change the laws to meet the requirements of our time. The City is building up so rapidly that further and better restrictions must be made to protect its buildings against destruction by fire. The Building Code as presented to this Board by a majority of the Committee on Buildings does not place any additional safeguards around building operations in this City. The sole purpose, apparently, which justifies, if, indeed, it can be called a justification for its preparation, seems to be for the purpose of legislating some methods of construction out of The City of New York and by so doing compel the usage of certain materials which would tend to create a monopoly in the hands of a few people.

Although the City has grown tremendously since the adoption of the present Building Code and a vast number of houses have been erected in districts beyond the present fire limits, no increase of those fire limits is recommended in the majority report in any Borough of this City.

The minority of the Committee won a decided victory when the majority consented to eliminate the objectionable clause requiring a patented device to be placed on all existing standpipes in The City, but even with this provision stricken out the section is objectionable because it gives to the Superintendents of Buildings the power to locate the standpipes, which authority is vested by section 762 of the Charter in the Fire Department, and therefore, would be of no force if adopted. We congratulate the majority in eliminating the section requiring a certain pigment to be used in painting structural iron work, thus proving the correctness of the position of the minority of the Building Code Revision Commission, in opposing this provision on the ground that it would create a monopoly in favor of a certain manufacturer of paints.

We object to section 29 of the report of the majority which provides that enclosures for elevators in fireproof buildings, when of brick, shall have walls eight inches thick, when of reinforced concrete six inches thick, and when of terra cotta four inches thick. The thickness of these various materials in the report of the majority places the fire resisting qualities of a 4-inch terra cotta partition as equal to that of an 8-inch brick wall, which is wrong, improper and dangerous.

We strenuously object to sections 116, 117 and 118 of the majority report. In the report submitted by the majority of the Building Code Revision Commission the use of cinder concrete for fireproofing was absolutely prohibited. An amendment to these sections was offered at the last meeting of the Committee, with the apparent object of permitting the use of cinder concrete for fireproofing. The substitute offered and which passed the Committee and is a part of the Majority Code, while it permits the use of cinder concrete for fireproofing, places such restrictions around it as to make its use absolutely prohibitory. It provides that in buildings over 100 feet in height, cinder concrete may be used only for segmental arches, and a minimum weight of one and a half pounds of metal reinforcement per square foot is required in the arches, whereas the present law and custom requires one pound per square foot. The added weight of metal is simply an additional expense to the public without serving any useful purpose. Another unjust discrimination imposed by the proposed Code is the exclusion of cinder concrete from use as fireproof protection to columns and girders, which the experts at the public hearing testified was the best kind of protection.

In buildings 100 feet or less, cinder concrete is permitted to be used in both flat arches and segmental arches, provided it is reinforced with steel rods or bars.

Under paragraph 3 the thickness of flat slab of cinder concrete is required to be not less than one inch for each four feet of span between the beams, not including any portion of the slab, projecting below the underside of the reinforcing steel. The average spans between steel beams in buildings is between 5 to 7 feet. In a 6-foot span the required thickness of a flat slab would therefore be 7½ inches, whereas the present requirement is only 4 inches, consequently approximately double the amount of concrete would be required as compared with the present Code. The effect of this would be to add approximately 32.4 per cent to the cost of flat slab concrete construction. In addition to this the extra weight would require heavier steel construction, thus adding to the cost of steel work of future buildings, as well. The effect of this unnecessary and unreasonable depth of cinder concrete floor as required by the proposed amendment is to absolutely exclude modern concrete from use in future buildings when placed in competition with hollow tile and other fireproofing allowed in buildings of 100 feet or less in height. These sections were undoubtedly drawn for the purpose of deceiving the public, by showing some desire on the part of the majority to change the fireproofing sections of their report on account of the criticism in the newspapers. These sections as drawn, contemplate a form of construction that it is impossible to follow, and their adoption would create a monopoly in this City in favor of the hollow block or terra cotta form of fireproofing. The fireproofing section of the Majority Code was condemned by representatives of the board of delegates of labor men of the County of New York, who claimed that the adoption of this section would throw a large number of laborers out of employment. The delegate of the Carpenters' Union, who appeared before the Committee, claimed that his craft was largely interested in making centers and headers for the use of concrete fireproofing, and if the sections as proposed were adopted it would throw a large number of carpenters out of employment. These statements were not and have not since been denied.

We strongly oppose section 21 of the majority report, permitting large unbroken floor areas in non-fireproof buildings. Buildings of such large unbroken floor areas are known as fire breeders, and to be extremely dangerous to life and property from the spread of fire, and we believe it to be essentially to the interest of the City to place reasonable restrictions upon unbroken floor areas between fire walls as is done in the Minority's Code.

Section 138 of the majority report gives the Bureau of Buildings the sole power to make rules and regulations governing the installation and maintenance of elevators, escalators, amusement and similar devices, both public and private. This wide and unusual authority was never contemplated by sections 410 and 411 of the Charter. Your Committee feels that some restrictions governing the installation of elevators, etc., should be made. We think it unwise and unfair to the public to permit the rules and regulations governing these devices, dealing as they do with life and limb, to be made by one individual. The Minority Code, in sections 161 to 179 inclusive, has specific provisions governing these important devices, and no amendment was offered at the public hearings to any of these sections. In many other sections of the majority report the widest possible discretionary powers are conferred upon the Superintendents of Buildings, power never contemplated by the framers of our Charter.

We object to paragraph 51 of section 137, which reads that "standpipes, gas pipes, electric wires, hose, foot-lights and all apparatus for the extinguishing of fire and guarding against same in theatres after being installed shall be in charge and under the control of the Fire Department."

It will be noted that the Fire Department only has control after the fire extinguishing apparatus has been installed. This is a violation of section 762 of the Charter, which gives full power to the Fire Department to supervise its installation and can have no effect in the event of its adoption.

A careful reading of the Code as presented by the majority, will disclose no excuse for its preparation. It is no improvement over the present Code. It does not protect as well as the present Code, and if it is adopted it will be a serious backward step in the progress of our City and a menace to its welfare. When we consider the vast values that are concentrated in this City, and the dire calamity which would follow a large conflagration, we must realize that the greatest possible care should be taken in drafting new laws to prevent the possibility of such a disaster. This the majority has signally failed to do.

The Code presented by the minority is the result of the consensus of opinion and suggestion of building experts who appeared before the Committee at the public hearing and is based upon the best and safest practices known in modern building construction. Its provisions have been approved by the New York Board of Fire Underwriters, the Chief of the Fire Department, and by the principal builders, labor organizations and architects in this City. We do not claim it to be an ideal Code, but it is conceded to be a far better Code than the present one. It protects each and every building industry in this City, free from any suspicion of favoring any kind of

material or any type of construction. It provides an "open door" to all building materials which have passed the required tests and are safe and proper to be used. It contains some new provisions and some new restrictions looking forward solely to better protecting buildings from destruction by fire, and thus prevent a serious financial panic which would follow a large conflagration in the downtown business section of this City.

The greatest possible care has been taken in drafting the Code to make its provisions free from criticism as to favoritism or injustice to anyone. Quite a number of amendments were made to the minority report from suggestions given at the public hearings by experts whose knowledge of their subject entitled their criticism to due consideration, and we believe the suggestions they gave were of great value to the Committee in the final preparation of their Code. It is but just and proper to say that where the amendment contemplated some changes in the method of construction, the question was submitted to and passed upon by an engineer, formerly in the service of the United States Government in the Treasury Department and who is not identified with any building interest, the Committee not feeling competent to rule on purely technical questions.

We believe that the Code we submit is a fair and a just Code to all men, and we recommend its adoption, confident that a strict enforcement of its provisions will throw greater safeguards around life and limb in this City and materially aid in its development.

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

THE BUILDING CODE.

CHAPTER I.

THE BUILDING CODE OF THE CITY OF NEW YORK.

SECTION 1.

Title of Code.

The Building Code—The following provisions shall constitute the Building Code of The City of New York, and shall affect and relate to the construction, alteration or removal of buildings or structures erected or to be erected in said City, and may be cited as the Building Code.

CHAPTER II.

BOARD OF EXAMINERS, BOARD OF REGISTRATION AND COMMITTEE OF SURVEYORS.

SECTION 2.

Board of Examiners.

Qualifications; Appointment—There shall be a Board of Examiners consisting of one member of the New York Chapter of the American Institute of Architects, one member of the New York Board of Fire Underwriters, two members of the Mechanics and Traders' Exchange of said city, one of whom shall be a master mason and one a master carpenter, one member of the Society of Architectural Iron Manufacturers of said city, and one member of the Real Estate Owners and Builders' Association of said city, who shall be an architect or builder, all of whom shall be appointed by their respective associations and so certified to annually to the Mayor of The City of New York, and the Chief of the Fire Department of The City of New York. The said Examiners shall each take the usual oath of office before entering upon the performance of their duties. The Mayor shall annually designate one of said Examiners as the presiding officer of said Board. At least five affirmative votes shall be necessary to the granting of any petition by said Board. No member of said Board shall pass upon any question in which he is personally interested. The said Board shall meet at least once a week upon notice from any of the Superintendents of Buildings.

Fees, Salary of Clerk—Each member of said Board of Examiners shall receive ten dollars for each attendance at a meeting of said Board, to be paid by the Comptroller from an appropriate fund to be provided by the Board of Estimate and Apportionment and the Board of Aldermen, upon the voucher of the Clerk of said Board of Examiners. The Clerk of the Board of Examiners shall be appointed and may be removed by the Mayor of The City of New York, and shall receive a salary of one thousand five hundred dollars per annum.

Jurisdiction; Order Final—Upon an appeal from an order of the Superintendent of Buildings, either denying or affirming an application, the said Board of Examiners may reverse or affirm wholly or partly, or may modify said order, which it is hereby authorized to review, as specified in the notice of appeal, as to any and all parties. Its decision shall be final, and a certified copy of the order thereon shall be forwarded, without charge, to the Superintendent of Buildings and the appellant.

SECTION 3.

Board of Registration.

Qualifications, Clerk; Appointment—There shall be a Board of Registration of seven members, two of whom shall be registered practicing architects, two registered practicing consulting engineers, two registered practicing builders and one practicing carpenter builder, all personally engaged in building, construction and superintendence, and residents of The City of New York, and shall be appointed, and at pleasure removed, by the Mayor. Each member of the Board shall take the usual oath of office before entering upon his duties. The Mayor shall annually designate one of said Board as its presiding officer and may appoint, and at pleasure remove, a clerk thereto.

Meetings, Fees, Salary of Clerk—Said Board shall meet whenever necessary. Each member is entitled to ten dollars for each day spent in the business thereof, and the clerk is entitled to the sum of one thousand five hundred dollars per annum, payable monthly upon the voucher of its presiding officer, countersigned by its clerk.

Jurisdiction—Said Board is hereby authorized and empowered to examine an engineer, architect, mason or carpenter builder, master plumber, master steamfitter, and a master erector of steel or iron work, who may be either a resident or non-resident of The City of New York, as to his qualifications and competency to practice or carry on his business, trade or calling, to grant a certificate of qualification and competency, and authorize his registration in any or all of the Boroughs of said city. For that purpose it may provide for either an oral or written examination, or both, and shall dispense with an examination upon an application, verified by the applicant, and satisfactory proof by affidavit, or otherwise, of his qualifications and competency to practice or carry on his business, trade or calling, and that he has been actively engaged as an engineer, architect, mason or carpenter builder, master plumber, master steamfitter or a master erector of steel or iron work for ten years prior to the date of the filing of said application with said Board. It may limit the examination and registration to such class of persons as it may deem proper, and may revoke and cancel a certificate of qualification and competency for a limited or unlimited term. The said Board shall have power to establish general rules and regulations for the purpose of exercising the powers and discharging the duties conferred and imposed upon it by this code, and shall have power from time to time to amend or repeal such rules and regulations.

Fee for Examination—Said Board is hereby authorized and empowered to charge each applicant a fee not to exceed ten dollars for a certificate of qualification and competency.

Engineers, Architects, Builders, Master Plumbers, Master Steamfitters and Master Erectors of Steel and Iron Work to Register—Within six months after the adoption of this code, a person who may desire to become a registered engineer, architect or mason or carpenter builder, master plumber, master steamfitter, or a master erector of steel or iron work, shall record his name and address at the office of the Board of Registration, and shall obtain a certificate thereof from said Board, provided, however, the said person shall have been actively engaged as an engineer, architect, mason or carpenter builder, master plumber, master steamfitter, master electrician or a master erector of steel or iron work for ten years prior to its adoption, which fact must be shown by filing a verified application. Thereafter, no person shall be registered as an engineer, architect, mason or carpenter builder, master plumber, master steamfitter, master electrician or a master erector of steel or iron work, unless at the time of applying for such registration he shall hold a certificate of qualification and competency from said Board of Registration. A certified list of all those whose registration they have authorized shall be forwarded weekly to each Superintendent of Buildings.

Plans, Applications, Drawings, Building and Supervision Thereof—Hereafter all applications, plans and drawings shall be prepared, or signed by a registered engineer,

registered architect or registered builder before filing under chapter IV, hereof, and every building shall be erected, altered or removed under the supervision of a registered engineer, registered architect or registered builder; and an apparatus or appliance to which any plumbing, drainage, sewerage, gas or water piping is appendant, or any plumbing, drainage, sewerage, gas or water piping connected therewith, shall be erected or altered under the supervision of a registered master plumber.

Registration, Revocation and Cancellation—Registration shall be canceled by the Superintendent of Buildings upon revocation thereof by the Board of Registration for an intentional or wilful violation of any of the provisions of this code, or upon evidence of gross incompetency, after a hearing before said Board after a notice of not less than twenty days, stating the grounds of the complaint, personally served upon the person charged therewith.

SECTION 4.

Committee of Surveyors.

Qualification of; Appointment—There shall be two Committees of Surveyors, each to consist of three persons, one of whom shall be the Superintendent of Buildings, a Deputy Superintendent of Buildings, or Inspector designated in writing by said Superintendent, another of whom shall be a registered engineer appointed by the Mayor of The City of New York as prescribed below for the borough in which an unsafe or dangerous building referred to in sections 157 and 197 is situated, another of whom shall be a registered practicing engineer, architect, or builder, of at least ten years' practice, appointed by the owner of said building. The engineers appointed by the Mayor shall be registered engineers of at least ten years' practice in The City of New York. One engineer so appointed shall act on said Committee for the Boroughs of Manhattan, The Bronx and Richmond, and another shall act for the Boroughs of Brooklyn and Queens. In case the owner fails to appoint, or having appointed, the said representative fails to attend according to notice, and the committee cannot appoint another member who shall be a registered practicing engineer, a member in the local chapter of the American Institute of Architects, or a builder, of at least ten years' practice.

Fees of Committee—The engineer appointed by the Mayor, who may act on a survey, as prescribed in the preceding paragraph, is entitled to the sum of twenty-five dollars for each survey, to be paid by the Comptroller upon the voucher of the Superintendent of Buildings. Should the owner fail to appoint and it becomes necessary for the Committee to appoint another member as prescribed in the last section, said member shall be entitled to the sum of twenty-five dollars for each survey, payable as above.

CHAPTER III.

POWERS AND DUTIES OF, AND APPEALS FROM, AND RULES FOR THE SUPERINTENDENT OF BUILDINGS.

SECTION 5.

General Powers and Duties.

Powers and Duties of a Superintendent of Buildings—Each Superintendent of Buildings shall have power to, and it shall be his duty, subject to the provisions of this code, to register engineers, architects, carpenter or mason builders, and master erectors of iron or steel work, master plumbers, master steam fitters and master electricians, to issue notices of violation, certificates, permits and notices of unsafe conditions and survey, to make rules and regulations and to issue notices thereunder, to approve or reject plans, applications, detail drawings, and amendments thereto, to decide upon and make orders in relation to variations and modifications, to pass upon questions relative to the mode, manner of construction, or materials to be used in the erection, alteration or removal of a building, to require that such mode, manner of construction or materials shall conform to the true intent and meaning of the several provisions of this code, to authorize the Corporation Counsel to institute any and all actions that may seem appropriate or necessary for the enforcement of its provisions.

During Building Operations—The provisions of this Code shall not prevent the lawful, ordinary and temporary use of building materials, structures and appurtenances during building operations upon city, public or private property, except as herein otherwise provided.

Order Thereon, With or Without a Hearing—The Superintendent may deny any application without a hearing, or may fix a date within a reasonable time for a hearing upon such application, but shall, as soon as a decision is rendered, enter an order thereon. Such application, decision and order granted under sections 410 and 411 of the Greater New York Charter or any discretionary decision made under the provisions of this code, shall be filed in the office of the Superintendent of Buildings, properly indexed under the section number of the code to which such decision refers, and open to public inspection. If the application be granted, a certified copy of the order thereon shall be immediately issued by the Superintendent of Buildings to the applicant.

SECTION 6.

Appeals from Orders of the Superintendent of Buildings.

When an Appeal May Be Taken to the Board of Examiners—Whenever a Superintendent of Buildings, to whom an application has been made and a question submitted, shall allow, reject or refuse to approve the mode, manner of construction or materials proposed to be followed or used in the erection, alteration or removal of a building, and when an order has been entered thereon, any party aggrieved thereby may appeal to the Board of Examiners.

How Taken—An appeal shall be taken by serving upon the Superintendent of Buildings, with whom the order appealed from is entered, by filing in his office a written notice to the effect that the appellant appeals from the order, or from a specified part thereof.

Limitation of Time—An appeal authorized by the last section shall be taken within ten days after service, as provided in the last section, upon the adverse party of a copy of the order and written notice of entry thereof.

Papers to be Transmitted to the Board of Examiners—Where an appeal is taken from an order as prescribed in this section, the Appellant shall, within five days after it is perfected, cause to be filed with the Clerk of the Board of Examiners, the notice of appeal, the decision and order, filed with the Superintendent of Buildings, a copy of the testimony taken and the exhibits upon the hearing, if any, before the Superintendent of Buildings thereon, and of all papers required under chapter IV, of this Code, and the appeal shall be heard upon them.

The time to file papers, other than the notice of appeal required to be served and filed, as prescribed in this section, may be extended by the Board of Examiners.

How Heard; Decision Final; Representation by Appellant—Whenever necessary, the Board of Examiners shall meet and may adjourn from day to day. It shall fix a day within a reasonable time for a hearing upon such appeal and render a decision, enter and file an order thereon without unnecessary delay. No member shall pass upon any question in which he is personally interested. The parties may be represented either in person, by agent or attorney.

SECTION 7.

Further Powers and Duties of the Superintendent of Buildings.

Unsafe and Dangerous Buildings, etc.—If in the opinion of the Superintendent of Buildings, a building becomes unsafe or dangerous to life, limb or property, or because of any defective, or illegal work, or work in violation of this Code, he, or such person as he may duly authorize, may enjoin and restrain further work upon, remove all violations from, or vacate and prevent the use of the property, temporarily hire such experts, employees, mechanics, workmen and laborers, temporarily hire, or purchase and furnish such materials, ways, works and means in and about the same as may be necessary to remove the danger, and may, when public safety requires, temporarily close the public highways adjacent thereto and command the assistance of the Police or other Departments of The City of New York.

Falling Buildings; Aid to the Injured; Search for the Dead and Missing—Should a building fall, or in the opinion of the Superintendent of Buildings, persons be entrapped, he shall, with the aid and assistance of the Fire and Police Departments, or any other Department of The City of New York called upon by him, immediately examine the building, take such steps as may be necessary to assist and aid the injured, and search for the dead and missing. He shall immediately take all necessary steps to prevent any further injury to life, limb or property, until further action, pursuant to the provisions of this Code. For such purpose, he may temporarily hire the persons, and temporarily hire or purchase the materials, ways, works and means, specified in this

section. In such case all the Departments of The City of New York called upon by the Superintendent of Buildings, having dumping facilities, shall immediately provide suitable and convenient dumping places for the deposit of debris.

Duty of Counsel to Proceed.—The Superintendent of Buildings shall authorize the Corporation Counsel in writing, immediately upon receipt of evidence by a report of one of his inspectors or engineers of a violation, or failure of a person to comply with a notice of violation within the time specified therein, to institute the proper action to enforce the provisions of this Code. Within ten days thereafter the Corporation Counsel shall institute in the name of The City of New York such an action or apply for such an order as may seem appropriate to restrain, correct, remove or enforce such violation, collect the penalty therefor, or punish the offending parties.

Notice in Writing.—All written notices of violation shall be issued in duplicate by the Superintendent of Buildings, shall have his name and seal affixed thereto, and one shall immediately be filed in his office.

Reports of Inspectors or Engineers.—All reports of inspectors or engineers, upon which written notices of violations are issued by the Superintendent of Buildings, shall be filed before the notice of violation is issued or served.

List of Approved Materials and Appliances To Be Prepared.—During the month of January of each year each Superintendent of Buildings shall prepare a complete list of all materials and appliances which have passed the necessary tests and received his approval, and the necessary information as to the conditions under which said materials and appliances were tested and approved. Said list shall be filed in the office of the Superintendent of Buildings during the first week in February and shall be published in the City Record on each consecutive Monday during said month of February of each year.

During the month of March of each year the Superintendents of Buildings of The City of New York shall compile and prepare a uniform list of materials and appliances and a duplicate thereof shall be filed on or before the 1st day of April, of each year, in the office of each Superintendent of Buildings.

Seal.—Each Superintendent of Buildings shall have a seal, to be approved by the Mayor, and shall direct its use in his Borough.

Badges and Right of Entry.—Each Superintendent of Buildings shall, with the approval of the Mayor, prescribe uniform badges to be worn by him, his Inspectors and other employees of the Bureau of Buildings.

All officials and employees of the Bureau of Buildings, so far as it may be necessary for the performance of their respective duties, shall have the right to enter upon any real estate or building in said city upon exhibiting his badge.

Superintendent and Employees' Liability.—Neither the Superintendent of Buildings nor any person appointed, hired or employed by him, when acting in good faith, and without malice, shall be liable for damages by reason of anything done by him under the provisions of this Code.

Rules and Regulations.—Each Superintendent of Buildings, by and with the approval of the President of the Borough, shall have power to establish general rules and regulations for the enforcement of the provisions of this Code. Such rules and regulations shall, so far as practicable, be uniform in all the Boroughs, but the Superintendent of Buildings, by and with the approval of the President of the Borough, shall have power, from time to time, to amend or repeal such rules and regulations when in his opinion, it shall seem necessary or desirable.

Accounts, Annual Estimates, Expenditures.—Each Superintendent of Buildings shall keep accurate and detailed accounts, in a form approved by the Comptroller, of all moneys received and expended by him, the sources from which they are received and the purposes for which they are expended.

Record of Applications; Public Documents.—Each Superintendent of Buildings shall keep a record of all applications presented to him concerning, affecting or relating to the construction, alteration or removal of buildings. Such record shall include the date of the filing of each of such application; the name and address of the applicant; the name and address of the owner of the land upon which the building mentioned in said application is situated; the name and address of the architect, engineer and builder employed thereon; a designation of the premises by street number, or otherwise, sufficient to identify the same; a statement of the nature and proposed use of such building, and a brief statement of the nature of the application, together with a memorandum of the decision of the Superintendent upon such application and the date of the rendering of such decision. The books containing such records and all papers required to be filed in the office of the Superintendent of Buildings are hereby declared to be public records, and shall be open to inspection at all reasonable times.

SECTION 8.

Funds for the Bureau of Buildings.

Funds for the Bureau of Buildings.—The City of New York shall provide funds for the expenses and disbursements necessary to carry out the provisions of this Code.

Fund for Use and Benefit of the Bureau of Buildings.—The Corporation Counsel shall sue for and collect all penalties, take charge of and conduct all legal proceedings imposed or provided for by this Code; and all actions commenced or proceedings instituted for the enforcement of any of the several provisions of this Code or for the recovery of any penalty thereunder shall be brought in the name of The City of New York by the Corporation Counsel, to whom all notices of violation shall be forwarded for prosecution, and it shall be his duty to take charge of the prosecution of all such actions or proceedings, collect and receive all moneys that may be collected upon judgments or as the result of such actions or proceedings so instituted, or which may be paid by any parties who may have violated any of the provisions of this Code; and upon payment of the judgment and removal of the violation thereunder, execute a satisfaction piece therefor or consent to a cancellation of a notice of pendency of violation. Said counsel shall, on the first day of each and every month, render to each Superintendent of Buildings an account of and pay over to him the amount of such penalties and costs received by him together with his bill for all necessary disbursements incurred, or paid in said actions or proceedings, keeping a separate account for each Superintendent, and each Superintendent shall thereupon pay the amount of such penalties and costs so collected to the Comptroller of The City of New York as a fund for the use and benefit of said Superintendent of Buildings for the purposes of paying any expense incurred by the said Superintendent under the provisions of this Code. A separate account shall be kept by the Comptroller of the money paid to him by each Superintendent.

CHAPTER IV.

APPLICATIONS, PLANS AND DRAWINGS; ORDINARY REPAIRS WITHOUT NOTICE; CERTIFICATES OF OCCUPANCY OR USE; ALTERATION OR CHANGE IN OCCUPANCY; DEMOLISHING BUILDINGS.

SECTION 9.

Applications, Plans and Drawings.

Approval and Revocation Thereof.—No buildings shall be erected, altered or removed except in conformity with the provisions of this Code, after written approval by the Superintendent of Buildings of the applications, plans, specifications and detail drawings, or the issuance of a written permit.

Applications; Filing.—Before the erection, alteration or removal of any building is begun, the owner thereof shall submit to the Superintendent of Buildings a verified application in triplicate on appropriate blanks to be furnished by said Superintendent of Buildings, containing a detailed statement of the specifications and a full and complete copy of the plans of such proposed work, in such detail structural drawings thereof as the Superintendent may require, giving the full name, residence and business address (by street and number whenever possible) of the owner of the building and of the owner of the real estate upon which the building is to be erected, altered or removed, describing the location thereof, and setting forth his authority to erect, alter or remove the same.

Amendments Therein.—Amendments to plans, applications and detail drawings may be made and approved in writing by the Superintendent of Buildings, provided the plans, applications and detail drawings when so amended shall be in conformity with the provisions of this Code, and requirements of the Superintendent of Buildings in relation thereto.

Limitation of One Year.—All approvals of plans, applications and detail drawings, together with the approved amendments thereto, shall expire by limitation one year from the date of the original approval of the plans, applications and detail drawings, but the limitation shall not apply to the erection of a new building under approved plans, applications and detail drawings, when work thereunder has been begun and

carried on with reasonable continuity within one year from the original approval thereof, and when the work to be performed is lawful, and can be carried on without violating any then existing provision of this Code.

Revocation of Approval.—The Superintendent of Buildings shall have power to revoke said approval for an intentional departure from the approved applications, plans and detail drawings, or in case any false statement or representation as to a material fact relating to the erection, alteration or removal of the building has been made.

Additional Facts for the Superintendent of Buildings.—The Superintendent of Buildings may at any time require an additional verified application setting forth further details as to the ownership of the real estate or the building, and the tenants and occupants thereof, or may require a designation from either a resident or non-resident of The City of New York, of a resident thereof, as prescribed in section 201 of this Code.

All Applications to be Filed and Approved or Rejected.—Said verified applications shall be filed in the office of the Superintendent of Buildings, and it shall be the duty of the Superintendent within a reasonable time, in writing, to approve or reject the said applications, plans and drawings or amendments thereto.

SECTION 10.

Ordinary Repairs Without Notice.

Ordinary repairs to a building may be made without notice to the Superintendent of Buildings. See section 210 (25).

SECTION 11.

Certificates of Occupancy or Use.

Duty of Superintendent of Buildings to Issue Certificates of Occupancy or Use.—It shall be the duty of the Superintendent of Buildings, provided the building shall have been erected or altered pursuant to the application, plans and drawings filed and approved, to issue to the owner of the real estate or building, as the case may be, a certificate of occupancy or use, stating the class to which said building belongs. The certificate shall have printed thereon a copy of section 14 of this Code. No building shall be occupied or used for any purpose whatsoever except the purposes of the class certified to by the Superintendent, nor until the issuance of the certificate.

Temporary Certificate.—The Superintendent of Buildings may issue a temporary certificate of occupancy or use providing for the occupancy or use of a portion or portions of any building, provided said portion or portions thereof have been constructed in accordance with the approved plans, applications and drawings therefor and amendments thereto, and the occupancy or use does not endanger life, limb or property.

SECTION 12.

Alteration and Change in Occupancy.

No building shall at any time be altered so as to be in violation of any provision of this Code. If any building or part thereof is erected, altered or occupied in violation of this Code, such building may be deemed an unlawful structure, and the Superintendent of Buildings may cause such building to be vacated, and such building shall not again be occupied until it or its occupation, as the case may be, has been made to conform to this Code.

SECTION 13.

Demolishing Buildings.

Application.—Before any work is begun in the demolition or removal of any building, a verified application on appropriate blanks to be furnished by the Superintendent of Buildings, containing a clear and concise statement of the facts in relation thereto, and as to the ownership and location thereof, shall be filed with the Superintendent of Buildings, and a written permit shall be obtained.

Permit Expires in Two Months.—Such permit shall expire by limitation two months from the date of its issue.

Demolishing the Building.—In demolishing any building, store after store shall be completely removed. No material shall be placed upon the floor of any such building in the course of demolition, but the brick, timbers and other parts of each story shall be lowered to the ground immediately upon displacement. The material to be removed shall be properly wet to lay the dust incident to its removal.

CHAPTER V.

CLASSIFICATION.

SECTION 14.

Classification of Buildings.

For the purpose of this ordinance all buildings coming under its provisions shall be divided as to their occupancy into three general classes to be known as Public Buildings, Residence Buildings and Business Buildings; these general classes shall in turn be subdivided into six classes, as designated in this section.

Unless special exception is made every provision of this ordinance applying to the erection of any building of a class shall apply to all buildings of that class, either when the general class or class designated alphabetically is referred to. In case any building is not specifically provided for or there is any doubt as to its classification the Superintendent of Buildings shall record the class to which it belongs, the classification to be made according to the character of the building and the purposes for which it is intended. Whenever the purpose or use of a building is such that in part it would come under one class and in part under another class, it shall be construed in its various parts so as to comply with all the provisions relating to such class, and in case there is a conflict of provisions the provision securing the greater safety shall apply.

Public Buildings.

Public Buildings shall be construed to mean and include all structures to which the general public has access, or in which there is liable to be a congregation of people for civic, political, educational, religious or amusement purposes, and shall include the following:

Class A—Municipal Buildings. Court Houses, Armories, Police Stations, Detention Buildings, Bath Houses, Fire Houses, Jails, Schools, Colleges, Libraries, Museums, Railroad Passenger Depots, Theatres, Hospitals, Asylums. All buildings of this class hereafter erected shall be of fireproof construction. Buildings of this class may be of regular fireproof construction, except libraries and museums, which shall be of special fireproof construction.

Class B—Churches, Amusement Halls, Public Halls, Lodge Rooms, Exhibition Buildings. All buildings of this class hereafter erected over thirty-six feet six inches in height shall be of regular fireproof construction. When under thirty-six feet six inches in height the first floor shall be of fireproof construction. Buildings of this class may be of regular fireproof construction. Spires exceeding fifty-nine feet in height shall be of fireproof material.

Residence Buildings.

Residence Buildings shall be construed to mean and include all structures in which sleeping accommodations are provided and shall include the following:

Class C—Hotels, Lodging Houses, Club Houses, Studios, Dormitories, Convents. All buildings of this class hereafter erected over thirty-six feet six inches in height shall be of fireproof construction. When under thirty-six feet six inches in height the first floor shall be of fireproof construction. Buildings of this class when required to be fireproof may be of regular fireproof construction.

Class D—Tenement Houses, Apartment Houses, Dwellings. All buildings of this class hereafter erected over fifty-nine feet in height shall be of fireproof construction. All buildings of this class hereafter erected more than thirty-six feet six inches and less than fifty-nine feet in height shall have the first floor of fireproof construction, and when the first story is occupied as a store or for other business purposes the second floor shall also be of fireproof construction. When the first floor beams are of wood, all plaster on ceilings and stud partitions below said beams shall be on three-quarter inch grounds on metal lath as specified in section 140 of this Code. Buildings of this class when required to be fireproof may be of regular fireproof construction, except that every tenement house hereafter erected or altered shall conform to the requirements prescribed by the *Tenement House Law*.

Nothing contained in this Code shall be construed as repealing, abrogating or impairing any of the provisions of the *Tenement House Law*.

Business Buildings

Business Buildings shall be construed to mean and include all structures used for, or adapted to, the transaction of business, the operation of machinery, the manufacture or storage of machinery or materials, the housing of horses or live stock, or for any other industrial purposes, and shall include the following:

Class E—Office Buildings, Lofts, Stores, Warehouses, Restaurants, Markets, Railroad Freight Depots, Refrigerator Plants, Stables, Factories, Work Shops, Printing Houses, Slaughter Houses, Rendering Plants, Breweries, Sugar Refineries, Observatories—All buildings of this class hereafter erected over fifty-nine feet in height shall be of special fireproof construction, except office buildings, refrigerating plants, breweries and markets, which may be of regular fireproof construction.

Class F—Light and Power Plants, Car Barns, Garages, Smokehouses, Laboratories, Oil Houses, Oil Refineries, Grain Elevators, Foundries, Coal Pockets—All buildings of this class hereafter erected shall be of regular fireproof construction.

SECTION 15.*Ice Houses.*

Buildings to be used exclusively for the storage of ice may be erected in isolated localities and constructed of such materials and under such conditions as the Superintendent of Buildings may prescribe.

SECTION 16.*Smokehouses.*

All smokehouses shall be of fireproof construction, with brick walls, iron doors and brick, tile or metal roofs. A substantial steel guard shall be placed over and three feet above the fire, and the hanging rails shall be of iron, and an iron grating shall be placed under the first row of hanging rails and be not less than eight feet above the floor of the fire pit. The walls of all smokehouses shall be built not less than twelve inches in thickness and carried up at least three feet higher than the roof of the building, and shall be coped with stone, tile or other approved incombustible material.

SECTION 17.*Sheds, Outhouses, Lumber Boxes, etc.*

Sheds—Sheds shall not be more than fifteen feet in height nor more than two thousand five hundred square feet in area, nor shall a fence be used as a stack or side thereof. Frame sheds constructed in accordance with the above may be built within the fire limits.

Outhouses—Such structures shall be used only for exterior privies, wood or coal houses and may be built within the fire limits.

Lumber, Boxes, etc.—When lumber, boxes, second-hand building material or other combustible material are located or piled in such a manner as in the opinion of the Superintendent of Buildings is dangerous to life, limb or property, then the Superintendent of Buildings has authority to regulate and remove the same.

SECTION 18.*Storage of Rags or Waste Paper.*

It shall be unlawful to store rags or waste paper in any building inside of the fire limits, except that such a building is used exclusively for the storage of rags or waste paper, and before any such rags or waste paper can be stored in any building a permit in writing for such storage shall be obtained from the Superintendent of Buildings. The violation of this section shall cause the building to be vacated and subject the owner, tenant or lessee, or both, to a fine of one hundred dollars each, or imprisonment for thirty days, or both.

SECTION 19.*Classification of Construction.*

For the purposes of this Code the various types of constructing shall be classified and defined as Frame, Mill, Ordinary, Reinforced Concrete and Fireproof Construction.

(a) Frame Building—For requirements as to frame buildings, see chapter XXVII.

(b) Ordinary Construction—The term "Ordinary Construction" shall apply to all buildings or structures of which the exterior walls shall be of stone, brick, concrete or other approved masonry of the thickness provided in this Code for varying conditions of height, area and occupancy, and in which the floors and roof, interior supports and other interior construction may be wholly or in part of wood or other combustible materials, or of iron or steel that is not protected in the manner approved by this Code for fireproof construction.

(c) Mill Construction—The term "Mill Construction" shall apply to buildings without hollow or concealed spaces, having brick walls not less than twelve inches in thickness for the top story and increasing in thickness according to section 62 of this Code; roofs shall be of three-inch splined planking spiked directly to roof timbers not less than six inches in the least dimension, covered with metal or other approved standard incombustible roof covering. Floors shall be solid without openings, constructed of not less than three-inch splined planking covered with one-inch tin sheeting laid crosswise or diagonally, properly nailed. Between the top flooring and the planking shall be placed not less than two thicknesses of waterproof material carefully laid in break joints and flashed at least three inches around all walls, posts or columns and openings with mouldings or mopheads. Size and spacing of floor timbers shall be suitable for the load to be carried, but the timbers shall in no case be less than eight inches in the least dimension, and shall rest on top of girders or on iron or steel plates in the wall. Girders shall rest on iron or steel plates in the walls and on iron or steel caps or columns, so arranged as to be self-releasing. All columns and posts shall rest on pinnacles, and the size and spacing thereof shall be suitable for the load to be carried, but no column or post for the top story shall be less than six inches in the least dimension or eight inches for all other stories. Columns, girders and beams, if of wood, shall be of solid material and if of iron or steel shall be protected as called for in regular fire-proof construction. All elevators, stairs, belts, pipes, shaftings and vents piercing floors shall be enclosed in towers having brick walls not less than eight inches in thickness, or reinforced concrete walls not less than six inches in thickness, and all openings therein shall be protected by standard automatic self-closing fire doors.

Buildings of mill construction shall not exceed seventy-five feet in height.

(d) Reinforced Concrete Construction—For description of reinforced concrete construction see sections 142 and 143.

Buildings with columns, or girders, constructed of reinforced concrete shall not exceed one hundred feet in height.

Buildings having steel columns and girders protected as called for in sections 137, 138 and 139 of this Code and with reinforced concrete beams and floor slabs may, unless otherwise provided, extend to a height not exceeding one hundred and twenty-five feet.

No steel or cast-iron columns shall be permitted on top of a concrete column or vice versa, or any of these on wood construction.

(e) Fireproof Construction—For description of fireproof construction see sections 137, 138 and 139 of this Code.

SECTION 20.*Restricted Limits.*

Restricted Limits—Within the following described boundaries in the Boroughs of Manhattan and Brooklyn, all buildings of Class E hereafter erected shall be constructed fireproof in accordance with sections 137, 138, 139, 142 and 143 of this Code, excepting that such buildings may be constructed non-fireproof when they do not exceed the following heights and areas:

20 feet in height and 8,000 square feet in area.

30 feet in height and 6,500 square feet in area.

36 feet 6 inches in height and 5,500 square feet in area.

Nothing, however, in this section shall prevent the alteration of buildings erected prior to the enactment of this code for such occupancy or use, that it will then be designated as a building of Class E, provided that the height of such building is not increased and that the area above the first story is not increased.

In the Borough of Manhattan:

Beginning at the intersection of Fifty-ninth street and Park avenue, then westerly along Fifty-ninth street to Eighth avenue, thence southerly along a line drawn one hundred feet west of Eighth avenue to West Fourteenth street, then westerly along a line drawn one hundred feet north of West Fourteenth street to the bulkhead line of the North River, thence southerly along the bulkhead line of the North River to Christopher street, thence northeasterly along a line drawn one hundred feet southeast of Christopher street to West Fourth street, thence easterly along a line drawn one hundred feet south of West Fourth street to West Broadway, thence southerly along a line drawn one hundred feet west of West Broadway to North Moore street, thence westerly along a line drawn one hundred feet north of North Moore street to the bulkhead line of the North River to Chambers street, thence easterly along a line drawn one hundred feet south of Chambers street to Centre street, thence southerly along the centre line of Centre street to the Brooklyn Bridge, thence easterly along the southerly line of the Brooklyn Bridge to the bulkhead line of the East River, thence northerly along the bulkhead line of the East River to the north line of the Manhattan Bridge, thence westerly along the north line of the Manhattan Bridge to the Bowery, thence northerly along a line drawn one hundred feet east of the Bowery to East Eighth street, thence easterly along a line drawn one hundred feet south of East Eighth street to the bulkhead line of the East River, thence northerly along the bulkhead line of the East River to East Fourteenth street, thence westerly along a line drawn one hundred feet north of East Fourteenth street to Fourth avenue, thence northerly along a line drawn one hundred feet east of Fourth avenue and Park avenue to the place of beginning.

In the Borough of Brooklyn:

Beginning at the intersection of the Navy Yard and East River, thence southerly along Navy Yard and a line drawn one hundred feet east of Navy street and Rockwell place to Flatbush avenue, thence southerly along a line drawn one hundred feet east of Flatbush avenue to Atlantic avenue, thence westerly along a line drawn one hundred feet south of Atlantic avenue to Clinton street, thence southerly along a line drawn one hundred feet east of Clinton street to New York Bay, thence along New York Bay and East River to place of beginning.

Every building within the limits just prescribed hereafter damaged to an amount not greater than one-half the structural value thereof, exclusive of the value of foundations, may be repaired or rebuilt, but if such damage shall amount to more than one-half of such value thereof, exclusive of the value of foundations, then such buildings shall be rebuilt fireproof in accordance with sections 137, 138, 139, 142 and 143 of this code.

In case the owner of a damaged building disagrees with a decision of the Superintendent of Buildings that the damage is greater than one-half of the value thereof, exclusive of the value of the foundation, the amount and extent of such damage shall be determined by the Committee of Surveyors, as prescribed in section 4, and their findings shall be conclusive, and such buildings shall in no manner be repaired or rebuilt until after said Committee shall have made their report.

CHAPTER VI.*Limits of Height and Area.***SECTION 21.***Limits of Height.*

All buildings hereafter erected shall not be limited in height, except as herein otherwise provided.

SECTION 22.*Limits of Area.*

No building hereafter erected shall occupy a larger area of the building lot than the following:

No buildings in Class A, B, C, D and E, except lodging houses and theatres, shall occupy more than ninety per cent of the lot area above the second tier of beams, exclusive of mezzanine story above the curb, where built on other than corner lots, and not exceeding seventy-five feet in height.

All buildings exceeding seventy-five feet in height, on other than corner lots, and not exceeding one hundred and fifty feet in height shall not occupy more than eighty-seven and one-half per cent of the lot area above the second tier of beams, exclusive of the mezzanine story above the curb.

All buildings above one hundred and fifty feet in height on other than corner lots shall not occupy more than eighty-five per cent of the lot area above the second tier of beams above the curb.

All lots, including corner lots, shall have a clear space of five feet between the rear lot line and the building.

For all buildings occupying corner lots where the area of the lot does not exceed two thousand five hundred square feet, five per cent of the lot shall be left uncovered above the second tier of beams, exclusive of mezzanine story, above the curb for buildings not over seventy-five feet high, provided a clear space of five feet is left between the rear lot line and the building.

For buildings on corner lots not exceeding two thousand five hundred square feet area, seventy-five to one hundred and fifty feet high, seven and one-half per cent, shall be uncovered above the second tier of beams, exclusive of mezzanine story above the curb.

For buildings on corner lots not exceeding two thousand five hundred square feet area, over one hundred and fifty feet high, ten per cent, shall be uncovered above the second tier of beams, exclusive of mezzanine story above the curb.

For buildings on corner lots covering an area greater than two thousand five hundred square feet, the area in excess of two thousand five hundred square feet shall be governed by clause covering interior lots.

All buildings occupying corner lots, fronting on three or more streets, where the maximum width does not exceed seventy-five feet, may occupy the entire lot area.

For buildings covering an entire block where the width does not exceed seventy-five feet no court shall be required.

All courts shall be open and uncovered to the sky. No court shall be less than six feet in smallest dimension, for a height not exceeding seventy-five feet, and shall be at least one-half inch wider for every additional foot in height.

When there are sleeping rooms in the first story, basement or cellar, that portion of the lot not built upon shall extend down to six inches below such floor containing sleeping rooms.

SECTION 23.*Floor Areas Between Fire Walls.*

In all non-fireproof buildings hereafter erected, except tenement houses, the floor area between fire walls at least twelve inches in thickness shall not exceed the following: When fronting on one street, five thousand square feet; when fronting on two streets, seven thousand five hundred square feet; when fronting on three or more streets, ten thousand square feet. When a standard equipment of automatic sprinklers is provided the above floor areas may be increased fifty per cent.

The floor area between fire walls at least twelve inches in thickness of all fireproof buildings hereafter erected, except tenement houses, and such buildings as are occupied for offices, hotels, railroad depots, armories, churches, light and power stations, exhibition buildings, theatres and such buildings as are herein otherwise provided for, shall not exceed the following: When fronting on one street, seven thousand five hundred square feet; when fronting on two streets, ten thousand square feet; when fronting on three or more streets, twelve thousand five hundred square feet; when a standard equipment of automatic sprinklers is provided, above areas may be increased fifty per cent.

The floor area between fire walls at least twelve inches in thickness of all fireproof buildings occupied as stores, when provided with a standard equipment of automatic sprinklers, shall not exceed above or below first story the general limits of area as herein provided for fireproof buildings. The area of the first story may, however, be increased, but shall not exceed thirty thousand square feet between fire walls. All openings in fire walls of such buildings shall not exceed eighty square feet each in area, and shall not be placed nearer than thirty feet on centres. Every such section between fire walls shall have a tower as provided for in section 158 of this Code.

The floor area between fire walls at least twelve inches in thickness of all car barns shall not exceed twenty thousand square feet, and the distance between such

walls shall not exceed fifty feet. Openings in such fire walls shall not exceed forty-eight square feet in area and shall not be placed opposite each other or nearer than one hundred feet on centers. All openings shall be protected by double automatic standard fire doors.

CHAPTER VII.

FIRE LIMITS.

SECTION 24.

Fire Limits—No frame building, except as otherwise provided in section 144, shall be built hereafter in The City of New York within the following limits:

Borough of Manhattan.

All the Borough of Manhattan bounded as follows: Beginning at a point on the North River at the Battery; thence running northerly along bulkhead line to Harlem River Ship Canal; thence northerly and easterly through Spuyten Duyvil Creek to Harlem River; thence easterly and southerly along bulkhead line of Harlem River and Bronx Kill to East River; thence southerly along East River passing to the east of Randall's Island and Blackwells Island, and thence continuing by the bulkhead line of the East River to the point or place of beginning.

In the Borough of Brooklyn: Within the Following Described Lines.

Beginning at a point formed by the intersection of Sixtieth street and New York Bay; thence running easterly on a line drawn one hundred feet south of and parallel with the southerly side of Sixtieth street to Sixth avenue; thence running northerly on a line drawn one hundred feet east of and parallel with the easterly side of Sixth avenue to Thirty-sixth street; thence running westerly through the centre line of Thirty-sixth street to Fifth avenue; thence running northerly through the centre line of Fifth avenue to Twenty-fourth street; thence running easterly through the centre line of Twenty-fourth street to Sixth avenue; thence running northerly through the centre line of Sixth avenue to Twenty-third street; thence running easterly through the centre line of Twenty-third street to Seventh avenue; thence running northerly through the centre line of Seventh avenue to Twenty-first street; thence running easterly through the centre line of Twenty-first street to Ninth avenue, or Prospect Park West; thence running northerly through the centre line of Ninth avenue or Prospect Park West to Prospect avenue; thence running easterly through the centre line of Prospect avenue to Eleventh avenue; thence running northerly through the centre line of Eleventh avenue to Fifteenth street; thence running westerly through the centre line of Fifteenth street to Ninth avenue, or Prospect Park West; thence northerly through the centre line of Ninth avenue or Prospect Park West to Flatbush avenue; thence southerly along the centre line of Flatbush avenue to Ocean avenue; thence southerly on a line drawn one hundred feet west of and parallel with the west side of Flatbush avenue to Avenue E; thence easterly through the centre line of Avenue E to Flatbush avenue; thence northwesterly on a line drawn one hundred feet east of and parallel with the easterly side of Flatbush avenue to Franklin avenue; thence northerly on a line drawn one hundred feet east of and parallel with the easterly side of Franklin avenue to Crown street; thence easterly on a line drawn one hundred feet south of and parallel with the southerly side of Crown street to East New York avenue; thence easterly on a line drawn one hundred feet south of and parallel with the southerly side of East New York avenue to Gilpin place; thence northerly on a line drawn one hundred feet east of and parallel with the easterly side of Gilpin place to Broadway; thence northerly on a line drawn one hundred feet east of and parallel with the east side of Broadway to Pilling street; thence easterly through the centre line of Pilling street to Central avenue; thence northwesterly on a line drawn one hundred feet east of and parallel with the easterly side of Central avenue to Flushing avenue; thence westerly from a line drawn one hundred feet north of and parallel with the northerly side of Flushing avenue to Bushwick avenue; thence northerly on a line drawn one hundred feet east of and parallel with the easterly side of Bushwick avenue to Metropolitan avenue; thence westerly on a line drawn one hundred feet north of and parallel with the northerly side of Metropolitan avenue to Graham avenue; thence northerly on a line drawn one hundred feet east of and parallel with the easterly side of Graham avenue to Skillman avenue; thence westerly on a line drawn one hundred feet north of and parallel with the northerly side of Skillman avenue to Union avenue; thence northerly on a line drawn one hundred feet east of and parallel with the easterly side of Union avenue to North Ninth street; thence northwesterly on a line drawn one hundred feet northeast of and parallel with the northeasterly side of North Ninth street to Bedford avenue; thence easterly on a line drawn one hundred feet south of and parallel with the southerly side of Bedford avenue to North Eleventh street; thence northwesterly on a line drawn one hundred feet northeast of and parallel with the northeasterly side of North Eleventh street to the East River; thence to Van Brunt street; thence northeasterly on a line drawn one hundred feet east of and parallel with the easterly side of Van Brunt street to King street; thence southeasterly on a line drawn one hundred feet south of and parallel with the southerly side of King street to Columbia street; thence northeasterly on a line drawn one hundred feet east of and parallel with the easterly side of Columbia street to Lanner street; thence easterly on a line drawn one hundred feet south of and parallel with the southerly side of Lanner street to Hamilton avenue; thence southerly on a line drawn one hundred feet west of and parallel with the west side of Hamilton avenue to Court street; thence southwesterly on a line drawn one hundred feet east of and parallel with the easterly side of Court street to Gowanus Bay and New York Bay to the point or place of beginning.

Also beginning at a point formed by the intersection of East River and Noble street; thence running easterly on a line drawn one hundred feet south of and parallel with the southerly side of Noble street to Lanner street; thence southerly on a line drawn one hundred feet west of and parallel with the westerly side of Lanner street to Nassau avenue; thence easterly on a line drawn one hundred feet south of and parallel with the southerly side of Nassau avenue to Oakland street; thence northerly on a line drawn one hundred feet east of and parallel with the easterly side of Oakland street to Newtown creek, to the East River, to the point or place of beginning.

In that part of the Twenty-ninth Ward bounded by Coney Island avenue on the west, by New York avenue on the east and by the lines of said ward on the north and south, no row of two or more attached frame stores, dwellings or buildings shall be permitted to be erected; and no frame house or building shall be erected on any lot or building plot covering more than eighty per cent. in width of any such lot or building plot.

Borough of The Bronx.

All of that portion of the Borough of The Bronx bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the bulkhead line of the Harlem River at its intersection with Fordham road and thence easterly on Fordham road and Pelham avenue to the Bronx River; thence southerly along Bronx River to bulkhead line of East River; thence southwesterly along the East River, northwesterly along the Bronx Kill, and thence northerly along the Harlem River to the point or place of beginning.

Borough of Queens—Long Island City and Newtown.

All of that portion of Long Island City bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the intersection of Newtown Creek and the East River; thence northerly along bulkhead line of East River to Hoyt avenue; thence easterly on Hoyt avenue to Flushing avenue; thence northeasterly on Flushing avenue to Bowery Bay road; thence returning on Flushing avenue southeasterly to Van Alst avenue; thence southerly on Van Alst avenue to Broadway; thence westerly on Broadway to Vernon avenue; thence southerly on Vernon avenue to the south side of Queensboro Bridge; thence easterly along south side of Queensboro Bridge to Jackson avenue; and thence to the point or place of beginning. All of those portions of Long Island City and of Newtown bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the intersection of Newtown Creek and the East River; thence northerly along bulkhead line of East River to Hoyt avenue; thence easterly on Hoyt avenue to Flushing avenue; thence northeasterly on Flushing avenue to Bowery Bay road; thence returning on Flushing avenue southwesterly to Van Alst avenue; thence southerly on Van Alst avenue to Broadway; thence westerly

on Broadway to Vernon avenue; thence southerly on Vernon avenue to the south side of Queensboro Bridge; then easterly along south side of Queensboro Bridge to Jackson avenue; thence easterly on Jackson avenue to Boundary road between Long Island City and Newtown; thence southerly on Boundary road to Foster avenue; thence westerly on Foster avenue to Rapelje avenue; thence southerly on Rapelje avenue and the canal to Newtown Creek; thence easterly on Newtown Creek and along the boundary line between the Boroughs of Brooklyn and Queens to Metropolitan avenue; thence northeasterly on Metropolitan avenue to Fresh Pond road; thence easterly on Fresh Pond road to the boundary line between the Boroughs of Brooklyn and Queens; thence southerly and westerly along said boundary line to the point or place of beginning.

Flushing.

All of that portion of Flushing bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the intersection of Flushing Creek and Mill Creek; thence northeasterly on Mill Creek to Lawrence street; thence southeasterly on Lawrence street to Broadway; thence easterly on Broadway to White-stone avenue; thence westerly on Broadway to Main street; thence southerly on Main street to Madison avenue; thence northerly on Main street to Broadway; thence westerly on Broadway to Flushing Creek and along Flushing Creek to point or place of beginning.

Richmond Hill.

All that portion of Richmond Hill bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the intersection of Willow street and Jamaica Plank road; thence westerly on Jamaica Plank road to Garfield avenue; thence easterly on Jamaica Plank road to Park; thence northerly on Park and easterly on Hillside avenue to Willow street; thence southerly on Willow street to point or place of beginning.

Jamaica.

All of that portion of Jamaica bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the intersection of Carlton avenue and Fulton street; thence southerly on Carlton avenue to Long Island Railroad tracks; thence easterly one hundred feet south of Long Island Railroad tracks to Canal street; thence northerly on Canal street to Fulton street; thence westerly on Fulton street to point or place of beginning.

Far Rockaway.

All that portion of Far Rockaway bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the intersection of Carlton avenue with the Long Island Railroad tracks; thence easterly on Carlton avenue to Central avenue; thence southerly on Central avenue to Clark street; thence westerly on Clark street to Long Island Railroad tracks; thence northerly along said line of tracks to point or place of beginning.

Rockaway Beach.

All that portion of Rockaway Beach bounded as follows and including one hundred feet outside of the bounding streets thereof: Beginning at the intersection of Park avenue with the Long Island Railroad tracks; thence easterly on Park avenue to southerly on Eastern avenue to Atlantic Ocean, thence easterly on Atlantic Ocean to Thompson avenue; thence northerly on Thompson avenue to Boulevard; thence easterly on Boulevard to the point or place of beginning.

CHAPTER VIII.

DEAD LOADS, WEIGHTS OF MATERIALS, AND WIND PRESSURE.

SECTION 25.

Floor Loads.

The dead loads in all buildings shall consist of the actual weight of walls, framing, floors, roofs and all permanent construction except partitions not over six inches in thickness, exclusive of plaster.

The live loads shall include all forms of loading other than the weight of the material entering into the construction of the building.

Every floor shall be of sufficient strength to bear safely the weight to be imposed thereon in addition to the weight of the materials of which the floor is composed. Each floor of every building of the following classes shall be of sufficient strength in all its parts to bear safely upon each and every superficial foot of its surface a minimum of not less than the live loads specified in the following table:

Class of Building	Ground and Lower Floors Pounds Per Square Foot.	Upper Floors Pounds Per Square Foot.
A	100	100
B	100	100
C	100	50
D. Except private dwellings Private dwellings	100 50	50
E—		
Office Buildings Lofts, Stores, Markets, Refrigerator Plants, Stables, Factories, Workshops, Slaughter Houses, Libraries and Museums.	100	75
Rendering Plants, Sugar Refineries, Warehouses, Breweries, Printing Houses.	125	125
Restaurants	200	200
Observatories	100	50
F—		
Light and Power Plants, Car Barns, Oil Houses, Oil Refineries, Grain Elevators	150	150
Railroad Freight Depots	250	250
Foundries	200	200
Gardens	125	125
Smoke Houses	125	75
Laboratories	100	75
Coal Pockets		
	Actual Loads	Actual Loads

The roofs of all buildings having a pitch of less than twenty degrees shall be proportioned to bear safely fifty pounds upon every superficial foot of their surface in addition to the weight of materials composing same. If the pitch be more than twenty degrees the live load shall be assumed at thirty pounds upon every superficial foot measured on a horizontal plane.

For sidewalks between the curb and area lines live loads shall be taken at three hundred pounds upon every square foot.

Every column, post or other vertical support shall be of sufficient strength to bear safely the weight of the portion of each and every floor depending upon it for support in addition to the weight required as before stated to be supported safely upon said portion of said floors.

In buildings having steel columns with the exception of buildings of Class E, columns may be designed to carry the entire dead load of the building coming to them plus seventy per cent. of the live load. When the columns are designed for this reduced load, all girder connections to columns and all column connections shall be riveted.

Girders in these cases shall be construed to mean a steel member that supports steel beams at approximate right angles to its length.

No beam shall be placed in any building of Class E that is not capable of sustaining a live load at the centre of said beam of at least four thousand pounds, plus whatever dead load the beam may have to carry. This is intended to provide for the moving of and support of safes.

In all buildings of Classes A, E and F, the plans filed in the Bureau of Buildings shall designate the actual purpose for which each floor is to be used, giving the

maximum distributed and concentrated loads to be imposed thereon. In all cases where the actual loads exceed the loads designated in this Code the capacity of the floors shall be increased so as to safely bear the actual loads to be imposed upon them.

No safe shall be placed in any building on a stair-landing or in a stair-hall, nor shall its weight be carried by any beam which also carries the floor of any landing or stair-hall.

SECTION 26.

Loads on Floors to be Distributed.

The weight placed on any of the floors of any buildings shall be safely distributed thereon. The Superintendent of Buildings having jurisdiction may require the owner or occupants of any building, or of any portion thereof, to redistribute the load on any floor, or to lighten such load where he deems it to be necessary, and on failure to comply with such request the Superintendent shall cause the floor or building to be vacated as unsafe.

SECTION 27.

Strength of Existing Floors to be Calculated.

In all buildings of Classes A, E and F now existing or hereafter to be erected, the weight that each floor will safely sustain upon each superficial foot thereof, or upon each varying part of such floor, shall be estimated by the owner or occupant, or by a competent person employed by the owner or occupant. Such estimate shall be reduced to writing on printed forms furnished by the Bureau of Buildings, stating the material, size, distance apart and span of beams and girders, posts or columns to support floors and its correctness shall be sworn to by the person making the same, and it shall thereupon be filed in the office of the Superintendent of Buildings. But if the Superintendent of Buildings shall have cause to doubt the correctness of said estimate, he is empowered to revise and correct the same, and for the purpose of such revision the officers and employees of the Bureau of Buildings may enter any building and remove so much of the floor or other portion thereof as may be required to make necessary measurements and examinations. When the correct estimate of the weight that the floors in any such buildings will safely sustain has been ascertained, as herein provided, the Bureau of Buildings shall approve the same and thereupon the owner or occupant of said building, or of any portion thereof, shall post a copy of such approved estimate in a conspicuous place on each story, or varying parts of each story, of the building to which it relates. Before any building hereafter erected is occupied and used, in whole or in part, for any of the purposes aforesaid, and before any building erected prior to the passage of this Code, but not at such time occupied for any of the aforesaid purposes, is occupied or used, in whole or in part, for any of said purposes, the weight that each floor will safely sustain upon each superficial foot thereof shall be ascertained and posted in a conspicuous place on each story, or varying parts of each story, of the building to which it relates. No person shall place, or cause or permit to be placed on any floor of any building any greater load than the safe load thereof, as correctly estimated and ascertained as herein provided. Any expense necessarily incurred in removing any floor or other portion of any building for the purpose of making any examination herein provided for shall be paid by the Comptroller of The City of New York, upon the requisition of the Superintendent of Buildings having jurisdiction, out of the fund created under the provisions of section 8 of this Code. Such expense shall be a charge against the person or persons by whom or on whose behalf said estimate was made, provided such examination proves the floors of insufficient strength to carry with safety the loads found upon them when such examination was made; and shall be collected in an action to be brought by the Corporation Counsel against said person or persons and the sum so collected shall be paid over to the said Comptroller, to be deposited in said fund in reimbursement of the amount paid as aforesaid.

SECTION 28.

Weight of Seasoned Timber.

	Pounds Per Cubic Foot.
Oak	48
Longleaf yellow pine	45
Short leaf yellow pine	35
White pine	24
Spruce	29
Larch	32
Hemlock, Eastern	30
Hemlock, Western	31
Chesnut	33
Douglas fir	32
Norway pine	29
Tamarack	35

SECTION 29.

Weights of Various Materials.

In computing the weight of materials:

A cubic foot of common brickwork shall be deemed to weigh one hundred and twenty pounds; pressed brick, one hundred and thirty-five pounds.

Sandstone, white marble, granite and other kinds of building stone shall be deemed to weigh one hundred and seventy pounds per cubic foot.

A cubic foot of stone concrete shall be deemed to weigh one hundred and forty-four pounds.

A cubic foot of cinder concrete mixed in the proportions specified in section 138, when rammed, shall be deemed to weigh ninety-six pounds; when not rammed, eighty-four pounds. A cubic foot of cinder concrete fill when mixed in the proportions specified in section 137, when not rammed, shall be deemed to weigh sixty pounds.

SECTION 30.

Wind Pressure.

All structures of skeleton construction, in which the height is equal to or more than four times the minimum horizontal dimension, shall be designed to resist a horizontal wind pressure of thirty pounds for every square foot of vertical surface measured from the ground to the top of the structure, including roof, allowing for wind in any direction, and if the connections and main members of the steel frame are not of sufficient strength to safely take care of this wind load without exceeding the safe allowable unit stresses as hereinafter given, then such bracing and additional material shall be provided, as may be necessary.

If the height of the structure is less than four times the minimum horizontal dimension, the wind pressure per square foot may be reduced to fifteen pounds, except in determining the overturning moment when thirty pounds per square foot shall be used.

In buildings under one hundred feet in height, provided the height does not exceed four times the minimum horizontal dimension and also provided that the enclosing walls are of masonry not less than twelve inches thick, the wind pressure may be neglected.

The overturning moment due to wind pressure shall not exceed seventy-five per centum of the moment of stability of the structure, unless the said structure is securely anchored down to the foundation, the anchors shall be of sufficient strength to safely carry the excess overturning moment without exceeding the allowable unit stresses as given in this Code.

In determining the overturning moment of all structures, a wind pressure of thirty pounds per square foot shall be assumed.

Unless the stress due to the wind in any member amounts to fifty per centum of the total live and dead loads, it may be neglected; and when the stress from the wind exceeds fifty per centum of the stress due to live and dead loads, all such stresses shall be added together and the allowable unit stress for the total may be taken at fifty per centum in excess of the values given in Chapter XI. of this Code.

CHAPTER IX.

QUALITY OF MATERIALS.

SECTION 31.

Brick.

The brick used in all buildings shall be good, hard, well burnt brick and thoroughly dampened before being used, except in freezing weather, when they shall be perfectly dry. Not more than five per centum shall be bats or broken brick.

When old brick are used in the construction of any wall they shall be thoroughly cleaned and dampened before being used, and they shall be whole and good, hard, well burnt brick.

SECTION 32.

Hollow Building Blocks.

Moulded hollow building blocks, of concrete, terra cotta, or other hard, incombustible material may be used for non-bearing walls of any building not more than thirty feet in height, provided the materials are not stressed beyond the safe limits fixed in this section.

No such blocks shall be used until complete and satisfactory tests have been made by the manufacturer under the direction of the Superintendent of Buildings, in accordance with the requirements of section 42 of this Code, and until an approval for the use of such blocks has been obtained.

No blocks shall be approved that do not at the age of twenty-eight days or less develop a compressive strength of at least one thousand five hundred pounds per square inch of net section.

In no cases shall the hollow spaces of a block exceed thirty-three and one-third per centum of the cross section of the block.

The thickness of walls or webs of such blocks shall be not less than one-fourth of the height of the blocks, but in no case less than one inch thick.

The thickness of the walls of any building in which hollow blocks are used shall not be less than is required by this Code.

All such walls shall be laid in Portland cement mortar.

No wall composed of hollow blocks shall be loaded in excess of one hundred pounds per square inch of the net cross section of the block.

SECTION 33.

Sand.

All sand shall be washed, clean, coarse, siliceous sand, free from clay, loam or other foreign material. It shall all pass a one-quarter inch screen and be uniformly graded down to the finer size. Not more than six per centum shall pass a sieve having one hundred meshes per linear inch. The percentage of voids shall not exceed thirty-eight.

SECTION 34.

Lime Mortar.

Lime mortar shall be made of one part of unslaked lime and not more than four parts of sand. All lime used for mortar shall be thoroughly laitance, of good quality and properly slaked before it is mixed with the sand. If hydrated lime is used it shall be used in such proportions as will give the same per centum of lime to sand as specified above.

SECTION 35.

Cement and Cement Mortar.

Portland Cement—The term Portland Cement shall be applied to the finely powdered product obtained from the heating or calcining up to incipient fusion of intimate mixtures properly proportioned, either natural or artificial, of argillaceous with calcareous substances, and to which no addition greater than three per centum has been made subsequent to calcination.

All samples shall be taken from packages in the open market and secured by a representative of the Bureau of Buildings, and shall be taken from the centre of at least three different packages. Not less than fifteen pounds will be considered a sample for an official test, and shall be put immediately into a metal container with a tight fitting cover, and a sample number given it; said number shall be set on the outside of a sealed envelope containing the sworn statement by whom the sample was secured, when secured, date, and for what purpose the cement is to be used. Said envelope and sample shall be delivered direct to the Superintendent of Buildings.

The specific gravity of Portland cement shall not be less than three and ten one-hundredths, and shall not show a loss on ignition at a low red heat of more than four per cent.

Ninety-two per centum of the cement shall pass through a sieve having ten thousand meshes per square inch and seventy-five per centum through a sieve having forty thousand meshes per square inch; the sieves shall be of woven brass wire having diameters of .0045 inch and .0024 inch respectively.

The cement shall not acquire its initial set in less than thirty minutes and shall have acquired its final set in not less than one hour and not more than ten hours.

This time of setting shall be determined by the Vicat needle apparatus. This consists of a frame bearing a movable rod, with a cap at one end, and at the other a needle, one centimeter in diameter, the cap, rod and cylinder weighing three hundred grammes. The rod carries an indicator, which moves over a scale (graduated to centimeters) attached to the frame. The paste is held by a conical, hard rubber ring, seven centimeters in diameter at the base, four centimeters high, resting on a glass plate, about ten centimeters square. The initial set shall be taken as the time which elapses, after mixing the cement paste and when the needle ceases to pass a point five millimeters above the upper surface of the glass plate, and the final set shall be taken as the total time after mixing when the needle ceases to sink visibly into the paste.

Pats of neat cement about three inches in diameter, one-half inch thick at the centre, and tapering to a thin edge, shall be kept in moist air for a period of twenty-four hours.

(a) A pat is then kept in air at normal temperature and observed at intervals for at least twenty-eight days.

(b) Another pat is kept in water maintained as near seventy degrees Fahrenheit as practicable, and observed at intervals for at least twenty-eight days.

(c) A third pat is exposed in any convenient way in an atmosphere of steam, above boiling water, in a loosely closed vessel for five hours.

These pats, to pass satisfactorily the requirements, shall remain firm and hard and show no signs of distortion, cracking or disintegrating.

The failure to meet the requirements of test "c" may or may not reject the cement at the option of the Superintendent.

The minimum requirements for tensile strength for briquettes one square inch in section shall be as follows and shall show no retrogression in strength within the period specified:

Neat Cement.

24 hours in moist air.....	175 lbs.
7 days (1 day in moist air, 6 days in water).....	300 lbs.
28 days (1 day in moist air, 27 days in water).....	600 lbs.

Sand Test.

One part cement, three parts standard sand.

7 days (1 day in moist air, 6 days in water).....	175 lbs.
28 days (1 day in moist air, 27 days in water).....	350 lbs.

The tensile strength shall be determined on not less than fifteen briquettes from each sample; nine for the neat cement tests and six for the sand tests.

All briquettes, pats and test pieces during the time of setting shall be maintained in moist air except as otherwise above provided.

The sand used for testing shall be crushed quartz or Ottawa sand screened to pass through a sieve having twenty meshes per linear inch and retained on a sieve having thirty meshes per linear inch; the wires having diameters equal to one-half the width of the openings in each case. Sand having passed the twenty mesh sieve shall be considered standard when not more than one per centum passes the thirty mesh sieve after one minute continuous sifting of a five hundred grain sample.

The cement shall be mixed on glass and worked with the hands for five minutes, using from eighteen per centum to twenty-six per centum of fresh water for the first

ment test, and from eight per centum to twelve per centum for the sand test, so that the mass shall be of sufficient plasticity as not to admit of ramming and packing, but shall be put into the moulds with thumb pressure only, and struck off smooth on both sides. Standard moulds of one inch square section shall be used for all tests.

The Portland cement shall not contain more than one and seventy-five hundredths per centum of anhydrous sulphuric acid nor more than four per centum of magnesia.

Natural Cement—This term shall be applied to the finely pulverized product resulting from the calcination of an argillaceous limestone at a temperature only sufficient to drive off the carbonic acid gas.

Fineness—It shall leave by weight a residue of not more than ten per centum on the No. one hundred, and thirty per centum on the No. two hundred sieve.

Time of Setting—It shall develop initial set in not less than ten minutes, and hard set in not less than thirty minutes, and not more than three hours.

Tensile Strength—The minimum requirements for tensile strength for briquettes one inch square in cross section shall be within the following limits, and shall show no retrogression in strength within the periods specified:

Age.	Neat Cement.	Strength.
24 hours in moist air.		50
7 days (1 day in moist air, 6 days in water).		100
28 days (1 day in moist air, 27 days in water).		200

One Part Cement, Three Parts Standard Sand.

7 days (1 day in moist air, 6 days in water).	25
28 days (1 day in moist air, 27 days in water).	75

Constancy of Volume—Pats of neat cement about three inches in diameter, one-half inch thick at centre, tapering to a thin edge, shall be kept in moist air for a period of twenty-four hours.

(a) A pat is then kept in air at normal temperature.

(b) Another is kept in water maintained as near seventy degrees Fahrenheit as practicable.

These pats shall be observed at intervals for at least twenty-eight days, and, to satisfactorily pass the tests, shall remain firm and hard and show no signs of distortion, cracking or disintegrating.

The metric system of weights and measures shall be used on account of the relation of the gramme to the cubic centimeter.

Tests of cement used in building operations shall be made from time to time under the supervision of the Superintendent of Buildings, in accordance with the preceding specifications. All Portland and natural cements meeting the above requirements shall be approved, but the Superintendent of Buildings shall reject or disapprove the cement failing to meet any of the above requirements. A record of the cements which shall meet the requirements of this section and of these specifications, shall be kept in the Bureau of Buildings for the public's information. A representative of the manufacturer may be present at the making of the tests and in case of failure the Superintendent may, at the request of the manufacturer, order the tests repeated at some recognized testing laboratory in the manner above specified. All expenses of such tests shall be paid by the manufacturer, or the user, and the same samples shall be used in these tests as were used in the previous tests. No brand of cement, which has not been tested under the provisions of this section, or which has not met the requirements, shall be used in building operations.

Cement Mortar.

Cement mortar shall be made of Portland or natural cement and sand in the proportion of one part of cement and not more than three parts of sand by volume and shall be used immediately after being thoroughly mixed. All materials shall be measured; three and seven-tenths cubic feet shall be considered as the contents of a barrel and four bags of cement of ninety-five pounds each shall be considered one barrel. The cement and sand shall be measured and thoroughly mixed before adding water.

Briquettes of one inch square in section, made from mortar taken from the mixing box, shall show a tensile strength of at least seventy per centum of the minimum requirements for mortars made with standard sand as previously specified.

Mortars failing to meet this requirement shall be rejected.

SECTION 36.

Cement and Lime Mortar.

Cement and lime mortar mixed shall be made of one part of unsacked lime, one part of cement and not more than three parts of sand to each. All materials shall be measured.

SECTION 37.

Concrete.

All concrete for footings shall be made of at least one part Portland cement and not more than three parts sand and five parts broken stone or gravel.

All other concrete shall be made of at least one part Portland cement and not more than two parts sand and five parts broken stone or gravel.

The cement and sand shall be of a quality described in sections 33 and 35, respectively.

The crushed stone shall be granite, trap rock or equally hard stone approved by the Superintendent of Buildings and shall consist of the run of the crusher graded from the larger size down to that retained on the one-quarter inch screen. Where gravel is used it shall be thoroughly washed clean and well graded from the larger permissible size down to that retained on the one-quarter inch screen.

For foundations, where the concrete is to be used in mass, the stone or gravel shall be of such size as will pass a two-inch ring.

For reinforced concrete construction, the stone or gravel shall all pass through a three-quarter inch ring.

The water shall be clean and free from acid or strong alkalies.

All materials shall be measured; three and seven-tenths cubic feet shall be considered as the contents of a barrel and four bags of cement of ninety-five pounds each shall be considered one barrel.

The ingredients of concrete shall be so thoroughly mixed that the cement shall be uniformly distributed through the mass and that the resulting concrete shall be homogeneous.

The concrete shall be mixed as wet as possible without causing a separation of the cement mortar from the mixture, and shall be deposited in the work in such a manner as not to cause a separation of the mortar from the stone or gravel.

The concrete shall be placed in the forms as soon as practicable after mixing, and in no case shall concrete be used that has partially set or if more than one-half hour has elapsed since the addition of the water.

It shall be deposited in horizontal layers not to exceed eight inches in thickness and thoroughly tamped.

All forms and centering shall be built plumb and in true lines in a substantial manner and with joints sufficiently tight to prevent the leakage of the cement mortar. They shall be properly supported and braced in such a manner as to safely stand both the dead load and the load that may be placed upon them during construction. Before placing the concrete the forms shall be thoroughly cleaned of all chips, shavings and other debris.

Before the placing of concrete is suspended, the joint to be formed shall be made in such a manner as will not injure the strength of the completed structure.

Whenever fresh concrete joins concrete which has set or partially set, the surface of the old concrete shall be roughened, cleaned and thoroughly wetted with water and spread with a mortar consisting of one part cement and two parts sand.

Concrete shall not be mixed or deposited in a temperature lower than twenty-eight degrees Fahrenheit, at a point where the work is in progress; and any materials containing frost, or that are frozen, shall not be used until brought to a temperature of seventy degrees Fahrenheit, or that are in any other way unfit; and that further precautions shall be taken to prevent the concrete from freezing after the concrete has been placed in position, and the temperature in which the concrete has been placed shall be maintained at not less than twenty-eight degrees Fahrenheit, and artificial means shall be used to maintain this temperature if necessary.

The time at which centering may be safely removed from under floors or roofs shall vary with the condition of the weather, but in no case shall they be removed

until the hardening of the concrete has reached a point where they may be removed with safety.

During extreme hot, dry weather special precautions shall be taken to prevent premature drying by keeping the concrete moist until it has attained its initial set, or at least during the first twenty-four hours.

SECTION 38.

Quality of Timber.

Trade names are as follows:

1. Southern Yellow Pine—Under this heading two classes of timber are used, (a) longleaf pine, (b) shortleaf pine.

It is understood that these two terms are descriptive of quality, rather than of botanical species. Thus, shortleaf pine would cover such species as are now known as North Carolina pine, loblolly pine and shortleaf pine. "Longleaf pine" is description of quality, and, if Cuban, shortleaf or loblolly pine is grown under such conditions that it produces a large percentage of hard summer wood, so as to be equivalent to the wood produced by the true longleaf, it would be covered by the term "longleaf pine."

2. Douglas Fir—The term "Douglas Fir" to cover the timber known likewise as yellow fir, red fir, western fir, Washington fir, Oregon or Puget Sound fir or pine, northwest and west coast fir.

3. Norway Pine, to cover what is known as "red pine."

4. Hemlock, to cover Southern or Eastern hemlock; that is, hemlock from all States east of and including Minnesota.

5. Western Hemlock, to cover hemlock from the Pacific Coast.

6. Spruce, to cover Eastern spruce; that is, the spruce timber coming from points east of Minnesota.

7. Western Spruce, to cover the spruce timber from the Pacific Coast.

8. White Pine, to cover the timber which has hitherto been known as white pine from Maine, Michigan, Wisconsin and Minnesota.

9. Western White Pine, the variety of white pine from western Montana, northern Idaho and eastern Washington.

10. Western Yellow Pine, to cover the timber sold as white pine coming from Arizona, California, New Mexico, Colorado, Oregon and Washington. This is the timber sometimes known as "Western Yellow Pine," or "Ponderous Pine," or "California White Pine."

11. Western Larch, to cover the species of larch or tamarack from the Rockies Mountain and Pacific Coast regions.

12. Tamarack, to cover the timber known as "Tamarack" or "Eastern Tamarack," from States east of and including Minnesota.

13. Redwood, to include California wood usually known by that name.

SECTION 39.

Standard Defects in Timber.

The definitions of standard defects are as follows:

Measurements which refer to the diameter of knots or holes should be considered as referring to the mean or average diameter.

1. Sound Knot—A sound knot is one which is solid across its face and which is as hard as the wood surrounding it; it may be either red or black, and is so fixed by growth or position that it will retain its place in the piece.

2. Loose Knot—A loose knot is one not firmly held in place by growth or position.

3. Pith Knot—A pith knot is a sound knot with a pith hole, not more than one-fourth inch in diameter in the centre.

4. Enclosed Knot—An enclosed knot is one which is surrounded wholly or in part by bark or pitch. Where the encasement is less than one-eighth of an inch in width on both sides, not exceeding one-half the circumference of the knot, it shall be considered a sound knot.

5. Rotten Knot—A rotten knot is one not as hard as the wood it is in.

6. Pin Knot—A pin knot is a sound knot not over one-eighth inch in diameter.

7. Standard Knot—A standard knot is a sound knot not over one and one-half inches in diameter.

8. Large Knot—A large knot is a sound knot, more than one and one-half inches in diameter.

9. Round Knot—A round knot is one which is oval or circular in form.

10. Spike Knot—A spike knot is one sawn in a lengthwise direction; the mean or average width shall be considered in measuring these knots.

11. Pitch Pockets—Pitch pockets are openings between the grains of the wood containing more or less pitch or bark. These shall be classified as small, standard and large pitch pockets.

(a) Small Pitch Pocket—A small pitch pocket is one not over one-eighth of an inch wide.

(b) Large Pitch Pocket—A large pitch pocket is one over three-eighths of an inch wide, not over three inches in length.

(c) Standard Pitch Pocket—A standard pitch pocket is one not over three-eighths of an inch wide or over six inches in length.

12. Pitch Streak—A pitch streak is a well-defined accumulation of pitch at one point in the piece. When not sufficient to develop a well-defined streak, or where the fibre between grains, that is, coarse-grained fibre, usually termed "spring wood," is not saturated with pitch, it shall be considered a defect.

13. Wane—Wane is bark, or the lack of wood from any cause, on edges of timbers.

14. Shakes—Shakes are splits or checks in timbers which usually cause a separation of the wood between annular rings.

15. Rot, Dote and Red Heart—Any form of decay which may be evident either as a dark red discoloration not found in the sound wood, or the presence of white or red rotten spots, shall be considered as a defect.

16. Ring Shake—An opening between the annular rings.

17. Through Shake—A shake which extends between two faces of a timber.

SECTION 40.

Specifications for Timber Required in the Construction of Buildings, General Requirements.

All timber shall be cut from sound timber and sawed standard size, close grained, free from ring shakes, decay and unsound knots, or knots and other defects that will materially impair its strength and durability.

Standard Size of Sawed Timber—Rough timbers when sawed to standard size shall mean that they shall not be over one-quarter inch scant from actual size specified. For instance, a twelve-inch by twelve-inch shall measure not less than eleven and three-quarter inches by eleven and three-quarter inches.

Standard Dressing of Sawed Timbers—Standard dressing means that not more than one-fourth inch shall be allowed for dressing each surface. For instance, a twelve-inch by twelve-inch shall, after dressing four sides, not measure less than eleven and one-half inches by eleven and one-half inches.

Longleaf or Shortleaf Yellow Pine Posts.

Longleaf or Shortleaf yellow pine shall admit one-inch wane on corners as measured on faces of timber. Shall be free from knots three inches in diameter or over, and knots shall not be in groups.

Beams and Girders of Longleaf or Shortleaf Yellow Pine.

Beams and girders of longleaf or shortleaf yellow pine shall admit one-inch wane on corners as measured on faces of timber. Sound knots less than three inches in diameter shall be permitted on the vertical faces at points not less than one-quarter the depth from the edge of the piece; sound, tight knots not exceeding one and one-half inches at other points, provided they are not in clusters.

Joists of Longleaf or Shortleaf Yellow Pine.

All joists over three inches in thickness shall comply with the requirements for beams and girders.

Joists three inches and less in thickness shall admit sound knots, none of which in three by four shall be larger than two inches in diameter on one or both sides of the piece, and on wider stock which do not occupy more than one-third of the cross-section at any point throughout its length if located at the edge of the piece; or more

than one-half of the cross-section if located away from the edge; pith knots or smaller or more defective knots which do not weaken the piece more than the knot aforesaid; shall admit of seasoning checks, firm red heart, heart shakes that do not go through, wane three-fourths depth on edge, one-quarter the width and one-third the length of the piece, pitch, sap stains, pitch pockets, splits in ends not exceeding in length the width of the piece, a limited number of small worm holes well scattered and such other defects as do not prevent its use as substantial structural material.

All timbers and wood beams used in any building shall be of good sound material free from rot, large and loose knots, shakes, or any imperfection whereby the strength may be impaired, and be of such size and required dimensions as shall serve the purposes for which the building is intended.

SECTION 41.

Structural Material.

Rivet Steel shall have an ultimate strength of from fifty thousand to sixty thousand pounds per square inch, an elastic limit of not less than fifty per centum of the ultimate strength, an elongation of not less than twenty-eight per centum in eight inches, and a reduction of area of not less than fifty per centum. A rivet rod must be capable of being bent and cold-hammered down on itself without any fracture.

All other structural steel shall show an ultimate strength of from sixty thousand to seventy thousand pounds per square inch, an elastic limit of not less than fifty per centum of the ultimate strength. It shall have an elongation of not less than twenty-two per centum in eight inches, and forty per centum reduction of area.

No iron beams or channels shall be used in any structure without the written permission of the Bureau of Buildings; and not then, if they have unnecessary holes in them or holes that have been plugged.

Steel castings shall be made from open hearth steel, and shall be practically free from blow-holes, with a reasonably clear skin and sharpness to pattern. The steel shall not contain over eight one-hundredths of one per centum of phosphorus. Steel castings shall be tested for strength and ductility from runners cast with pieces and annealed with the castings, if the work is ordered annealed. Such runners shall be turned down in not less than one-half square inch cross-section for a length of about six inches, and exhibit in the testing machine an ultimate strength of sixty thousand to seventy thousand pounds per square inch, an elastic limit of not less than fifty per centum of the ultimate and an elongation of twenty per centum in two inches. It shall bend cold at right angles on a round corner in a radius of the diameter of the test piece.

Cast Iron shall be of good foundry mixture, producing a clean, tough, gray iron. Sample bars five feet long, one inch square, cast in sand moulds, placed on supports four feet six inches apart, shall bear a central load of four hundred and fifty pounds before breaking. Castings shall be free of serious blow-holes, cinder spots and cold shins. Ultimate tensile strength shall be not less than sixteen thousand pounds per square inch when tested in small specimens.

CHAPTER X.

Tests.

SECTION 42.

Tests of New Materials.

The regulations contained in this Code shall apply to all such new materials as are used in building construction, in the same manner and for the same purposes as natural stones, brick and concrete are now authorized by the Building Code, whenever said new materials depart from the general shape, dimensions and composition of ordinary building brick.

Before any such material is used in buildings, an application for its use and for a test of the same shall be filed with the Superintendent of Buildings. A description of the material and a brief outline of its manufacture shall be embodied in the application.

The material shall be subjected to the following tests: Transverse, Compression, Absorption, Freezing and Fire. Additional tests may be called for when, in the judgment of the Superintendent, the same may be necessary. All such tests shall be made at some laboratory of recognized standing, under the supervision of the Superintendent of Buildings or his representative. The tests shall be made at the expense of the applicant.

The results of the tests shall be placed on file in the Bureau of Buildings, and shall be open to public inspection.

For the purpose of the tests at least fifteen samples or test pieces shall be provided. Such samples shall represent the ordinary commercial product. They may be selected from stock by the Superintendent of Buildings, or his representative, or may be made in his presence, at his discretion. The samples shall be approximately eight inches long, four inches wide and two inches thick. In cases where the material is made and used in special shapes or forms, full size samples may also be called for and tested in such manner as may be directed by the Superintendent of Buildings, to determine the physical characteristics of the material.

The samples may be tested as soon as desired by the applicant, but in no case later than sixty days after manufacture.

The weight per cubic foot and specific gravity of the material shall be determined.

These tests shall be made in series of at least five, except that in the fire tests a series of two is sufficient. The transverse tests shall be made on full-sized samples. The resulting half samples shall be used for the compression and absorption tests, but in no case shall both halves of the same piece be used in either series. Half samples shall also be used for the freezing and fire tests, under the same restrictions. The remaining samples shall be kept in reserve in case unusual flaws or exceptional or abnormal conditions make it necessary to discard certain of the tests. All the samples shall be marked for identification and comparison.

The transverse test shall be made as follows: The sample shall be placed flatwise on two rounded knife-edge bearings set parallel, seven inches apart. A load is then applied on top, midway between the supports, and transmitted through a similar rounded edge, until the sample is ruptured. The modulus of rupture shall then be determined by multiplying the breaking load in pounds by twenty-one (three times the distance between the supports in inches), and dividing the result by twice the product of the width in inches by the square of the depth in inches.

The compression test shall be made as follows: The sample shall first be thoroughly dried to a constant weight. It shall be carefully measured, then bedded flatwise either in plaster of Paris or blotting paper, to secure a uniform bearing in the testing machine, and crushed. The total breaking load shall then be divided by the area under compression in square inches.

The absorption test shall be made as follows: The sample shall first be thoroughly dried to a constant weight. The weight shall be carefully recorded. It shall then be placed in a pan or tray of water, face downward, immersing it to a depth of not more than one-half inch. It shall again be carefully weighed at the following periods: Thirty minutes, four hours and forty-eight hours, respectively, from the time of immersion, and shall be replaced in the water in each case as soon as the weight is taken. Its compressive strength, while still wet, shall then be determined at the end of the forty-eight hour period in the manner specified in the compression test.

The freezing test shall be made as follows: The sample shall be immersed, as described in absorption test, for at least four hours, and then weighed. It shall then be placed in a freezing mixture or a refrigerator, or otherwise subjected to a temperature of less than fifteen degrees Fahrenheit for at least twelve hours. It shall then be removed and placed in water, where it shall remain for at least one hour, the temperature of which shall be at least one hundred and fifty degrees Fahrenheit.

This operation shall be repeated ten times, after which the sample shall be again weighed, while still wet from last drawing. Its crushing strength shall then be determined, as called for in the compression test.

The fire test shall be made as follows: Two samples shall be placed in a cold gas furnace, in which the temperature shall be gradually raised to seventeen hundred degrees Fahrenheit in one hour. One of the samples shall then be plunged in cold water about fifty to sixty degrees Fahrenheit, and results noticed. The second sample shall be permitted to cool gradually in air, and the results noted.

The following requirements shall be met to secure an acceptance of the materials: The modulus of rupture shall average four hundred, and shall not fall below three

hundred and twenty-five. The ultimate compressive strength shall average two thousand five hundred pounds per square inch, and shall not fall below two thousand.

The percentage of absorption (being the weight of water absorbed divided by the weight of the dry sample) shall not average higher than fifteen per centum and shall not exceed twenty per centum in any case.

The reduction of compressive strength shall not be more than thirty-three and one-third per centum, except that when the lower figure is still above two thousand five hundred pounds per square inch the loss in strength may be neglected.

The freezing and thawing process shall not cause a loss in weight greater than ten per centum, nor a loss in strength of more than thirty-three and one-third per centum, except that when the lower figure is still above two thousand five hundred pounds per square inch, the loss in strength may be neglected.

The fire test shall not cause the material to disintegrate.

The approval of any material shall only be given under the following conditions: (a) A brand mark for identification shall be impressed on or otherwise attached to the material.

(b) A plant for the production of the material shall be in full operation when the official tests are made.

(c) The name of the applicant shall be placed on file with the Superintendent of Buildings, and changes in same promptly reported.

Whenever the Superintendent of Buildings has reason to believe that any materials used in the construction of buildings do not meet the requirements of this code or the standard fixed for new materials as above provided, he may order new or additional tests, and in case the materials do not come up to the requirements he shall prohibit their use.

Other new materials not herein provided for shall be tested as prescribed by the Superintendent of Buildings.

All materials, methods and appliances which have passed satisfactory tests, or which have been approved by the Bureau of Buildings, shall be furnished, erected or installed in buildings, in the completed condition as approved by the party or parties receiving the original approval from the Bureau of Buildings. Said material, methods and appliances shall in no case be furnished, erected or installed by licensees or other parties working either with or without the permission of the parties receiving the original approval.

SECTION 43.

Tests of Fireproofing.

Whenever required by the Superintendent of Buildings, the owner or the contractor, at his own expense, shall make load or other tests to determine the efficiency of the fireproof construction. The floor arches shall, in all cases, develop a strength in thirty days equal to five times the safe carrying capacity of the supporting steel work. The loads shall consist of such materials and be so placed as to form a uniformly distributed load over the entire area to be tested and without arching and transmitting the loads to the supports, and in case sand or similar material is to be used for loading, it shall be in bulk and loose and not in sacks or packages of any kind. The section to be tested shall be not less than a square, one side of which is equal to the distance between the beams; the test section shall be cut apart from the rest of the flooring before the load is applied. Fireproof floors failing to develop the strength herein required shall be condemned by the Superintendent of Buildings and shall be replaced by the owner or the contractor by floors of the required strength.

In case it is desired to use other or new materials, or employ same in a different manner than herein provided for fireproof construction, the manufacturer or representative thereof shall, at his own expense, make a comparative fire and water test under the direction of the Superintendent of Buildings, side by side with one of the approved methods herein described, as follows:

Fire tests of floor construction shall be made by building a test structure for the purpose. The inclosure walls shall be of brick, not less than twelve inches in thickness, laid in Portland cement mortar, the walls to extend one foot above the top surface of the flooring to be tested which shall form a platform corresponding to the roof of the structure at a height of about thirteen feet above the surface of the ground. A grate surface comprising the entire interior area of the test structure shall be provided about ten feet below the flooring to be tested. Four flues, at least sixteen inches square inside, shall be provided at the corners of the test structure, and shall extend three feet above the floor surface to be tested. Two doors shall be provided at opposite ends of the structure, opening just above the grate level, two feet wide by six feet high, fitted with steel doors through which fuel can be fed at suitable intervals. Smaller openings, two feet square and seventeen inches apart, shall be provided below the grate level along the entire length of one of the longest sides of the test structure, with facilities for opening and closing same to regulate the draught. The temperature shall be recorded by a standard pyrometer under the direction of an experienced person; readings shall be taken at two points near the centre of the areas of the two materials tested and about four inches below their under surfaces every few minutes during the progress of the test. Any facts of phenomena developed shall be carefully noted as the test proceeds, provision being made for noting the deflections of beams every fifteen minutes by scale readings.

The floor to be tested shall be supported by four rolled steel beams ten inches deep, weighing each twenty-five pounds per linear foot, and placed five feet between centres with tie rods in accordance with this Code. The beams shall have a clear span of fourteen feet, and shall be framed into steel girders at both ends, the said girders and the two outer beams supported throughout their length on the inclosing walls. In two adjoining panels or spans, the new material to be tested shall be placed between the steel beams, and in the other panel or span shall be built an approved construction in accordance with this Code, said approved construction to be erected by any reputable contractor for fireproofing who has furnished approved fireproof construction in New York City for at least five years, said contractor to be selected by the Superintendent of Buildings; but said approved construction shall in no case be furnished by the manufacturer or representative of the new material to be tested. The exposed parts of the beam between the two panels of the new material shall be protected by the new method or material, and the beam between the approved construction and the new material shall be protected as required in this Code. The approved construction shall be built as furnished in actual practice, with the quality of material ordinarily used. The ceilings below both materials shall be plastered as in a finished job. When the test arches are thirty days old a distributed load of one hundred and fifty pounds per square foot shall be placed over the entire area of the arches tested. The arches shall then be subjected to a hardwood fire test, developing a continuous heat for a period of four hours, the temperature averaging not less than one thousand seven hundred degrees Fahrenheit for the second hour, and not less than two thousand degrees Fahrenheit for the last two hours and at the end of said test.

At the end of a four-hour fire test a fire stream of water shall be directed against the under side of both the new and the approved materials, discharged through a one and one-eighth inch nozzle under sixty pounds pressure for five minutes. The top of the three arches shall then be flooded with water under low pressure. The fire stream shall then be applied a second time under sixty pounds pressure to the bottom of the arches for five minutes more.

After the structure has cooled sufficiently a careful inspection shall be made of the condition of the under side of the flooring tested, and notes made of same.

If the fire and water test has damaged the new material decidedly more than the approved construction, it shall be prohibited from use in any building hereafter erected. If there is any doubt as to the relative efficiency of the new and the approved materials, without repairs of any description whatsoever to the materials or the test structure, the fire and water test after ten days shall be repeated until conclusive results are obtained as to fire and water resistance and efficiency as a fireproof protection. Ten days after the fire and water tests have been concluded, the floor beams shall be shored up midway between the supports, and sections of both materials five feet square shall be cut apart from the rest of the flooring and tested to destruction, provision being made for ascertaining the deflections of the two materials independent of the floor beams for equal increments of loading. If the flooring and beam or column or girder protection of the new material has sustained no more damage or less damage after the fire, water and load tests, and if the beam protected by the new material has deflected no more or less than the other beam protected by the approved method, and if the new material in strength, fire resistance and every other respect has proved equal to or better than the approved material, it shall be approved by the Superintendent of Buildings as equal to the approved material and for the same purposes for which the approved material is approved under this Code. Comparative

tests of column and girder projection shall be made in the same structures and in the same manner as the floor tests. The members tested shall be loaded with the safe live load they are designed to support while the test is being made.

Detailed and accurate records of all fire, water and load tests shall be preserved and filed by the Superintendent of Buildings.

All materials, methods and appliances shall be furnished, erected and installed in buildings in the complete condition as approved by the party or parties receiving the original approval from the Bureau of Buildings. Said material, methods and appliances shall in no case be furnished, erected or installed by licensees or other parties working either with or without the permission of the parties receiving the original approval. This section shall be construed to include reinforced concrete and all other fire resisting methods and materials.

CHAPTER XI.

STRENGTH OF MATERIALS—WORKING STRESSES.

SECTION 44.

Computations for Strength of Materials.

The dimensions of each piece or combination of materials required shall be ascertained by computation, according to the rules prescribed by this Code.

SECTION 45.

Factors of Safety.

Where the unit stress for any material is not prescribed in this Code, the relation of allowable unit stress to ultimate strength shall be determined by the Superintendent of Buildings.

SECTION 46.

Steel and Iron.

The safe carrying capacity of the various materials of construction shall be determined by the following working stresses in pounds per square inch of sectional area:

Direct Compression in Short Blocks.

	Pounds.
Rolled steel,	16,000
Cast steel (annealed),	16,000
Cast steel (not annealed),	10,000
Cast iron (in short blocks),	16,000
Steel pins, shop and power driven field rivets (bearing),	20,000
Steel field rivets (driven by hand),	16,000

Tension.

	Pounds.
Rolled steel,	16,000
Cast steel (annealed),	16,000
Cast steel (not annealed),	10,000
Cast iron,	3,000

Shear.

	Pounds.
Steel web plates,	9,000
Steel shop and power driven field rivets and pins,	10,000
Steel field rivets (driven by hand),	8,000
Steel field bolts,	7,000
Cast steel (annealed),	9,000
Cast steel (not annealed),	6,000
Cast iron,	3,000

Safe Extreme Fibre Stress.

	Pounds.
Rolled steel beams,	16,000
Rolled steel pins, rivets and bolts,	20,000
Riveted steel beams,	14,000
Cast iron compression side,	16,000
Cast iron tension side,	3,000

SECTION 47.

Concrete.

Compression.

	Pounds.
Concrete, Portland cement, 1; sand, 2; stone, 4, with steel reinforcement,	640
Concrete, Portland cement, 1; sand, 2; stone, 4,	500
Concrete, Portland cement, 1; sand, 2; stone, 5,	400
Concrete, Portland cement, 1; sand, 3; stone, 5,	300
Concrete, natural Rosendale cement, 1; sand, 2; stone, 4,	100
Concrete, natural Rosendale cement, 1; sand, 2; stone, 5,	80

Safe Extreme Fibre Stress.

	Pounds.
Concrete, Portland cement, 1; sand, 2; stone, 4,	50
Concrete, Portland cement, 1; sand, 2; stone, 5,	40
Concrete, Portland cement, 1; sand, 3; stone, 5,	30
Concrete, natural Rosendale cement, 1; sand, 2; stone, 4,	10
Concrete, natural Rosendale cement, 1; sand, 2; stone, 5,	8

Shear.

	Pounds.
Concrete, Portland cement, 1; sand, 2; stone, 5,	75
Concrete, Portland cement, 1; sand, 3; stone, 5,	60

SECTION 48.

Stone and Brick Work.

Compression.

	Pounds.
Brick work in Portland cement mortar, cement, 1; sand, 3,	250
Brick work in natural Rosendale cement mortar, cement, 1; sand, 3,	175
Brick work in lime and Portland cement mortar, cement, 1; lime, 1; sand, 6,	160
Brick work in lime mortar, lime, 1; sand, 4,	110
Rubble stone work in Portland cement mortar,	110
Granites, according to test,	1,000 to 2,400
Greenwich stone,	1,200
Gneiss,	1,300
Limestones, according to test,	700 to 2,300
Marbles, according to test,	600 to 1,200
Sandstones, according to test,	400 to 1,600
Bluestones, North River,	2,000
Brick,	300
Slate,	1,000

Safe Extreme Fibre Stress.

	Pounds.
Brick,	50
Brick work in Portland cement,	30

	Pounds.
Greenwich stone,	150
Gneiss,	150
Limestone,	150
Slate,	400
Marble,	120
Sandstone,	100
Bluestone, North River,	300

SECTION 49.

Timber.

Direct Compression.

	With Grain.	Across Grain.
Oak	1,400	500
Yellow pine longleaf	1,200	325
Yellow pine shortleaf and North Carolina pine	1,000	250
White pine	800	200
Spruce	800	200
Locust	1,200	250
Hemlock, Eastern	500	150
Hemlock, Western	1,000	250
Chestnut	500	250
Douglas fir	1,200	325
Norway pine	700	200
Tamarack	800	200

Tension.

	With Grain.	Across Grain.
Yellow pine longleaf	1,200	500
Yellow pine shortleaf	900	300
White pine	800	200
Spruce	800	200
Oak	1,000	600
Hemlock	55	250

Shear.

	With Grain.	Across Grain.
Oak	100	300
Yellow pine longleaf	70	300
Yellow pine shortleaf	50	200
White pine	40	150
Spruce	50	200
Locust	100	200
Hemlock, Eastern	55	250
Hemlock, Western	60	225
Chestnut	60	250
Douglas fir, merchantable	60	250
Douglas fir, seconds	50	200
Norway pine	50	200
Tamarack	50	225

Safe Extreme Fibre Stress, Bending.

	Pounds.
Yellow pine longleaf	1,200
Yellow pine shortleaf and North Carolina pine	900
White pine	700
Spruce	800
Oak	1,200
Hemlock, Eastern	650
Hemlock, Western	1,000
Locust	1,000
Chestnut	850
Douglas fir, merchantable	1,200
Douglas fir, seconds	800
Norway pine	700
Tamarack	750

CHAPTER XII.

STRENGTH OF COLUMNS AND TEMPORARY SUPPORTS.

SECTION 50.

Working Stresses.

The working stresses per square inch for all cast iron, steel or wood columns having flat ends shall not exceed those given in the following tables:

	Working Stresses Per Square Inch of Section.	
	L 9,000—40 R	L 15,200—58 R
	Cast Iron.	Steel.
When the Length Divided by Least Radius of Gyration Equals—		
120.		8,240
110.		6,520
100.	</	

Working Stresses Per Square Inch of Section.			
Long Leaf Yellow Pine.	Norway Pine.	White Pine.	Oak.
L	L	L	L
1,000—16— D	800—15— D	900—17— D	900—17— D
When the Length Divided by the Least Side or Diameter Equals—			
30.....	400	350	390
25.....	550	425	475
20.....	640	500	560
15.....	730	575	645
12.....	784	620	696
10.....	820	650	730

L equals length in inches. D equals least side in inches.

Three-fourths the values given for white pine shall also apply to hemlock posts. For least posts use one and one-half the value given for white pine.

For short leaf yellow pine use three-fourths the values given for long leaf yellow pine.

Columns and compression members shall not be used having an unsupported length of greater ratio than given to the values.

SECTION 51

Columns Eccentrically Loaded.

Any column eccentrically loaded shall have the stresses caused by such eccentricity computed, and the combined stresses resulting from such eccentricity at any part of the column added to all other stresses at that part shall in no case exceed the working stresses stated in this Code.

The eccentric load of a column shall be considered to be distributed equally over the entire area of the column at the next point below at which the column is securely braced laterally in the direction of the eccentricity.

Tie plates and lattice lugs shall not be used on columns eccentrically loaded, unless approved by the Superintendent of Buildings, otherwise plates extending the full length of the column only shall be used.

SECTION 52

Strength of Temporary Supports.

Every temporary support placed under any structure, wall, girder or beam, during the erection, alteration, demolition, or repairing of any building or structure or any part thereof, shall be of sufficient strength to safely carry the load to be placed thereon.

CHAPTER XIII

EXCAVATIONS AND FOUNDATIONS.

SECTION 53

Excavations.

The person causing any excavation for a building to be made shall have the same properly guarded and protected. Wherever necessary he shall properly sheath the pit and of his own cost erect sufficient retaining wall to permanently support the adjoining earth. Such retaining wall shall be carried to the level of the adjoining earth and shall be properly coped.

Whenever an excavation is not intended to be or shall not be carried to a depth of more than ten feet below the curb level, as defined in section 204, the owner of every adjoining or contiguous wall or structure shall protect the same, so that it shall be and remain as safe as before such excavation was begun. Such owner shall be permitted to enter upon the premises where the excavation is being made when necessary for this purpose.

Whenever an excavation is intended to be or shall be carried to a depth of more than ten feet below the curb level, as defined in section 204, the person causing such excavation shall at all times from the beginning until the completion of the excavation, foundations, retaining walls or other structures to be built in such excavation, protect at his own expense every adjoining or contiguous wall or structure, and support the same by proper means. For this purpose he shall be afforded the necessary access to the adjoining premises. If access be denied by any owner of adjoining property, it shall be the duty of the person causing such excavation to notify the Superintendent of Buildings in writing to this effect. Thereafter it shall be the duty of the owner who has refused access to his premises, to make safe such adjoining wall or structure upon his premises and to protect and support it by proper means so that the excavation may be made; and for this purpose he shall, when necessary, be permitted to enter upon the premises where the excavation is being made.

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Adjoining Party Walls.

In case an adjoining party wall is intended to be used by the person causing the excavation to be made, and the footings and foundations of such party wall are in good condition and sufficient for the uses of both the existing building and the new one adjoining, then and in such case the person causing the excavation to be made shall, at his own expense, preserve such party wall from injury and support the same by proper means, so that said party wall shall be and remain as safe as before the excavation was begun.

In case the footings and foundations of any such party wall are not in good condition, or not sufficient for the uses of both the existing building and the new one adjoining, then it shall be the duty of the person causing such excavation to be made to extend such defective or insufficient footing or foundation, or to replace same with a new footing or foundation. Such extended or new footing shall extend on each side of the party line such a distance as to bring the centre of the footing under the centre of the wall, so that the total load upon the wall may be uniformly distributed over the area of the footing. In order that this may be done, the person causing the excavation to be made shall be allowed access to the adjoining premises.

In case any excavation, or the removal of any existing building, shows any adjoining wall or walls or structure to be unsafe at the time the excavation was begun, then it shall be the duty of the person causing the excavation to be made, or the building to be removed, to forthwith report the fact, in writing, to the Superintendent of Buildings. The Superintendent of Buildings shall, upon the receipt of such notice from any person causing any excavation to be made, or any building to be removed, forthwith cause an inspection of such adjoining premises to be made, and if such inspection prove the aforesaid wall or walls or structure to be unsafe, then it shall be the duty of the Superintendent of Buildings, acting under the provisions of sections 7 and 204 of this Code, to declare such wall or walls, structure or structures, to be unsafe and cause the same to be repaired as therein provided.

If the person whose duty it shall be to preserve or protect from injury any wall or walls, structure or structures, shall neglect or fail so to do within twenty-four hours after the receipt of a notice so to do from the Superintendent of Buildings, then the Superintendent of Buildings shall enter upon the premises and employ such labor and furnish such materials and take such steps as, in his judgment, may be necessary, to make the premises safe and secure, or to prevent the same from becoming unsafe or dangerous, at the cost and expense of the person whose duty it is to keep the same safe and secure. Payment of such expenses shall be collected in the manner set forth in section 8 of this Code.

SECTION 54.

Bearing Capacity of Soil.

Applications filed in the Bureau of Buildings shall contain a statement of the character of the soil at the level of the footings. The Superintendent of Buildings shall be notified before any test is made of the sustaining power of the soil, so that he may be present or represented thereat. When doubt arises as to the safe sustaining power of the soil upon which a building is to be erected, the Superintendent of Buildings may order borings to be made, or he may order tests to be made of the sustaining power of the soil by and at the expense of the owner of the proposed building.

In tests of the sustaining power of the soil the ultimate test load shall be one and one-half times the load which the soil is to actually bear when the building is completed. Measurements of the settlement shall begin as soon as one-tenth of the ultimate test load has been applied and shall be continued until a period of twenty-four hours shall have elapsed without increase of settlement under the ultimate load. On no soil shall the total allowable settlement after the application of one-tenth of the ultimate test load exceed one inch.

In all cases where the foundation extends to a point less than five feet above the level of mean low water, or in any other case when required by the Superintendent of Buildings, test borings shall be made to ascertain the character of the material underlying the footings. Such test borings shall go either to rock or to a depth of at least twenty feet below the footing level. The Superintendent of Buildings, or his representatives, shall inspect the material as disclosed by such borings and shall fix and authorize, in accordance with the provisions of this Code, the safe load which the soil may bear per unit of area at the footing level. The records of such borings or tests shall be filed in the Bureau of Buildings.

In the absence of a test the area of the bearing footing shall be so proportioned that the load per square foot upon the respective character of soil shall not exceed those set forth in the following table:

Soil Under Footings.	Load in Tons.
Soft clay	1
Clay, sand or clay and sand together or in layers, wet and springy	2
Loam, clay or fine sand, firm and dry	3
Coarse sand, gravel, or sand and gravel	4
Coarse sand, gravel, or sand and gravel, very firm	6
Conglomerate hard pan on bed rock	25
Hard natural rock	40

Classification of Soils.

Mud, Peat, Bog, Silt—Any soil containing more than a trace of vegetable matter, or which on drying shrinks more than five per cent. of its volume shall be classed as mud, peat, bog or silt and shall be deemed unsuitable material on which the foundations of a building shall rest.

Filled in Material—Any material which has been moved or deposited by any agency of man, as by filling, dumping, dredging or otherwise, shall be classed as "filled in" material and shall be deemed unsuitable material on which the foundation of a building shall rest.

Clay—Any natural soil containing such ingredients as to render it capable of being worked when wet into a plastic state shall be called a clay.

Sand—Any soil or natural material composed of quartz or other rock particles shall be classed as fine sand when fifty per cent. or over by weight passes a fifty mesh sieve, and as coarse sand when fifty per cent. or over is retained on a fifty mesh sieve.

Gravel—Any soil or natural material composed of rock particles where fifty per cent. or over of the particles forming the mass shall be one-quarter of an inch in diameter or over, shall be classed as gravel.

No footing of a building shall rest upon filled in material, mud, peat, bog, silt or similar material.

SECTION 55.

Foundations.

Every building except those erected upon solid rock, or upon walls or piers on the water-front, shall have good and sufficient foundations of brick, stone, concrete, reinforced concrete, steel or iron. When the building is erected upon solid ground the foundations shall extend not less than four feet below the surface of the earth, except in those cases in which solid rock appears above that depth. When neither solid earth nor rock is found, piles of wood or concrete shall be used.

SECTION 56.

Footings.

Foundation walls shall rest upon a footing course which shall be of facing stones, steel grillages, concrete, concrete reinforced with steel beams, or concrete and construction. Wood footings may be used if they are entirely below the level of mean low water. The design of every footing shall be such that the stresses in the materials employed conform in all respects to the requirements of this Code.

Loads on Footings.

Footings shall be so designed that the loads they sustain per unit of area shall be as nearly uniform as possible.

The dead loads carried by the footings shall include the actual weight of the superstructure and foundations down to the bottom of the footing. All tanks or other receptacles for water shall be figured as being full of water. All vaults or similar built-in structures shall be considered as forming a part of the building.

In warehouses, stores and buildings not over one hundred and fifty feet high, used for light manufacturing, in which the live load on the floors is not over one hundred and fifty pounds per square foot, and in churches, school houses and places of public amusement or assembly, the live load carried by the foundation shall be not less than seventy-five per centum of the total live load upon the floors contributing thereto.

In office buildings, hotels, dwellings, apartment houses, lodging houses, tenement houses and stables, the live load carried by the foundation shall not be less than sixty per centum of the total live load on the floors contributing thereto.

The live load carried by the foundations of all other buildings shall not be less than that required to be carried by the lowest tier of columns or by the foundation walls.

The area of the footing which has the largest percentage of live load to total load shall be determined by dividing the total load by the unit working stress, as stated in section 54. From the area thus calculated all the other footings of the building shall be proportioned according to the ratios of their respective dead loads only. In no case shall the load per square foot under any portion of any footing due to the combined dead, live and wind loads exceed the safe sustaining power of the soil upon which the footing rests.

Stone Footings.

Footing stones shall not be less than three feet long by two feet wide. Under walls their thickness shall not be less than one-fourth of their width, and in no case shall it be less than eight inches; under piers, columns or posts the thickness of footing stones shall not be less than ten inches. The footing shall project a minimum distance of four and one-half inches beyond each side of any foundation wall, and ten inches beyond each side of any pier. The footing shall be so designed that a line drawn from the outer edge of the wall or pier, at the bottom, to the outer edge of the footing, at the bottom, shall make an angle of not more than sixty degrees with a horizontal plane and shall lie within the masonry throughout its length. Footing stones shall be laid on their natural bed, crosswise, edge to edge and well bedded. No two adjacent vertical joints shall lie in the same plane.

Concrete Footings.

Concrete footings shall be not less than twelve inches thick and shall project not less than six inches beyond each side of any foundation wall and twelve inches beyond each side of any pier.

Stepped-up courses of brick laid above either footing stones or concrete shall have offsets of one inch if laid in single courses, and two inches if laid in double courses. The offset of the lowest course of brick shall be equal to one-half the thickness of

the footing stone or concrete base, so as to properly distribute the load throughout the same.

Footing Piers.

If the nature of the ground and the character of the building are such as to make it necessary or advisable, the Superintendent of Buildings may require the use of isolated piers, instead of a continuous wall, as a support for the structure. Between such piers suitable inverted arches shall be turned. These arches shall rest upon a proper bed of concrete. The thrust of the outer piers shall be taken up by suitable wrought iron or steel rods and plates.

Grillages.

Where necessary suitable grillage beams of steel, resting upon a good and sufficient bed of concrete, may be used. Such beams shall be fastened by bolts and separators and the grillage filled solid with concrete. All metal which forms part of any footing or foundation shall be thoroughly protected from rust by concrete or by the use of other approved coating.

Eccentric Footings.

Eccentric footings shall not be permitted in any fireproof building. In non-fireproof buildings eccentric footings may be permitted, but only in the case of an enclosing wall parallel to and adjacent to a property line other than a street line. The eccentric loading shall in no case impose a greater load on any portion of the soil under the footing than the maximum allowable load for such soil. Suitable ties must be employed above the footing level to resist the overturning moment due to the eccentric loading. The floor beams next above the footing may serve as such ties, provided proper connections are made to the wall and to some other wall or anchorage, and that the wall be strong enough to resist the overturning moment. A line drawn from the centre of the wall at the level of the cross-tie to the centre of the bottom face of the footing must not be out of plumb more than three inches per vertical foot, and the thickness of the wall at every point in its height shall be at least twice the distance between this inclined line and the vertical exterior face of the wall.

SECTION 57.

Foundation Walls.

Foundation walls shall be built of stone, brick, Portland cement concrete, iron or steel. If built of rubble stone they shall be, for a depth of twelve feet below the curb level, at least eight inches thicker than the wall which rests upon them. For every additional ten feet, or fraction thereof, increase of depth, they shall be increased four inches in thickness. If built of brick or concrete they shall be for a depth of twelve feet below the curb level at least four inches thicker than the wall which rests upon them. For every additional ten feet, or fraction thereof, increase of depth, they shall be increased four inches in thickness.

Mortar.

Only Portland cement mortar shall be used in the construction of the footings and foundations of any building. No lime whatever shall be used under any conditions.

SECTION 58.

Wood and Concrete Piles.

Wood Piles.

Wood piles may be of spruce, oak, longleaf yellow pine, Norway pine, or fir, but shall not be of hemlock or scrub pine. Piles shall be sound and straight. The diameter at the butt shall not be less than ten inches, and the diameter at the point shall not be less than six inches. The length shall not exceed twenty-five times the diameter at the butt.

They shall be driven to refusal if possible, and the method of driving shall be such as not to impair their strength. The centre to centre distance between piles shall not be more than thirty-six inches nor less than three times the average butt diameter.

If driven to refusal a maximum load per pile of fifteen tons may be used unless the load be otherwise determined by test. If not driven to refusal the maximum load per pile shall not exceed ten tons.

The Superintendent of Buildings shall be notified before any test is made of the sustaining power of piles so that he may be present or represented therat. When doubt arises in regard to the safe sustaining power of piles in the soil upon which a building is to be erected, the Superintendent of Buildings shall order test piles to be driven by or at the expense of the owner of the proposed building. The record of such test shall be filed in the office of the Superintendent of Buildings.

The safe sustaining power of a pile not driven to refusal, which shall in no case exceed ten tons, shall be determined by calculation based upon the following formula:

$$L = \frac{2W H}{P + 1}$$

in which L =the allowable load in tons (maximum is 10 tons)

W =the weight of the hammer in tons

H =the fall of the hammer in feet

P =the penetration in inches under the last blow after the pile has sunk

to a point where successive blows produce equal penetrations.

Piles shall be cut off so that the top is always below the level of mean low water. When required concrete shall be rammed down in the interspaces between the heads of the piles to a depth of not less than twelve inches and laterally for a distance of not less than twelve inches on each side of the rows of piles.

If piles are capped with timber the timber shall be of sound, hard wood, not less than six inches thick and properly joined together. The tops of all such timbers shall be below the level of mean low water, except in the case of frame buildings built over water or on soft meadow, or similar land, in which case piles may project above the water a sufficient distance to raise the building above high tide and then the building may be placed directly thereon.

Concrete Piles.

The mixture used for concrete piles shall be one part of Portland cement; two parts of sand; three parts of broken stone which will pass through a ring three-fourths of an inch in diameter.

Concrete piles when not reaching rock or hardpan, and depending for their supporting power on friction between the surface of the pile and the surrounding material, shall not be loaded in excess of four hundred pounds per square foot of surface in contact with the soil, and shall not be driven closer centre to centre than three times their average diameter.

Concrete piles, when driven in a solid bearing, such as rock or hardpan, may be loaded to three hundred pounds per square inch of cross-section of pile, the cross-section being taken at the smallest point of the pile, provided sufficient steel reinforcement is embedded in the pile to provide against failure by shear or by bending when the pile is figured as a long column.

All steel reinforcement shall be embedded in the concrete forming the pile and shall be protected by at least two inches of concrete.

The loading per pile shall not be increased by reason of the steel reinforcement.

If the concrete piles are built in position and not driven, the forms are not to be removed until the concrete has obtained its final set.

SECTION 59.

Piers Sunk to Rock or Hard Pan.

Where the soil is not suitable for direct bearing, piers of concrete, brick or masonry may be used to reach a stratum of rock or other suitable material. All such piers shall be constructed in such a manner as to permit of the inspection of the material upon which the pier rests. So far as is practicable, excavations for such piers shall be kept free of water from the time the concrete or masonry is placed therein until the same is set.

No such pier of concrete, brick or masonry shall be loaded in excess of eighteen tons per square foot of cross-section when the pier is carried down to solid rock, and fourteen tons per square foot when carried down to firm gravel or hard clay, except that where it is necessary to carry the foundations to rock or hard pan by means of pneumatic or other caissons, the area of horizontal cross-section of which exceeds

thirty-six square feet, a load of not more than eighteen tons per square foot may be permitted. When steel is embedded in piers no allowance for the metal shall be made.

No timber shall be allowed to remain in the masonry except such timber as is used in pneumatic caissons and then only when all the timber is below the level of mean low water.

CHAPTER XIV.

MASONRY.

SECTION 60.

Walls.

The walls of all buildings, other than wood or frame buildings, shall be constructed of stone, brick, iron, steel, Portland cement concrete (in bulk, blocks or reinforced concrete), or other approved hard, solid and incombustible material.

The inner portion of the enclosure walls in steel skeleton construction, for a thickness not exceeding eight inches, may be built of hollow brick of standard brick sizes.

All buildings shall be enclosed on all sides with independent or party walls.

The walls and piers of all buildings of brick or stone shall be properly and solidly bonded together with close joints filled with mortar. They shall be built to a line and carried up plumb and straight.

All brick laid in non-freezing weather shall be well wet before being laid.

No brick, stone, concrete or mason work of any description shall be built when the temperature is below twenty-eight degrees Fahrenheit at the point where the work is in progress. No frozen materials shall be built upon.

No wall or walls of any building shall be carried up more than two stories higher in advance of any portion of the walls of said building, except that in the case of wall bearing buildings the exterior walls may be carried up so that the front or end wall shall not be, at any time, more than five stories in advance of the walls, but this provision shall not apply to buildings in which the walls are carried independently by girders at each floor.

The front, rear, side and party walls shall be properly bonded together.

When not carried up at the same time the perpendicular joint between the walls shall be made with four-inch offsets at every heading course, and have also iron or steel anchors at least every three feet in height. These anchors shall not be less than two-inch by one-quarter-inch metal, and shall be either bent up at the ends to have a cross-pin to form the anchorage.

Anchors inserted for the purpose of connecting front and rear walls with side or party walls shall extend not less than eight inches into the side or party wall, and no less than twelve inches into the front and rear walls, when these walls are not built and bonded together.

The walls and beams of every building during the erection or alteration thereof shall be strongly braced from the beams of each adjacent story, and when required shall also be braced from the outside until the building is enclosed.

In all brick walls every sixth course shall be a heading course, except where walls are faced with brick in Flemish or running bond, in which latter case every sixth course shall be bonded into the backing by setting the course of the face brick and mortar in diagonal headers behind the same, or by splitting the face brick in half and backing the same with a continuous row of headers. Where face brick is not of a different thickness from the brick used for backing, the course of the exterior and interior brickwork shall be brought to a level but at intervals of not more than ten courses in height of the face brick, and the face brick shall be properly tied to the backing by a heading course of the face brick.

All bearing walls faced with brick laid in running bond shall be four tales thicker than the walls are required to be under any other section of this Code. In running bond approved metal wall ties may be used in place of the diagonal headers if placed not over four courses apart vertically and twenty inches horizontally.

Face brick shall be laid at the same time as the backing, and shall not be laid after the backing is in place.

SECTION 61.

Piers.

Piers shall be built of dimension stone, stone concrete or gravel, laid well-jointed brick. Stone or brick piers shall be laid in Portland cement mortar. Every exterior pier shall be securely anchored to the beams or girders at the level of each story. The height of any isolated pier shall not be greater than ten times the least horizontal dimension of the pier.

Every pier of less than nine square feet in cross-section which supports any beam, girder, arch or column upon which a wall rests, or a girder spanning an opening over ten feet wide on which a wall rests, shall have built into it, at vertical intervals of not less than thirty inches, steel plates five-sixteenths of an inch thick.

Every steel plate shall have the same horizontal dimensions as the pier into which it is built.

Every pier which supports a column or girder shall have, immediately below the column or girder a suitable cast iron or steel ring to distribute the load over a sufficient area to comply with the permissible stress for the material supporting it as determined in section 47 and 48 of this Code.

SECTION 62.

Stone Walls.

All stone walls not over twenty-four inches in thickness shall have at least one header extending through the wall in every three feet in height and every three feet in length. Walls over twenty-four inches in thickness shall show not less than ten per centum of headers on each face of the wall. These headers shall be properly distributed through the wall so as to bind the stretcher courses together, and all headers shall have a length of not less than two-thirds the thickness of the wall. All headers shall be good, flat stones, not less than twelve inches wide and eight inches thick.

No stone shall be laid in any bearing wall in any other position than on its natural bed. No stone which does not bond or extend into the wall at least six inches shall be used. Stones shall be firmly bedded in mortar, with all spaces and joints thoroughly filled.

Where walls are built of stones with dressed level beds and vertical joints of cement mortar, the Superintendent of Buildings may permit such walls to be of the same thickness as specified for brick walls. In no case shall stone walls be of less thickness than specified for brick walls, and in no case shall the pressure per unit of area exceed that provided for in the sections of this Code governing the strength of materials.

SECTION 63.

Ashlar.

Stone used for the facing of any building, and known as ashlar, shall not be less than four inches thick.

Stone ashlar shall be anchored to the backing, and the backing shall be of such thickness as to make the walls, independent of the ashlar, conform as to thickness with the requirements of the sections of this Code, unless every alternate course be at least eight inches thick and bonded into the backing, and then four inches of it may be counted as part of the thickness of the wall. However, no wall faced with ashlar shall be less than twelve inches thick in any case.

Where terra cotta or other approved artificial material is used instead of stone ashlar, it shall not be less than four inches thick. It shall be properly and securely anchored to the backing, and not be counted as part of the thickness of the wall.

SECTION 64.

Mortar for Walls.

The foundation walls of all buildings shall be laid in cement mortar. This requirement applies to all walls, isolated piers, parapet walls and chimneys above roofs, but this shall not prohibit the use in cold weather of a small proportion of lime to prevent the mortar from freezing. All other walls built of brick or stone above the level of the curb may be laid in lime and cement mortar mixed.

All stone walls shall be laid in Portland cement mortar. The backing-up of all ashlar shall be laid up with cement mortar. The back face of ashlar may be parged with lime mortar to prevent discoloration of the stone. The enclosure and curtain walls in skeleton construction shall be laid in Portland cement mortar.

SECTION 65.

Wall Thicknesses for Buildings of Classes "C" and "D."

The minimum thickness of all bearing walls above the foundation wall shall be as per schedule below. The height of the walls to be used in determining their thickness in applying this schedule shall be measured to the point of complete support, whether this be a foundation or a beam or girder.

Schedule of Thickness for Bearing Walls, Buildings of Classes "C" and "D."

Height of Building	Top Section.		Second Section.		Third Section.		Fourth Section.		Fifth Section.	
	Thickness	Height	Thickness	Height	Thickness	Height	Thickness	Height	Thickness	Height
125 to 150 feet	12	15	16	35	20	35	24	35	28	30
100 to 125 feet	12	15	16	35	20	35	24	40	...	...
75 to 100 feet	12	25	16	35	20	40	...	...	...	...
60 to 75 feet	12	50	16	25	...	...	...	...	...	...
50 to 60 feet, and not over 15 feet in width	12	60	...	...	...	...	...	...	...	...
50 to 60 feet	12	50	16	10	...	...	...	...	...	...
40 to 50 feet	12	50	...	...	...	...	...	...	...	...
40 feet or less, and not over 20 feet in width	12	40	...	...	...	...	...	...	...	...

If over one hundred and fifty feet in height, each additional thirty feet in height, or part thereof, next the foundation walls, shall be increased four inches in thickness, the upper one hundred and fifty feet of wall remaining the same as specified for a wall of that height.

All bearing walls of buildings of Classes "C" and "D" hereafter erected, or of those buildings which may be altered to be used as residence buildings, shall be in accordance with the above schedule.

Partition and Non-Bearing Walls.

All non-fireproof residence buildings erected under this section, exceeding twenty-six feet in width, shall have brick, or, where non-bearing, concrete or fireclay block fore and aft partition walls not less than six inches thick. All non-bearing walls of buildings hereinbefore mentioned in this section may be four inches less in thickness, provided, however, that none are less than twelve inches thick, except as in this Code specified. Eight-inch brick partition walls may be built to support the beams in such buildings in which the distance between the main or bearing walls is not over thirty-three feet; if the distance between the main or bearing walls is over thirty-three feet the brick partition wall shall not be less than twelve inches thick, provided, that no clear span is over twenty-six feet. No other wall shall be built having any one thickness measuring vertically more than sixty feet. This section shall not be construed to prevent the use of steel girders, or steel girders and iron or steel columns, or piers of masonry, for the support of the walls and ceiling, over any part of building which has a clear span of more than twenty-six feet between walls, in such dwellings as are not constructed fireproof, nor to prohibit the use of steel girders, or steel girders and iron or steel columns in place of brick walls in buildings which are to be used for dwellings when constructed fireproof. If the clear span is to be over twenty-six feet, then the bearing walls shall be increased four inches in thickness for every twelve and one-half feet, or part thereof, that said span is over twenty-six feet, or shall have, instead of the increased thickness, such piers or buttresses as, in the judgment of the Superintendent of Buildings having jurisdiction, may be necessary.

Wherever two or more residence buildings shall be constructed not over twelve feet six inches in width, and not over forty feet in height, the alternating centre wall between any two such houses shall be of brick, not less than eight inches thick, above the foundation wall, and the ends of the floor beams shall be so separated that four inches of brickwork shall be between the beams where they rest on the said centre wall.

In private dwellings, not over thirty-five feet six inches high, and not over twenty feet in width, may have brick walls eight inches thick.

SECTION 66.

Wall Thicknesses of Buildings of Classes "A," "B," "E" and "F."

The minimum thickness of all bearing walls of buildings of Classes "A," "B," "E" and "F" shall be as per schedule below. The height of wall to be used in determining the thickness in applying this schedule shall be measured to the point of complete support, whether this be a foundation, beam or girder.

Schedule of Thicknesses for Bearing Walls, Buildings of Classes "A," "B," "E" and "F."

Height of Building	Top Section.		Second Section.		Third Section.		Fourth Section.		Fifth Section.	
	Thickness	Height	Thickness	Height	Thickness	Height	Thickness	Height	Thickness	Height
125 to 150 feet	16	15	20	35	24	35	28	35	32	30
100 to 125 feet	16	15	20	35	24	35	28	40	...	...
75 to 100 feet	16	25	20	35	24	40	...	...	...	...
60 to 75 feet	16	50	20	25	...	...	...	...	...	...
40 to 60 feet	12	40	16	20	...	...	...	...	...	...
40 feet or less	12	40	—	—	...	...	...	...	...	...

If over one hundred and fifty feet in height, each additional twenty-five feet in height, or part thereof below the one hundred and fifty feet or the nearest tier of beams thereto, shall be increased four inches in thickness, the upper one hundred and fifty feet of wall remaining the same as specified for a wall of that height.

If there is a clear span of over twenty-six feet between the bearing walls, such walls shall be four inches more in thickness than in this section specified, for every twelve and one-half feet, or fraction thereof, that said walls are more than twenty-six feet apart, or shall have instead of the increased thickness such piers or buttresses as, in the judgment of the Superintendent of Buildings, may be necessary.

SECTION 67.

Enclosure Walls for Skeleton Structures.

In skeleton structures, walls (see section 60) between steel columns shall be of brick, stone or concrete, and supported wholly or in part on steel girders, and shall be

not less than twelve inches thick and thoroughly anchored to the steel work. When the vertical distance between supporting girders exceeds fifteen feet, the thickness of the walls shall be increased four inches for each fifteen feet or fraction thereof that the said vertical distance exceeds fifteen feet. In no case, however, shall the loads imposed on masonry per square foot exceed those fixed in sections 47 and 48 of this code.

All masonry must be laid in Portland cement mortar.

SECTION 68.

Curtain Walls.

Curtain walls shall be taken to mean non-bearing walls built between piers or iron or steel columns, and shall be of brick, stone or concrete. They shall be not less than twelve inches thick for seventy-five feet of the uppermost height thereof, or nearest tier of beams to that height, and increased four inches for the lower section of seventy-five feet, or nearest tier of beams to that height; and thence downward the thickness of walls shall increase in the ratio prescribed in sections 65 and 66 of this Code.

The masonry work throughout shall be laid in Portland cement mortar. When such walls are used the foundations of the buildings shall be so designed that the load from the columns and the load of the walls are carried together.

SECTION 69.

Increased Thickness of Walls for Buildings More Than One Hundred and Five Feet in Depth.

All buildings that are over one hundred and five feet in depth, without a cross wall or proper piers or buttresses, shall have the side or bearing walls increased in thickness four inches more than is specified in the respective sections of this Code for the thickness of walls for every hundred and five feet, or part thereof, that the said buildings are over one hundred and five feet in depth.

Reduced Thickness for Interior Walls.

In case the walls of any building are less than twenty-five feet apart, and less than forty feet in depth, or there are cross walls which intersect the walls, not more than forty feet distant, or piers or buttresses built into the walls, the interior walls may be reduced in thickness in safe proportion to the number of cross walls, piers or buttresses, and their nearness to each other; provided, however, that this clause shall not apply to walls below sixty feet in height, and that no such wall shall be less than twelve inches thick at the top, and gradually increased in thickness by set-offs to the bottom. The Superintendent of Buildings is hereby authorized and empowered to decide (except where herein otherwise provided for) how much the walls herein mentioned may be permitted to be reduced in thickness, according to the peculiar circumstance of each case, without endangering the strength and safety of the building.

SECTION 70.

One-Story Brick Buildings.

One-story structures not exceeding a height of fifteen feet may be built with eight-inch walls when the bearing walls are not more than nineteen feet apart, and the length of the eight-inch bearing walls does not exceed fifty-five feet. One-story and basement extensions to dwellings may be built with eight-inch walls when not over twenty feet wide, twenty feet deep and twenty feet high.

SECTION 71.

Existing Party Walls.

Walls hereinbefore built for or used as party walls, the thickness of which was at the time of their erection in accordance with the requirements of the then existing laws, which are in good condition but are not in accordance with the requirements of this Code, may be used at the discretion of the Superintendent of Buildings for the ordinary use of party walls provided the height of the same be not increased.

SECTION 72.

Lining Existing Walls.

In case it is desired to increase the height of existing party or independent walls, which are less in thickness than required under this Code, the same shall be done by a lining of brickwork to form a combined thickness with the old wall of not less than four inches more than the thickness required for a new wall corresponding with the total height of the wall when so increased in height. The said lining shall be supported on proper foundations and carried up to such height as the Superintendent of Buildings may require. No lining shall be less than eight inches in thickness, and all linings shall be laid up in Portland cement mortar and thoroughly anchored to the old brick walls with suitable steel anchors, placed two feet apart and properly fastened or driven into the old walls in rows alternating vertically and horizontally with each other, the old walls being first cleared of plaster or other coatings where any lining is to be built against the same.

No rubble wall shall be lined until it has been inspected and approved by the Superintendent of Buildings.

SECTION 73.

Walls of Unfinished Buildings.

Any building, the erection of which was commenced in accordance with application and plans submitted to and approved by the Bureau of Buildings prior to the passage of this Code, if properly constructed, and in safe condition, may be completed, or built upon in accordance with the requirements of law, as to thickness of walls, in force at the time when such application and plans were approved.

SECTION 74.

Arches and Lintels.

Openings for doors and windows in all buildings, shall have good and sufficient arches of stone, brick, or terra-cotta well built and keyed with good and sufficient shaftments, or lintels of stone, iron or steel of sufficient strength, which shall have a bearing at each end of not less than five inches on the wall. On the inside of all openings in non-fireproof buildings in which lintels shall be less than the thickness of the wall to be supported, there may be timber lintels, which shall rest at each end not more than three inches on any wall, which shall be chamfered at each end and be cut in true arch shape on top. A suitable rowlock or keyed arch shall be turned over the timber lintel. Or the inside lintel may be of cast iron or steel, and in such case stone blocks or cast-iron plates shall not be required at the ends where the lintel rests on the walls, provided the opening is not more than six feet in width.

All masonry arches shall be capable of sustaining the weight or thrust which they are designed to carry, and the stress at any point shall not exceed the working stress for the material used, as given in section 48 of this Code. Tie rods shall be used where necessary to secure stability.

SECTION 75.

Parapet Walls.

All exterior and division or party walls over fifteen feet high, excepting where the front walls are to be finished with cornices, gutters or crown mouldings, shall have parapet walls not less than eight inches in thickness and carried two feet above the roof, but for warehouses, factories, stores and other buildings used for commercial or manufacturing purposes the parapet walls shall be not less than twelve inches in thickness and carried three feet above the roof, and all such walls shall be coped with stone, terra cotta or cast iron.

SECTION 76.

Hollow Walls.

In all walls that are built hollow the same net horizontal section of stone, brick or concrete shall be used in their construction as if they were built solid, as in this

Code provided, and no hollow wall shall be built unless the parts of same are connected by proper ties, either of brick, stone, iron or other suitable metal, placed not over twenty-four inches apart, horizontally and vertically.

Metal ties shall have the ends turned up at right angles and be not less than one inch wide by one-quarter inch thick, and shall extend into the wall on each side not less than four inches.

SECTION 77.

Timber in Walls Prohibited.

No timber shall be used in any wall of any building where stone, brick or iron can be used, except inside lintels, as hereinbefore provided and brace blocks not more than eight inches in length.

SECTION 78.

Furred Walls.

Where hollow tile or porous terra cotta blocks are used as lining or furring for walls, they shall not be included in the measurement of the thickness of such walls.

In all walls furred with wood the masonry between the ends of wood beams shall project the thickness of the furring beyond the inner face of the wall for the full depth of the beams. In cases where floor beams are parallel to a wall furred with wood, there shall be a space of not less than two and one-half inches between such wall and the nearest beam. This space shall be filled in solidly with brickwork or concrete for the full depth of the floor beams.

SECTION 79.

Recesses and Chases in Walls.

Recesses for stairways or elevators may be left in the foundation or cellar walls of all buildings, but in no case shall the walls be less in thickness than the walls of the fourth story, unless reinforced by additional piers with steel girders, or iron or steel columns and steel girders, securely anchored to walls on each side. Recesses for elevators and similar purposes shall have not less than eight inches of brickwork at the back of such recesses, and such recesses shall not be more than eight feet in width, and shall be arched over or spanned with iron or steel lintels, and not carried up higher than eighteen inches below the bottom of the beams of the floor next above. No chase for water or other pipes shall be made in any pier nor wall more than one-third of its thickness. No horizontal recess or chase which exceeds four feet in length shall be allowed in any wall. The aggregate area of recesses and chases in any wall shall not exceed one-fourth of the whole area of the face of the wall on any story, nor shall any such recess be made within a distance of six feet from any other recess in the same wall.

SECTION 80.

Buildings Raised, Lowered or Altered.

Raising Roof from a Peak to a Flat Roof—Within the fire limits it shall not be lawful for the owner of any brick residence building with eight-inch walls, already erected, that has a peaked roof, to raise the same for the purpose of making a flat roof thereon, unless the same be raised with the same kind of material as the building, and unless such new roof be covered with fireproof material, and provided that such building, when so raised, shall not exceed thirty-six feet and six inches in height to the highest part thereof.

Enlarging Buildings—Within the fire limits no brick building shall be enlarged or built upon unless the exterior walls of said addition or enlargement be constructed of incombustible materials, provided, however, that such brick building may be raised, lowered or altered under the same circumstances, and in the manner provided for in this section.

CHAPTER XV.

CHIMNEYS, FLUES, FIREPLACES AND HEATING PIPES.

SECTION 81.

Trimmer Arches.

All fireplaces and chimney breasts where mantels are placed, whether intended for ordinary fireplace uses or not, shall have trimmer arches to support hearths, and the said arches shall be at least twenty inches in width, measured from the face of the chimney breast, and they shall be constructed of brick, stone, concrete or burnt clay. The length of a trimmer arch shall be not less than the width of the chimney breast. Wood centres under trimmer arches shall be removed before plastering the ceiling underneath.

If a heater is placed in a fireplace, then the hearth shall be the full width of the heater.

All fireplaces in which heaters are placed shall have incombustible mantels.

No wood mantel or other woodwork shall be exposed back of a summer piece; the iron work of the summer piece shall be placed against the back or stonework of the fireplace. No fireplace shall be closed with a wood fireboard.

SECTION 82.

Chimneys, Flues and Fireplaces.

Chimneys shall be constructed of brick, concrete or dimension stone.

When a building or structure is erected or altered and is built to a height of more than ten feet above the adjoining and contiguous buildings or structures, the owner of said building or structure shall notify the owners of all adjoining buildings or structures by writing of his intention to build above said height, and unless requested not to do so in writing by the owners of said adjoining buildings, he shall, at his own expense, raise chimneys of such adjoining or adjacent buildings or structures to the same level as the chimneys of his building or structure, or shall in lieu thereof supply sufficient flues connecting said adjacent chimneys with his own chimneys, which latter, in that case, shall be of ample capacity to accommodate all flues connected to it.

All fireplaces and chimneys in stone or brick walls in any building hereafter erected, except as herein otherwise provided, and any chimney or flue hereafter altered or repaired, without reference to the purpose for which they may be used, shall be laid in Portland cement mortar and lined on the inside with terra-cotta pipe. No paring mortar shall be used on the inside of any fireplace, chimney or flue. The firebacks of all fireplaces hereafter erected shall be not less than eight inches in thickness, of solid masonry. When a grate is set in a fireplace, a lining of firebrick, at least two inches in thickness, shall be added to the fireback, unless soapstone, tile or cast iron is used, and filled solidly behind with fireproof material.

The stone or brickwork of the smoke flues of all boilers, furnaces, bakers' ovens, large cooking ranges, large laundry stoves, and all flues used for a similar purpose shall be at least eight inches in thickness and shall be capped with terra-cotta, stone, Portland cement mortar or cast iron.

In non-fireproof buildings smoke flues shall have at least eight inches of brickwork between the inside of the flue and any woodwork.

The inside four inches of all boiler flues shall be fire brick, laid in fire mortar, for a distance of twenty-five feet in any direction from the source of heat. All smoke flues of smelting furnaces or of steam boilers, or other apparatus which heat the flues to a high temperature, shall be built with double walls of suitable thickness for the temperature with an air space between the walls, the inside four inches of the flues to be of fire brick. All smoke flues shall extend at least three feet above a flat roof, and at least two feet above a peak roof.

In all buildings hereafter erected every smoke flue, except the flues hereinbefore mentioned, shall be lined on the inside with terra-cotta pipe, made smooth on the inside from the bottom of the flue, or from the throat of the fireplace, if the flue starts from the latter, and carried up continuously to the extreme height of the flue. The ends of all such lining pipes shall be made to fit close together, and the pipe shall be built in as the flue or flues are carried up. Each smoke pipe shall be inclosed in all sides with not less than eight inches of brickwork properly bonded together.

All flues in every building shall be properly cleaned and all rubbish removed, and the flues left smooth on the inside upon the completion of the building.

SECTION 83.

Chimney Supports and Chimneys of Cupolas.

No chimney shall be started or built upon any floor or beam of wood.

In no case shall a chimney be corbeled out more than eight inches from the wall, and in all such cases the corbeling shall consist of at least five courses of brick, but no corbeling more than four inches shall be allowed in eight-inch brick walls. Where chimneys are supported by piers, the piers shall start from the foundation on the same line with the chimney breast, and shall be not less than twelve inches on the face, properly bonded into the walls. When a chimney is to be cut off below, in whole or in part, it shall be wholly supported by stone, brick, iron or steel.

All chimneys which shall be dangerous in any manner whatever, shall be repaired and made safe, or taken down.

Iron cupola chimneys of foundries, or similar works, shall extend at least ten feet above the highest point of any roof within a radius of fifty feet of such cupola, and be covered on top with a heavy wire netting. No woodwork shall be placed within two feet of the cupola.

SECTION 84.

Hot Air Pipes, Pipes and Vent Ducts.

All stone or brick hot air flues and shafts shall be lined with tin, galvanized iron or burnt-clay pipes.

No wood casing, furring or lath shall be placed against or cover any smoke flue.

No smoke pipe shall pass through any wood floor.

No stovepipe shall be placed nearer than nine inches to any wood lath and plaster or board partition, ceiling or any woodwork.

Smoke pipes of laundry stoves, cooking ranges and of furnaces shall be not less than fifteen inches from any woodwork, unless they are properly guarded by metal shields; if so guarded, stovepipes shall be not less than six inches distant; smoke pipes of laundry stoves, large cooking ranges and of furnaces shall be not less than nine inches distant from any woodwork. Where smoke pipes pass through a wood lath and plaster partition, they shall be guarded by galvanized iron ventilated thimbles at least twelve inches larger in diameter than the pipes, or by galvanized iron thimbles built in at least eight inches of brickwork.

Smoke Pipes Through Roofs—No smoke pipe shall pass through the roof of any building.

Hot Air Pipes in Wall—Tin or other metal pipes in brick or stone walls, used or intended to be used to convey heated air, shall be covered with brick, concrete or stone at least three and one-half inches in thickness.

Protection of Woodwork Against Hot Air Pipes—Woodwork near hot air pipes shall be guarded in the following manner: A hot air pipe shall be placed inside another pipe, one inch larger in diameter, or a metal shield shall be placed not less than one-half inch from the hot air pipe; the outside pipe or the metal shield shall remain one and one-half inches away from the woodwork, and the latter must be the limit, or in lieu of the above protection, four inches of brickwork may be placed between the hot air pipe and the woodwork. This shall not prevent the placing of metal lath and plaster directly on the face of hot air pipes or the placing of woodwork on such metal lath or plaster, provided the distance is not less than seven-eighths of an inch. No vertical hot air pipe shall be placed in a stud partition or in a wood enclosure unless it be at least eight feet distant in a horizontal direction from the furnace.

Hot Air Pipes in Closets—Hot air pipes shall not be run through closets.

Horizontal Hot Air Pipes—Horizontal hot air pipes in basements or cellars shall be placed six inches below the floor beams or ceiling. If the floor beams or ceiling are plastered and protected by a metal shield, then the distance shall not be less than three inches.

Vent Pipes or Ducts.

Vent flues or ducts for the conveyance of foul or scented air in which the temperature of the air cannot exceed that of the rooms, may be constructed of sheet iron or other incombustible material, and shall not be placed nearer than one inch to any woodwork, and no such pipe shall be used for any other purpose.

All pipes or ducts used to convey warmed air or cold air boxes of hot air furnaces shall be of sheet metal or other approved fireproof material.

Vent Ducts in Schools.

In the supports or construction of ducts, if placed in a school room, no wood furring or other inflammable material shall be nearer than two inches to said flues or ducts, and shall be covered on all sides other than those resting against brick, terra-cotta, or other incombustible material, with metal lath plastered with at least two heavy coats of mortar, and having at least one-half inch air space between the flues or ducts and the lath and plaster.

SECTION 85.

Protection of Woodwork Against Steam and Hot Water Pipes.

Steam or hot water heating pipes shall not be placed within two inches of any woodwork, unless the woodwork is protected by a metal shield; then the distance shall be not less than one inch. All steam or hot water heating pipes passing through floors and ceilings or lath and plastered partitions shall be protected by a metal tube one inch larger in diameter than the pipe, having a metal cap at the floor, and where they are run in a horizontal direction between a floor and ceiling, a metal shield shall be placed on the outer side of the flue over them, and on the sides of wood beams running parallel with said pipe.

Cold water or other exposed plumbing pipes shall have the surrounding air space closed off at the ceiling and floor line of any floor through which any such pipe or pipes shall be carried, excepting hot water supply pipes, which may run through metal sleeves. All steam or hot water pipes shall have covers of fireproof material.

All wood boxes or casings enclosing any steam or hot water heating pipe or wood covers to recesses in walls in which any steam or hot water heating pipe is placed, shall be lined with metal, lock-jointed.

CHAPTER XVI.

STUDDING OFF SPACES AND DUTTS OR PIPES, BAY, ORIEL AND SHOW WINDOWS.

SECTION 86.

Studding Off Spaces.

Where walls are studded off, unless fire-stop are built of brickwork as called for in section 78 of this Code, the space between the inside face of the wall and the studding at the floor level shall be fire-stopped with fireproof material placed on the underside of the wood beams above, for a depth of not less than four inches, and be securely supported; or the beams directly over the studded-off space shall be fire-stopped with not less than four inches of fireproof material, which may be laid on beams cut in between the beams. Dry cinders or coal shall not be permitted for fire-stopping. If concrete is used the same shall comply with the requirements of section 137.

SECTION 87.

Dutts for Pipes.

In all buildings the ducts for pipes, wires, cables and for similar purposes shall in all cases be separately inclosed on all sides with fireproof material not less than two inches in thickness, as defined in section 140 of this Code.

No pipes, wires, cables or similar material of any kind shall be encased within or embedded in the fireproof protection of columns or other structural members; all such cases shall be fire-stopped at each floor.

SECTION 88.

Bay, Oriel and Show Windows.

Bay, Oriel, Show Windows and Ornamental Projections—Bay, oriel and show windows that extend more than three feet above the second story floor, or more than eighteen feet above the curb level, shall have outside enclosures of fireproof material and be roofed with sheet metal or fireproof material; plate glass may be used for the

fronts and sides of the show windows, provided all supports are of solid metal and the frame and sash, if of wood, is metal covered.

Bay, oriel, show windows and ornamental projections, when otherwise located on the front or side of any building, shall be constructed of such materials and in such manner as to meet the approval of the Superintendent of Buildings.

Bay Windows Projecting Beyond the Building Line—Bay windows projecting beyond the building line as they are defined in section 224 of the Code of Ordinances, and ornamental projections which protect beyond the building line as they are defined by section 235 of the Code of Ordinances, may be constructed and maintained, provided permits therefor are obtained pursuant to sections 224 to 245, inclusive, of the Code of Ordinances.

CHAPTER XVII.

VAULTS, AREAS AND CELLARS.

SECTION 89.

Cellars to be Connected with Sewers.

Before the walls of buildings are carried up above the foundation walls, the cellar shall be connected with the street sewers. Should there be no sewer in the street, or if the cellars are below water level or below the sewer level, then provision shall be made to prevent water accumulating in the cellars to the injury of the foundations.

SECTION 90.

Vaults Under Sidewalks and Retaining Walls.

In buildings where the space under the sidewalk is utilized, a sufficient stone or brick wall, or brick arches between steel beams, shall be built to retain the roadway of the street, and the side, end and party walls of such building shall extend under the sidewalk, of sufficient thickness, to such wall. The roofs of all vaults shall be of incombustible material.

Openings in the roofs of vaults for the admission of coal or light, or for manholes, or for any other purposes, if placed outside the area line, shall be covered with glass set in iron frames, each glass to measure not more than sixteen square inches, or with iron covers having a rough surface, and ribbed flush with the sidewalk. When any such cover is placed in any sidewalk, it shall be placed as near as practicable to the outside line of the curb.

All vaults shall be thoroughly ventilated.

SECTION 91.

Areas.

All areas shall be properly protected with suitable railings, or covered over.

When areas are covered over, iron or iron and glass combined, stone or other incombustible materials shall be used, and supported on brick or stone walls, or on steel beams.

SECTION 92.

Cellar and Ground Floors.

In all buildings hereafter erected the floor of the cellar or lowest story shall be concreted with stone, cinder or gravel concrete not less than four inches thick.

Where wood floors are to be laid in said cellars or lowest stories, the sleepers shall be placed on top of the concrete, and the spaces between sleepers shall be filled, flush with top of sleepers, with stone or cinder concrete.

SECTION 93.

Cellar Partitions in Buildings of Classes "C" and "D."

In all buildings of Classes "C" and "D" hereafter erected having a clear span of over twenty feet between bearing walls, and supporting said partitions above, there shall be constructed, in the cellar or lowest story at right angles to the floor beams, at least one partition of brick or concrete, not less than eight inches thick, or piers of brick or concrete, with openings arched below the undersides of the first tier of beams.

If height of basement or cellar exceeds nine feet in the clear, partition walls shall be not less than twelve inches thick. Girders of steel, with iron or steel columns, or piers of masonry, may be used in place of partitions. If steel floor beams, span on the distance between bearing walls, of adequate strength to support the stud partitions above in addition to the floor load to be sustained by the said steel beams, are used, then the four-and-a-half brick or concrete partition or its equivalent, may be omitted.

Partitions which may be placed in the cellar of any building shall be fireproof.

SECTION 94.

Cellar Ceilings.

The ceiling of every cellar or lowest story in all buildings hereafter erected of Classes "C" and "D" less than thirty-six feet six inches in height, occupied by one or more families, when the beams are of wood, shall be lined with metal lath as specified in section 140 and plastered thereon with two or more coats of mortar.

CHAPTER XVIII.

ENTRANCES AND STAIRS.

SECTION 95.

Entrances.

Every building hereafter erected or altered shall have at least one entrance direct to a street, yard or court communicating directly to the street.

In all buildings of Classes "C" and "D," when two or more buildings are connected, all openings between said buildings shall be protected with approved self-closing standard fire doors.

Entrance to Cellar or Basement.

Every building of Class "D" hereafter erected that is not occupied by more than two families above the first story shall be provided with an entrance to the cellar or basement thereof from the outside of such building.

In any such building, however, there shall be no inside stairs communicating between the lowest cellar, basement or other lowest story, and the floor next above; but such stairs shall in every case be located outside the building, and if enclosed shall be constructed entirely fireproof, and shall be enclosed in a fireproof enclosure, with standard fireproof self-closing doors at all openings. This provision, however, shall not apply to the stairs leading from the entrance story to the upper stories in Class "D" buildings hereafter erected where there is no cellar, basement or other story below the said entrance story.

In Class "D" buildings hereafter erected which are not over forty-eight feet or four stories in height and are not occupied by more than two families, the stairs leading to the cellar or basement may be located inside the building, provided they are entirely enclosed with brick walls or other approved fireproof material not less than four inches thick and are provided with standard fireproof self-closing doors at the top and bottom; these doors to be glazed with standard wire glass for at least one-third the area of the door; also said stairs are to be provided with gas or electric lights which will properly illuminate such stairs.

SECTION 96.

Stairs.

Number: Regulated by Area of Building—in all the following mentioned buildings hereafter erected, each story which covers an area not exceeding two thousand five hundred square feet shall be provided with at least one continuous line of stairs, and each story covering an area exceeding two thousand five hundred square feet, but not exceeding five thousand square feet, shall be provided with at least two continuous lines of stairs remote from each other, and each story exceeding five thousand square feet, but not exceeding fifteen thousand square feet, shall be provided with at least three continuous lines of stairs remote from each other, and each story exceeding

fifteen thousand square feet, but not exceeding twenty-five thousand square feet, shall be provided with at least four continuous lines of stairs remote from each other: Municipal Buildings, Court Houses, Police Stations, Detention Buildings, Jails, Schools, Colleges, Hospitals, Asylums, Churches, Amusement Halls, Lodge Rooms, Exhibition Buildings, Hotels, Lodging Houses, Club Houses, Studios, Dormitories, Convents, Dwellings, Lafts, Stores and Restaurants.

In all the following mentioned buildings hereafter erected, each story which covers an area not exceeding four thousand square feet shall be provided with at least one continuous line of stairs, and each story covering an area exceeding four thousand square feet, but not exceeding eight thousand square feet, shall be provided with two continuous lines of stairs remote from each other, and each story covering an area exceeding eight thousand square feet, but not exceeding twenty thousand square feet, shall be provided with at least three continuous lines of stairs remote from each other, and each story covering an area exceeding twenty thousand square feet, but not exceeding forty thousand square feet, shall be provided with at least four continuous lines of stairs remote from each other: Bath Houses, Libraries, Museums, Office Buildings, Warehouses, Stables, Slaughter Houses, Rendering Plants, Breweries, Sugar Refineries, Observatories, Garages, Smoke Houses and Laboratories.

In all the following mentioned buildings hereafter erected, each story which covers an area not exceeding five thousand square feet shall be provided with at least one continuous line of stairs, and each story covering an area exceeding five thousand square feet, but not exceeding ten thousand square feet, shall be provided with at least two continuous lines of stairs remote from each other, and each story covering an area exceeding ten thousand square feet, but not exceeding thirty thousand square feet, shall be provided with at least three continuous lines of stairs remote from each other, and each story covering an area exceeding thirty thousand square feet, but not exceeding fifty thousand square feet, shall be provided with at least four continuous lines of stairs remote from each other: Armories, Railroad Passenger Depots, Markets, Refrigerator Plants, Light and Power Plants, Car Barns, Railroad Freight Depots, Oil Houses, Oil Refineries, Grain Elevators, Foundries and Coal Pockets.

In all theatres or opera houses hereafter erected such stairs shall be provided as called for in section 155 of this Code.

In all tenement houses and apartment houses hereafter erected such stairs shall be provided as called for in the Tenement House Law.

All factories, work shops and printing houses shall have one stairway for every twenty-five hundred square feet of floor area of any story above the first floor.

Where the area of any building exceeds the above requirements for four continuous lines of stairs, such extra number of stairs or fire escapes shall be provided as the Superintendent of Buildings may direct.

The width of the stairs required by this section shall in no case be less than three feet and two inches from wall to centre of hand rail, or from centre of hand rail to centre of parallel hand rail, and shall be increased in width when in the opinion of the Superintendent of Buildings an increased width is necessary for the safety of the occupants.

All such stairs shall have treads and risers of uniform width and height throughout in each flight, and the rise shall be not more than eight inches, and the tread, exclusive of nosing, not less than nine inches.

Each flight of stairs in every story which exceeds a height of twelve feet in the clear shall have a proper landing introduced. When stairs have a straight run, said landing shall be placed at the central portion thereof. The stairs shall be provided with proper banisters or railings and hand rails.

Every fire tower required by section 158 of this Code shall be considered the equivalent of one flight of stairs as herein provided, if there are two or more flights of stairs, but no outside fire escape of any kind shall be accepted in lieu of such stairs.

SECTION 97.

Engineers' Stationary Ladders.

Every building in which boilers or machinery are placed in the cellar or lowest story shall have stationary iron ladders or stairs from such story leading direct to a manhole above through the sidewalk or other outside exit.

SECTION 98.

Slate and Stone Treads to be Supported.

In all buildings hereafter erected where the treads and landings of iron stairs are of slate, marble or other stone, these shall be placed directly underneath each tread and each landing for their entire length and width a steel plate made solid, or having openings not exceeding four square inches in sum, of adequate strength, but in no case less than one-eighth of an inch in thickness, and in each and every case securely fastened to the strings with bolts or rivets, or to both the strings and risers if the treads be more than three and one-half feet long, so that said plates shall in themselves furnish a safe passageway independent of the slate, marble or other stone placed thereon.

If stairs are constructed of other fireproof material than iron, and the slate, marble or other stone treads and landings are each solidly supported for their entire length and width by the materials composing such stairs, steel supports shall not be required.

CHAPTER XIX.

ENCLOSURES FOR ELEVATORS AND STAIRWAYS.

SECTION 99.

Elevators and Stairway Enclosures.

All elevators hereafter placed in any building shall be enclosed by fireproof partitions of reinforced concrete or common brick, built in accordance with section 141 of this Code, under the following conditions: In non-fireproof buildings, if not used as bearing walls, they shall be six inches and eight inches respectively in thickness for not more than thirty feet of their uppermost height, and increasing in thickness four inches for each lower fifty feet or portion of part thereof. In fireproof buildings, when the elevator enclosure is supported at each floor level by steel framing the thickness of the reinforced concrete and brick inclosing partitions shall be uniformly six inches and eight inches in thickness respectively. Said walls or partitions shall extend through and at least three feet above the roof in all cases.

The inside of all elevator shafts shall be so constructed that the surface of the same shall be flush and smooth and free from projecting sills, listels or breaks.

All elevators in every existing non-fireproof building, used or occupied as a hotel, and which are not enclosed in a fireproof shaft, shall be enclosed in suitable walls, constructed and arranged as required in this section for elevator enclosures.

All door openings in any said enclosure shall be provided with standard fire doors; no window openings shall be provided in any such shaft except to the outer air.

The doors opening into elevator enclosures in dwelling houses intended for the occupancy of one family may be of wood covered on the inner surface and edges with metal, not including the openings in the cellar, nor above the roof in any such shaft walls, which latter doors shall be entirely covered with metal.

The roofs over all inclosed elevators shall be made of fireproof materials, with a skylight at least three-fourths the area of the shaft, the glass to be not more than one-eighth of an inch thick and covered above and below with strong wire netting set in iron frames, but wired glass shall not be used in skylights over elevator inclosures.

When the shaft does not extend to the bottom of the cellar or lowest story, the lowest end shall be inclosed in fireproof material.

When the inclosure of an elevator has an opening to accommodate machinery for operating same, such as shafts, pulleys, drums, cables, etc., said machinery shall be inclosed in a similar manner to the shaft.

Elevators or lifts from the floor of any story below the sidewalk to the sidewalk shall be inclosed in said story or stories with fireproof materials in accordance with this section, and door openings in same shall be protected by standard fire doors.

The door at the sidewalk level of the said elevator or lift shall be of steel.

Stairway Enclosures.

In all fireproof buildings exceeding thirty-six feet six inches in height and all buildings of Class E the stair hall's shall be inclosed on each story with fireproof

material the same as required for elevators, to form an enclosure, the floor area of the stair hall shall not be more than three times the total area of the floor openings for the elevators and stairs in each enclosure in each story.

All stairwells, elevator wells, halls and corridors shall be enclosed and separated from the rest of the floor space by fireproof enclosures, with floor surfaces of stone, cement, tiling, rock asphalt or other approved incombustible material, and approved metal or metal covered doors, trim and sash, having wire glass where glass is used. The stairs and staircase landings shall be of brick, terra cotta, stone, Portland cement concrete, iron or steel.

SECTION 100.

Dumbwaiter Inclosures.

All dumbwaiter shafts hereafter placed in any building, except such as do not extend more than three stories above the cellar or basement floor in dwelling houses, shall be enclosed in fireproof partitions as defined in section 141 of this Code. Said partitions or walls in non-fireproof buildings shall rest upon masonry or concrete foundations and shall be of the same thickness as defined in "Elevator Inclosures" under section 99; in dwelling houses where said shaft may be constructed of wood studding the interior surfaces shall be covered with metal lath as specified in section 141. In fireproof buildings the partitions inclosing dumbwaiter shafts may be built on suitable steel framing between fireproof floors and rest upon joists, and shall be of brick or reinforced concrete not less than three and one-half inches in thickness. Said partitions or walls shall extend at least three feet above the roof and be roofed over with fireproof materials and with a skylight at least three-fourths the area of the shaft, made with metal frames and glazed with glass not more than one-eighth of an inch thick and covered above and below with strong wire netting, set in iron frames, but wire glass shall not be used in skylights over dumbwaiter inclosures.

All openings in the inclosure walls or construction shall be provided with self-closing standard fire-doors, and fireproof jambs and trim.

When the dumbwaiter is carried through the cellar or lowest story of non-fireproof buildings it shall be enclosed in that story with brick walls not less than eight inches thick, or reinforced concrete six inches thick.

When the shaft does not extend to the floor level of the cellar or lowest story, the bottom of the shaft shall be constructed of fireproof material.

When the shaft does not extend through the top story and does not extend through more than three stories, the top of the shaft also shall be constructed of fireproof material.

CHAPTER XX.

ROOFS, LEADERS, CORNICES, GUTTERS, TANKS, BULKHEADS, PENT HOUSES AND SCUTTLES.

SECTION 101.

Roof.

The roof of every building, shed or outhouse hereafter erected shall be of brick, tile, slate, tin, copper, iron; or plastic slate, asphalt, slag or gravel may be used, provided such roofing shall be composed of not less than five layers of roofing felt, cemented together and finished with not less than ten gallons of coal-tar, pitch or asphalt to each one hundred square feet of roof, or such other quality of fireproof roofing as the Superintendent of Buildings may authorize, and the outside of the frame of every dormer window hereafter placed upon any building shall be covered with sheet metal or some other fireproof material. Nothing in this section shall be construed to prohibit the repairing of any shingle roof, provided the building is not altered in height, but this shall not permit the renewal of a shingle roof.

SECTION 102.

Cornices and Gutters.

On all buildings hereafter erected within the fire limits the exterior cornices, inclusive of those on show windows, and gutters, shall be of sheet metal or other fireproof material. All such cornices shall be well secured to the walls with metal anchors, independent of any woodwork. The tops of cornices shall not extend above the tops of the walls to which they are attached.

All exterior wooden cornices within the fire limits which are found to be unsafe shall be taken down, and, if replaced, shall be constructed of sheet metal or other fireproof material. All exterior cornices and gutters of wood that may be damaged by fire to the extent of one-half, shall be taken down, and, if replaced, shall be constructed of sheet metal or some fireproof material. If not damaged to the extent of one-half, the same may be repaired with the same kind of material of which they were originally constructed.

SECTION 103.

Roof Leaders.

All buildings shall be provided with proper metallic leaders for conducting water from the roofs in such manner as shall protect the walls and foundations of said buildings from injury. In no case shall the water from the said leaders be allowed to flow upon the sidewalk, but the same shall be conducted by pipe to the sewer. If there be no sewer in the street upon which such buildings front, then the water from said leader shall be conducted by proper pipe below the surface of the sidewalk to the street gutter.

SECTION 104.

Tanks.

Tanks containing more than five hundred gallons of water or other fluid hereafter placed on any story, or on the roof or above the roof of any building now or hereafter erected, shall be supported by steel beams of sufficient strength to safely carry the same; and the beams shall rest at both their ends on masonry walls, or on steel girders or iron or steel columns or piers of masonry. Underneath any said tank or on the side near the bottom of the same, there shall be a short pipe or outlet, not less than four inches in diameter, fitted with a suitable valve having a lever or wheel handle to same, so that firemen or others can readily discharge the weight of the fluid contents from the tank, in case of necessity. Such tanks shall be placed where practicable at one corner of a building, and shall not be placed over nor near a line of stairs. Covers on top of water tanks placed on roofs, if of wood, shall be covered with sheet metal. Tanks made of wood shall be coopered with metal hoops round in section. All water tanks containing more than one hundred gallons placed inside of buildings shall be properly frost proofed. All roof tanks shall be cleaned and inspected semi-annually and kept in proper repair, and the cover on same shall be securely locked.

SECTION 105.

Pent Houses, Bulkheads and Scuttles on Roofs.

Upon the roof of every building more than fifteen feet high there shall be a scuttle or bulkhead, with stairs or substantial iron ladder leading thereto, which shall be easily accessible in all occupants. All non-fireproof scuttles shall be covered on the top and edges with sheet metal or other approved fireproof material, and shall be at least two feet by three feet.

All bulkheads, including those used as inclosures for tanks, elevators or elevator machinery, and the pent houses and bulkheads of all buildings more than fifty-nine feet in height, hereafter erected or altered, excepting frame buildings, shall be con-

structed fireproof in accordance with section 141 of this code, and covered on all outside surfaces with approved incombustible weatherproof material, including all surfaces and edges of doors and jambs. Where door jambs are blocked out from the fireproofing the space between the jamb and the fireproofing shall be filled in solid with incombustible material, or in lieu of same the back of jamb shall be metal covered.

For definition of bulkheads and pent houses, see section 204 (42 and 43).

CHAPTER XXI.

SKYLIGHTS, LIGHT AND VENTILATION, LIGHT AND VENT SHAFTS, FLOOR LIGHTS.

SECTION 106.

Skylights.

All skylights placed on or in any buildings shall have the frames and sash thereof constructed of metal and glazed. All skylight frames and parts thereof shall be riveted or otherwise securely fastened, in addition to any necessary soldering.

All openings in roofs for the admission of light other than elsewhere provided in this Code over elevator, stair, dumbwaiter shafts and theatre stage roofs, shall have metal frames and sash, glazed with wire glass not less than one-quarter inch thick, or with glass protected above and below with wire screens, of not less than number eight galvanized wire, and not more than one and one-half inch mesh, set in seven-eighths inch channel iron frames, sections to be securely butted together and set in a one and one-quarter inch angle iron outside frame.

Every fireproof roof hereafter placed on any building shall have the usual scuttle or bulkhead, as provided for in section 105.

Skylights Over Public Passageways.

Skylights hereafter placed in buildings of a public character over any passageway or room of public resort, shall have immediately underneath the glass thereof a wire netting of not less than number eight galvanized wire and not more than one and one-half inch mesh set in seven-eighths inch channel iron frames, sections to be securely butted together and set in a one and one-quarter inch angle iron outside frame, unless wire glass is used.

SECTION 107.

Skylight and Roof Protection.

If the walls of any building are carried up higher than the roofs of adjoining buildings, it shall be the duty of the owner of the building to be erected or altered, to cause the protection, by proper means, of the skylights and roofs of such adjoining buildings until the work of construction has been completed.

Should any owner of any adjoining premises refuse permission to have such roofs and skylights protected, such refusal by said owner shall forthwith be reported in writing to the Superintendent of Buildings. Such notice shall relieve the owner of the building in course of construction or alteration from any responsibility for damage done to persons or property on or within the premises affected.

Should the person whose duty it is to do so, neglect to provide the protection called for in section 106 and in this section, the Superintendent of Buildings shall cause notice to be served upon such person that said protection shall be provided. Such notice shall specify the manner in which the protection shall be provided. If such protection is not provided, strengthened or modified, as provided in such notice, within three days after the serving thereof, the said Superintendent of Buildings shall have full power and authority to cause such protection to be provided on the roofs and the skylights protected. Payment of the expense thereon shall be collected in the manner set forth in section 8 of this Code.

SECTION 108.

Light and Ventilation.

In any building hereafter erected every sleeping room shall be provided with a window or windows opening directly upon a street, yard or court. The total window area shall be not less than twelve square feet between stop heads and shall be so arranged that it can be opened to the extent of about one-half its area. Such sleeping room shall be for three-fourths of its area not less than nine feet high from the finished floor to the finished ceiling, and shall be not less than seven feet in width and not less than seventy superficial feet in area, except for hotels, which rooms shall be not less than eighty superficial feet in area.

Except that in private dwelling houses only a window opening upon a street, yard or court will not be required where a sleeping room connects with an adjoining room that opens directly upon a street or yard, provided that in the partition separating said rooms, movable sash or doors shall be inserted equal to at least one-third of the area of said partition, and in no case to be less than twenty-four square feet.

In private dwellings a shaft, containing not less than sixteen superficial feet and not less than three feet in its least horizontal dimension and covered with a louvre skylight of metal extending through not more than two stories, not to ventilate more than two water closet compartments will be permitted.

No sleeping room shall be hereafter placed in a cellar, the ceiling of which is less than two feet above the curb.

In all buildings hereafter erected, provision shall be made for providing natural light to all rooms to be used or occupied by one or more persons.

SECTION 109.

Light and Vent Shafts.

In every building hereafter erected or altered, except frame dwellings, all the walls or partitions forming interior light or vent shafts, shall be built in accordance with sections 99 and 100 of this Code. The walls of all light or vent shafts, whether exterior or interior hereafter erected, shall be carried up not less than three feet above the level of the roof and the brick walls shall be coped as other parapet walls. When the shaft is covered by a ventilating skylight of metal and glass the walls need not be carried more than two feet above the roof. When metal louvers are used for ventilating purposes, the louvers or slats shall be riveted to the metal frame.

Vent shafts not more than twenty square feet in horizontal area to light interior bathrooms in private dwellings may be built of wood studs filled in solidly with brick or hard-burnt clay blocks, or of wood covered on all sides with metal, or metal lath and plaster, provided they do not extend through more than one story, and are carried not less than two feet above the roof, and covered with a ventilating skylight of metal and glass.

SECTION 110.

Floor Lights.

Floor lights, used for transmission of light to floors below, shall be constructed of metal frames and bars or plates, or reinforced concrete or other approved fireproof material. Glass shall in no case be less than three-quarters of an inch in thickness, and if any glass in same measures more than sixteen square inches, the glass shall be provided with a mesh of wire, either in the glass or under the same, and the floor lights shall be of the same proportional strength as the floors in which they are placed.

No opening in any floor or roof shall be without a solid covering or an inclosure, as provided in this Code, to prevent the communication of fire from story to story, excepting as otherwise provided in this Code, for certain staircase openings which are not required to be inclosed.

CHAPTER XXII.

SHEDS OVER SIDEWALKS, OUTSIDE SCAFFOLDS.

SECTION 111.

Shed Coverings for the Protection of Pedestrians.

Whenever buildings shall be erected or increased to over thirty-six feet six inches in height, upon or along any street, the owner erecting or altering such buildings shall cause to be erected and maintained during such construction or alteration, a shed over the sidewalk in front of the said premises. The shed shall extend from area line

so curb for the full frontage of the building, and the roof thereof shall be strong and tight, so as to protect persons using such streets. The street side of such covered way shall be left open for a height not less than six feet above the curb. Said sheds and enclosures shall be subject to the inspection of the Superintendent of Buildings.

SECTION 112.

Outside Scaffolds.

Whenever outside scaffolds are used on buildings over thirty-six feet six inches in height, whether the same be constructed of poles, thrust-outs or suspended scaffolds, there shall be erected on their outer edges and ends an enclosure of substantial wire netting of not over two-inch mesh, or of boards not less than seven-eighths of an inch thick, placed not over one and one-half inches apart, well secured to uprights not less than two inches by four inches, fastened at bottom to planks or timbers on the outer edges and ends of the scaffolding and braced by diagonal stays fastened to platform and top of uprights. The said enclosure shall extend three feet above the working platform of the scaffold.

Timber thrust-outs shall be not less than three inches by ten inches and as much larger as may be required for the load to be carried. They shall be thoroughly braced and secured.

The flooring of all scaffolds shall be tightly constructed with plank. Where poles, put-logs or thrust-out scaffolds are used, the floor and enclosure shall not be removed until a like floor and enclosure are prepared and in position on the story above.

CHAPTER XXIII.

STRUCTURAL STEEL AND IRON.

SECTION 113.

Steel Columns.

No part of a rolled steel column shall be less than five-sixteenths of an inch thick. No rolled steel column shall have an unsupported length of more than forty times its least lateral dimension or diameter, except as modified by section 50 of this Code.

The ends of all columns shall be faced to a plane surface at right angles to the axis of the column, and the connections between them shall be made with splice plates.

When the sections of the columns to be spliced are such that splice plates cannot be used, a connection formed of plates and angles may be used, designed to properly distribute the stress.

No material (whether in the body of the column or used as lattice-bar or stay-plate) shall be used in any steel column of less thickness than one-thirty-second of its unsupported width measured between centres of rivets transversely, or one-sixteenth the distance between centres of rivets in the direction of the stress.

Stay-plates are to have not less than four rivets, and are to be spaced so that the ratio of length to the least radius of variation of the parts connected shall not exceed forty; the distance between nearest rivets of two stay-plates shall in this case be considered as length.

Steel columns shall be made in one, two or three-story lengths, and the materials shall be rolled in one length wherever practicable to avoid intermediate splices.

Where any part of the section of a column projects beyond that of the column above, the difference shall be made up by filling plates secured to column by the proper number of rivets.

Shoes of iron or steel, as described for cast iron columns, or bolt shoes of plates and shapes may be used.

SECTION 114.

Cast Iron Columns.

All cast-iron columns shall be of good workmanship and material. The thickness of metal shall not be less than one-twelfth of the greatest lateral dimension of cross section, nor less than three-quarters of an inch.

Cast-iron columns shall not have a smaller outside diameter or side than six inches, nor shall they have an unsupported length of more than twenty times their least lateral dimension or diameter, except as modified by section 50 of this Code.

Seats and lugs shall be cast with the column and shall be of ample strength, reinforced by fillets and brackets; they shall be not less than one inch in thickness when finished.

All columns shall be machine faced at the ends to a true surface perpendicular to the axis.

Where square or rectangular cast-iron columns are placed one on top of another the top flange shall project not less than three inches from the outer surfaces of the column on all sides, and the shape and dimensions of bottom flange of the column immediately above shall be the same as those of the top flange of the column below. If the column is round or many-sided, the top flange shall project not less than three inches at its least projection from the outer surface of the column, and be square or rectangular in shape, and the bottom flange of the column immediately above the same shall be of the same shape and dimensions as the top flange of the column below. Each flange shall be reinforced with brackets cast centrally on the column, and with fillets on both the bracket and flange. In case the column is placed on the lot line, the flanges on that side only may be omitted, if approved by the Superintendent of Buildings.

Between the joints of cast-iron columns placed vertically over each other there shall be a solid steel plate not less than one-half inch in thickness, of the same dimensions as the flanges of the columns, and true on both sides. The columns shall be bolted together with bolts not less than three-quarters of an inch in diameter, passing through the two flanges and the intermediate plate, the bolts being of sufficient length to allow the nuts to be screwed up tightly, and as each column is placed in position the bolts shall also be placed in position and the nuts shall be tightly screwed up. One bolt shall be placed at each corner of the plate and flanges, and the number of bolts shall be never less than four. The holes for these bolts shall be drilled to a template.

Where cast-iron columns are placed vertically one on top of the other, the diameters or sides shall not be decreased more than one inch for each story.

If the core of a column below a joint is larger than the core of the column above, the core of the lower column shall be tapered up for a distance of not less than six inches to the size of the core of the column above, or a joint plate may be inserted of sufficient strength to distribute the load.

Wherever the core of a cast-iron column has shifted more than one-fourth the thickness of the shell, the strength shall be computed assuming the thickness of metal all around equal to the thinnest part, and the column shall be condemned if this computation shows the strength to be less than required by this Code.

Wherever blowholes or imperfections reduce the area of the cross section of a cast-iron column at any point more than ten per centum, such column shall be condemned.

Cast-iron posts or columns not cast with one open side or back, before being set up in place, shall have three-eighths of an inch holes drilled in the shaft of each post or column by the manufacturer or contractor furnishing the same, to exhibit the thickness of the castings; and any other similar sized hole or holes which the Superintendent of Buildings may require shall be drilled in the said posts or columns by the said manufacturer or contractor at his own expense.

Iron or steel shoes or plates placed true on top shall be used under the bottom tier of columns to properly distribute the load on the foundation.

No cast-iron columns shall be used in a skeleton constructed building when the weight of any wall of the building is carried by such column.

Cast-iron columns shall not be used in any building exceeding seventy-five feet in height.

Cast-iron columns shall not be used in any case where the load is an eccentric load in cause tension in the cast iron.

Steel columns shall not be placed upon cast-iron columns and vice versa.

All holes in cast-iron columns shall be drilled; no cores or cores and reamed holes shall be permitted. The diameter of holes shall not exceed that of the bolts by more than one-sixteenth of an inch.

SECTION 115.

Party Wall Posts.

If steel posts are to be used as party posts in front of a party wall, and intended for two buildings, then the said posts shall be not less in width than the thickness of the party wall, nor less in depth than the thickness of the wall to be supported above.

Intermediate posts may be used, which shall be sufficiently strong, and the lintels thereon shall have sufficient bearings to carry the weight above with safety.

SECTION 116.

Plates Between Joints of Open Back Columns.

Steel posts or columns with one or more open sides and backs shall have solid steel plates on top of each.

SECTION 117.

Steel Girders.

Rivets in flanges shall be spaced so that the least value of a rivet for either shear or bearing is equal or greater than the increment of strain due to the distance between adjoining rivets. All other rules given under riveting shall be followed. The length of rivets between heads shall be limited to four times the diameter.

The compression flange of plate girders shall be secured against buckling, if its length exceeds thirty times its width, or the allowed unit stresses in the top flange shall be reduced by the column formulae as given in section 50.

If splices are used, the splice plates or angles and rivets shall be equal in strength to the members spliced in either tension or compression. No reliance shall be placed on the bearing of milled joints.

In determining the flange area no portion of the web is to be included.

Stiffeners shall be provided over supports and under concentrated loads; they shall be of sufficient strength, as a column, to carry the loads, and shall be connected with a sufficient number of rivets to transmit the stresses to the web plate. Stiffeners shall fit so as to support the flanges of the girders. Intermediate stiffeners shall be used provided the stress per square inch exceeds that given by the formula—

16,000

$1 + \frac{d^2}{3000^2}$

d = clear distance between flange angles in inches.
 t = thickness of web in inches.

SECTION 118.

Rolled Steel Beams Used as Girders.

When rolled steel beams are used in pairs to form a girder, they shall be connected together by bolts and iron separators at intervals of not more than five feet.

All beams twelve inches and over in depth shall have at least two bolts to each separator.

SECTION 119.

Cast Iron Lintels.

Cast iron lintels shall not be used for spans exceeding eight feet.

Cast iron lintels shall be not less than three-quarters of an inch in thickness in any of their parts.

SECTION 120.

Plates Under Ends of Lintels and Girders.

When the lintels or girders are supported at the ends by brick walls or piers, they shall rest upon steel plates not less than one-half inch thick, and of sufficient size to properly distribute the load over the bearings, but not less in width than the bearing of the lintels or girders on the wall, provided in all cases the safe loads on the walls or piers shall not exceed those fixed by this Code.

SECTION 121.

Rolled Steel Beams.

All rolled steel beams used in buildings shall be of full weight, straight and free from injurious defects.

Holes for tie rods shall be placed as near the centre of thrust of the arch as practicable.

The beams shall be tied together with suitable tie rods at intervals not more than eight times the depth of the beams, which intervals shall not be greater than six feet.

In the construction of fireproof floors and roofs, tie rods may be omitted if the weight of steel as called for in section 139 is incorporated in the construction of the floor, and said reinforcing steel is hooked around the flanges, or goes through the web so as to substantially tie the beams or channels together.

Channels or other shapes, where used as skewbacks, shall have a sufficient resisting moment to take up the thrust of the arch.

Bearing plates of metal shall be used to reduce the pressure on the wall to the working stress.

Beams resting on girders shall be securely riveted or bolted to the same.

Anchors shall be provided at the ends of all beams bearing on walls.

In all cases the beams shall be so designed as to spacing and length that the load to be supported by them, together with the weights of the materials used in the construction of the said floors, shall not cause a greater deflection of the said beams than one-thirtieth of an inch per foot of span under the total load.

In the construction of fireproof floors and roofs, in buildings of Classes "E" and "F," the spacing of the steel floor beams shall not exceed five feet on centres; in all other buildings except such as are otherwise provided for in this Code the spacing of the beams shall not exceed eight feet on centres.

SECTION 122.

Templates Under Ends of Steel Floor Beams.

Under the ends of all steel beams where they rest on a wall, steel templates shall be built into the wall.

Templates under ends of steel beams shall be of such dimensions as to bring no greater pressure upon the masonry than that allowed by sections 47 and 48 of this Code.

When steel floor beams, not exceeding six inches in depth, are placed not more than thirty inches on centres, no template shall be required.

SECTION 123.

Framing and Connecting Structural Work.

All steel beams shall be suitably framed and connected together.

All steel girders, columns, beams, trusses and all other steel work of all floors and roofs shall be strapped, riveted, bolted, anchored and connected together, and to the walls.

All beams framed into and supported by other beams or girders shall be connected thereto either by angles or knees of a proper size and thickness, and have sufficient bolts or rivets in both legs of each connecting angle to transmit the entire weight or load coming on the beam to the supporting beam or girder; or a seat sufficiently strong to carry the full load with a side angle or knee to hold the beam in place may be used.

In no case shall the shearing value of the bolts or rivets or the bearing value of the connection angles, provided for in section 46 of this Code, be exceeded.

SECTION 124.

Riveting of Structural Steel.

The distance from centre of a rivet hole to the edge of the material shall be not less than—

- 3/8 of an inch for 1/2-inch rivets.
- 1 inch for 3/8-inch rivets.
- 1 1/8 inches for 3/4-inch rivets.
- 1 1/2 inches for 5/8-inch rivets.
- 1 3/4 inches for 1-inch rivets.

Wherever possible, however, the distance shall be equal to two diameters.

All rivets, wherever practicable, shall be machine driven. The rivets in connections shall be proportioned and placed to suit the stresses. The pitch of rivets shall never be less than three diameters of the rivet, nor more than six inches. In the direction of the stress it shall not exceed sixteen times the least thickness of the outside member. At right angles to the stress it shall not exceed thirty-two times the least thickness of the outside member.

All holes shall be punched accurately, so that upon assembling a cold rivet will enter the hole without straining the material by drifting. Occasional slight errors shall be corrected by reaming.

The rivets shall fill the holes completely; the heads shall be hemispherical and concentric with the axis of the rivet.

Gussets shall be provided wherever required, of sufficient thickness and size to accommodate the number of rivets necessary to make a connection.

SECTION 125.

Bolting of Structural Steel.

Where riveting is not made mandatory connections may be effected by bolts. These bolts shall be of wrought iron or mild steel, and they shall have United States standard threads. The threads shall be full and clean, the nut shall be truly concentric with the bolt, and the thread shall be of sufficient length to allow the nut to be screwed up tightly.

When bolts go through bevel flanges, bevel washers to match shall be used so that head and nut of bolt are parallel.

When bolts are used for suspenders, the working stresses shall be reduced for steel to fourteen thousand pounds per square inch of net area, and the load shall be transmitted into the head or nut by strong washers, distributing the pressure evenly over the entire surface of the same.

Turned bolts in reamed holes shall be deemed a substitute for field rivets, and diameter of hole shall not exceed that of bolt by more than one-sixty-fourth of an inch.

SECTION 126.

Steel Trusses.

Trusses shall be of such design that the stresses in each member can be calculated.

All trusses shall be held rigidly in position by efficient systems of lateral and sway bracing. Struts shall be spaced so that the maximum limit of length to least radius of gyration, established in section 50 of this Code, is not exceeded.

Any member of a truss subjected to transverse stress, in addition to direct tension or compression, shall have the stresses causing such strains added to the direct stresses coming on the member, and the total stresses thus formed shall in no case exceed the working stresses stated in this Code.

SECTION 127.

Riveted Steel Trusses.

For tension members, the actual net area only, after deducting rivet holes one-eighth inch larger than the rivets, shall be considered as resisting the stress.

The number of rivets shall be determined as prescribed in sections 46 and 124 of this Code.

If the axes of two adjoining members do not intersect within the line of chords, sufficient area shall be added to the chords to take up the bending stresses, or the web members shall be connected by plates so arranged that the axes of the web members prolonged will intersect on the centre of gravity of the chord.

No bolts shall be used in the connection of riveted trusses, excepting when riveting is impracticable, and then the holes shall be drilled or reamed.

SECTION 128.

Steel Pin-Connected Trusses.

All compression members in pin-connected trusses shall be proportioned, using seventy-five per centum of the permissible working stress for columns. The heads of all eye-bars shall be made by upsetting or forging. No weld will be allowed in the body of the bar. Steel eye-bars shall be annealed. Bars shall be straight before boring.

All pin holes shall be bored true, and at right angles to the axis of the members, and must fit the pin within one-thirtieth of an inch. The distance of pin-holes from centre to centre for corresponding members shall be alike, so that when piled upon one another pins will pass through both ends without forcing.

Eyes and screw-ends shall be so proportioned that upon test to destruction fracture will take place in the body of the member.

All pins shall be accurately turned.

Pin-plates shall be provided wherever necessary to reduce the stresses on bearing; to the working stresses prescribed in this Code. These pin-plates shall be connected to the members by rivets of sufficient size and number to transmit the stresses without exceeding working stresses.

All rivets in members of pin-connected trusses shall be machine driven. All rivets in pin-plates which are necessary to transmit stress shall be also machine driven.

The main connections of members shall be made by pins. Other connections may be made by rivets.

If there is a combination of riveted and pin-connected members in one truss, these members shall comply with the requirements for pin-connected trusses; but the riveting shall comply with the requirements of section 127 of this Code.

SECTION 129.

Buildings With Cast Iron Fronts.

In buildings hereafter constructed with a front or other exterior wall of cast iron, the cast iron portion shall not extend more than thirty-six feet and six inches above the curb, and the walls above this height shall be of masonry. The cast iron portion shall be backed up with not less than twelve inches of brickwork or masonry, to which it shall be firmly anchored. This restriction shall not prevent the use, above the height of thirty-six feet and six inches, of millions or ornamental panels of cast iron, provided they do not serve as bearing members.

SECTION 130.

Painting of Structural Work.

Where surfaces in riveted work come in contact with each other, they shall be painted before assembling.

Structural metal work shall not be painted when it is to be thoroughly imbedded in concrete or cement grout, but when surfaces in riveted work come in contact with each other, they shall be oiled with boiled linseed oil.

All metal structural work that is not to be thoroughly imbedded in concrete or cement grout shall be cleaned of all scales, dust, dirt and rust, and thoroughly coated with at least one coat of suitable paint; after erection all such work shall be painted at least one additional coat, of a different shade.

Cast iron columns shall not be painted or covered until after inspection by the Bureau of Buildings.

All iron or steel used under water shall be imbedded in concrete.

CHAPTER XXIV.

TIMBER CONSTRUCTION AND WOODWORK.

SECTION 131.

Wood Beams.

All wood beams and other timbers in any wall of every building built of stone, brick or concrete, shall be separated from the beam or timber entering in the opposite side of the wall by at least four inches of solid masonry work. Such separation may be obtained by corbeling or by staggering the beams.

Minimum Thickness for Wood Beams—No wood floor beams or wood roof beams used in any building, hereafter erected, shall be of a less thickness than three inches.

Trimmer and Header Beams—All wood trimmer and header beams shall be proportioned to carry with safety the loads they are intended to sustain and shall be properly framed; if over four feet in length they shall be hung in suitable steel stirrups.

Bearings for Wood Beams—Every wood beam, except header and tail beams, shall rest at each end four inches in a wall, or on a girder, unless the wall is corbeled not to exceed four inches, in which case the corbeling shall extend not less than six inches below and to the tops of the floor beams.

Bevel Ends for Wood Beams—The ends of all wood floor and roof beams, where they rest on brick walls, shall be cut to a bevel of three inches in their depth.

Ends of Beams Not to Rest on Stud Partitions—In no case shall either end of a floor or roof beam be supported on stud partitions, except in frame buildings.

Cross Bridging for Beams—All wood floor and wood roof beams shall be properly bridged with cross bridging, and the distance between bridging or between bridging and wall shall not exceed eight feet.

Beams Near Flues—All wood beams shall be trimmed away from all flues and chimneys whether the same be a smoke, air or any other flue or chimney. The trimmer beam shall be not less than eight inches from the inside face of a flue and four inches from the outside of a chimney breast, and the header beam not less than two inches from the outside face of the brick or stone work of the same.

Except that for the smoke flues of boilers and furnaces where the brick work is required to be more than eight inches in thickness, the trimmer beam shall be not less than four inches from the outside of the brick work and the header beam shall be not less than four inches from the outside of the brick work.

The header beam, carrying the tail beams of a floor and supporting the trimmer arch in front of a fireplace shall be not less than twenty inches from face of the chimney breast.

The safe carrying capacity of timber beams shall be determined by their resistance to bending and shear in accordance with the unit stresses fixed by section 49 of this Code.

SECTION 132.

Anchors and Straps for Wood Beams and Girders.

Each tier of beams shall be anchored to the side, front, rear or party walls at intervals of not more than six feet apart, with good, strong steel or wrought iron anchors of not less than one and one-half inches by three-eighths of an inch in size, well fastened to the side of the beams by three or more nails made of wrought iron at least one-quarter of an inch in diameter.

Girder Straps and Anchors—Where the beams are supported by girders, the girders shall be anchored to the walls and fastened to each other by suitable iron or steel straps.

Beam Straps—The ends of wood beams resting upon girders shall be shotted together end to end and strapped by steel or wrought iron straps of the same size as the wall anchors, and shall be fastened in the same manner as said wall anchors. Or they may lap each other at least twelve inches and be well spiked together or bolted together where lapped.

Wood Anchor Strips—Each tier of beams running parallel to front and rear, opposite each pier, shall have hard wood anchor strips dovetailed into the beams diagonally, which strips shall cover at least four beams and be one inch thick and four inches wide, but no such anchor strips shall be let in within four feet of the centre line of the beams. Or wood strips may be nailed on the top of the beams and kept in place until the floors are being laid.

Pier Anchors—Every pier and wall front or rear, shall be well anchored to the beams of each story, with the same size anchors as are required for side walls, which anchor shall hook over the fourth beam.

SECTION 133.

Wood Columns and Posts and Timber for Trusses.

All timber columns and posts shall be squared at the ends perpendicular to their axes.

To prevent the unit stresses from exceeding those fixed in this Code, timber or iron cap plates or pintles and base plates shall be provided.

Where the cap plate of a wood column or post supports a wood girder, and directly on top of the girder is an iron or steel base plate of the wood column or post above, the said cap and base plates shall be connected by pintles of metal passing through the girder; these pintles may be of round bars of steel of proper size and not less than four in number, or a hollow cast iron pindle of proper thickness may be used, in all cases adequate to transmit the load.

Additional iron or steel check plates shall be placed between the cap and base plates, and bolted to the girders when required to transmit the loads with safety.

Timber Trusses—When compression or tension members of trusses are of timber they shall be stressed in the direction of the fibre only.

The working stress in timber struts of pin-connected trusses shall not exceed seventy-five per centum of the working stresses established in section 49 of this Code.

Bolts and Washers for Timber Work—All bolts used in connection with timber and wood beam work shall be provided with washers of such proportions as will reduce the compression on the wood at the face of the washer to that allowed in section 49 of this Code, supposing the bolt to be strained to its limit.

SECTION 134.

Stud Partitions.

In all buildings where stud partitions are set at right angles to wood floor beams and rest directly over each other, they shall run down between the floor beams and rest on the top plate of the partition below, and shall have the studding filled in solid between the uprights, to the depth of the floor beams, with approved incombustible materials.

SECTION 135.

Wainscoting.

When wainscoting is used in buildings hereafter erected or altered, the surface of the walls or partitions behind said wainscoting shall be plastered flush with the grounds and down to the floor line.

CHAPTER XXV.

FIREPROOFING AND FIREPROOF BUILDINGS.

SECTION 136.

Skeleton Construction.

Protection of Wall Columns and Girders—Where columns are used to support steel girders, carrying inclosure walls, or where columns are built in walls and used to support floors only for skeleton structures, the said columns shall be of rolled steel and shall be protected on their exposed outer and inner surfaces against fire by having a casing of masonry not less than eight inches in thickness on the outer surfaces, and not less than four inches in thickness on the inner surfaces, and all bonded into brickwork of the inclosure walls.

Metal ties between columns used to support floors, at each story, shall not be embedded in the masonry but shall be set clear of it on the interior.

The exposed sides of the steel girders shall be similarly covered in with masonry not less than four inches in thickness on the outer surfaces and tied and bonded, but the extreme outer edge of the flanges of beams, or plates or angles connected to the beams, may project to within two inches of the outside surface of the brick casing.

The inside surfaces of girders shall be similarly covered with brickwork, or, if projecting inside of the wall, they shall be protected by metal lathing as specified in section 140, terra-cotta, concrete or other standard fireproof material.

Girders for the support of the enclosure walls of skeleton structure shall be placed at the floor line of each story.

SECTION 137.

Fireproof Buildings.

Every fireproof building hereafter erected or altered shall be constructed with walls of brick, stone, or Portland cement concrete, in which wood beams or lintels shall not be placed, and in which the floors and roofs shall be constructed of incom- bustible materials, as provided for in sections 138, 139, 142 and 143 of this Code.

The stairs and staircase landings shall be constructed of brick, stone, Portland cement concrete, iron or steel, or a combination of these materials.

No woodwork or other combustible material shall be used in any of the partitions, furring or ceilings in any such fireproof buildings except grounds, bucks for fastening trim in place, nailing blocks and wood sleepers for nailing wood flooring where it is used. When the height of the building does not exceed one hundred feet, the doors and windows and their frames and trims, casings, the interior finish when filled solidly at the back with fireproof material, and the floor boards and sleepers directly there under may be of wood, but the entire space between the top of the fireproof floor arch or slab and any combustible floor finish shall be solidly filled with Portland cement concrete mixed in the proportions of one of cement to ten of steam boiler cinders or other noncombustible aggregates.

In all fireproof buildings hereafter erected, when the height exceeds one hundred and fifty feet, the floor surfaces shall be finished with stone, cement, tiling, rock asphalt or similar noncombustible materials in which a wood nailing strip not exceeding three inches in width and one inch in thickness may be imbedded. All outside window frames and sash shall be of metal or of wood covered with metal. Inside window frames, sash and doors, trim and other interior finish shall be of metal, or of wood covered with metal, or of concrete or other approved noncombustible material except wood. All window frames made of wood covered with metal before being installed shall be standard and approved.

SECTION 138.

Special Fireproof Construction.

The fireproof floor and roof construction between the steel beams shall be in the form of segmental arches consisting of Portland cement concrete, brick or hollow tile of hard-burned clay, or semi-porous or porous terra-cotta. Such arches shall be designed to safely carry the imposed loads, and shall have a rise of not less than one inch for each foot of span between the beams. Arches of Portland cement concrete shall be not less than four inches in thickness at the crown of the arch, and shall be mixed in the proportions of one part Portland cement, two parts of clean, sharp sand and five parts of steam boiler cinders or crushed slag, brick, tile or stone passing a one-inch ring. These arches shall in all cases be reinforced or protected with steel rods or bars, rebarulated or meshed steel or similar metal weighing not less than one pound per square foot of superficial floor area. If the metal is in the form of rods or bars they shall be spaced not over sixteen inches, centre to centre. Brick arches shall have a thickness of not less than four inches for spans of five feet or less, and eight inches for spans over five feet and up to eight feet. Said brick arches shall be composed of good hard, common brick, or porous terra-cotta without cellular spaces, the brick shall be laid to a line on the centres, and properly and solidly bedded, each longitudinal line of brick being jointed with the adjoining line in the same ring and with the ring under it when the arches are eight inches thick. The arches shall spring from suitably designed, solid skewbacks made from the same material as the arches, and properly keyed. The brick shall be well wetted before laying, and the joints filled in solid with Portland cement mortar, mixed in the proportion of one part cement to three parts of clean sharp sand. Hollow tile arches of hard-burned clay or semi-porous, or porous terra-cotta, shall be of uniform density and thickness of four and shall have sufficient depth between the top and bottom surfaces of the arch to carry the load to be imposed thereon without stressing the material beyond its safe working load, but such depth shall in no case be less than six inches for spans of five feet or less, and eight inches for greater spans, and all blocks shall have at least two cellular spaces in said minimum depth. All hollow blocks more than ten inches in depth shall have not less than three cellular spaces. The shells of all arch-blocks shall not be less than one inch in thickness, and the webs of all such blocks shall not be less than three-quarters of an inch in thickness, with rounded edges at all interior intersections. Skewbacks of side construction shall be used with all forms of hollow tile arches. They shall be of such form and section as to eccentrically fit in the beams and properly receive the thrust of the arches, and shall have shells not less than one and one-half inches in thickness, and shall have webs not less than one inch in thickness. The arches shall be laid in Portland cement mortar as required for brick arches, and shall be built with the key in the centre of the arch. The shells and webs of all side construction arch blocks shall fit one against the other. All metal structural members supporting loads or resisting strains, and which are not covered by brick work to a minimum thickness of four inches, or by stone masonry to a thickness of eight inches, shall be fireproofed as follows. The protection of columns shall consist of concrete, as defined for floors, tiled solidly around the columns, or of brick, as defined for floors, laid in Portland cement with Portland cement concrete filled in solidly so as to leave no voids or spaces between the brick and the columns. In every case this protection shall cover the columns at all points to a thickness of not less than four inches, and shall be continuous from the base to the top of the column. The extreme outer edges of lugs, brackets and similar supporting metal may project to within two inches of the outer surface of the protection. The protection of the girders and all members of beams shall be of the same material as the column protection and shall not be less than three inches thick at all points. The protection of the webs and soffits of beams, lugs and other lower structural members supporting loads or resisting strains, shall be not less than two inches in thickness at any point. The fireproof protection of all the above structural members shall be securely held in position by suitably designed interior steel anchors bedded around the flanges or angles of the structural members and spaced not over sixteen inches apart, horizontally and vertically. These anchors shall be made with hooked ends from steel rods weighing not less than one-half of a pound per linear foot and extending to within one inch of the outside surface of the concrete or brick protection.

SECTION 139.

Regular Fireproof Construction.

The fireproof floor and roof construction between the steel beams may be in the form of flat arches or slabs. Such flat arches shall consist of Portland cement concrete, or hollow tile of hard-burned clay or semi-porous or porous terra-cotta. Flat arches of Portland cement concrete shall be not less than four inches in thickness, and shall consist of the same materials and mixed in the same proportions as specified in special fireproof construction. These arches shall in all cases be reinforced with steel rods or bars, rebarulated or meshed steel, or similar metal, designed so as to secure the required strength, but in no case shall such reinforcing metal weigh less than one pound per square foot of superficial floor area. The centre of the section of such reinforcing metal shall in no case be less than one and one-quarter inches from the under side of the concrete slab. If the reinforcing metal is in the form of rods or bars they shall be spaced not more than sixteen inches centre to centre, and if in the form of mesh, it shall have no openings smaller than sixteen square inches. In all flat, hollow tile arches of hard-burned clay and semi-porous or porous terra-cotta, the arch blocks, skewbacks and Portland cement mortar shall comply with the requirements of special fireproof construction, except that the depth shall not be less than one and three-quarter inches for each foot of span, between the beams, not including any portion of the depth of the tile projecting below the under side of the beams, the total depth in no case to be less than eight inches. All metal structural members supporting loads or resisting strains, and which are not covered by brick or stone masonry in a thickness of four inches shall be fireproofed as follows. The columns and girders shall be protected in the same manner as specified in special fireproof construction, except that the thickness of the concrete or brick protection at all points of the columns and girders may be reduced to two inches, and at the extreme outer edges of lugs, brackets and similar supporting metal to one inch. Columns may also be protected by hollow tile blocks, not less than four inches in thickness, with shells not less than one inch in thickness with all webs not less than three-quarters of an inch in thickness, with the space between the blocks and the column filled solidly

with Portland cement concrete. The concrete and the blocks shall be anchored with interior steel anchors as specified in special fireproof construction. Columns may also be protected by a double layer of metal lath and plaster, as follows: The columns shall be wrapped with metal lath weighing not less than five ounces per square foot, corrugated or with metal furring so as to offset the metal lath, at least three-quarters of an inch from the surface to be protected; the ends of the lath shall be thoroughly secured by lapping and lacing with number eighteen galvanized steel wire. Plaster gauged with twenty-five per cent. of Portland cement shall then be applied to a minimum thickness of one inch, filling the space solidly between the metal lath and the column. Over this first layer of metal lath and plaster shall be constructed a second layer of metal lath and plaster, similar in every respect to the first layer, except that the corrugations or metal furring shall offset the metal lath at least one and one-half inches from the outside surface of the first layer, and that the first coat of cement plaster of the second layer shall be not less than three-quarters of an inch in thickness. The brown coat and the finishing coat may be of similar material as is used in the finishing of other portions of the building. The members of all metal trusses and the webs of all floor beams projecting above or below the arches shall be protected by not less than two inches of the arch material. The soffits of all floor beams shall be protected by not less than one inch of the arch material. Said soffit protection, if of concrete, shall be secured in place by interior steel anchors, as defined under special fireproof construction, or by meshed metal or metal in other forms weighing not less than one-half pound per square foot; the said metal shall be anchored by extending the ends at least two inches in the fireproof protection of the webs above. If of tile, the protection shall consist of lugs forming part of the skewbacks, and extending around the lower flange of the beam and meeting at the centre, or of tile slabs held in position by dovetailed lugs projecting from the skewbacks; or the soffits of floor beams may be protected with metal lath and plaster to a thickness of one inch, as follows: The metal lath shall weigh not less than five ounces per square foot, and shall be wrapped around the soffits of the beams so as to offset three-quarters of an inch from the surface to be protected, with the ends of the lath secured by extending them at least two inches in the concrete protection of the webs above. Plaster gauged with twenty-five per cent. of Portland cement shall then be applied to a thickness of one inch in a single coat, filling the space solidly between the metal lath and the soffit of the beam. No exposed metal clips or clamps of any character shall be used to support the soffit protection. Limbs and other lesser structural members supporting loads or resisting strains shall be protected in the same manner as the soffits of floor beams.

SECTION 140.

Fireproofing, Miscellaneous Provisions.

All metal lath and plaster ceilings for both parapet and regular fireproof construction shall be supported by hangers or clamps attached to the floor and roof beams, and said hangers shall be made from steel stock weighing not less than one-half pound per linear foot. Said hangers or clamps shall be slotted or provided with square shoulders to support the furring bars, and a sufficient number shall be provided so that in no case shall more than ten square feet of ceiling area be supported by any single hanger. These hangers or supports shall be fastened around both sides of the bottom flanges of the beams or girders, and shall be attached to said steel members before the concrete or other protection is placed. The furring bars to support the metal lath and plaster shall be spaced not over sixteen inches apart, and shall be of such section and weight as will support the wet plaster without deflecting more than one-thirtieth of an inch per foot of span, and shall in no case weigh less than one-half pound per linear foot. All wire or metal lath shall be of suitable mesh to retain and form a key for the plaster, and shall weigh not less than five ounces per square foot of ceiling area. The metal lath shall be laced to the furring at intervals not exceeding eight inches, with number eighteen galvanized steel lacing wire. All metal work, including hangers, furring bars, and metal lath, except when galvanized, shall be painted with one coat of weather-proof paint before erection. Metal lath ceilings, as herein specified, when covered with plaster to a thickness of one inch, shall be considered equivalent to one inch of protection to the steel beams supporting the floor arches above it in fireproof buildings of regular fireproof construction only, and the protection of said floor beams may be reduced by one inch wherever such ceilings are erected underneath them in regular fireproof construction.

Where the fireproofing of columns is exposed to damage from the trucking or handling of merchandise, such fireproofing shall be jacketed on the outside for a height of not less than four feet from the floor with a suitable metal covering to be approved by the Superintendent of Buildings.

In all fireproof buildings hereafter erected less than thirty-six feet six inches in height, where the stairs are not located in fireproof enclosures, the stringers and carrying members shall be fireproofed the same as girders in regular fireproof construction.

Temporary centering when used in placing fireproofing shall not be removed until such time as the cementing material or concrete has thoroughly set. Openings through fireproof floors for pipes, conduits and similar purposes shall be shown on the plans filed in the Bureau of Buildings. After the floors are constructed no opening greater than twelve inches square shall be cut through said floors unless steel frames supported by the beams or girders are provided around such opening. After the pipes or conduits are in place all openings shall be filled in with fireproof material.

No defective or damaged fireproofing materials shall be used. No cutting into or breaking away of fireproofing for anchors or supports for ceilings, ornamental plaster work, marble or other interior finish, or for any other purpose, shall be permitted. Said anchors or supports, if necessary, shall be provided when the fireproofing is being placed. All fireproof construction injured or damaged after being erected shall be repaired to the satisfaction of the Superintendent of Buildings before any filling or finish is placed over same.

Nothing in this section contained shall be deemed to prohibit the construction of domes, provided that the materials used therefor are in accordance with this section, and that the unit stresses do not exceed those fixed in Chapter XI. of this Code.

SECTION 141.

Fireproof Partitions.

All hall and permanent partitions between rooms in fireproof buildings shall be built of fireproof material. The heights in feet to which partitions of different materials may be built, and their corresponding minimum thickness, shall be as follows:

	Feet.
Brick, 8 inches thick.....	30
Brick, 3½ inches thick.....	18
Reinforced concrete, 6 inches thick.....	30
Reinforced concrete, 4 inches thick.....	24
Reinforced concrete, 2 inches thick.....	20
Metal lath and plaster, 4 inches thick.....	20
Metal lath and plaster, 2 inches thick.....	12
Hollow blocks of hard-burned clay or porous terra-cotta, concrete or other incom- bustible composition, 6 inches thick.....	20
Hollow blocks of hard-burned clay or porous terra-cotta, concrete or other incom- bustible composition, 4 inches thick.....	16

Hollow blocks for partitions shall not be less than four inches in thickness.

Metal lath and plaster partitions two inches thick shall only be used to divide floor space; when such partitions are not adjacent to a hall, or between offices or apartments designed for different tenants.

The reinforcing metal or studs of all concrete or other partitions shall be rigidly secured or anchored at the top and bottom to combustible material. The concrete shall be mixed in the proportion specified for floors in section 138 of this Code. Metal studding for all metal lath and reinforced concrete partitions shall average not less than one-half pound in weight for each square foot of partition, and shall not be spaced over two feet apart. Metal lath for partitions shall weigh not less than five ounces per square foot, and except when galvanized shall be painted with one coat of good weather-proof paint before erection.

Fireproof partitions shall in all cases have sufficient bearing on the fireproof floors, supporting steel, or other combustible material, to carry the weight of said partitions. Their weight shall in no case be supported by wood sleepers or floor boards. In buildings where flat metal lath and plaster ceilings are employed the partitions shall be built only to the under side of the metal lath ceilings.

All brick and block partitions shall be built with Portland cement mortar mixed in the proportions of one of Portland cement and three of clean, sharp sand.

All hollow blocks for partitions shall have shells and webs not less than three-quarters of an inch in thickness.

All block partitions built between columns, walls or piers shall be anchored to the same by substantial metal anchors weighing not less than one-half of a pound per linear foot and extending at least eighteen inches into the partition and placed along the top and bottom of the partition and also at each end, and intermediately not further apart than two feet.

Where steel studs are employed in concrete or other partitions in buildings with out metal lath and plaster ceilings, and where the partitions extend from the top of one fireproof floor to the underside of the fireproof floor above, provision shall be made for the expansion of the studs in case of fire. This may be accomplished by metal sleeves through which the studs can slide at top or bottom, allowing for an expansion of at least one-tenth of an inch for each foot of story height. The plastering in all cases shall extend around all wood furring blocks or strips and down to the fireproof floor construction or supporting steel in all cases.

The tops of all door and window openings in partitions shall be at least twelve inches below the ceiling line.

In all buildings hereafter erected fireproof partitions other than when made of reinforced concrete or solid brickwork with arched heads, the openings for doors and windows in the same shall be framed on both sides with steel studs or uprights extending from the floor to the ceiling, secured at the top and bottom to incombustible material and with horizontal steel members between the said uprights for the window openings and the door heads.

CHAPTER XXVI.

REINFORCED CONCRETE CONSTRUCTION.

SECTION 142.

Reinforced Concrete.

The term reinforced concrete shall be understood to mean an approved concrete mixture reinforced by steel of any shape, so combined that the concrete shall take up the compression stresses and that the steel shall take up the tension stresses and assist in the resistance to shear.

Buildings of reinforced concrete, when designed in accordance with the requirements of this section, shall be deemed to be fireproof, and permissible as regular fireproof construction under this Code for all buildings not requiring special fireproof construction, except as provided in section 19 (d).

The concrete shall be mixed in the proportions of one part of Portland cement, two parts of sand and four parts of crushed stone or gravel by volume. The concrete used in reinforced concrete construction shall be what is usually known as a "wet" mixture.

All cement used in reinforced concrete shall be Portland cement conforming to the requirements of section 35 of this Code.

The sand shall meet the requirements of section 33 of this Code.

The crushed stone or gravel used in the concrete shall be clean, broken to a size that will pass through a three-quarter inch ring, and conforming in every respect to the requirements as set forth in section 37 of this Code.

The steel used in reinforced concrete shall meet the requirements for structural steel given in section 41 of this Code.

SECTION 143.

Working Stresses and Requirements.

Reinforced concrete shall be so designed that the stresses in the concrete and the steel shall not exceed the following limits:

	Pounds.
Extreme fiber stress in concrete in compression, per square inch.	650
Shearing stress in concrete, per square inch.	72
Concrete in direct compression, per square inch.	500
Tensile stress in steel, per square inch.	16,000
Shearing stress in steel, per square inch.	10,000

The adhesion of concrete to steel shall not be taken to exceed sixty pounds per superficial square inch of steel.

The ratio of the moduli of elasticity of concrete and steel shall be taken as one to twelve.

The following assumptions shall guide in the determination of the bending moments due to the external forces. Beams and girders shall be considered as simply supported at the ends, no allowance being made for continuous construction over supports. Floor slabs, when constructed continuous and when provided with reinforcement at top of plate over the supports, may be treated as continuous beams, the

WL

bending moment for uniformly distributed loads shall be taken at not less than—

10

the bending moment may be taken at $\frac{WL}{20}$ in the case of square floor slabs which are reinforced in both directions and supported on all sides.

When the floor slab is built or cast at the same time as a beam or girder, and is considered as a part of that beam or girder, the width of the slab to be taken into consideration for a beam (a member that supports a slab at right angles to its length), must not be more than the width of the beam plus twelve times the thickness of the slab, and for a girder (a member that supports beams at right angles to its length and is stressed in compression in the same direction that the slab carries compression) must not be more than the width of the girder plus four times the depth of the slab.

The moment of resistance of any reinforced concrete construction under transverse loads shall be determined by formulas based on the following assumptions:

(a) The bond between the concrete and steel is sufficient to make the two materials act together as a homogeneous solid.

(b) The stresses in any fibre are directly proportionate to the distance of that fibre from the neutral axis.

(c) The modulus of elasticity of the concrete remains constant within the limits of the working stresses fixed in this section.

From these assumptions it follows that the stress in any fibre is directly proportionate to the distance of that fibre from the neutral axis.

No allowance shall be made for the tensile strength of concrete.

When the shearing stresses developed in any part of a reinforced concrete construction exceed the safe working strength of concrete, as fixed in this section, a sufficient amount of steel shall be introduced in such a position that the deficiency in the resistance to shear is overcome.

When the safe limit of adhesion between the concrete and steel is exceeded, some provision shall be made for transmitting the stresses from the one material to the other.

All reinforcement in beams, girders or columns shall be so secured or held that there can be no displacement of the same in the concrete.

Reinforced concrete beams shall not be spaced further apart than eight feet on centres.

Where girders or beams are connected with columns, the reinforcement of the girder shall penetrate the column and shall be secured to the column.

All reinforcement shall be completely encased in concrete. The thickness of concrete outside of the reinforcement shall not be less than one and one-quarter inches in floor slabs, partitions or walls; not less than two inches for all beams, three inches for all girders and columns, and not less than four inches in footings.

Reinforced concrete may be used for columns in which the ratio of length to least side or diameter does not exceed fifteen; but in no case shall the effective cross section of the column be less than sixty-four square inches.

All reinforced concrete columns shall have longitudinal reinforcements of a total cross sectional area equal to at least one per cent. of the effective cross sectional area of the concrete; provided, however, that the total sectional area of the reinforcing steel shall not be less than one square inch and that no rod or bar be of less diameter or least dimension than one-half inch. All longitudinal reinforcement rods shall be tied together by wire at least one-quarter of an inch in diameter at intervals of twelve inches. All vertical reinforcing rods or bars shall extend upward or downward into the column above or below, lapping the reinforcement of the column above or below to the extent of at least forty diameters of the rod or bar of the larger section.

Reinforced concrete columns may be stressed five hundred pounds per square inch of the effective area, with no allowance for the compressive strength of the vertical reinforcement.

In the case of columns which are further reinforced by bands, or spirally wound hoops, the allowable unit working stress in direct compression shall be nine hundred pounds per square inch of the effective sectional area of the concrete; provided the bands or hoops shall be designed to resist a lateral load equivalent to one-eighth of the vertical load carried by the concrete within the reinforcing cage; and provided that the bands or hoops shall not be stressed more than sixteen thousand pounds per square inch, and provided further that the bands or hoops shall not be spaced more than one-eighth the diameter of the reinforcing cage, and also provided that the bearing stresses between the reinforcing bands and the concrete shall not exceed six hundred and fifty pounds per square inch.

The effective area of a column shall be taken as the area of concrete within the lines connecting the centre of the vertical reinforcement in plain columns and within the hoops or bands in the case of banded columns.

Whenever a splice occurs in a metal reinforcement of reinforced concrete, the length of the splice shall not be less than twenty-four diameters for columns, and twenty-four diameters for beams and girders. A splice-bar may be used provided the lap on each bar conform to the above requirements.

If the reinforcing metal is not of circular section, the largest dimension of the section shall be considered as the diameter of the bar.

Nothing, however, in this section, is to be construed as permitting the splicing of the main tension members in the bottom of the beams, girders or floor slabs except over the centre of supports, nor shall the centre of the splice in columns come further from the floor line than one foot.

Spandrel walls supported entirely on reinforced concrete or steel girders shall have a minimum thickness of eight inches and shall be reinforced with not less than one-half pound of steel per square foot of wall.

Reinforced concrete construction carried on during freezing weather shall be done in accordance with section 37.

The contractor shall be prepared, on the request of the Superintendent of Buildings, to make load tests, at his own expense, on any portion of a reinforced concrete construction within thirty days after erection. The test shall show that the construction will sustain a load twice the live load for which it was designed without a deflection of more than one-thirtieth of an inch per foot of span. Small sections of floor slabs containing not less than thirty-two square feet between beams, shall be tested to five times the live live load for which they are designed, the section tested to be cut loose from the remaining portion of the slab. The times at which forms and centring may be safely removed shall be provided in section 37.

CHAPTER XXVII.

FRAME BUILDINGS.

SECTION 144.

Frame Buildings Within the Fire Limits.

The provisions contained in this section shall apply to buildings and structures, whether temporary or permanent, within the fire limits, as the said fire limits are now or may hereafter be established.

Sheds shall not be more than fifteen feet in height nor more than two thousand five hundred square feet in area, nor shall a fence be used as a back or side thereto. See section 211 (74).

Temporary one-story frame buildings may be erected for the use of builders, within the limits of lots wherein buildings are in course of erection or on adjoining vacant lots, upon permits issued by the Superintendent of Buildings.

Outhouses used only for exterior privies, coal and wood houses, sheds and temporary structures may be built. Section 211 (73), (74) and (75).

Wood porches, balconies or bay windows, the roofs of which shall be covered with incombustible material, may be built upon frame buildings.

Wood porches or balconies which do not exceed eight feet in width and do not extend more than three feet above the adjacent story floor beams, may be erected upon buildings other than frame buildings.

SECTION 145.

Frame Buildings Damaged—Within the Fire Limits.

Every wood or frame building with a back or other frame, which may hereafter be damaged to an amount not greater than one-half of the value thereof, exclusive of the value of the foundation, at the time of such damage, may be repaired or rebuilt, provided that the original height or size of same is not increased, but if such damage shall amount to more than one-half of such value, exclusive of the value of the foundation, when such buildings shall not be repaired or rebuilt, but shall be taken down.

In case the owner of the damaged building shall disagree with the decision of the Superintendent of Buildings that such building is damaged to a greater extent than one-half of its value, exclusive of the value of the foundation, then the amount and extent of such damage shall be determined upon an examination of the building, by a Committee of Surveyors, as provided in section 4 of this Code, and a decision of a majority of said Committee, committed in writing and sworn to, shall be conclusive, and such building shall in no manner be repaired or rebuilt until after such decision shall have been rendered.

SECTION 146.

Frame Buildings Outside of Fire Limits.

The provisions of this section shall apply to frame or other buildings hereafter erected outside the fire limits, as the same are now or may hereafter be established in portions of The City of New York, where streets are now or where they may hereafter be legally established.

Frame buildings may be altered, extended, raised or repaired, provided the new portions fully comply with all the provisions of this section.

No frame building shall hereafter be erected except dwellings limited to not more than three families, stables, sheds and outhouses.

All stresses in material entering into the construction of the buildings referred to in this section, shall be kept within the same limit of stress as prescribed in Chapter XI.

All frame or wood buildings shall be built with all sills, posts, girts, plates and rafters of suitable size and properly framed and braced with suitable studs or plank set at a proper distance apart.

Buildings of hollow terra cotta blocks, or hollow Portland cement blocks, laid in cement mortar, shall be classed as frame construction. The blocks shall be not less than six inches thick for a one-story building; eight inches for the first story and six inches for the second story in a two-story building; eight inches for the first and second stories and six inches for the third story in a three-story building. If the walls are exposed to the weather the terra cotta blocks shall be of dense material, vitrified in burning, or they may be of semi-porous material, covered on the exposed side with at least one inch of Portland cement plaster. Semi-porous terra cotta blocks shall be well scored, grooved or roughened to retain this coating.

Whenever girders or joists rest upon walls so that there is a concentrated load of over two tons, the blocks supporting the girder or joist shall be made solid by filling with cement concrete, mixed in proportion of one part Portland cement, two parts sand and four parts broken stone or gravel. Wherever walls are decreased in thickness, the top course of the thicker wall shall be made solid in the same manner.

No semi-porous hollow blocks shall be loaded in excess of one hundred pounds per square inch of net end section in compression or one hundred pounds per square inch if laid on the side, and if dense tiles are used they shall not be loaded in excess of two hundred pounds per square inch if set on end, or one hundred and fifty pounds per square inch if set on the side. All piers and buttresses that support loads in excess of five tons shall be filled solid with Portland cement concrete. Lintels spanning over four feet six inches in the clear shall rest on blocks filled solid with Portland cement concrete.

Floor beams and rafters shall not be less than two inches in thickness.

The sills of all frame buildings shall be so placed that the lower side of same is not less than two feet above the ground.

The roofs of all buildings outside of fire limits shall be covered with metal, slate, tile, gravel or other approved combustible material.

Frame tenement houses shall have the side walls brick filled, as required by the Tenement House Law.

No frame building without the fire limits shall be moved from one lot to another until a permit has been obtained from the Superintendent of Buildings.

SECTION 147.

Height and Area of Frame Buildings Outside of Fire Limits.

Frame dwellings shall not exceed thirty-six feet six inches or more than four stories in height nor more than five thousand square feet in area.

Frame stables shall not exceed thirty-six feet six inches in height, nor more than two thousand five hundred square feet in area.

The combined areas of frame buildings, sheds and outhouses located on any lot shall not exceed eighty per cent. of the lot area. In no case shall a frame building be erected within three feet of the side or rear line of a lot unless the space between the studs on any such side be filled in solidly with not less than four inches of brick-work or other fireproof material and the inside surface covered with metal lath, as provided in section 141 of this Code, and plastered with two coats of mortar of good material.

Wood spires upon churches may be erected to a height of not more than ninety feet.

Frame buildings, except sheds, outhouses and private stables, used for other than dwelling purposes, shall not be placed at a less distance than twenty-five feet from any other frame building.

SECTION 148.

Foundations for Frame Buildings.

The foundation walls of frame structures exceeding fifteen feet in height shall rest on footings of stone or concrete not less than eight inches in thickness.

All footing stones shall extend at least four and one-half inches outward from each side of the bottom of the foundation walls which rest upon them. The thickness of stone footings shall not be less than eight inches. The thickness of concrete footings shall not be less than twelve inches.

The bearing capacity of soil shall be as set forth in section 54.

The bottom of footings for frame buildings shall rest upon solid ground not less than four feet below the surface, unless solid rock occurs above this point, or upon piles or ranging timbers of wood where necessary. The foundation walls of frame structures exceeding fifteen feet in height, if of stone, shall not be less than eighteen inches thick, and if of brick or concrete, not less than twelve inches to the grade and eight inches thick to the under side of the sill. If the foundation and first story walls are constructed of brick or concrete, the foundation walls shall not be less than twelve inches thick to the first tier of beams and eight inches thick from the first to the second tier of beams, or if these walls are constructed of stone, they shall not be less than twenty inches for the foundation walls and sixteen inches for the first story wall, and if the walls are faced with stone or other material, the total thickness shall be four inches more than in this section specified.

In the foundation walls there may be recesses for stairs or dumbwaiters. These recesses shall be not more than eight feet long and shall have brick or concrete walls not less than eight inches thick.

SECTION 149.

Walls and Partitions.

Where two or more buildings are built contiguous to each other the party or division walls shall be of brick or concrete not less than twelve inches thick above the foundation wall between every two buildings, but in no case exceeding fifty feet between centres of such walls, and said walls to extend at least two feet above the roof boards and be properly capped. Any opening in such wall shall be protected by a standard fire door. The ends of the floor and roof beams shall be so separated that four inches of brick or concrete will be between the beams where they rest on said wall.

Posts of locust or other hard wood and wood girders may be used instead of brick fore and aft partitions, in cellars of frame buildings, provided all exposed surfaces of said posts and girders and partitions between posts and girders are covered with metal lath, as provided in section 141 of this Code, and plastered two coats of mortar of good material.

The walls of light, vent, and dumbwaiter shafts, whether exterior or interior, in frame buildings, may be of frame construction, but the interior surfaces shall be covered with metal lath, as specified in section 141 of this Code, and plastered.

SECTION 150.

Cellar Stairs and Ceilings in Frame Buildings.

The cellar stairs in frame buildings may be placed directly under the main stairs and no brick walls shall be necessary to enclose same, but enclosing partitions formed of studding not less than four inches thick and metal lathed on both sides, as provided in section 140 of this Code, and plastered, will be required. The soffits of all such stairs shall be metal lathed and plastered in a similar manner. A door shall be provided at the bottom of the stairs; the said door shall be covered with sheet metal on all faces and edges and arranged to be self closing.

The ceiling over every cellar or lowest floor in every frame building more than one story in height hereafter erected, where the beams are of wood, shall be covered with metal lath, as provided in section 140 of this Code, and plastered with two coats of mortar of good material.

No areas shall be required to be built across the front of frame buildings, except where the cellar or basement is used for living purposes.

SECTION 151.

Chimneys.

All chimneys in frame buildings shall be built of brick, stone, concrete or other fireproof material, as provided in section 82. If of brick or concrete, the flues shall have outer walls at least eight inches thick and the partition walls separating flues at least three and one-half inches thick, and shall be lined on the inside with hard burnt clay or terra-cotta pipe.

Where chimneys of rubble masonry are used, the flues in same shall be inclosed with eight inches of brickwork and lined on the inside with hard burnt clay or terra-cotta pipe. When the chimneys pass through a floor or roof or are placed against any frame partition that portion of the chimney shall be built with eight inches of brick work between the flue and such floor, roof, frame partition or wall.

All the linings shall extend throughout the length of the flue. The ends of all sections of the linings shall be made to fit close together, and the pipe shall be built in as the flues are carried up.

All chimneys shall extend at least four feet above the highest point of contact with the roof. They shall be properly capped. Chimneys serving two rooms on the same floor may be built in the walls or partitions. Elsewhere they shall be built inside of the frame, except in the case of outside ornamental or exposed chimneys, in which latter case the frame may butt against or intersect with them, but no flues in same shall be built within sixteen inches of the frame or any part thereof.

SECTION 152.

Plumbing and Heating.

The provisions set forth elsewhere in this Code relating to plumbing, drainage, heating, steam and hot air pipes and registers, shall apply to frame buildings.

SECTION 153.

Buildings Raised, Lowered, Altered or Moved.

Within the fire limits it shall not be permitted to raise any frame building to a height in excess of thirty-six feet six inches, and when so raised it shall comply with all the requirements and provisions of this Code relating to frame buildings and the stresses in the material thereof shall be kept well within the safe limit of stresses prescribed in chapter XI. (All such buildings shall exceed twenty-five feet in height to the peak of the main roof before said alteration and raising). This shall not prohibit, however, increasing one story and basement frame dwelling houses one additional story in height.

In increasing the height of any such building the entire area which the building covers may be raised to a uniform height. If any such building has an extension of less width than the main building, the same may be increased in width to the full width of the main building, with the same kind of material as the main building, but

same shall not be increased in height. Any such building may be extended either on the front or rear by a distance of not more than fifteen feet and not more than the width of the building, and not more than the height of the main building.

In no case shall a frame extension be erected within three feet of a side or rear line of a lot unless the space between the studs of any such side is filled in solidly with not less than four inches of brickwork or other fireproof material.

If any such building shall have been built before the street upon which it is located is graded, or if the grade is altered, such building may be raised or lowered to meet the requirements of such grade.

Within the fire limits no frame building more than two stories in height that is now or has been used as a residence building, shall hereafter be raised or altered. No frame building within the fire limits shall be moved to another lot within the fire limits. No frame building shall be moved from without to within the fire limits. No frame building without the fire limits shall be moved from one lot to another, until a permit has been obtained upon an application filed with the Superintendent of Buildings, setting forth the intended uses of the building and the purpose of its removal.

CHAPTER XXVIII.

PLACES OF PUBLIC AMUSEMENT AND ASSEMBLAGE.

SECTION 154.

Requirements for Public Safety.

In all buildings or parts of buildings of Classes A, B, E and F, and also hotels and clubhouses, occupied for purposes of assembly, amusement or instruction, other than theatres and opera houses, which are provided for in section 155, where large numbers of people may congregate, the halls, doors, stairways, seats, passageways and aisles, and all lighting and heating appliances and apparatus shall be arranged as the Superintendent of Buildings shall direct to facilitate egress in case of fire or accident, and to afford the requisite and proper accommodation for the public protection in such cases.

Buildings or parts of buildings of Classes C and D, except hotels and clubhouses, shall not be occupied as place of public amusement or assemblage, and the Superintendent of Buildings shall have the power to vacate such buildings for violating this provision.

All aisles and passageways in buildings or parts of buildings used for public and private amusement or assemblage shall be kept free from campstools, chairs, sofas and all other obstruction, and no person shall be allowed to stand in or occupy any of said aisles or passageways during any performance or service, exhibition, lecture, ball, concert or any public assemblage. The Superintendent of Buildings may at any time serve a written or printed notice upon the owner or lessor or manager of any of said buildings, directing any act or thing to be done or provided in or about the said buildings, and the several accessories and appliances therewith connected, such as halls, doors, stairs, windows, seats, aisles, fire walls, and fire apparatus, and fire escapes, as he may deem necessary.

Any building hereafter erected or altered to be used for public assemblage, with accommodations for more than two hundred people, shall be fireproof. In all such buildings no public assemblage shall be permitted above the first story. The method of exit therefrom, and the number of exits, shall be as the Superintendent of Buildings may determine.

SECTION 155.

Theatres, Opera Houses and Places of Public Amusement and Assemblage.

Every theatre or opera house, or other building or parts of building, intended to be used for theatrical or operatic purposes or for places of public amusement and assemblage and not included in section 154, hereafter erected, for the accommodation of more than two hundred persons, shall be built to comply with the requirements of this section. The estimate of two hundred persons shall be based on an area of six square feet for each person, exclusive of the space required for the aisles, lobbies, passages, etc.

No building which at the time of the passage of this Code is not in actual use for theatrical or operatic purposes, except as provided in section 154, and no building hereafter erected not in conformity with the requirements of this section shall be used for theatrical or operatic purposes, or for public entertainments of any kind, within the scope of this section, until the same shall have been made to conform to the requirements of this section.

No building hereinbefore described shall be opened to the public for theatrical or operatic purposes or for public entertainments of any kind within the scope of this section, until the Superintendent of Buildings shall have approved the same in writing as conforming to the requirements of this Code, nor until the Fire Commissioner shall have certified in writing that all the appliances for the extinguishing of fire or guarding against the same conform to this Code and to the special requirements of this section, and are in a complete and satisfactory working condition. And before a license shall be issued or renewed for the public use of such building a sworn statement shall be filed with the Bureau of Buildings by the responsible owners or lessees thereof, giving their full names and addresses.

Nothing herein contained shall be construed to authorize or require any other alterations to "theatres, opera houses and places of public amusement and assemblage" existing prior to the date of this Code than are specified in this section.

Entrances and Exits.

Every such building shall have at least one bounding wall on the street, and in such wall at least one-half of the opening required for entrance and exit of the audience as hereafter specified shall be provided. The remaining entrance and exit space may be located on courts or corridors, but in no case shall the opening on court or corridor be greater than the width of said court or corridor. Where the seating is for five hundred people or less, ten feet of entrance and exit space shall be provided and for every additional one hundred persons or fraction thereof to be accommodated, twenty inches additional width of opening shall be provided; these exits do not refer to or include the emergency exits to the open court at the side of the theatre.

Doorways of exit or entrance for the use of the public shall not be less than five feet in width.

Distinct and separate places of entrance and exit shall be provided for each gallery above the first gallery, which doorways shall conform to the clear width between rails of stairs they serve.

A common place of exit and entrance may serve for the main floor of the auditorium and the first gallery, provided its capacity be equal to the aggregate capacity of the outlets from the main floor and said gallery.

All doors of exit or entrance shall open outwardly and be hung to swing in such a manner as not to become an obstruction in a passage or corridor, and no such doors shall be closed and locked when the building is open to the public. The fastenings of these doors shall be such as can readily be opened from the inside at all times without the use of keys.

The main entrance to the building shall not be on a higher level from the sidewalk than four steps of seven and one-half inches each, but this shall not preclude the use of an additional number of steps at the other entrances as may be necessary to overcome the difference in grades of sidewalks or courts.

To overcome any difference of level inside the building on the ground floor, uniform gradients shall be employed of not over one foot to ten feet.

Emergency Courts and Exits.

In addition to the aforesaid entrances and exits on the streets, there shall be reserved for service in case of an emergency an open court or space in the rear and on the side not bordering on the street, where said building is located on a corner lot; and in the rear and on both sides of said building, where there is but one frontage on the street. The width of such open court or courts shall be not less than eight feet each where the seating capacity does not exceed one thousand people; exceeding one thousand and not more than one thousand eight hundred people, nine feet in width, and exceeding one thousand eight hundred people and not more than two thousand five hundred people, eleven feet in width; exceeding two thousand five hundred people, fifteen feet in width. Said open court or courts shall extend the full length and height of the building and across on each side and rear thereof where its sides or side does not abut on a street or alley; and shall be of the same width at all points, and exits hereafter specified shall lead into such open courts.

Where said emergency courts do not open directly on a street a separate and distinct corridor shall continue to the street, from each open court, through such structure

as may be built on the street with continuous walls or brick, or fireproof materials on each side the entire length of said corridor or corridors, and the ceiling and floors shall be fireproof. Said corridor or corridors shall not be reduced in width to more than three feet less than the width of the open court or courts, and there shall be no projections in the same; the outer openings shall be provided with doors or gates opening outwards. Nothing herein contained shall prevent the continuing of the said courts to the street of the reduced width of the corridors. Where any exit or entrance, emergency or otherwise, does not open directly on a street, and where such ingress or egress to a theatre, opera house, etc., is through a non-fireproof building in order to reach the street or theatre, etc., such passage shall be constructed fireproof all the way to the street as herein provided, and such exit or entrance shall be in addition to those elsewhere required in this section. During the performance the doors or gates in the corridors or courts shall be kept open by proper fastenings; at other times they may be closed and fastened by movable bolts or latches.

The said open courts and corridors shall not be used for storage purposes, or for any purpose whatsoever except for exit and entrance from and to the auditorium and stage, and must be kept free and clear during performances.

The level of said corridors shall be graded to the sidewalk and made flush therewith at all points at the street entrances.

Where fire escape towers are used, they may be placed in the courts provided the width of such courts are not reduced because of these towers to more than three feet less than the required width of these courts. The said width of courts as in this section provided may be reduced one foot in width where such towers are used.

From the auditorium two emergency exits into open courts or streets shall be provided in any two inclosing walls of the auditorium on parquet level and each gallery level where the seating of the theatre is twenty-five hundred persons or less; when more than twenty-five hundred persons, three emergency exits shall be provided in place of two. Each exit shall be at least five feet in width in the clear and provided with fire doors constructed as hereinbefore in this Code described for fireproof doors. All of the said doors shall open outwardly, so as not to obstruct fire escapes or exit thereto, and shall be fastened with movable bolts; the bolts shall be kept drawn during performances.

Unless separate stairs, as hereinafter described, have been provided for these exits, there shall be balconies not less than four feet in width in the said open court or courts at each level or tier above the parquet on each side of the auditorium, of sufficient length to embrace the two exits, and from said balconies there shall be stairs extending to the ground level, with a rise of not over eight and one-half inches to a step, and not less than nine inches tread exclusive of nosing. The stairs from the upper balconies to the next below shall be not less than thirty inches in width in the clear, and from the first balcony to the ground three feet in width in the clear, where the seating capacity of the auditorium is for one thousand people or less; three feet and six inches in the clear, where it exceeds one thousand and not more than one thousand eight hundred people; four feet in the clear, where it exceeds one thousand eight hundred people and not more than two thousand five hundred people, and four feet six inches in the clear where the seating capacity is more than two thousand five hundred people. All the before mentioned balconies and stairs shall be constructed of steel throughout, except that the treads may be of cast iron, and shall be of ample strength to sustain the load to be carried by them, and shall be constructed in such a manner as shall be approved by the Superintendent of Buildings.

Where one side of the building borders on the street there shall be balconies and stairs of like capacity and kind, as before mentioned, carried to the street level.

Requirements as to Occupancy in Connection with Theatres, etc.

Nothing herein contained shall prevent a roof garden, art gallery or one tier of rooms, for any purpose not in this Code prohibited, being placed above the theatre, provided the floor of the same forming the roof over such theatre shall be constructed of steel and fireproofed, and that said floor shall have no covering boards or sleepers of wood, but shall be of incombustible material. Every roof over said roof garden or rooms shall have all supports and rafters of steel and shall be fireproofed, or the roof may be covered with glass and made fireproof or both, but no such roof garden, art gallery or room for any purpose shall be placed over or above that portion of any theatre which is used as a stage.

No portion of any building hereafter erected or altered, used or intended to be used for theatrical or other purposes as in this section specified, shall be occupied or used as a hotel, boarding or lodging house, factory, workshop or manufactory, or for storage purposes, except as may be hereafter specially provided for. Said restriction relates not only to that portion of the building which contains the auditorium and the stage, but applies also to the entire structure in conjunction therewith.

No workshop, storage or general property room shall be allowed above the auditorium or stage, or under the same, or in any of the fly galleries; all of such rooms or shops shall be located in the rear of or at the side of the stage, and they shall be separated from the stage by a brick wall not less than twelve inches in thickness, and the openings leading into said portion shall have self-closing standard fire doors.

No store or room contained in the building, or the offices, stores or apartments as aforesaid, shall be let or used for carrying on any business dealing in any article or material dangerous to life.

No sleeping accommodations shall be allowed in any part of the building communicating with the auditorium.

Interior Walls.

Interior walls built of fireproof materials shall separate the auditorium from the entrance vestibule, and from any room or rooms over the same, also from any lobbies, corridors, refreshment or other rooms; and in all such walls the windows and door frames and all sash and doors shall be of standard fireproof construction, the window frames and sash shall be of metal of standard construction, and the sash made stationary and glazed with wire glass not less than one-quarter inch in thickness and each pane or unit measuring not more than seven hundred and twenty square inches; the doors shall be made to close automatically and be standard in every respect.

Inclosure of Staircases.

All stairs for the use of the audience, except that leading to the first balcony, which may be open on one side only, shall be inclosed with walls of brick or of fireproof materials, permitted by section 141 of this Code, in the stories through which they pass, and the openings to said stairs from each tier shall be the full width of stairs between rails. No door shall open immediately upon a flight of stairs, but a landing at least the width of the door shall be provided between such stairs and such door.

Proscenium Wall and Frame.

A fire wall built of brick, not less than twelve inches in any portion of same, shall separate the auditorium from the stage, and the same shall extend at least four feet above the stage roof, or the auditorium roof, if the latter be the higher, and shall be coped.

Above the proscenium opening there shall be a steel girder of sufficient strength to safely support the load above, and the same shall be covered with fireproof material in the manner specified for special fireproof construction in section 138.

The moulded frame around the proscenium opening shall be formed entirely of fireproof materials; if metal be used, the metal shall be filled in solid with non-combustible material and securely anchored to the wall with metal.

Proscenium Opening Curtain.

The proscenium opening shall be provided with a fireproof metal curtain, or a curtain of asbestos or other fireproof material approved by the Superintendent of Buildings, overlapping the brick proscenium wall at each side not less than twelve inches, and sliding vertically at each side within iron or steel grooves or channels to a depth of not less than twelve inches; said grooves or channels shall be securely bolted to the brick wall and extend to a height of not less than three feet above the top of the curtain when raised to its full limit. Said fireproof curtain shall be raised at the commencement of each performance, lowered to the stage after each act, and lowered at the close of said performance, and shall be operated by approved machinery for that purpose. If the fireproof proscenium curtain be of asbestos, that material shall be reinforced with wire or wire spun in the asbestos, and at the bottom of the curtain shall be placed a rigid metallic rod or bar of proper weight, securely fastened to the curtain and covered over with like material as the curtain itself, to carry down the curtain by the weight of the said rod or bar when released. The excess weight of the curtain shall be overcome by a check rope of cotton or hemp, extending to the floor on both sides of the stage, so that the cutting or burning of such rope will release

the curtain and the same will then descend at its normal rate of speed. The fireproof proscenium curtain shall be placed not less than two feet back from the footlights. This curtain shall be subjected to the following tests, made under the supervision of the Superintendent of Buildings, the Commissioner of the Fire Department, and the National Board of Fire Underwriters: First, a blowpipe test of sufficient power and duration to substantiate the fireproof qualities of said curtain; second, the curtain, after being lowered to the stage and after its supporting cables have been disconnected, shall stand up in its grooves without bulging or sagging beyond its vertical plane more than six inches; any additional proscenium curtain shall be not less than two feet six inches back from the foot lights when electric, or not less than four feet back when the foot lights are of gas or other illuminant.

Openings in Proscenium Wall.

Openings through the proscenium wall, from the auditorium, shall not exceed four in number, two at the approximate stage level and two in the musicians' pit, and such openings at stage level shall have self-closing standard fire doors at each side of the wall; and openings, if any, below the stage shall each have a self-closing standard fire door, and all of the said doors shall be hung so as to be opened from either side of the wall at all times.

Ventilators over Stage.

There shall be one or more ventilators, constructed of metal or other incombustible material, near the centre and above the highest part of the stage of every theatre, extending at least ten feet above the stage roof, and of a combined area equal to at least fifteen per centum of the area within the stage walls. The openings in every such ventilator shall be closed by valves, louvres or dampers so constructed as to open automatically and held closed by hempen or cotton cord, in which shall be inserted a fusible link at such a point as to be near the bottom of the ventilator. Such cord shall be fastened at the stage floor level near the prompter's desk, and so arranged that it can be easily reached and severed in case of necessity.

Requirements as to Construction and Fireproofing.

All that portion of the stage which is not movable shall be constructed of steel beams filled in between with fireproof material, as specified for special fireproof construction and designed to safely sustain a live load of not less than one hundred pounds per square foot.

The entire fly-galleries and tie-galleries, including pin-calls, shall be constructed of steel, and the floors of said galleries shall be fireproofed as specified for special fireproof construction and designed to safely sustain a live load of ninety pounds per square foot, and no wood boards or sleepers shall be used as covering over floor.

The gridiron or rigging loft shall have a lattice iron floor capable of sustaining a live load of seventy-five pounds per square foot and be readily accessible by iron stairs.

All stage scenery, curtains and decorations made of combustible material, and all woodwork on or about the stage, shall be painted or varnished with some non-combustible material, or otherwise rendered safe against fire. And the finishing coats of paint applied to all woodwork throughout the theatre or opera house shall be of such a kind as will resist fire to the satisfaction of the Superintendent of Buildings.

The roof over the auditorium and the entire main floor of the auditorium and vestibule, also the entire floor, roof, ceiling and lots of beams supporting the same, entrance, lobby and corridors, and all galleries, and supports for the same in the auditorium, shall be constructed of steel and fireproof materials in accordance with section 138, not excluding the use of wood floor boards and necessary sleepers to fasten the same to, but such sleepers shall not mean timber or supports. The space between the sleepers and the sloping in galleries shall be solidly filled with incombustible material up to the under side of the floor boards.

Any building adjacent to a theatre, etc., as defined in this section, not having independent walls, shall be considered as part of the theatre building and shall be made fireproof in accordance with section 138 of this Code.

The fronts of each gallery shall be entirely formed of fireproof materials, except the capping, which may be made of wood.

The ceiling under each gallery and of the auditorium shall be entirely formed of fireproof materials.

All fireproof partitions shall be in accordance with section 141 of this Code.

The partitions in that portion of the building which contains the auditorium, the entrance and vestibule, and every room and passage devoted to the use of the audience, shall be constructed of fireproof materials, including the furring of outside or other walls.

None of the walls or ceilings shall be covered with wood shiplathing, wood wainscoting, canvas, or any combustible material. But this shall not preclude the construction of a wood sounding board over orchestra pit when the same extends back of and below the overhang of the stage, provided the said wood sheathing be properly fire-stopped by a twelve-inch brick wall back of same, and also have a proper fireproof construction directly under the overhang of the stage extending from the brick wall to the apron of the stage.

Actors' dressing rooms shall not be placed in, under, or over the stage, on the fly galleries, nor under the auditorium, but shall be placed in a separate section provided for that purpose. The walls separating said section containing the dressing rooms from the stage, shall not be less than twelve inches in thickness, and the openings therefrom to the stage shall be protected with standard self-closing fire doors. The partitions dividing the dressing rooms, together with the partitions of every passageway from the same to the stage, and all other partitions on or above the sides of the stage, or fireproof portion thereof, shall be constructed of fireproof material not less than four inches in thickness, as approved in section 141. All doors in any of said partitions shall be standard fire doors.

Each tier of dressing-rooms shall have an independent exit leading directly into a court or street, and shall be ventilated by windows in the external wall.

All shelving and cupboards in each and every dressing-room, property room or other storage rooms shall be constructed of metal, slate or some fireproof material.

Windows.

All windows where accessible, except as in this section otherwise specified, shall be arranged to open.

None of the windows in outside walls shall have fixed sashes, fixed iron grills or bars; these may be arranged in hinge and lock, but must be left unlocked during performances.

Aisles and Seats.

All seats in the auditorium, excepting those contained in boxes, shall be not less than thirty-two inches from back to back, measured in a horizontal direction, and firmly secured to the floor. No seat in the auditorium shall have more than six seats intervening between it and an aisle, or not more than fourteen seats between any two aisles.

No stool or seat shall be placed in any aisle.

All platforms in galleries formed to receive the seats shall not be more than twenty-six inches in height of riser, nor less than thirty-two inches in width of platform. Where there are more than two galleries the height of riser may be increased, subject to the approval of the Superintendent of Buildings.

All aisles in the respective floors in the auditorium having seats on both sides of same shall be not less than three feet wide where they begin, and shall be increased in width toward the exits in the ratio of two inches to five running feet. Aisles having seats on one side only shall be not less than two feet six inches wide at their beginning, and increased in width one and one-half inches to five running feet.

The aggregate capacity of the foyers, lobbies, corridors, passages and rooms for the use of the audience, not including aisle space between seats, shall, on each floor or gallery, be sufficient to contain the entire number to be accommodated on said floor or gallery, in the ratio of one hundred and fifty superficial square feet of floor for every one hundred persons.

Stairs and Passages.

No passage leading to any stairway communicating with any entrance or exit, including fire exits, shall be less than four feet in width in any part thereof.

All stairs within the building shall be constructed of fireproof material throughout, as is required by this Code.

Stairs from balconies and galleries shall not communicate with the basement or cellar.

All stairs shall have treads of uniform width and risers of uniform height throughout each flight.

No stairs from galleries shall be less than four feet in width.

The width of all stairs shall be measured in the clear between hand-rails.

In no case shall the risers of any stairs exceed seven and one-half inches in height, nor shall the treads, exclusive of nosings, be less than ten and one-half inches wide in straight stairs.

No circular or winding stairs shall be permitted.

Where the seating capacity of the building is for five hundred people or less, one direct line of stairs only shall be required, provided the gallery or galleries do not seat more than one hundred people, but where the seating capacity of the gallery or galleries is for more than one hundred people, or where the seating capacity of the building is for more than five hundred people, there shall be at least two lines of stairs extending from the upper gallery to the ground floor level, with direct exterior outlets arranged on opposite sides of the gallery, and for every additional fifty people or fraction thereof in excess of the first one hundred to be accommodated six inches shall be added to the width of stairs. Where there are more than two galleries one or more additional stairs shall be provided, the outlets from which shall communicate directly with the principal exit or other exterior outlets. All said stairs shall be of width proportioned to the gallery accommodation as elsewhere herein prescribed.

At least two independent direct exterior outlets shall be provided for the service of the stage and on a level with the same, and shall be located on the opposite sides of the same.

When straight stairs return directly on themselves, a landing of the full width of both flights, without any steps, shall be provided. The outer line of landings shall be curved to a radius of not less than two feet, to avoid square angles. Stairs turning at an angle shall have a proper landing without winders introduced at said turn. In stairs, when two side flights connect with one main flight, no winders shall be introduced and the width of the main flight shall be at least equal to the aggregate width of the side flights. All stairs shall have proper landings introduced at convenient distances.

All inclosed stairs shall have on both sides strong hand-rails firmly secured to the wall about three inches distant therefrom and about three feet above the stairs, but said hand-rails shall not run on level platforms and landings where the same are of greater length than the width of the stairs.

All stairs eight feet and over in width shall be provided with a centre hand-rail of metal, not less than two inches in diameter, placed at a height of about three feet above the centre of the treads, and supported on wrought metal or brass standards of sufficient strength placed not nearer than four feet nor more than six feet apart, and securely bolted to the treads or risers of stairs, or both, and at the head of each flight of stairs, on each landing, the post or standard shall be at least six feet in height, to which the rail shall be secured.

Boilers, Registers and Radiators.

Every steam boiler which may be required for heating or other purposes shall be located outside of the building, either under the sidewalk or in an extension, but in no case under or within any portion of the building used for theatrical purposes, and the space allotted to the same shall be enclosed by walls of masonry on all sides, and the ceiling of such space shall be constructed of fireproof materials. All doorways in said walls connecting with the building shall have standard automatic sliding fire-doors.

No boiler register for heating, ventilating, or other purposes shall be permitted in aisles, corridors or passageways.

No coil or radiator shall be placed in any aisle or passageway used as an exit, and thereby reduce the same to less than the width required by this section; but all said coils and radiators shall be placed in recesses formed in the wall or partition to receive the same.

Standpipes.

Standpipes of not less than four inches in diameter shall be provided with hose connections as follows: One on each side of the auditorium in each tier, one on each side of the stage in each tier, one within ten feet of the door of the property room, one within ten feet of the door of the carpenter's shop and scenery storage room.

All of such standpipes and hose connections shall be kept clear of obstructions.

Said standpipes shall receive their supply of water from at least one of the following sources:

- From a gravity tank located over the stage roof of not less than five thousand gallons capacity.
- Approved steel pressure tank of not less than five thousand gallons total capacity, located on stage roof or not lower than gridiron floor.
- Automatic fire pump of not less than five hundred gallons capacity per minute.
- From city mains where nozzle pressure is not less than twenty-five pounds at the highest hose outlet when streams are in operation.

Pipes shall be fitted with approved straightway composition gate valves at hose outlets, and the thread of all connections shall be uniform with that in use by the Fire Department.

Two spanners shall be located at each hose connection.

Pipes shall be kept constantly filled with water under pressure and be ready for immediate use at all times.

In addition to the requirements contained in this section, the standpipes shall have a siamese steamer connection and conform to all other requirements contained in section 156 of this Code covering standpipe installation.

A sufficient quantity of standard iron or cotton rubber-lined hose not less than two and one-half inches in diameter, in fifty-foot lengths, but not less than fifty feet in total length, shall be kept attached to each hose connection. Hose shall be fitted with washers and equipped with couplings and nozzles, the thread of which shall be uniform with that in use by the Fire Department.

The standpipe equipment above described shall be installed independently of and without connection to the automatic sprinkler system required under this section.

Automatic Sprinklers.

A standard equipment of automatic sprinklers shall be installed throughout the entire theatre, except in the auditorium, foyers, lobbies, entrance halls and passages used by the audience.

There shall be an independent water supply to the sprinklers which may consist of any of the following:

- Gravity tank of not less than ten thousand gallons capacity, and elevated not less than twenty feet above the highest sprinkler.
- Approved steel pressure tank of not less than seven thousand five hundred gallons capacity located not lower than the highest line of sprinklers.
- Direct supply from the city water mains where the pressure is sufficient to maintain not less than twenty-five pounds at highest line of sprinklers when same are in operation.

In addition to one or more of the above required supplies, there shall be a siamese steamer connection placed on the outside of the building at each street front, installed as described in section 156, and with suitable iron plate with raised letters securely attached to the wall near steamer connection, reading "Stage Sprinklers."

Casks and Fire Pails.

There shall be kept in readiness for immediate use one forty-gallon cask filled with water, and six fire pails on each side of the stage, under the stage, on each fly-gallery, and an approved supply of fire pails in property and other storerooms and in each workshop; said casks and buckets shall be painted red and lettered "For Fire Purposes Only."

Chemical Fire Extinguishers, etc.

There shall be also provided six three-gallon approved chemical fire extinguishers, at least four axes, two twenty feet hooks, two fifteen feet hooks and two ten feet hooks on the stage, and such other appliances as may be required by the Fire Commissioner.

Gas and Electric Lighting.

Every portion of the building devoted to the uses or accommodation of the public, also all outlets leading to the streets, and including the open courts and corridors, shall be well and properly lighted during every performance, and the same shall remain lighted until the entire audience has left the premises.

There shall be one light within a red globe or lantern, placed over each exit opening, on the auditorium side of the wall.

Gas or electric light mains supplying the building shall have three independent connections as follows: One for the stage, one for the auditorium, excepting the exit lights therein, and the third for the halls, corridors, lobbies, exit lights, including the exit lights in the auditorium, and such other portions of the building used by the audience outside of the auditorium proper.

All gas or electric lights required for properly lighting halls, corridors, lobbies and other portions of the building used by the audience, with the exception of the auditorium proper, but including the exit lights therein, shall be controlled by two separate switches or valves, one shall be located in the lobby and the other shall be so located as to be operated from the outside of the building, and shall be supplied in one of the two following ways:

(a) By direct connection with the street service.

(b) By connection with an independent lighting plant or storage battery system inclosed in a waterproof and fireproof compartment below the sidewalk level.

Provision shall be made for shutting off all gas and electric currents at a point outside of the building.

When interior gas lights are not lighted by electricity, other suitable appliances, to be approved by the Superintendent of Buildings, shall be provided.

All suspended or bracket lights surrounded by glass, in the auditorium, or in any part of the building devoted to the public, shall be provided with proper wire netting underneath.

In addition to the gas and electric lights herein provided for, there shall be kept lighted during every performance, at every exit and in every passageway leading to the street and courts for the egress of the audience, oil lamps burning whale, lard or other fish or animal oil. Said lamps shall be inclosed in glass to protect the flame from air currents and shall be securely placed at least seven feet above the floor.

No gas or electric light shall be recessed in the woodwork, ceilings, or in any part of the building unless protected by fireproof materials.

All lights in passages and corridors in said buildings, and wherever else deemed necessary by the Superintendent of Buildings, shall be guarded with proper wire network.

The footlights, when not electric, in addition to the wire network, shall be guarded with a strong wire guard and chain drawn taut, placed not less than two feet distant from said footlights, and the trough containing said footlights shall be formed of and surrounded by fireproof materials.

All border lights shall be constructed according to the best known methods, and subject to the approval of the Superintendent of Buildings, and shall be suspended for not less than ten feet directly above the lights by wire rope or iron chain.

All ducts or shafts used for conducting heated air from the main chandelier, or from any other light or lights, except where lights are electric, shall be constructed of metal and made double, with an air space between, or some other approved fireproof material may be used.

Stage Lights.

All stage lights shall have strong metal wire guards or screens, not less than eight inches in diameter, so constructed that any material in contact therewith shall be out of reach of flames of said stage lights, and such guards or fixtures shall in all cases be soldered to the fixture.

The bridge calcium lights at sides of proscenium shall be inclosed in front and on the side by galvanized iron, so that no drop can come in contact with the lights. Electric calcium, so called, are included in the above requirements.

Where counterweights are used, the same shall not be suspended over that part of the clear stage space open to the gridiron.

Approval of Fire Department.

The standpipes, electric wires, hose, footlights, gas pipes and all apparatus for the extinguishing of fire or guarding against the same, as in this section specified, shall be installed to the satisfaction of and be in charge of and under control of the Fire Commissioner, and the said Commissioner is hereby directed to see that the arrangements in respect thereto are carried out, enforced and maintained.

Signs Over Places of Exit.

Every exit shall have over the same on the inside the word EXIT inscribed in large legible letters not less than eight inches high.

CHAPTER XXIX.

FIRE APPLIANCES, STANDPIPES, AUTOMATIC SPRINKLERS, FIRE-ESCAPES AND TOWERS, FIRE-PROOF SHUTTERS AND DOORS.

Section 156.

Standpipes.

In every building, except as provided for in section 155, exceeding fifty-nine feet and not over one hundred feet in height, unless already provided with a three-inch or larger standpipe, and in all buildings hereafter erected exceeding fifty-nine feet and not exceeding one hundred feet in height, there shall be provided a vertical standpipe of not less than four inches in diameter.

In every building exceeding one hundred feet in height, unless already provided with a three-inch or larger standpipe, and in all buildings hereafter erected exceeding one hundred feet in height, there shall be provided a vertical standpipe of not less than six inches in diameter.

These standpipes shall be of wrought iron or steel galvanized, and, together with fittings and connections, shall be of such strength as to safely withstand at least three hundred pounds water pressure to the square inch when installed and ready for service; also to stand such a test without leaking at joints, valves or fittings.

Standpipes shall be located within fireproof stairway inclosures where the latter are of such construction, and shall pass through the landings or the halls where they are not so inclosed.

In buildings exceeding one hundred feet deep fronting on two or more streets there shall be a standpipe at each end of building, and in buildings of an area exceeding eight thousand square feet there shall be one standpipe at each stairway, or within each stairway inclosure.

Where more than one standpipe is required in a building they shall be connected at their bases by pipes of size equal to that of largest standpipes, so that water from any source will supply all the standpipes.

Standpipes shall extend from the cellar to and through the roof, with a hose connection located from four to six feet above each floor level fitted with approved straightway composition gate valve in each story, including cellar, and a hose connection provided above the roof with valve controlling latter located in the standpipe under the roof and arranged to be operated both from above and below the roof. A suitable three-quarter inch drain pipe and valve shall be provided under the roof for each roof connection.

Hose sufficient to reach to all parts of the floor shall be attached to each outlet in the building, and hose for roof hydrant may be placed on rack in top floor near the scuttle or bulkhead leading to the roof. Hose shall be two and one-half inches in diameter, in fifty-foot lengths, and provided with standard couplings at each end; all couplings shall be of standard thread as that used by the New York Fire Department.

Hose shall be standard linen.

Each line of hose shall be provided with washers and be fitted with play pipe of standard pattern, with discharge outlet not less than three-quarter inch in diameter. Two spanners shall be located at each hose connection throughout the building.

All standpipes shall be provided with a female siamese steamer connection with clapper valve, located on the outside of the building about one foot above the curb level, and where a building fronts on two or more streets, a connection shall be provided on each street front. Inlet pipe from steamer connection to standpipe shall be not less than

the diameter of the largest standpipe. The thread on the siamese connection shall be uniform with that used by the Fire Department. Siamese steamer connections shall be provided with check valves in the "Y," and substantial caps provided to protect thread on the connection. The steamer connection fitting shall be horizontal. A suitable iron plate with raised letters shall be secured to the wall near steamer connection, reading "Standpipe leading to cellar, subcellar or up through building," as the case may be.

In each connecting pipe just inside of the building, in a horizontal section, shall be placed a straightway check valve, but not a gate valve. A drip pipe with valve to same, shall be placed between said check valve and steamer connection to properly drain this section to prevent freezing.

In addition to the provision made for steamer connections to standpipes, the water supply may be from City water, where pressure is sufficient, automatic fire-pump of five hundred gallons or more capacity per minute, elevated tank or steel pressure tank of not less than five thousand gallons capacity.

In all buildings coming under these regulations as to height the standpipe system shall have at least one of the approved automatic supplies before described.

Where a standpipe is connected in a tank there shall be straightway check valve in a horizontal section of pipe between the first hose outlet in connecting pipe and tank, and said tank shall be filled by separate pipe, and not through the standpipe.

Where pumps furnishing a supply to standpipes are located in the lowest story of a building, they shall be placed not less than two feet above the floor level, and boilers upon which pumps depend for steam shall be arranged so that flooding of fires under same will be impossible.

SECTION 157.

Miscellaneous Fire Apparatus and Appliances.

In every building exceeding one hundred feet in height, at least one passenger elevator shall be kept in readiness for immediate use by the Fire Department during all hours of the night and day, including holidays and Sundays.

All existing buildings, and those hereafter erected exceeding one hundred feet in height, shall be provided with auxiliary fire apparatus and appliances, such as wrenches, spanners, fire extinguishers, hooks, axes and pails, as may be required by the Fire Commissioner; all of said apparatus shall conform in design to those in use by the Fire Department.

SECTION 158.

Automatic Sprinklers.

In such existing buildings as the Fire Commissioner may require, and in all buildings hereafter erected of Classes E and F, except office buildings, restaurants, railroad freight depots, refrigerating plants, chemical warehouses, breweries, observatories, oil refineries, oil houses, light and power plants, smoke houses, laboratories, coal pockets and any portion of loft buildings used for office or dwelling purposes, the height of which exceeds seventy-five feet, there shall be provided in addition to said standpipe or standpipes a standard equipment of automatic sprinklers, placed at ceiling of each or any story and extending the full depth and breadth of the building. Said sprinkler pipes shall be connected with a pipe of not less than four inches in diameter leading to the outside of building, and there provided with an approved siamese steamer connection; the latter shall be installed under the requirements set forth in this section, and to be under the control of and for the use of the Fire Department. A suitable iron plate with raised letters shall be attached to the wall near said steamer connection reading "Automatic Sprinklers."

Car Barns.

All buildings hereafter erected that are designed or intended for or used as car barns for the storage or repair of cars shall be provided with a standard equipment of automatic sprinklers.

Theatres.

All theatres hereafter erected shall be provided with a standard equipment of automatic sprinklers, as provided for in section 155.

SECTION 159.

Fire Escapes and Towers.

If hereafter erected, or altered or converted from any other purpose to any of the purposes herein specified, every building used or occupied as a place of public entertainment, unless otherwise specifically provided for elsewhere in this Code, every building occupied as a place of instruction, all other public buildings over seventy-five feet in height, every mercantile building over three stories in height, and all such special structures as may be designated by the Superintendent of Buildings, every detention building and all other residence buildings containing fifteen or more sleeping rooms, except dwellings for one family, shall be provided with one or more fire towers, accessible to all occupants.

Such towers shall be constructed with masonry walls, inclosing a stairway of fireproof construction. Such towers and stairways shall extend from the curb level to the roof, the walls of the towers extending high enough above the roof to form a bulkhead. Access to this tower shall be had only by doorways communicating with iron, steel or masonry balconies on the outside walls of the building at each story. Direct exterior outlet must be provided at the curb level. The stairways shall be at least three feet wide and have treads not less than nine inches wide and risers not more than eight inches high. Landings of full width of the stairs shall be provided at vertical intervals of not more than twelve feet and no winders shall be permitted, but all treads must be of uniform width.

At least one such tower shall be provided in buildings herein specified, covering an area of less than five thousand square feet, and at least one additional tower shall be provided for every ten thousand square feet additional area or fraction thereof, except that in non-fireproof buildings having an area of less than two thousand five hundred square feet, and in fireproof buildings having an area less than five thousand square feet, no fire towers shall be required, provided that the stairs are constructed fireproof and are inclosed in brick walls.

Fire Escapes.

All existing buildings in whole or in part occupied or used as above specified, and not already provided with fire towers as herein required for new buildings, shall have such good and sufficient fire escapes, stairways or other means of egress in case of fire as shall be directed by the Bureau of Buildings, except in tenement houses, where fire escapes shall be erected as provided for in the Tenement House Law. All other buildings not herein specified, the height of which exceeds fifty-nine feet, shall have two separate means of escape or exit. The Bureau of Buildings shall have full and exclusive power and authority within said City to direct fire escapes and other means of egress to be provided upon and within said building or any of them, except as herein otherwise provided. The owner of any building upon which a fire escape is erected shall keep the same in good repair and properly painted.

Fire escapes on the outside of buildings shall consist of open iron balconies and stairways.

Fire escapes may project into the public highway in a distance not greater than four feet beyond the building line.

The stairways shall be placed at an angle of one more than sixty degrees with the horizontal, and with steps not less than six inches in width and twenty inches in length, and with a rise of not more than nine inches.

Balconies—The balcony on the top floor, except in case of a front fire escape, shall be provided with a goose-neck ladder leading from said balcony to and above the roof.

The balconies shall be not less than three feet in width, and placed where directed by the Superintendent of Buildings, at each story above the ground floor.

They shall be below and not more than one foot below the window sills and extend in front of and not less than nine inches beyond each window.

There shall be a landing not less than twenty-four inches square at the head and foot of each stairway.

The stairway opening on each platform shall be of a size sufficient to provide clear headway.

Floors of Balconies—The floors of balconies shall be of steel slats not less than one and one-half inches by three-eighths of an inch, placed not more than one and one-quarter inches apart, and well secured and riveted to steel battens one and one-half inches by three-eighths of an inch, not over three feet apart and riveted at the intersections. The openings for stairways in all balconies shall be not less than twenty-one

inches wide and thirty-six inches long, and such openings shall not have covers of any kind.

The platforms or balconies shall be constructed and erected to safely sustain in all their parts a safe load, at a ratio of four to one, of not less than eighty pounds per square foot of surface.

Railings—The outside top rail shall extend around the entire length of the platform, and in all cases shall go through the wall at each end, and be properly secured by nuts and four-inch square washers at least three-eighths of an inch thick, and no top rail shall be connected at angles by cast iron. The top rail of balconies shall be one and three-quarter inches by one-half inch of steel, or one and one-half inch by one and one-half inch angle, one-quarter of an inch thick. The bottom rails shall be one and one-half inches by three-eighths of an inch steel, or one and one-half inch by one and one-half inch angle, one-quarter inch thick, well leaded into the wall. The standards or filling in bars shall be not less than one-half inch round or square steel, well riveted to the top and bottom rails and platform frame. Such standards or filling in bars shall be securely braced by outside brackets at suitable intervals, and shall be placed not more than six inches from centres; the height of railings shall in no case be less than two feet nine inches.

Stairways—The stairways shall be constructed and erected to fully sustain in all their parts a safe load at a ratio of four to one of not less than one hundred pounds per step, with the exception of the tread, which shall safely sustain at said ratio a load of two hundred pounds. The treads shall be flat, open treads. The strings shall be not less than three inch channels of steel, or other shape equally strong, and shall rest upon and be fastened to a bracket which shall be fastened through the wall, as hereinafter provided. The strings shall be securely fastened to the balcony at the top, and the steps in all cases shall be double-riveted or bolted to the strings. The stairs shall have three-quarters inch handrails of steel well braced.

Brackets—The brackets shall be not less than one-half inch by one and three-quarters inch steel, placed edgewise, or one and three-quarters inch angle, one-quarter inch thick, well braced. They shall be not more than four feet apart, and shall be braced by means of not less than three-quarters of an inch square steel, and shall extend two-thirds of the width of the respective balconies or brackets. The brackets shall go through the wall and be turned down three inches, or be properly secured by nuts and four inch square washers at least three-eighths of an inch thick.

When brackets are put on buildings already erected, the part going through the wall shall be not less than one inch in diameter, with screw nuts and washers not less than five inches square and one-half an inch thick.

Drop Ladders—A proper balanced drop-ladder shall be required from the lower balcony when the floor of such balcony is more than fourteen feet above the sidewalk or ground.

Painting—All the parts of such fire-escapes shall receive not less than two coats of paint, one in the shop and one after erection.

Incumbrances on Fire Escapes.

No person shall at any time place an incumbrance of any kind whatsoever before or upon any fire-escape, balcony or ladder. It shall be the duty of every Policeman who shall discover any fire-escape, balcony or ladder or any fire-escape unnumbered in any way to forthwith report the same to the commanding officer of his precinct, and such commanding officer shall forthwith cause the occupant of the premises or apartment to which said fire-escape, balcony or ladder is attached, or for whose use the same is provided, to be notified, either verbally or in writing, to remove such incumbrance and keep the same clear. If said notice shall not be complied with by the removal forthwith of such incumbrance, and keeping said fire-escape, balcony or ladder free from incumbrance, then it shall be the duty of said commanding officer to apply to the nearest Police Magistrate for a warrant for the arrest of the occupant or occupants of the said premises or apartments of which the fire-escape forms a part, and the said parties shall be brought before the said Magistrate as for disorderly conduct and on conviction the occupant or occupants of said premises or apartments shall be fined not more than ten dollars for each offense, or may be imprisoned not to exceed ten days, or both, in the discretion of the court.

In constructing all balcony fire escapes the manufacturer thereof shall securely fasten thereto, in a conspicuous place, a metal plate having suitable raised letters on the same, to read as follows: "Notice: Any person placing any incumbrance on this balcony is liable to a penalty of ten dollars and imprisonment for ten days."

Scuttle Ladders—All buildings requiring fire escapes, unless provided with stairs to the roof, shall have stationary iron ladders leading to the scuttle, opening in the roof thereof, and all scuttles and ladders shall be kept so as to be ready for use at all times.

If a bulkhead is used in place of a scuttle it shall have stairs with sufficient guard or hand-rail leading to the roof. In case the building shall be a tenement house the door in the bulkhead or any scuttle shall at no time be locked, but may be fastened on the inside by movable bolts or hooks.

SECTION 160.

Fire Shutters and Doors.

Every building which is more than thirty-six feet and six inches in height within the fire limits except dwelling houses, tenement houses, club houses, schools, hotels and churches, shall have standard fire doors, blinds or shutters or their equivalent as required in this section, on every exterior window and opening above the first floor, except on the front openings fronting on streets, which streets are more than thirty feet in width, or where no other building is within thirty feet of such opening.

On any opening where the window frame and sash are of metal or of wood covered with metal and the sash are glazed with wire glass not less than one-fourth of an inch in thickness and each pane measuring not more than seven hundred and twenty square inches, the same shall be deemed an equivalent of and a substitute for fireproof shutters; excepting that when an exposing building is within thirty feet of any window opening, the wire glass in approved sash and frames of metal or wood covered with metal shall be double with an air space between the glass, ventilated to the inside.

All shutters opening on fire escapes and at least one row vertically in every three vertical rows on the front window openings above the first story of any building shall be so arranged that they can be readily opened from the outside by firemen. Rolling iron or steel shutters hereafter placed in any building shall be carefully counterbalanced, and shall be so arranged that they can be readily opened from the outside by firemen, except in residences.

All buildings specified in this section hereafter erected or altered having openings in interior walls shall be provided with standard fire doors on both sides of the wall; such fire doors shall be provided with approved automatic self-closing devices. All occupants of buildings shall close all exterior and interior fire doors and blinds at the close of each business day.

No revolving door shall be placed on the entrance or exit to any building unless such entrance or exit is in addition to the entrances or exits required under the provisions of this Code. All exit doors in buildings of Classes A, B, C, E and F shall open outward.

CHAPTER XXX.

ELEVATORS AND ESCALATORS—AMUSEMENT DEVICES.

SECTION 161.

Definitions.

An Elevator is a platform, chamber or car arranged to ascend or descend in a shaft or framework, and used for the purpose of transferring persons, animals, goods or chattels from one floor or level of a building to another and including all of the apparatus connected therewith for its furnishing and operation, and which shall be larger than nine square feet in platform area or more than four feet high.

A Passenger elevator shall be construed to mean an elevator that is used exclusively for the transference of persons from one floor or level to another.

A Freight elevator shall be construed to mean an elevator that is used for the transference of animals, vehicles or merchandise from one floor or level to another.

No freight elevator shall be used for the transference of persons other than the operator, unless it is equipped with all the safety devices called for under rulings for passenger elevators.

A Hoistway shall be construed to mean an opening or well hole framed in each story of a building and used exclusively for the purpose of hoisting materials of any sort from one floor or level to another without the use of a car or platform.

An Escalator or moving stairway shall be construed to mean any moving incline, either smooth or provided with steps, used for the transference of persons from one floor or level to another.

A Dumbwaiter shall be considered as a special form of Elevator Car, designed for the carrying of light articles, and is provided with one or more shelves, the floor area of which shall not exceed nine square feet or which shall not be more than four feet high.

An Amusement device shall include and shall be construed to mean all Scenic Railways, Toboggan Slides, Shoot the Chutes, Roller Coasters, Ferris Wheels, Air Ships, Circus Swings, Revolving Towers, Twirl the Twirl, Whirl the Whirl, Ziz, Loop the Loop and all other similar amusement and mechanical devices used for the conveyance of persons, for purposes of business or pleasure.

SECTION 162.

Inspectors.

The Superintendent of Buildings shall formulate such rules and regulations for the performance of the duties of the several inspectors and the inspection of Elevators, Escalators, Moving Stairways and Amusement Devices as shall insure such inspection being well and truly made, properly reported and recorded and all recommendations pertaining thereto properly and promptly attended to and carried out.

All Inspectors of elevators, escalators, moving stairways and amusement devices shall be competent elevator mechanics and shall have such other qualifications as may be required for the proper inspection of elevators.

SECTION 163.

Permits, Certificates, Notices, etc.

No elevator, escalator, moving stairway or amusement device shall hereafter be erected, installed or altered in any building before the owner or his agent, architect or contractor, shall notify the Superintendent of Buildings in writing, stating the construction and mode of operation of the machinery of such elevator, escalator, moving stairway or amusement device to be installed or altered, and obtain his approval thereto, and no erection, installation or alteration in the power, cables, safety devices, shafts or structures used in connection with any elevator, escalator, moving stairway, hoisting or mechanical amusement device shall be commenced without first obtaining a permit from the Bureau of Buildings in the manner required by section 5 of the Building Code, and no such elevator, escalator, moving stairway or amusement device shall be operated unless it shall have been duly tested and inspected and a certificate of such inspection obtained.

No certificate of inspection shall be issued for any elevator, escalator, moving stairway or amusement device that does not comply with the requirements of the law.

Certificates of inspection shall be issued by the Superintendent of Buildings and shall remain in force for one year from the date of issue, unless it shall develop after the certificate has been issued, either by reinspection or otherwise, that the elevator, escalator, moving stairway or amusement device is in an unsafe condition; in such case the certificate shall be canceled and the elevator service suspended until the elevator, escalator, moving stairway or amusement device is in a safe running condition.

The elevator, escalator, moving stairway or amusement device shall then be re-inspected and if found to be in a proper condition a new certificate of inspection shall be issued.

If any owner, lessee or agent of any building or any person under whose management any elevator, escalator, moving stairway or amusement device is operated shall receive a written or printed notice from the Superintendent of Buildings that any elevator, escalator, moving stairway or amusement device under his, her or their control is in an unsafe condition and shall continue to operate such elevator, escalator, moving stairway or amusement device in defiance of the requirements of said notice from the Superintendent of Buildings, the said Superintendent of Buildings shall, after a lapse of ten days, post a printed notice in a conspicuous place at the entrance to said elevator, escalator, moving stairway or amusement device, warning the public that the said elevator, escalator, moving stairway or amusement device is in an unsafe condition. This notice shall not be removed until the necessary repairs or changes shall have been made to the satisfaction of the Superintendent of Buildings.

The owner, lessee, manager or other person having charge or control of any elevator, escalator, moving stairway or amusement device now or hereafter in operation, and the manufacturer of any such elevator, escalator, moving stairway or amusement device now or hereafter placed in any building shall cause to be fastened in a conspicuous place in said elevator a metal plate, having suitable raised letters on same, which shall prescribe the maximum pounds weight which said elevator, escalator, moving stairway or amusement device shall be permitted to carry.

SECTION 164.

Inspectors.

The Superintendent of Buildings shall cause an inspection of all elevators, escalators, moving stairways and mechanical amusement devices carrying passengers or employees or freight, and he is authorized and directed to make regulations for the inspection of such elevators and devices with a view to safety; and he shall also prescribe suitable qualifications for persons who are placed in charge of the running or the operating of such elevators and devices and shall issue certificates of inspection and approval, and shall cause such certificates to be posted in a prominent place in the elevator car or on the device for which such certificate was issued, and shall revoke such certificate when such elevator or device fails to fulfill the requirements of safety.

All elevators, escalators, moving stairways or amusement devices for the purpose of carrying either passengers or freight or passengers and freight, shall be inspected at least once every three months by an Inspector of the Bureau of Buildings, known and designated as Inspector of Elevators, Escalators, Moving Stairways and Amusement Devices, who shall determine whether the same are in perfect working order, and that all parts of the same are in good condition and repair.

Such inspection shall be made regardless of any other inspection and no insurance or liability company's inspection shall exempt any elevator from such inspection.

The results of all such inspections shall be properly recorded on blanks or in books provided for such purpose by the Bureau of Buildings, and all notices of changes or repairs and all certificates of inspection and approval, etc., shall be issued by the Superintendent of Buildings.

For the purpose of making such inspections the Inspector shall have the right to enter the premises where any such elevators, escalators, moving stairways or amusement devices may be located.

The owners, tenants, their agents and employees of buildings in which elevators, escalators, moving stairways or amusement devices are located shall admit Elevator Inspectors at all times with as little delay as possible, and give every facility for the prompt and careful execution of all inspections.

All such inspections shall be conducted during business hours, between eight a. m. and five p. m., and with as little interruption as possible to the business of the establishment.

The Bureau of Buildings shall notify the owner, superintendent or engineer in charge of any building in which an inspection is to be made at least two days before such inspection is made, provided that in cases of necessity a longer time shall be granted.

When an elevator, escalator, moving stairway or amusement device installation, done under permit, is completed, the owner or his agent, architect or contractor shall thereupon notify the Superintendent of Buildings that the installation is complete and ready for inspection.

All such notifications shall be entered by the Superintendent of Buildings on a calendar in the order in which they are received and inspection shall be made by an Inspector of elevators, etc., in the same order.

If the Inspector reports the work to be satisfactory a certificate shall be issued; if unsatisfactory, the case shall be placed at the bottom of the calendar to be again

acted upon in regular order, unless the Superintendent of Buildings shall deem it necessary to order further immediate inspection to be made.

Every elevator, escalator, moving stairway or mechanical amusement device that is in actual operation shall immediately shut down and cease to operate when the result of an official inspection shows that a condition prevails that would endanger life or limb if such elevator or device continued to operate in its defective state; and the owner or lessee or manager of any such elevator or device shall be held strictly accountable for any accident wherein any person is injured during the operation of any such elevator or device that has been declared to be in an unsafe and dangerous condition by the Superintendent of Buildings and the responsible person has been duly notified of its defective state.

No person shall be permitted to operate an elevator, escalator or moving stairway or mechanical amusement device that has not been inspected, tested and approved by the Superintendent of Buildings.

SECTION 165.

Tests.

The number of persons or amount of weight permitted to be carried on or in any elevator, escalator, moving stairway or mechanical amusement device shall be determined by a practical test, calculation and inspection, to be made at the expense of the owner and in the presence of the Superintendent of Buildings, or his representative, and the owner.

If the result of such test shows the elevator, escalator, moving stairway or amusement device to be in good and safe condition a certificate of approval thereof shall be issued by the Superintendent of Buildings.

SECTION 166.

Defects, Accidents, Alterations, Repairs, etc.

If any defects be found to exist in any part or parts of any passenger, freight, passenger and freight elevator, escalator, moving stairway or amusement device which would tend to impair its safety or endanger life or limb by the continued use thereof, the Superintendent of Buildings shall have the power to order the discontinuance of the use of same, and shall have the power to compel the owner, lessee or agent of the building in which said elevator, escalator, moving stairway or amusement device is located, or any other person responsible for the running of the same, to make such alterations or repairs as he may deem necessary, and shall cause a written notice to be served upon the owner, which notice shall contain a statement of the repairs or changes necessary to be made to put said elevator in proper condition, and said elevator shall not be used again until a certificate in writing shall be issued by the Superintendent of Buildings.

The Superintendent of Buildings shall have the power to condemn any mechanical part or appliance connected with any passenger or freight elevator, escalator, moving stairway or amusement device, if the same, in his judgment, is dangerous or unreliable, and whenever any such part or appliance has been so condemned it shall be removed and the elevator, escalator, moving stairway or amusement device made safe to the satisfaction of the Superintendent of Buildings.

The owner of any elevator, escalator, moving stairway or mechanical amusement device, shall be required to see that the machinery, power, cables, tracks, structures, cars, automatic devices, etc., are kept in good, safe working condition, and provide additional safeguards and safety devices when directed by the Superintendent of Buildings.

If an accident should occur in or on any elevator, escalator, moving stairway, or amusement device, affecting life or limb or in any way impairing the safety of said elevator, escalator, moving stairway or amusement device, the owner of same shall immediately notify the Superintendent of Buildings of such accident and before any broken, deranged or damaged parts of the machinery have been removed, and before any steps are taken to repair in any way the damaged parts, in order that the cause of the accident may be properly investigated by the Superintendent of Buildings, and no such removal or repair of any of the broken, deranged or damaged parts shall be made until after such investigation shall have been made and completed by the Superintendent of Buildings and the authorization shall have been given by the Superintendent of Buildings for the removal or repairs of said broken, deranged or damaged parts.

It shall be the duty of all such owners of any elevator, escalator, moving stairway or mechanical amusement device to immediately notify the Superintendent of Buildings of any accident to the elevator or device in his charge, or of the failure of any of the automatic safety devices attached thereto to work in the proper manner.

In case the owner of any elevator, escalator, moving stairway or amusement device shall fail to promptly report any elevator, escalator, moving stairway or amusement device accident, he shall be held personally responsible for such failure to report to the Superintendent of Buildings.

It shall be the duty of the owner of any elevator now in operation to designate every elevator in a building by a number, said number to be stenciled on the beam of the car in characters not less than three inches high.

In making any changes or alterations to elevator cars, shafts, rails, overhead machinery or power already installed, all the work changed or altered shall be made to conform to this law and regulations, and all such changes or alterations shall be made in such a manner as not to interfere with or disarrange the other parts of the elevator not changed or altered.

Whenever any elevator, escalator, moving stairway or amusement device shall be in need of repairs, in any respect pertaining to the operation of the same, or when any of the apparatus or machinery connected with any elevator, escalator, moving stairway or amusement device shall become impaired, necessitating the temporary disuse of the elevator, escalator, moving stairway or amusement device, the owner shall at once notify the Superintendent of Buildings in writing of such impairment, disuse or accident, and shall not again put the same in operation until an inspection has been made and its condition approved by the Superintendent of Buildings.

SECTION 167.

Speeds, Weights, Strength of Materials, etc.

The speed of any elevator shall not exceed six hundred feet per minute.

No passenger elevator shall be permitted to have attached above, below or on the side of the car a freight compartment or similar device.

All elevators carrying more than the regular attendant and such as are necessary for the proper care and handling of freight, shall be classed as passenger elevators, and shall be subject to all the requirements, rules and regulations of passenger elevators.

Where freight elevators are placed within the same enclosure with passenger elevators, such elevators shall conform in all particulars to the regulations for the construction, inspection and operation of passenger elevators.

Every freight elevator or lift shall have a notice posted conspicuously thereon reading as follows: "Persons riding on this elevator do so at their own risk."

Passenger elevators used for emergency loads, such as lifting safes, shall have the car provided with an approved emergency device to support the car independently of the hoisting ropes or plunger while loading or unloading.

Every power driven freight elevator shall be provided with a signal bell that can be operated from any floor, and the controlling device shall be provided with some form of lock that shall enable the attendant to hold the car immovable while loading or unloading.

No passenger elevator hereafter installed shall include in its construction power transmission by means of belts or chains.

All parts of elevators shall have a factor of safety of not less than eight.

All shafts on machines subject to reversible stresses shall not be stressed more than eight thousand pounds per square inch on the outer fibre.

All overhead shafts subject to reversible strains and shocks shall not be stressed more than six thousand five hundred pounds per square inch; all bearings or boxes shall not be stressed to exceed four hundred pounds per square inch.

Overhead beams subject to shock and car frame, cross-head and bottom channels shall have their stresses reduced by fifty per cent. of those given in section 46.

Span shall be figured on basis of distance between face of rails.

No elevator or sling hoist shall be erected in any thoroughfare where it is necessary to pass under the elevator or sling hoist, whether it is located inside or outside of the building, or if its location is over any public sidewalk.

No hand elevator shall be balanced to more than one hundred and fifty pounds in excess of the weight of the car.

Every existing power driven freight elevator occupying a thoroughfare that cannot be guarded by vertical inclosure, shall be provided with a loud ringing gong that will ring continuously while the car is descending through the thoroughfare.

SECTION 168.

Operators.

The Superintendent of Buildings shall have the power to order a regularly authorized operator on any elevator when, in his judgment, the safety of the public requires the elevator to be placed under such control. Should the owner not comply with the said order the elevator shall not be permitted to be operated.

The operator or person in direct charge and control of the running or operating of any elevator, escalator or mechanical amusement device must be of reliable character, not less than eighteen years of age and in possession of sufficient knowledge and experience in the management of the elevator or device in his charge to insure the safety of its occupants. Any person who can qualify in the above requirements shall be granted a certificate of competency by the Superintendent of Buildings. No female operators of elevators shall be allowed under any conditions.

In case the Superintendent of Buildings shall deem the person operating the elevator, escalator or amusement device is incompetent or disqualified from any cause to continue to run the same, the owner or person managing or controlling the elevator, escalator or amusement device shall, upon notice from the Superintendent of Buildings, at once replace the said operator by a competent operator. This section shall not, however, apply to elevators, escalators or moving stairways used exclusively for freight and where no passengers or employees are carried except the person duly authorized to have access to said elevator or escalator for the purpose of operating the same.

SECTION 169.

Safeties, Brakes, Controls, Limits, Stops, Air Cylinders, Buffers, Indicators, Door Locks, etc.

All machine operated elevators, whether electric or hydraulic, passenger or freight, shall be provided with the following safety appliances:

Automatic upper and lower limit stops of approved design, so arranged that they will stop the elevator platform or car at the upper and lower terminal landings independently of both the operating cable, lever, wheel or switch, and the operator.

Every hydraulic passenger plunger elevator hoistway installed, which may require counterweight in excess of the weight of the car, shall be provided with a positive automatic limit stop at top and bottom of the hoistway. This device shall be entirely independent of the automatic limit and operating valves, and shall bring the car to an easy and gradual stop should it from any cause be carried beyond the normal limits of travel, either ascending or descending. This device shall also be attached to the upper and lower terminals of the counterweight.

All passenger elevators shall be provided with limit stops to stop the cars at the terminals. On hydraulic elevators these stops shall be controlled by a supplementary or automatic cut-off valve, and on electric elevators by an automatic device of a type and arrangement approved by the Superintendent of Buildings.

An approved slack cable device which shall automatically cut off the power in case the elevator is disconnected, also an approved speed governor so arranged that it will automatically cut off the power in case the speed of the elevator increases twenty-five per cent, above the normal speed, shall be provided.

All hand power elevators, where the travel is over twenty-five feet shall be equipped with an approved speed governor that shall control the speed of the car in either direction of motion.

Every spur geared elevator of a higher rise than twenty-five feet shall be provided with an approved speed governor.

An approved main safety device or clutch which shall operate automatically at the normal speed of the car, while descending to gradually stop and hold the car, shall be provided, but under no conditions shall any instantaneous safety device be applied to any passenger elevator. This safety device shall in all cases be placed under the elevator car or platform.

All passenger elevators shall be provided with an approved emergency safety device, placed in a position accessible to the elevator operator.

All electrically operated elevators shall be equipped with an approved electrically operated brake of substantial construction, said brake to be properly applied to the driving mechanism of the elevator and so arranged that it shall be automatically applied when the electric current is cut off from any cause whatever.

All hand power elevators shall be provided with an approved brake made to operate on the outside rim of the rope wheel and the weight by which the brake band is tensioned shall be secured by an auxiliary chain or rope.

Machinery of hand sidewalk lifts shall be equipped with a substantial brake, easily applied, and protected by a gear operating on the gear wheel.

All elevators shall be provided with approved means for locking the operating control levers or wheels, when released by the operator.

Where basement or sidewalk lifts are installed, an approved guard shall be provided at the first floor or street level. If at the street level, the hatch doors when open shall be protected by chains or bars, and when inside the building, the unprotected sides of the hatch shall be protected by a solid or slat inclosure at least seven feet high, with lifting gates at the leading sides; these gates shall be operated by the action of the car.

Every power-driven sidewalk elevator shall have at the street level a removable safety. The car shall also be provided with a substantial guard or bar to open the sidewalk doors far enough in advance of the car to prevent catching anyone between the elevator car and the sidewalk doors.

At the top and bottom of all elevator shafts there shall be placed over and under the strongest parts of the elevator car, approved buffer springs and rubber buffers.

At the top and bottom of the counterweight guides or rails substantial bumpers of approved construction shall be securely placed and so arranged that should the counterweight strike against them there shall be no twisting motion given to the weights with a resultant spreading of the rails.

All doors or gates leading into any elevator shaft shall be so constructed that they shall be securely locked on the shaft side when closed and shall be arranged so that they can only be opened from the shaft side and only by the operator in the elevator car with the exception of one door on each shaft, which shall be arranged to be opened by a key from the landing side of the shaft.

All gate valves or locks shall be so arranged that they can be operated by the operator without it being necessary to let go of the car control lever.

Every elevator operator, shall close and lock all doors leading into any elevator shaft before he starts the elevator car in motion and shall bring the car to a dead stop before he opens any door leading into any elevator shaft.

SECTION 170.

Shaftways, Hatchways, Inclosures, Grilles, etc.

Every shaftway hereafter constructed for all power operated elevators having a higher rise than twenty-five stories, up to a speed of three hundred feet per minute, shall provide for a car travel of at least four feet above and below the upper and lower terminal landings. For elevators of greater speed than three hundred feet per minute, this distance shall be increased above four feet at the rate of one foot for each additional one hundred feet of speed. A clear space not less than four feet in depth and the full-size of the shaft, shall be provided between the bottom of the shaft and the lowest point of the underside of the car when the car is at the limit of its descent. The distance between the underside of the platform or landing at the top of the elevator shaft, and the top of the crosshead of the car when at the limit of its ascent, shall not be less than four feet.

Every existing freight elevator shall have the hatches on every floor protected by vertical gates and inclosures. The fixed inclosures shall be not less than six feet in height, and the gates as nearly six feet in height as the conditions at the building shall warrant. Wooden gates and inclosures shall be made of vertical strips with spaces not wider than two inches. Should the stories be so low that the gates cannot be at least five feet in height, with a space under same of eighteen inches, vertical collapsing gates shall be installed.

Wherever carriage or automobile hoists are installed, hatchways on all floors except the lower one shall be inclosed on the unprotected sides by slat work or solid

inclosures of wood at least six feet high, and at the leading ends the approaches shall be protected by a balanced drop bar.

All elevators hereafter installed shall have the inclosures made flush with the hatchway on every open side of the car, and wherever window recesses occur in the shaftway the same shall be covered by a substantial grille or screen, made flush.

Where temporary cars are running in hatchways or shafts, during the erection or the elevators or the construction of the building, the hatchways on each floor shall be inclosed by temporary inclosures not less than six feet in height, and kept inclosed until the final and permanent inclosure are put in place.

All parts of the elevator machinery shall be properly inclosed by suitable partitions, and such inclosures shall be properly lighted. Free and safe access shall be provided to all parts of elevator machinery.

Where the stairs and elevator are not provided as provided in section 99, the elevator shaft shall be protected by grille work of not more than one and one-half inch mesh backed up with an approved wire glass extending from door to ceiling.

SECTION 171.

Doors, Gateways, Hatch Doors, etc.

All entrances to elevator cars shall be provided with substantial folding or sliding gates which shall be closed before the elevator car is started and kept closed while the elevator car is in motion.

Where floor tracks for the gates are used the same shall be countersunk.

All folding gates over three feet wide at the entrance to an elevator shaft or car shall have top, bottom and center braces.

Every passenger elevator hereafter installed shall be provided with inside sliding doors or gates, and it shall be the duty of the operator to keep each inside gate or door closed while the car is in motion.

All doors or gates leading into passenger elevators hereafter installed shall be provided with approved safety tracks both on the floor of the car and on the floor of the hall or entry way.

In any building in which there shall be any elevator, dumbwaiter, interior light or vent shaft, hallway, hatchway, chimney, well hole or shaft of any description not inclosed in walls constructed of brick or other fireproof material and provided with fireproof doors, the openings thereto through and open walls of said building shall be provided with and protected by a substantial guard or vertical inclosure, and gate or gates or both, and with such good and sufficient trapdoors as may be directed and approved by the Superintendent of Buildings; and when, in the opinion of the Superintendent of Buildings, having jurisdiction, automatic trapdoors are required to the floor openings of any inclosed elevator, the same shall be constructed so as to form a substantial floor surface when closed, and so arranged as to open and close by the action of the elevator in its passage, either ascending or descending.

All hatch doors shall be completely covered on the under side with asbestos, and the both asbestos and tin shall be folded over the edges of doors and cable slots and lapped on the upper side not less than one inch. All arms shall be folded, not soldered, and nail heads shall not be exposed on the under side of doors. The asbestos and tin shall be so folded over the corners as to completely cover the wood.

If it is impossible to place automatic hatchdoors, hatchdoors shall then be arranged to hook back with fusible fastenings, and so hung that they will close automatically when the fuses melt, but no power driven elevator running over seventy-five feet per minute shall be equipped with hatchdoors. No passenger elevators shall be fitted with automatic or fusible link hatchdoors.

The said Superintendent of Buildings shall have exclusive power and authority to require the openings of hallways or hallway shafts, elevators and well holes in buildings to be inclosed or secured by trapdoors, guards or gates, and railings. Such guards or gates shall be kept closed at all times except when in actual use, and the trapdoor shall be closed at the close of the business of each day by the occupant or occupants of the building having the use of control of the same.

All gates or doors for passenger elevator shaftways shall cover the entire opening, and shall be flush with the inside of the shaftway, and shall be arranged to roll or slide horizontally wherever practicable. The gates shall be so constructed as to avoid the possibility of their becoming detached.

Semi-automatic gates, both for hand and power driven freight elevators, shall be built in a substantial manner, and so guided that the door on the gate shall have at least a lap of one inch on the guide strip, to prevent the gate from coming off the guide track. Gates on hatchways five feet in width and less shall be hung on drop or steel cables not less than three-eighths inch diameter, and with pulleys not less than four inches in diameter. Where the hatchway exceeds five feet in width and not more than eight feet in width, the gates shall be hung with cables not less than one-half inch diameter, and with pulleys not less than six inches diameter. In hatchways exceeding eight feet in width the gates shall be hung with two balanced weights, one at each side, using half-inch cables and not less than six-inch diameter sheaves for each counterweight.

Where it is necessary to place a lifting gate on any elevator or car, the said gate shall be so hung and balanced as to close automatically when the car leaves the landing.

SECTION 172.

Overhead Construction.

All overhead beams, sheaves and supports shall be of steel or iron, and all overhead beams shall be supported at both ends on brick walls or on steel construction, in steel construction resting on masonry.

All overhead machinery shall be supported on a substantial wrought-iron or steel frame or beams, and where it is necessary to hang bearings underneath the supporting beams, these bearings shall be supported by wrought iron or steel strips bolted to and through the supporting frame or beam.

At the top of the shaft, and under the suspension sheaves and beams of all elevators, there shall be built a substantial working platform or grating of open construction of iron or steel having not more than one and one-half inches space between any two members of said grating and made so as to sustain a load of one hundred and fifty pounds to the square foot; said platform or grating shall be securely supported, independent of the overhead construction carrying the sheaves and other overhead appliances.

All cable-hauled passenger elevators shall have the following cables:

Electric elevators, at least two lifting cables, two car counterbalance cables or two back drum cables.

Vertical hydraulic elevators, not less than four lifting cables.

Horizontal hydraulic elevators, four lifting cables, and should independent counterbalance be used on either of the latter there shall be two independent counterbalance cables. All cables shall be properly secured with shackles, clamp fastenings and equal splices, or other approved fastenings. Each cable shall be fastened independently.

The lifting and weight cable shall each have at least one and one-half full turns of cable on the drum when they have run to the limit.

Wire Ropes.

The allowable loads for the various sizes of cables and sheaves or drums are given in the following table:

Size of Rope.	Minimum Diameter of Drum or Sheave.	Maximum Load on One Rope, Passengers, Freight.
1/2-inch.	20 inches.	1,100 lbs. 1,500 lbs.
9/16-inch.	22 inches.	1,350 lbs. 1,800 lbs.
5/8-inch.	25 inches.	1,700 lbs. 2,250 lbs.
3/4-inch.	30 inches.	2,500 lbs. 3,000 lbs.
7/8-inch.	35 inches.	3,200 lbs. 4,000 lbs.
1-inch.	40 inches.	4,000 lbs. 5,000 lbs.

Cast steel ropes shall not be subjected to more than fifty per cent, more strain than iron ropes.

All sheaves for operating cables shall be provided with flanges of approved depth and with proper guards.

SECTION 173.

Counterweights, Cages, Canopies, etc.

All counterweights shall have their sections substantially bolted together and shall be so situated that they cannot fall on any part of the elevator machinery. Where weights run in the same shaft as the car they shall be protected with a screen of iron from the top of the guide rails to a point fifteen feet below, and from the bottom of the guide rails to a point fifteen feet above. There shall not be less than three feet clearance between the top of the counterweights and the under side of overhead beams when the car is resting on the bumpers.

All power-driven freight elevator counterweights shall be protected at the foot of the guideways by an enclosure, and where the weights are run in guides the same protection shall apply to each floor level.

The cages of all passenger elevator cars shall be of metal or other approved incombustible material, except the floor covering. There shall be no glass or porcelain used in the structural or ornamental parts of the canopy or other parts of the cage, except as a covering for the certificates of inspection, announcements, signal lights and the lights of the cage.

All canopies of elevator cages shall be so constructed that the whole or a part not less than sixteen inches by thirty inches can be removed from the top.

On all passenger elevators the safety frame and girdle to which the lifting cables and safety devices are attached shall be of wrought iron or steel. The floor of the car may be of wood, but the under side shall be covered with metal.

All guide rails for both the car and counterweights shall be of iron or steel, and shall be fastened to the sides of the shaft with wrought or cast iron brackets, and no shimming or evening up with wood shall be allowed.

All counterweight guides or rails shall be secured at the point of possible impact between the counterweights and the overhead beams.

Every elevator car and all counterweights shall be suspended by metallic cables.

There shall be not less than two cables independently connected to the car and to each set of counterweights.

SECTION 174.

Location of Operating Machinery, etc.

On all passenger elevators, electric or hydraulic, the engine operating the elevator shall be set in a position clear of the hatchway, and such machinery shall not be placed under the elevator hatchway (with the exception of plunger elevators).

SECTION 175.

Hydraulic Elevators, etc.

All hydraulic elevators shall have the supply and discharge pipes of sufficient area so as not to be affected by the operation of any other elevator.

All hydraulic machines shall have their valve chambers and cylinders provided with means for removing any accumulation of air.

An extra gate valve shall be provided between the operating valve and the elevator cylinder where the operating valve is piped away from the cylinder.

All pipes between the operating valve and the cylinder shall be provided with steel fittings, and all fittings shall stand a test pressure equal to three times the working pressure of an elevator.

The crosshead or traveling sheaves of every vertical hydraulic cylinder for elevator service shall travel in guides to prevent the piston rods from buckling.

Every pressure tank for hydraulic elevators shall be provided with a safety valve of sufficient area to discharge the pump delivery.

All pressure tanks shall be made of the best quality of homogeneous steel, as specified in section 41, and shall be tested under a hydrostatic pressure of fifty per cent greater than normal working pressure.

The heads shall be dished to a radius equal to the diameter of the tanks and shall be not less than one-eighth inch thicker than the shell.

All tanks shall be provided with water glasses, manholes and flanges, and nipples to receive piping, and shall be reinforced at all nipples. Pressure tanks overhead shall be provided with air check valves.

On all hydraulic elevators where power driven pumps are used it shall be necessary to install by-pass regulating valves; this shall be in addition to any other type of controller governing the operation of the pump, and in addition to the safety valve.

Where plunger passenger elevators with a rise exceeding seventy-five feet are used for lifting safes, the plunger shall be fitted with a traveling guide or follower, which shall remain midway between the car and the shafting box throughout the entire travel. This device shall be so arranged that it can be attached or detached from the underside of the car.

All pistons on plunger hydraulic elevators shall be equipped with galvanized steel cables connecting the piston to the car and of ample strength to withstand the weight of the piston, said cables and connections shall be approved by the Superintendent of Buildings, and such connections shall be made in the presence of and to the satisfaction of an Inspector of Elevators.

SECTION 176.

Shafts, Sheaves and Bearings.

The diameters of all shafts and bearings shall be in accordance with the rulings of the Superintendent of Buildings.

All sheaves, drums, etc., shall be fastened in place by proper keys, with key seats in shafts. No set screw fastenings shall be allowed.

SECTION 177.

Continuous Carriers or Escalators.

The tread surface is that portion of the carrier or escalator designed to receive passengers or freight.

The carrying run is that portion of the tread surface which is presented for service in carrying the passengers or freight.

All of the girders and framework of all carriers or escalators shall be of wrought iron or steel, and shall be designed so as to support the weights for which they are intended and to self-contain the mechanism of the carrier or escalator.

All linkage connecting the sections of tread surface, in the case of carriers for passenger service, shall be entirely of steel or malleable iron, the use of cast iron being prohibited. In the case of carriers for freight service, the linkage may be of steel or malleable iron.

All linkage shall be designed with a factor of safety of not less than ten.

Where the tread of the carrier or escalator consists of cleats with open spaces between them shall be provided a substantial diaphragm located between the ascending and descending running gear.

Exit landings for passenger carriers or escalators may be of two classes: The "deliberate" landing from which the passenger steps at the side of the carrier at any time during an interval of several seconds, and the "instantaneous" landing from which the passenger steps at the end of the carrier immediately on arrival at that point.

The speed of all passenger carriers shall not exceed one hundred and twenty feet per minute where there is an "instantaneous" landing employed, and shall not exceed one hundred and twenty feet per minute where a "deliberate" landing is employed, provided, however, that where an auxiliary traveling landing is employed in conjunction with a "deliberate" landing, the speed of the carrier shall not exceed two hundred and forty feet per minute.

All ascending carriers or escalators shall be provided with an approved mechanism which shall automatically act to prevent the reversal of the direction of motion of the carrier, and all descending carriers or escalators shall be provided with an approved mechanism which shall automatically act to stop and hold the descending carrier, in case of the derangement or breaking of the driving machinery.

All carriers or escalators shall be provided at each level with an approved device whereby the carrier may be stopped at any time if it is necessary to do so.

All "deliberate" landings, where the passengers step off at one side of the carrier, shall be equipped with a barrier or shunt located obliquely across the carrier, and all "deliberate" landings, where the passengers step off at both sides of the landings, shall be equipped with a triangular barrier or shunt located at the end of the carrier.

Where "instantaneous" landings are equipped with landing combs or fingers, they shall be of wrought or cast steel or the best cast iron, and shall be formed to register accurately with the spaces formed by corrugations or grooves in the tread and the sides of the combs or fingers shall be accurately finished and so adjusted in place that they can never come in contact with the corrugations or grooves of the surface of the tread.

SECTION 178.

Carriage and Automobile Elevators, etc.

All carriage and automobile elevators shall be provided with a gong that will signal the approach of the elevator. No hand power carriage or automobile elevator shall be operated by a power attachment of any kind or type. If a carriage elevator is to be operated by power it shall be with a machine that is provided with slack cable stop and automatic limit stops. This does not apply to carriage and automobile elevators operated by hydraulic power.

SECTION 179.

Penalties.

Any infraction of these regulations, or failure to comply with their provisions after due notice from the Superintendent of Buildings, shall be treated as a violation of the Building Code and shall subject the owner to the same penalties as prescribed in sections 201 to 206, inclusive, of the Building Code for such violations.

It shall be a misdemeanor for any car operator to permit his car to travel at a dangerous speed, or to leave a door open, or to operate the car when automatically signalled "Dangerous Speed" or "Door Open," or either of them.

It shall be a misdemeanor for the owner, lessee, manager or other person having charge or control of any passenger elevator to operate a passenger elevator not equipped with the "Dangerous Speed" and "Door Open" devices.

CHAPTER XXXI.

PLUMBING, ETC., DRAINAGE, GAS AND WATER PIPE.

SECTION 180.

Plumbing and Drainage and Repairs Thereto.

The drainage, plumbing and gas piping of all buildings, both public and private, and all repairs in existing buildings, shall be executed in accordance with the rules and regulations of the Bureau of Buildings. Said rules and regulations and any change thereof shall be published in the City Record on eight successive Mondays, and during this period shall be posted on the bulletin board of the Bureau of Buildings, and a public hearing shall be given before the same shall become operative.

Repairs or alterations of such plumbing or drainage may be made without the filing and approval of drawings and descriptions in the Bureau of Buildings, but such repairs or alterations shall not be construed to include cases where new vertical or horizontal lines of soil, waste, vent, drain or leader pipes are proposed to be used.

Notice of such repairs or alterations shall be given to the said Bureau before the same are commenced in such cases as shall be prescribed by the rules and regulations of the said Bureau, and the work shall be done in accordance with the said rules and regulations.

No repairs or alterations shall be made or caused to be made by any person other than a duly licensed and registered plumber. Any person violating the provisions of this section shall be punished by imprisonment for not less than ten days, or a fine of not less than fifty dollars, or by both such imprisonment and fine.

SECTION 181.

Registration of Plumbers.

Every employing or master plumber, desiring to perform plumbing work in the City of New York, shall be a registered plumber and shall during the first week of January in every year register his name and address at the office of the Bureau of Buildings, in any Borough of the said City, under such rules and regulations as said Bureau shall prescribe and as hereinafter provided.

When a person obtains a certificate after the first week of January in any year to may register within thirty days after obtaining such certificate. Registration in any Borough of said City shall entitle any employing or master plumber to perform work in all Boroughs of said City.

After this Code takes effect, no person, corporation or partnership shall engage in, or carry on the trade, business or calling of employing or master plumber in the City of New York, unless the name and address of such person and the president, secretary or treasurer of such corporation and each and every member of such or partnership shall have been registered as above provided.

Plumbers' Signs.

No person shall expose the sign of "Plumber" or "Plumbing" or a sign containing words of similar import and meaning unless he shall have obtained a certificate of competency from the Examining Board of Plumbers, and shall have registered as herein provided.

A master or employing plumber within the meaning of this Code is any person who hires or employs a person to do plumbing work.

SECTION 182.

Gas and Water Pipe.

Every building hereafter erected, and all factories, hotels, churches, theatres, school houses and other buildings of a public character heretofore erected in which gas or steam is used for lighting or heating, shall have each supply pipe leading from the street mains provided with a stopcock placed in the sidewalk at or near the curb.

No gas, water or other pipes which may be introduced into any buildings shall be let into the beams unless the said pipes be placed within thirty-six inches of the end of the beams, and in no building shall the said pipes be let into the beams more than two inches in depth.

All said pipes shall be installed in accordance with the rules and regulations prescribed by the Bureau of Buildings. Said rules and regulations and any change thereof shall be published in the City Record on eight successive Mondays, and during this period shall be posted on the bulletin board of the Bureau of Buildings, before the same shall become operative.

The burners of gas brackets shall be placed at least three feet below any ceiling or woodwork, unless the same is properly protected by a shield, in which case the distance shall be not less than eighteen inches. No swinging or folding gas bracket shall be placed against any stud partition or woodwork. No gas bracket on any lath and plaster partition or woodwork shall be less than five inches in length, measured from the burner to the plaster surface or woodwork.

Gaslights placed near windows, curtains or any other combustible material shall be protected by globes or wire cages. All cluster gas lamps shall have carbon guards below the burners at the openings at the bottom of the globes. The gas shall be turned on to all burners of such gas lamps having a pilot light and be lighted at the same time and all lights of the lamp be turned out at the same time.

No supply of gas shall be turned on in any building hereafter erected or in which the gas piping has been altered until a proper test has been applied and a certificate secured from the Superintendent of Buildings. The Superintendent of Buildings shall issue such certificates to a duly registered plumber upon the presentation of a satisfactory report that the piping has been properly installed by a duly licensed and registered plumber.

In all tenement houses hereafter erected, in which gas meters are placed within apartments a separate valve or cock for the control of each meter shall be provided in a convenient location in the public hall of the floor on which the meter is located.

SECTION 183.

Protection of Gas Pipe.

It shall be incumbent upon any company furnishing or supplying gas to any building, to lay their pipes two feet six inches below the surface measured to the centre of the pipe, and should the pipes be laid at a less depth, they shall be properly covered and made frost-proof. Where a pipe crosses an area, it shall be properly

covered and made frost-proof where it comes through the retaining wall for a distance of not less than fourteen inches along the pipe, and the insulation shall project not less than one inch beyond the face of the wall. These pipes shall also be insulated for a distance of not less than fourteen inches, where they pass through the front wall of the building, provided they cross an areaway. This insulation shall also project not less than one inch beyond the outside face of the wall. If the pipe runs straight across the areaway, it can be left bare, provided it is two inches in diameter or larger. If smaller than two inches the pipe shall be covered with three-quarters of an inch of frost-proof insulation. If there are any elbows or bends in the pipe irrespective of its diameter, the pipe shall be covered with not less than three-quarters of an inch of frost-proof insulation.

It shall be incumbent on registered contractors filing plans to show where the gas service pipe or pipes enter the building, and the pipe or pipes shall enter through masonry, so that each pipe shall be surrounded by at least six inches of masonry on all sides, and for a distance of not less than twelve inches along the direction of the pipe.

SECTION 184.

Water Closets, Slop Sinks and Basin Traps.

Pan, valve, plunger, washout and all other water closets, having an unventilated space, or whose walls are not thoroughly washed at each discharge are hereby prohibited.

Hereafter all water closets shall be of vitrified earthenware with syphonic action.

All water closets and slop sinks shall be connected to the branch soil pipe by means of a heavy metal flange, soldered to the lead pipe and bolted to the base of the water closet or slop sink, with heavy brass bolts.

Said flange shall have a mercury seal or a rigid screw joint, or a gasket consisting of asbestos pulp and graphite as a means of making a gas tight connection between said flange of water closet or slop sink. Woven or sheet asbestos, rubber, putty, red lead or other material, are hereby prohibited as a means of making water closet or slop sink connection.

It shall be the duty of the contracting plumber to notify the Bureau of Buildings when the metal flanges for water closets and slop sinks have been installed, so that an inspection of said flanges may be made before the fixtures are set.

All water closets and slop sinks shall be set on a natural stone slab of slate or marble, said slab shall extend the entire length and breadth of the base of the fixture.

Basin Traps.

All basin traps shall be constructed of brass and of a type known as antisiphon; said traps shall have no interior obstructions, such as inner tubes, or standing wastes, secret chambers, partitions, flanges, shelves, valves or dead points, and shall be a self-cleansing type. The use of bottle, pot, bug or "P" traps is hereby prohibited.

SECTION 185.

Fresh Air Inlet.

A fresh air inlet pipe shall be provided in all plumbing systems. The same shall be connected to the house drain, immediately inside the house trap, and extend to and through the wall of the building in a horizontal manner, terminating with a cast-iron or brass strainer on the outside face of the wall in order that said pipe shall be protected against obstructions. An automatic valve shall be set into the said fresh air inlet pipe at a convenient point inside the building; said valve shall have an approved seal, so that while consisting normally open to admit of fresh air entering the drainage system, it shall immediately close against the back pressure of foul air escaping when the said drainage system is in action.

SECTION 186.

Testing.

When all drains, leaders, soil, waste and vent lines and all other rough plumbing connections have been installed, the same shall be filled with water to the highest point and tested in the presence of an Inspector of the Bureau of Buildings.

Testing When House Trap is In.—A proper testing trap shall be provided on the house drain at a point just inside the front wall of the building, said trap to be permanently connected between house drain and house sewer before the water test is applied, in order that all joints and connections may be tested at one and the same time; tests without the house trap being permanently installed shall not be accepted.

The use of wooden plugs, tar, plaster, cement or any other means except as above stated, is hereby prohibited.

It shall be permissible to test the house drain, separately, when a building is over seven stories in height, and when a building is over seven stories in height, the soil, waste, vent and leader lines may be tested in sections, of not less than five stories each.

CHAPTER XXXII.

HEAT REGULATIONS.

SECTION 187.

Heating Furnaces, Boilers and Stove Ovens.

No brick or boiler, furnace or stove oven shall be placed on combustible floors or beams.

A portable boiler or furnace when placed on combustible floors or beams, shall be placed on a foundation of brick laid in mortar, set on top of a sheet of metal the full size of said foundation. In the case of a portable boiler the brick foundation shall extend two feet in front of and one foot on all sides of boiler, and shall be three courses of brick high, the middle course shall be laid crosswise with ventilating space, within or between the bricks of said middle course. In the case of a portable furnace the brick foundation shall extend at least two feet beyond the furnace in front of the ash pan and under the entire furnace and shall be two courses of brick high.

Cast Iron Ash Pans and Boxes.

A cast-iron pan shall be placed under all portable boilers, and shall have a flange turned up four inches on all sides of same, and shall be in width not less than the base of the boiler, and shall extend at least two feet in front. If a boiler is supported on a cast-iron base, and is provided with a cast-iron bottom, then an ash pan shall be placed in front of the said base and shall not be required to extend under it.

Melting or Core Furnaces, Coffee Roaster.

Any melting or core furnace and any coffee roaster placed on combustible floors or beams, shall have a brick foundation on sheet metal, same as specified above for portable boilers, and shall be placed in a heavy iron ash pan extending as least six inches outside.

Iron Electrotype and Confectioner's Furnace.

Any iron electrotype furnace or other portable furnace on legs in which soft metal is melted, or any portable bake oven, or confectioner's furnace placed on combustible floors or beams, shall have a brick foundation on sheet metal same as specified for portable furnaces. All confectioner's furnaces shall be placed in ash pans set on brick foundations.

Forges and Anvils.

All combustible floors under and four feet outside of forges and anvils shall be covered with brickwork, cement or heavy iron. All forges shall have hoods connected to proper smoke flues.

Pots and Pans.

Every vat, pot, or other structure used for molten metal, hot grease or liquids not otherwise herein provided for shall be placed upon an incombustible foundation, and shall be constructed in such manner and so guarded and further protected by such ventilating ducts or pipes as to protect those employed in their operation and use and those about them.

Protection of Woodwork.

All wood lath and plaster, wood ceilings and beams, over and to a distance of not less than four feet in front of all boilers shall be shielded with metal or other approved fireproof material; when smooth ceilings are to be protected there shall be an air space of not less than one-fourth of an inch between ceiling and said fireproof material, when beams are exposed the fireproof material to be applied shall follow the contour of the beams. The distance from the top of the boiler to said shield shall

be not less than twelve inches, but when the boiler is not set in brickwork the distance shall not be less than twenty-four inches, and smoke pipes leading therefrom shall not be less than twenty-four inches from said ceiling or beams.

No combustible partition shall be within four feet of the sides or back, or six feet from the front of any boiler unless said partition shall be covered with metal or other approved incombustible material to the height of at least five feet above the floor and shall extend from the end or back of the boiler to at least five feet in front; then the distance shall not be less than two feet from the sides or back, or five feet from the front of the boiler.

All portable furnaces shall be placed at least two feet from any combustible partition or ceiling, unless the partitions and ceilings are properly protected by a metal shield, when the distance shall not be less than one foot. Combustible ceilings or wood beams over furnaces shall be guarded by metal shields suspended three inches below said ceilings or beams and extending over the entire furnace and at least three feet beyond the front and sides.

Ceilings over all large furnaces and high pressure boilers shall be built of fireproof materials in accordance with section 140.

No furnace shall be built within twelve inches of any woodwork.

All brick hot air furnaces shall have two covers with an air space of at least four inches between; the inner cover of the hot air chamber shall be either a brick arch or two courses of brick laid on galvanized iron or tin supported on iron bars; the outside cover or top of the furnace shall be made of brick or metal supported on iron bars, and so constructed as to be perfectly tight, and shall not be less than twelve inches below any combustible ceiling or floor beams. The walls of the furnace shall be built hollow in the following manner: One inner and one outer wall each four inches in thickness, properly bonded together, with an air space of not less than three inches between.

SECTION 188.

Registers.

Registers located over brick furnaces shall be supported by a brick shaft built up from the cover of the hot air chamber; said shaft shall be lined with a metal pipe and all wood beams shall be framed away not less than four inches therefrom.

Any register placed on any woodwork or on any other combustible material in connection with a metal pipe or duct, shall have the end of said pipe or duct flanged over on the woodwork under it, and all such registers shall have soapstone or iron borders firmly set in plaster of paris or gauged mortar.

All register boxes shall be made of metal with a flange on the top to fit the groove in the frame upon which the register shall rest; there shall be an open space of two inches on all sides of the register boxes extending from the under side of the border to and through the ceiling below. The said opening shall be faced with a tight tin or galvanized iron casing, the upper end of which shall be turned under the frame.

When a register box is placed on the floor over a portable furnace, the open space on all sides of the register box shall be not less than three inches.

Every furnace shall have at least one register without valve or slats.

All shut-off dampers in hot air pipe shall be at least twelve inches below the floor beams or ceiling.

SECTION 189.

Drying Rooms.

All walls, floors, ceilings and partitions enclosing drying rooms and caul boxes, when not made of fireproof materials, shall be metal lathed and plastered, or covered with metal, tile or asbestos.

SECTION 190.

Stoves and Ranges.

When a kitchen range is placed from six to twelve inches from a wood stud partition, the partition shall be covered with metal from the floor to a height of not less than three feet higher than the range; if the range is within six inches of the partition the studs shall be cut away and framed three feet higher and one foot wider than the range, and the space of the said stud partition filled with bricks or fireproof stocks and plastered thereon.

All coal ranges on combustible floors and beams that are not supported on legs and have ash pans three inches or more above their base, shall be set on foundations of not less than two courses of brick well laid in mortar on sheet-iron. Said foundations shall extend under entire stove or range and at least twelve inches in front thereof, except small ranges such as are used in apartment houses that have ash pans three inches or more above their base, which shall be placed on at least one course of brickwork on sheet-iron or cement extending twelve inches in front thereof, and when the ash pans are less than three inches above the base of the ranges, an additional course of bricks shall be placed on said brick foundation.

All gas ranges on combustible floors and beams having gas burners at their base shall be set on a course of bricks laid on sheet-iron extending nine inches in front and all sides thereof.

Stoepcocks shall be placed in a convenient position on the supply pipes of all gas ranges by which the gas can be shut off from all burners.

In buildings hereafter erected all smoke or vent pipes from gas ranges shall be connected to proper ventilating flues used for that purpose only.

No range shall be placed against a wall furred with wood.

All lath and plaster or wood ceilings over hotel, restaurant, or other large ranges shall be guarded by metal hoods placed at least nine inches below the ceiling. A ventilating pipe connected with the hood shall be an individual pipe having no connection with any other pipe and shall be covered with one inch of asbestos on wire mesh and shall be at least nine inches from all wood lath and plaster or woodwork, which shall be covered with metal. The pipe shall run either outside of the building and discharge at least four feet above the roof, or shall be connected with a brick disc lined with burnt clay or heavy iron pipe used exclusively for the ventilating pipe of the range.

Laundry stoves on combustible floors shall have a course of brick, laid on metal, on the floor under and extending twenty-four inches on all sides.

All stoves for heating purposes shall be properly supported on iron legs resting on the floor three feet from all wood lath and plaster or woodwork. If the wood lath and plaster or woodwork is properly protected by a metal shield, then the distance shall be not less than eighteen inches.

A metal shield shall be placed under and twelve inches in front of the ash pan of all stoves that are placed on combustible floors.

All low gas stoves shall be placed on iron stands and the burners shall be at least six inches above the base of the stoves, and metal guard plates placed four inches below the burners; all woodwork underneath shall be covered with metal.

Gas connections to all stoves shall be made by metal pipe unless there is no valve at stove.

All receptacles for ashes shall be of incombustible material.

SECTION 191.

Notice as to Heating Apparatus.

Before hot water, steam, hot air or other heating appliances or furnaces are installed in any building, or flues or fireplaces are erected or altered, notice in writing shall be given to the Superintendent of Buildings by the owner.

CHAPTER XXXIII.

BENES, SIGNS, BILLBOARDS AND STRUCTURES ON ROOFS OF BUILDINGS.

SECTION 192.

Wood or Metal Fences, Signs, Bill Boards and Roof Structures.

No fences, signs or billboards shall be at any point over ten feet above the curb in front of the ground upon which they are erected; except that when entirely of metal, including the uprights, supports and braces for same, it shall not be at any point over twenty feet above the curb in front of the ground upon which it is placed. All fences, signs and billboards shall be erected entirely within the building line, and be properly and firmly secured, supported and braced, and shall be so constructed as not to be or become dangerous. Before the erection of any fence, sign or billboard shall have been commenced a permit for the erection of the same shall be obtained from the Superinten-

tendent of Buildings. Each application for the erection of any fence, sign or billboard shall be accompanied by the written consent of the owner of the property upon which it is to be erected.

Signs of metal or wood may be placed on the fronts of buildings or structures, providing they are placed flat against the wall and do not extend above the roof of such buildings, and are secured, supported and braced, and so constructed as not to be or become dangerous. No sign shall be placed upon or attached to the face of a wall of any building in such a manner as to cover in whole or in part any door or window opening thereof.

No structure shall be placed, erected, maintained or occupied upon or over the roof of any building except as provided in sections 104 and 105.

Whenever any fence, sign, billboard, or structure on the roof of a building, except as provided in sections 104 and 105, shall be erected, placed or maintained in violation of the provisions of this Code, the Superintendent of Buildings shall order the same removed. In case the owner shall neglect or refuse to remove or cause the same to be removed within ten days from the service of a notice so to do, the said Superintendent of Buildings shall have power, and it shall be his duty, to immediately remove such fence, sign, billboard or structure, and the expense of such removal by the Superintendent of Buildings shall be a lien upon the property.

SECTION 193.

Electric Signs.

Any electric letter, word, model, sign, device or representation in the nature of an advertisement, announcement or direction erected at right angles to any building shall be deemed to be an electric sign; electric signs may be hung or attached at right angles to buildings, and extend not to exceed six feet therefrom in said space, and shall be ten feet in the clear above the level of the sidewalk in front of such building, upon the payment of an annual license fee of ten cents for each square foot of sign space or part of square foot of such sign space, to be collected by the City Clerk of The City of New York. The square feet of sign space on one side of an electric sign, however, shall be deemed to be the entire number of square feet of sign space for the purpose of computing the license fee herein referred to and required to be paid.

All electric signs shall be constructed entirely of metal, including the uprights, supports and braces for the same, properly and firmly attached to the building, and shall be so constructed as not to be or become dangerous.

Before any permit is issued by the City Clerk, plans and statements of the proposed sign and method of attachment to the building shall be filed with the Superintendent of Buildings, and his certificate of approval shall be obtained as to the sufficiency of the construction and method of attachment to the building. A certificate shall also be obtained from the Department of Water Supply, Gas and Electricity certifying that the proposed electric wiring and electric appliances are in conformity with the rules and regulations of that Department.

No certificate shall be given by the Superintendent of Buildings, and no permit shall be issued by the City Clerk, for the erection of an electric sign on any building when such building adjoins a building occupied exclusively as a private residence, unless the written consent of the owner of said private residence for the erection of such electric sign be first obtained.

No electric sign shall be placed, hung or maintained, except as in this ordinance provided, under a penalty of ten dollars for each offense, and a further penalty of ten dollars for each day or part of a day the same shall continue.

CHAPTER XXXIV.

NOTICES AND PENALTIES.

SECTION 194.

Contents of Notice of Violation and Service.

Notice of Violation and Service. A notice of violation shall be served as a summons as in an action commenced in the Supreme Court, State of New York, or as otherwise specified in the Code, and shall contain a brief statement of the nature of the violation charged and of the penalty or penalties that may be incurred, also a brief description of the building and premises to which the notice refers, including its location, also a direction to the owner requiring that the violation be removed forthwith. A copy of the last paragraph of this section entitled "Duty of Occupant to Receive Notice of Violation to Owner," shall be printed thereon. If the person charged with the violation or the person designated in the last paragraph cannot be found in The City of New York, after diligent search, then service may be made by affixing the same in a conspicuous place upon the property as to which a violation is alleged to exist, or to which such notice may refer, and by depositing in a post-office in The City of New York another copy thereof, in a securely closed postpaid wrapper, addressed to him at his last known place of residence, or at his last known place of business. If his place of residence or business is unknown, and if the Superintendent of Buildings cannot with reasonable diligence ascertain either of a place where he would probably receive matter transmitted through the post-office, he may dispense with the deposit of any papers, and, upon an affidavit thereof, the notice of violation shall be deemed served, and the same action or proceeding may be taken thereupon as if it had been personally served.

Designation by a Resident or Non-Resident Owner of a Building.—Either a resident or a non-resident of The City of New York, of full age, owning real estate or a building thereon, may execute and acknowledge in duplicate, a written designation of a resident of said city, as a person upon whom to serve a notice of violation, a summons, a mandate, a notice of appeal, or any paper or process, under the provisions of this code, or either of the same, and may file the same, with the written consent of the person so designated, duly acknowledged, one in the office of the Superintendent of Buildings, and one in the office of the Clerk of the County where the real estate or building is situated. The designation shall specify the occupation or other proper addition, and the residence and place of business of the person making it, and also of the person designated and the location of the property with respect to which the designation is made. It remains in force during the period specified therein, if any, or, if no period is specified therein, until one year after the filing thereof, but it is revoked earlier, either by the death or legal incompetency of either of the parties, or by the filing of a revocation by either of the parties, duly acknowledged, and the consent of the Superintendent of Buildings. The Clerk of the County shall immediately file and index such designation, consent or revocation in the same manner, as a notice of pendency of a violation, against the property and the parties, and shall note, upon the original designation and index, the filing of a revocation. While the designation remains in force, as prescribed in this section, a notice of violation, and a summons, a mandate, a notice of appeal, or any paper or process, under the provisions of this code, or either of the same, may be served upon the person so designated, in like manner and with like effect, as if it were served personally upon the person making the designation, notwithstanding his presence in The City of New York.

Duty of Occupant to Give Notice of Violation to Owner.—Should a notice of violation be served upon an occupant of real estate or a building, it shall be the duty of the person upon whom such service is made, to give immediate notice thereof to the owner of said real estate or building named in the notice, if such owner is within The City of New York and his residence is known to such person, and if he is not within the said city, by depositing such notice in a post-office in The City of New York, properly enclosed in a post paid wrapper addressed to such owner at his then known place of residence.

SECTION 195.

Filing of Notice of Pendency of Violation.

Notice of Pendency of a Violation; Filing by Counsel.—Upon the commencement of an action to enforce the provisions of this Code, other than an action for the recovery of a penalty, the Corporation Counsel shall file in the County Clerk's office of the county where the property is situated, a notice of pendency of violation stating the names of the persons claimed to be affected thereby, the nature of the violation, and containing a brief description of the property affected thereby and proof of service of the notice of a violation. The Corporation Counsel may, however, in his discretion, file such notice at any time.

Effect of Notice.—A notice filed, as prescribed in the preceding paragraph, is constructive notice to an owner or encumbrancer of the property affected thereby, and to an owner or encumbrancer thereof, from or against a person with respect to whom the notice is to be filed and indexed, as prescribed in the next paragraph. A person whose conveyance or encumbrance is subsequently executed or subsequently recorded is bound by all proceedings taken in the action, after filing of the notice, to the same extent as if he were a party to the action.

Notice to Be Filed and Indexed.—Each County Clerk with whom such a notice is filed shall immediately file and index it to the name of each person specified in a direction appended at the foot of the notice of pendency of the violation, and subscribed by the Corporation Counsel, and to the property affected, and under the section number or the land map of the County where the property is situated when such map exists, or under the section number upon a map to be made by the Superintendent of Buildings for said purpose, and to be filed in said County Clerk's office.

When and How Notice Cancelled.—After an action is commenced to enforce a violation, and is settled, discontinued, abated, or final judgment is rendered therein against The City of New York, or the Superintendent of Buildings, as the case may be, and the time to appeal therefrom has expired, or the Corporation Counsel unreasonably neglects to proceed with the action, the Court may, in its discretion, upon the application of any person aggrieved, and upon such notice as may be directed or approved by it, direct that the notice of pendency of a violation, filed as prescribed in this section, be cancelled of record by the County Clerk with whom it is filed. The cancellation shall be made by a note to that effect in the index to the names of each person and the property specified in the notice filed, referring to the order, or consent of counsel in this section provided, and a like note upon the notice filed. Unless the order is entered in the same Clerk's office, a certified copy thereof shall be filed therewith before the notice is cancelled.

Before or after an action is commenced to enforce a notice of violation, the notice of pendency thereof shall be likewise cancelled upon the written consent of the Corporation Counsel, which consent shall be filed with and indexed by said County Clerk.

SECTION 196.

Penalties and Courts Having Jurisdiction for Their Enforcement.

Penalties.—A person who violates a provision of this Code shall for each violation pay a penalty in the sum of fifty dollars, except that a person who shall violate a provision thereof as to chimneys, fireplaces, flues, heating pipes or furnaces, or as to the framing or trimming of timbers, wood girders, wood beams or other woodwork, in proximity to a chimney, flue, hot-air pipe, furnace, or fireplace, shall pay a penalty in the sum of one hundred dollars. But if said violation shall be removed within ten days after the service of a notice of violation, or shall be in process of removal within said period, and be actually removed within a reasonable time thereafter, the liability for such a penalty shall cease. The Corporation Counsel, on written notification by the Superintendent of Buildings of the actual removal of said violation, shall discontinue any action pending to recover such a penalty. A person who, having been served with a notice of violation, shall fail to comply with said notice within ten days after such service, or shall continue the violation in the respect named in said notice, shall pay a penalty of two hundred and fifty dollars, and five dollars a day for every day said violation shall continue.

The Municipal Court of The City of New York and Courts of Record for the Recovery of Penalties.—For the recovery of a penalty on a summons may be brought in any Municipal Court or Court of Record in said city, in the name of The City of New York, or in the name of the Superintendent of Buildings, as the case may be, and no Court shall lose jurisdiction of any action by reason of a plea that the title to real estate is involved, provided the object of the action is to recover a penalty for a violation. When any judgment shall be rendered therefor the same shall be collected and enforced as judgments of the Court in which said action was commenced.

SECTION 197.

Actions in the Supreme Court Other Than for the Collection of a Penalty.

Courts Having Jurisdiction; Preference.—Except in an action for the recovery of a penalty or a criminal action, all actions and proceedings for the enforcement of the provisions of this Code shall be commenced in the Supreme Court of the County in which the property is situated, and shall be entitled under the direction of the Court to preference, in the trial or hearing thereof, over all civil actions.

Notice of Violation and Survey by a Superintendent Affecting an Unsafe or Dangerous Building.—A notice of violation and survey shall be served by the Superintendent of Buildings as prescribed in section 194 of this Code, after a report by an Inspector or Engineer in his office, that a building is either unsafe or dangerous. The notice shall direct the owner immediately to consent in writing to remove the building, briefly describing it, or to make the same safe and secure, or in default thereof, to attend a survey by a Committee as prescribed in section 4 of this Code. The report of the Inspector or Engineer shall be immediately deposited in a separate book kept for that purpose in the office of the Superintendent of Buildings. See section 7.

Return of Notice of Violation and Survey.—The notice of violation and survey shall be returnable in not less than twenty-four hours, nor more than three days, at the time and place therein to be specified. On the notice there shall be a copy of sections 4 and 194 of this Code.

Owner's Assent or Refusal; Procedure.—Should the owner consent to proceed he shall have until one o'clock in the afternoon of the day after the service of the notice to comply with said order, and the survey may be adjourned by consent. Should the owner refuse or fail expeditiously to carry out said order, or to furnish necessary material and employ necessary workmen and experts to perform the work and the surveyors report the building unsafe or dangerous, the report shall be immediately presented to the Corporation Counsel, and an application shall immediately be made to the Court for a precept directed to the Superintendent of Buildings, commanding him to remove the building or make the same safe and secure.

Committee of Surveyors; Duty, Report.—The Committee of Surveyors shall attend at the time and place specified, shall examine the building and immediately report in writing, with its opinion thereon, to the Superintendent of Buildings. Should two members thereof report the building unsafe or dangerous, a copy of its report with a copy of the notice of survey shall forthwith be posted on the building.

Trial of Issues; Precept.—Whenever an issue of fact as to the existence of a violation is raised in any action to remove or restrain a violation, or in any proceeding to remove an unsafe or dangerous building or to make the same safe and secure, the said issue shall be brought to trial before a Justice holding a Special Term of the Court. If the decision of the Court shall find the existence of the violation, or shall find the building to be unsafe or dangerous, the Justice shall immediately issue a precept directing the Superintendent of Buildings to remove the violation or to repair, secure, take down or remove the unsafe or dangerous building, or such part or parts thereof, as in the precept shall be specified.

Execution of Precept; Judgment.—The Superintendent of Buildings shall immediately thereupon proceed to execute the precept as therein directed and may procure the necessary materials, ways, works and means, and employ such experts, employees, mechanics, workmen and laborers as may be necessary for that purpose, and shall thereafter make return of said precept with an endorsement thereon of his action thereunder to the said Special Term of the Court.

The Justice thereupon may tax, adjust and allow such costs, disbursements and expenses as may have been incurred, and render judgment therefor, and may direct that the same be paid by the owner of the property designated in the action, and may declare the same a lien upon said property and direct that it be sold as on a judgment for the foreclosure of a mortgage upon real estate or a mechanics' lien upon real property. The subsequent proceedings shall be in the same manner and with like effect as under judgments in said forms of action.

Execution of Precept by Owner.—Upon application to the Superintendent of Buildings and the payment of all costs, disbursements and expenses to the date of the application, the owner shall be allowed to perform the requirements of the precept issued as prescribed in this section. If in the judgment of the Superintendent of Buildings the owner shall thereafter fail to comply with the precept expeditiously, then the Superintendent of Buildings shall himself enter and execute said precept.

Temporary Injunctions.—In any action for the enforcement of the provisions of this Code, The City of New York, or the Superintendent of Buildings, as the case may be, may apply to the Court for an order enjoining and restraining any violation, order-

ing the property vacated or prohibiting its use for any purpose whatsoever until the bearing and determination of such action and the entry of final judgment therein.

Undertaking Not Required.—No undertaking shall be required from The City of New York or the Superintendent of Buildings as a condition to granting an injunction or order, or by reason thereof, in any action or proceeding.

Remedies Not Exclusive.—The actions, proceedings or orders provided for in this chapter shall not be exclusive.

SECTION 198.

Costs and Fees, Awarding, Taxation and Enforcing Payment of Costs, Disbursements and Expenses.

Neither Party Entitled to Costs and Disbursements, of Course.—Neither party is entitled to costs and disbursements, of course, in an action brought for the collection of a penalty, or to enforce the provisions of this Code.

The court may, in its discretion, award costs and disbursements, or either, to a party.

How Awarded and Collected.—Whenever costs and disbursements, or either, are awarded to a party, they are to be taxed by the clerk, unless directed to be taxed before the Justices. They shall be collected as provided in this Code, the Code of Civil Procedure or the Municipal Court Act of The City of New York, as the case may be.

Certain Costs, Disbursements and Expenses Shall Be Taxed and Allowed.—In all cases the following disbursements and expenses shall be awarded, namely, the fees of the members of the Committee of Surveyors as prescribed in section 4 of this Code, the reasonable disbursements and expenses incurred by the Superintendent of Buildings in hiring experts, employees, mechanics, workmen and laborers, and in hiring or purchasing materials, ways, works or means, pursuant to section 137 of this Code.

Remission of Penalties.—The Superintendent of Buildings is hereby authorized, in his discretion, good and sufficient reason being shown therefor, to remit a penalty which may be incurred under the provisions of this Code; also, in his discretion, to remit the costs and disbursements of an action commenced for the recovery of a penalty; but no penalty and no costs and disbursements shall be remitted until the violation shall have been removed.

SECTION 199.

Punishment for the Violation of the Provisions of This Code.

Violation a Misdemeanor.—A person who shall in the construction, alteration or removal of a building, knowingly violate any of the provisions of this Code, rules or regulations thereunder, shall be guilty of a misdemeanor, and is punishable by imprisonment in a penitentiary or county jail for not more than one year, or by a fine of not more than five hundred dollars, or by both.

False Swearing is Perjury.—Any false swearing or a material fact in any written application or affidavit submitted in pursuance of the provisions of chapter 4 of this Code is perjury and is punishable as such.

CHAPTER XXXV.

INVALIDITY OF THE SECTION AND THE DIVISIONS THEREOF.

SECTION 200.

Existing Actions and Liabilities.

Nothing in this Code contained shall be construed to affect any action or proceeding now pending in any court, nor any rights assumed, nor liability incurred, nor cause or cause of action accrued or existing under any acts or ordinances repealed hereby. Nor shall any right or remedy of any character existing or accrued be lost, impaired or altered by this Code.

SECTION 201.

Invalidity of One Section Not to Invalidate Another.

Invalidity of any section or provision of this Code shall not invalidate any other section or provision hereof.

CHAPTER XXXVI.

CONSTRUCTION AND INTERPRETATION.

SECTION 202.

Construction.

In construing this Code the following rules shall be observed, except where a contrary intent is expressly declared in the provisions to be construed, or plainly appears from the context thereof: the Statutory Construction Law, Laws of 1892, chapter 697, entitled "An Act relating to the construction of statutes, constituting chapter one of the general laws," the Real Property Law, Laws of 1892, chapter 547, entitled "An Act relating to real property, constituting chapter forty-six of the general laws," and chapter twenty-two of the Code of Civil Procedure, and acts supplemental thereto and amendatory thereto, apply in the construction of this Code, as if the provisions of this Code were statutes of this State.

SECTION 203.

General Definitions.

(1) Words used in this Code in the present tense include the future as well as the present; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural the singular; the word "person" includes a corporation as well as a natural person; "writing" includes printing, printed or type written matter; "oath" includes affirmation or declaration; "signature" or "subscription" includes "mark," when the person cannot write, his name being written instead.

The following terms also named in this Code have the signification attached to them in this section, unless otherwise apparent from the context:

(2) The word "attorney" signifies an attorney of the Supreme Court of this State, duly licensed to practice as such.

(3) The term "corporation" includes every association having any corporate rights, whether created by special acts of the Legislature or under general laws.

(4) The terms "oath," "affidavit," "petition" and "application" include every mode authorized by law of attesting the truth of that which is stated.

(5) The term "swear" includes every mode authorized by law for administering an oath. When an affidavit, petition or application is authorized or required, an affidavit may be sworn to, and a petition or application verified before any officer authorized by law to take the acknowledgement of deeds in this State, unless the particular officer is specified before whom it is to be taken.

(6) The word "court" includes courts of record or not of record, enumerated in the Code of Civil Procedure, and any one of the judges thereof.

(7) The term "action" includes "proceeding" and the term "special proceeding."

(8) The term "file" includes to properly endorse, keep on file and index.

(9) The terms "Superintendent of Buildings," "Bureau of Buildings," and "President of the Borough" shall be construed to mean the Superintendent of Buildings, the Bureau of Buildings or the President of the Borough where the property is situated.

(10) The term "Corporation Counsel" shall be construed to mean an attorney, as defined in chapter 7 of the Greater New York Charter.

(11) Officers and departments are officers and departments of The City of New York and divisions thereof, unless otherwise designated.

(12) The term "owner" includes his duly authorized agent or attorney, a purchaser, devisee, and a person entitled to an estate of inheritance, as defined in the real property law.

(13) The term "violation" includes a failure to comply with, a departure from, the doing or assisting in an act against, or omitting to perform an act under the provisions of this Code, or notice, rule, regulation or direction thereunder, or permitting a building to become unsafe, dangerous or defective.

(14) The term "penalty" includes a fine and a forfeiture.

(15) The term "conveyance" includes a lease for a term of three years, or less than three years.

(16) The term "occupied," as used in this Code, as applied to any building, shall be construed as though followed by the words, "or intended, arranged or designed to be occupied."

(17) The term "approved," as used in this Code, as applied to any material, manner or mode of construction, shall be construed as though followed by the words: "by the Superintendent of Buildings."

(18) The term "standard," as used in this Code, shall be construed to mean standards as approved by the Superintendent of Buildings.

(19) The terms "building," "structure" and "appartenance" include city, public or private buildings, structures and appurtenances, parts or portions thereof, or in connection therewith on, above or below a public highway; excludes all others on, above or below a public highway, and fixtures, except as otherwise provided in this Code.

(20) The term "building" includes the terms "structure" and "appartenance."

(21) The term "structure" includes the term "appurtenance" and a wall, platform, staging and flooring used for standing or seating purposes, shed, fence, sign and billboard on city, public or private property or on, above or below a public highway.

(22) The term "appurtenance" includes plumbing, electric wiring, boiler, heating, drainage and sewerage, gas, water and steam piping, a meter, an auxiliary fire appliance, an elevator, escalator, a dumbwaiter, a fire escape and a vault and a passage-way on, above or below a public highway in connection with a building on city, public or private property.

(23) The term "site" includes the term "construct"; the term "alter" includes the term "convert"; the term "remove" includes the term "demolish."

(24) Ordinary repairs shall not be construed to include cutting away iron, stone, concrete or brick wall, or any portion thereof; removal or cutting any beams or supports, or the removal, change or closing of any stair, or opening in an exterior wall, or the alteration or removal of any house, sewer, private sewer or drainage system or the construction of soil, waste or vent pipe.

(25) The term "highway" includes sidewalk, street, avenue, road, boulevard, concourse, parkway, public square and public place, docks and ferries.

SECTION 204.

Building Terms.

(26) Wherever the word "lot" is used in this Code, it shall be construed to mean the entire area devoted to one building including all yards, courts, lights and court yards.

(27) Wherever the word "curb" applying to the heights of buildings, or to the definition of a basement or a cellar or to an excavation is used, it shall be construed to mean the curb level at the centre of the front of the building, in the case of a building fronting on one street only; in the case of a building fronting on two or more streets the curb level at the centre of the front facing on the highest curb shall be taken.

(28) The height of a building is the perpendicular distance measured in a straight line from the top of the highest point of the roof beams in the case of flat roofs and from the average height of the gable in the case of roofs having a pitch of more than twenty degrees with a horizontal plane downward to the curb level. When a building does not adjoin the street, the measurements for height shall be taken to the average level of the ground adjoining such buildings.

(29) In measuring the height of a wall the height of the parapet wall down to the top of the roof beams shall not be included.

(30) The length of any building shall be its greatest horizontal dimension.

(31) The width of any building shall be its next greatest horizontal dimension.

(32) Wherever hereinafter referred to, the width of the street shall be taken as being the distance between the street building lines on opposite sides of the street, measured at right angles to the centre line of the street at the middle of the lot.

(33) A story is that part of any building comprised between any floor and the floor or roof next above. In case any floor or the combined area of floors at any one level extends over less than twenty per cent, of the horizontal area included within the outside walls at that level the same shall not be considered as a story for the purpose of determining story heights.

(34) A cellar is a story more than one-half below the level of the curb, but it shall not be considered as a story in determining the height of buildings.

(35) A basement is a story, partly, but not more than one-half below the level of the curb, but it shall not be considered as a story in determining the height of buildings unless more than one-half above the curb.

(36) A yard is an open and unoccupied space on the same lot with a building between the extreme rear line of the building and the rear line of the lot.

(37) A court is an open and unoccupied space other than a yard on the same lot with a building. A court not extending to the street or yard, is an inner court; a court extending to the street or yard, is an outer court; if it extends to the street, it is a street court, if it extends to the yard, it is a yard court.

(38) A public hall is a hall, corridor or passageway for the use of the general public.

(39) A stair hall shall include the stairs, stair landings and those portions of the public halls through which it is necessary to pass in going between the entrance floor and the roof of any building.

(40) A shaft includes exterior and interior shafts whether for air, light, elevator, dumbwaiter or any other purpose.

(41) Bulkhead—A bulkhead is a structure erected on the roof of a building only for the purpose of enclosing apparatus, in tanks, elevator machinery, water tank, ventilating apparatus and exhaust chambers or any other necessary machinery required to be at that level. Bulkheads when used only for the above mentioned purposes and when they are only of sufficient height and area to properly enclose any of the above apparatus, equipment or stairs, may be erected on the roof of any building and need not be considered in determining the height of the building.

(42) Pent House—A pent house is a structure, other than a bulkhead, erected on the roof of a building and not exceeding ten feet in height nor more than twenty-five per centum of the area of the roof at the level at which it is built, said twenty-five per centum not to exceed in any case two thousand five hundred square feet. A pent house shall not be used for sleeping accommodations.

A pent house as defined above may be erected on the roof of any building and need not be considered in determining the height of a building. Any structure erected on the roof of a building not complying with the above or with the definition of bulkheads shall be included in the height of the building.

(43) Skylight—The term skylight shall be taken to mean and include flat, hipped, lantern, monitor, turret, dome, vertical or pitched, saw-tooth construction and all other covers placed over openings on roofs for the admission of light.

Walls and Partitions.

(44) A Bearing Wall shall be taken to mean one on which a beam, girder, truss, column, or other interior load of a building rests.

(45) A Non-Bearing Wall shall be taken to mean one which supports no other load than its own weight.

(46) A Retaining Wall shall be taken to mean one constructed to resist the thrust of earth, water or other substances.

(47) A Foundation Wall shall be taken to mean any wall or pier built below the curb level, or nearest tier of beams to the curb, or average ground level, to serve as a support for walls, beams, girders, trusses, columns, floors, or other vertical load of a building.

(48) A Party Wall shall be taken to mean a wall used, or built to be used, in common by two or more buildings.

(49) An Enclosing Wall shall be taken to mean every outside wall, or vertical enclosure of a building, other than a party wall.

(50) Exterior Wall (see enclosing wall).

(51) Enclosure walls shall be taken to mean non-bearing walls built between steel columns and supported wholly or in part by steel girders.

(52) A Division Wall shall be taken to mean any wall, other than an exterior wall or a party wall, which extends the full height of a building and to the roof.

(53) A Partition Wall shall be taken to mean any interior wall other than a division wall.

By Alderman Weston—

Wm. L. Sanders, No. 578 Marcus street, Brooklyn.

The Vice-Chairman put the question whether the Board would agree with said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Barton, Bent, Beyer, B. W. B. Brown, J. W. Brown, Cole, Coleman, Colgan, Collins, Corlett, Crowley, Delaney, Doull, Dowling, Downing, Drescher, Esterbrook, Flanagan, Flynn, Goldschmidt, Günther, Handy, Heffernan, Hickey, Hines, Hochdorffer, Hogan, Kavanagh, Kennedy, Kenney, Levine, Loos, Marx, McAleer, McCann, McDonald, Muskowitz, Muhlbauer, Mulcahy, Mulvaney, Murphy, Nugent, O'Reilly, Reardon, Redmond, Reutel, Schilder, Smith, Stapleton, Veltin, Walsh, Weston, President Gresser, President Haffen, President Ahern and the Vice-Chairman—52.

GENERAL ORDERS.

Alderman Reutel called up General Order No. 238, being a report and resolution, as follows:

No. 2577.

The Committee on Finance, to which was referred on June 22, 1909 (Minutes, page 1337), a communication from the Department of Water Supply, Gas and Electricity, asking for \$104,194.78 Special Revenue Bonds for operation of water supply system acquired in Borough of Richmond, respectively.

REPORTS:

That, having examined the subject, it believes the proposed allowance to be necessary for the proper operation of this system, as set forth in the letter of Commissioner O'Brien already printed. 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 is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to the amount of one hundred and four thousand one hundred and ninety-four dollars and seventy-eight cents (\$104,194.78), the proceeds whereof to be used by the Commissioners of Water Supply, Gas and Electricity for the purpose of operating the water supply system recently acquired in the Borough of Richmond.

T. P. SULLIVAN, R. S. DOULL, FRANK J. LORWELLING, JAMES D. GUNTHER, A. H. MURPHY, JOHN MULVANEY, Committee on Finance.

The Vice-Chairman put the question whether the Board would agree to accept such report and adopt said resolution.

Which was decided in the affirmative by the following vote:

Affirmative—Aldermen Baldwin, Barton, Bent, Beyer, B. W. B. Brown, J. W. Brown, Cole, Colgan, Corlett, Crowley, Delaney, Doull, Dowling, Downing, Drescher, Esterbrook, Flanagan, Flynn, Gaylor, Goldschmidt, Grimm, Günther, Handy, Hickey, Hines, Hochdorffer, Hogan, Johnson, Kavanagh, Kennedy, Kenney, Levine, Loos, Marx, McAleer, McCann, McDonald, Muskowitz, Muhlbauer, Mulcahy, Mulvaney, Murphy, Nugent, O'Reilly, Reuter, Reardon, Redmond, Reutel, Schilder, Smith, Stapleton, Veltin, Walsh, Weston, President Cromwell, President Gresser, President Haffen and the Vice-Chairman—62.

NOTICES, ORDINANCES AND RESOLUTIONS RESUMED.

No. 2732.

By the Vice-Chairman—

Whereas, The Hudson and Manhattan Railroad Company, through W. G. Adams, President, extended an invitation to join in the celebration incident to the opening of the downtown tunnels of said company, on Monday, July 19, 1909.

Resolved, That this Board of Aldermen respectfully requests the Acting Mayor to direct the national flag to be displayed on all the public buildings of the City on that day in commemoration of the great event, adding another link of common interest in the sister States of New York and New Jersey to display national State and City flags on all public buildings.

Which was adopted.

No. 2733.

By Alderman Dowling—

Whereas, The national pastime of baseball, as played in this City by the professional clubs of the major leagues, draws enormous crowds and as a natural consequence is highly profitable for the owners of such clubs, and

Whereas, in the great ball park, of this City all the comforts and conveniences available to patrons are centered in the sheltered grand stands, leaving those visitors whose income is too small to allow them to participate in the benefits of the covered stands exposed to the burning rays of the summer sun and possible hurt therefrom, although on their patronage rests the financial success of the game.

Resolved, That the Board of Aldermen, directly representing the interests of all our citizenship and especially of those whose welfare depends on their daily wage, which they are not in a position to command unless able to render service, respectfully calls the attention of the league baseball club owners in Manhattan and Brooklyn to the great need for providing covered stands for all classes of patrons of the ball parks and requests that they take this matter under immediate consideration.

Which was adopted.

No. 2734.

By the same—

Whereas, The rule established by the street railroad companies of this City requiring patrons to request conductors to furnish transfers at the time of payment of fares, is frequently the cause of annoyance through ignorance or forgetfulness of this rule, not only to residents of the City, but to the great mass of visitors who particularly, should receive courteous treatment; be it

Resolved, That the Board of Aldermen hereby respectfully requests the Public Service Commission to instruct the street railroad companies in this City to issue orders to their conductors to offer transfers at the time of collection of fares, or that this annoyance may be moderated.

Which was adopted.

No. 2735.

By the Vice-Chairman—

Resolved, That the Commissioner of Parks for the Boroughs of Brooklyn and Queens, consenting thereto, permission be and the same is hereby given to Joseph P. Day to place and keep a post and sign reading, "Turn here for Manhattan Beach Estates" in Neptune avenue, on the east side of Ocean parkway, Coney Island, in the Borough of Brooklyn.

Which was adopted.

No. 2736.

By Alderman Schneider—

Resolved, That permission be and the same is hereby given to the Wilkensia Young Men's Benevolent Association to drive an advertising wagon with music through the streets and thoroughfares of the Borough of Manhattan, under the supervision of the Police Department. Such permission to continue only for the period of thirty days from the receipt hereof from his Honor the Mayor.

Which was adopted.

No. 2737.

By Alderman Redmond—

Resolved, That the ordinance entitled "An ordinance adopting the Building Code of the City of New York, adopted this day, be and the same is hereby amended by adding thereto the following words in their appropriate places, i. e., at the end of section 65.

In private dwellings, not more than 35 feet 6 inches in height and not over 20 feet in width, may be used brick walls not over 8 inches thick.

Also the following amendments:

Section 22, article 1.

Add the following:

Except that in Class D buildings a window opening upon a street, yard or court will not be required where a sleeping room connects with an adjoining room that opens directly upon a street or yard, provided that in the partition separating said rooms movable sash or doors shall be inserted equal to at least one-third of said partition and in no case to be less than twenty-four square feet.

In Class D buildings a shaft, containing not less than twelve superficial feet and not less than three feet in its least horizontal dimension and covered with a louvre skylight of metal extending through not more than two stories to ventilate two water closets, will be permitted.

Section 55.

Amend article 3 in providing separate bear loads for dwelling houses, making the lower floors 70 pounds per square foot, upper floors 55 pounds per square foot.

Which was referred to the Committee on Buildings.

No. 2738.

By Alderman O'Reilly—

Resolved, That his Honor the Mayor be and he is hereby requested to refer to this Board for further consideration a resolution now in his hands, Int. No. 2649, to permit M. Naughton to place an advertising sign.

Which was adopted.

The paper was then received from his Honor the Mayor, and is as follows:

No. 2640.

Resolved, That permission be and the same is hereby given to Michael Naughton to place and keep a sign for advertising purposes within the stoop line in front of the premises No. 210 East Eighty-sixth street, in the Borough of Manhattan, provided the said sign shall be erected so as to conform in all respects with the ordinance in such case made and provided, not be used for advertising purposes, the work to be done at his own expense, under the direction of the President of the Board of Aldermen.

On motion of Alderman O'Reilly, the vote by which the above resolution was adopted was reconsidered, and the paper was placed on file.

No. 2739.

By Alderman Mulcahy—

Whereas, Owing to the largely increased population at and about One Hundred and Fifth street and Eighth avenue, in the Boroughs of Manhattan and the un-necessarily long distance to be traveled to a station by the many who live in this section and use the elevated railroad; therefore

Resolved, That the Public Service Commission for the First District be and hereby is requested to have an up and downtown station established on the elevated railroad at One Hundred and Fifth street and Eighth avenue for the benefit of the people in this rapidly growing section.

Which was adopted.

No. 2740.

By Alderman McAleer—

Resolved, That permission be and the same is hereby given to Robert L. Dixon to suspend a banner across the sidewalk in front of the southwest corner of Grand street and Wythe avenue, in the Borough of Brooklyn, under the supervision of the Police Department. Such permission to continue only for the period of thirty days from the receipt hereof from his Honor the Mayor.

Which was adopted.

No. 2741.

By Alderman Johnson—

Resolved, That permission be and the same is hereby given to the Hotel & Restaurant Company to erect, place and keep an awning or marquee of iron and glass in front of its premises Nos. 7, 9 and 11 East Lexington street, and awning or marquee to replace the one now erected at Nos. 7 and 9 of said premises, which is to be taken down and enlarged, in the Borough of Manhattan, provided the said awning or marquee shall be erected so as to conform in all respects with the ordinance in such case made and provided, not be used for advertising purposes, the work to be done at his own expense, under the direction of the President of the Board of Aldermen.

Which was adopted.

No. 2742.

By the same—

Resolved, That permission be and the same is hereby given to John Miller to erect, place and keep a storm door in front of his premises No. 109 West Nineteenth street, in the Borough of Manhattan, provided the said storm door shall be erected so as to conform in all respects with the ordinance in such case made and provided, not be used for advertising purposes, the work to be done at his own expense, under the direction of the President of the Board of Aldermen.

Which was adopted.

No. 2743.

By Alderman Hochdorffer—

Resolved, That permission be and the same is hereby given to Arthur Newman, with the consent of the occupant of the ground floor, to place and keep a show case within the stoop line in front of No. 510 Westaver Avenue, in the Borough of The Bronx, provided the said show case shall be erected so as to conform in all respects with the ordinance in such case made and provided, not be used for advertising purposes, the work to be done at his own expense, under the direction of the President of the Board of Aldermen.

Which was adopted.

No. 2744.

By Alderman Hickey—

Resolved, That permission be and the same is hereby given to the Arthur Arctander Company to erect, place and keep a stallmark in front of the premises No. 288 Third avenue, in the Borough of The Bronx, provided the said stallmark shall be erected so as to conform in all respects with the ordinance in such case made and provided, not be used for advertising purposes, the work to be done at his own expense, under the direction of the President of the Board of Aldermen.

Which was adopted.

No. 2745.

By Alderman Ensor—

Resolved, That permission be and the same is hereby given to the Unity Building Association to erect, place and keep an architectural porch cornice at second story and four architectural columns as supports therefor within the stoop line in street in front of its premises situated on the south side of Myrtle Avenue, about one hundred and twenty-four (124) feet east of Fresh Pond road, and known as No. 4910 Myrtle Avenue, Glendale, Borough of Queens, City of New York, provided that said porch cornice and columns shall be erected so as to conform with City Ordinances in such case made and provided, not to be used for advertising purposes, and to be erected at his own expense, to be built under the direction and subject to the consent and approval of the President and Commissioner of Buildings of the Borough of Queens.

Which was adopted.

No. 2746.

By Alderman Dowling—

Resolved, That when this Board adjourns it do adjourn to meet on Tuesday, September 14, 1909, at 1:30 o'clock, p. m.

Which was adopted.

No. 2747.

By Alderman Doull—

Resolved, That permission be and the same is hereby given to the Atheneum-Bush Brewing Association to drive a six-in-hand mule team through the streets and thoroughfares of The City of New York, under the supervision of the Police Department. Such permission to continue only for the period of thirty days from the receipt hereof from his Honor the Mayor.

Which was adopted.

No. 2748.

By Alderman Colgan—

Resolved, That the Borough President of the Borough of Brooklyn be and is hereby requested to have placed at the foot of Dock street, Borough of Brooklyn, public bath which has been located in this congested district for many years.

Which was adopted.

No. 2749.

By the same.

Resolved, That permission be and the same is hereby given to David Schwartz to drive an advertising wagon through the streets and thoroughfares of the Borough of Brooklyn, under the supervision of the Police Department. Such permission to continue only for the period of thirty days from the receipt hereof from his Honor the Mayor.

Which was adopted.

No. 2750.

By Alderman J. W. Brown—

Resolved, That the Commissioner of Parks of the Borough of The Bronx is hereby empowered and requested to grant to such persons, families and parties as may apply therefor the right and privilege to camp on the shores of Pelham Bay Park, in the Borough of The Bronx, excepting such portion of said Pelham Bay Park as is included in Hunter Island and Twin Islands.

Which was adopted.

Alderman Dowling moved that the Board do now adjourn.

The Vice-Chairman put the question whether the Board would agree with said motion.

Which was decided in the affirmative.

And the Vice-Chairman declared that the Board stood adjourned until Tuesday, September 14, 1909, at 1:30 o'clock p. m.

P. J. SCULLY, City Clerk and Clerk of the Board of Aldermen.

BOROUGH OF THE BRONX.

BUREAU OF BUILDINGS

Herewith submit a report of operations of the Bureau of Buildings, Borough of The Bronx, for the week ending June 26, 1909.

Plans filed for new buildings (estimated cost, \$65,720)	57
Plans filed for alterations (estimated cost, \$10,100)	19
Urgent cases filed	5
Violation cases filed	32
Violation cases issued	14
Violation notices issued	45
Violation notices issued	19
Violation cases forwarded for prosecution	15
Complaints lodged with the Bureau	1,411
Number of pieces of iron and steel impounded	

P. J. DEVILLE, Superintendent of Buildings.

John H. Hanan, City Clerk.

POLICE DEPARTMENT.

Sanitary Company (Boiler Squad).
July 1, 1909.

To the Police Commissioner:

Sir—In compliance with orders relative to engineers' certificates issued by me under section 312 of chapter H6 of the Laws of 1902 as amended, the following report will show the names of the persons to whom licenses were issued, class of license and location for the same, during the twenty-four hours ending 12 midnight, June 30, 1909:

First Class.

John H. Wheeler, No. 213 Court street, Brooklyn; George H. Williams, New York Avenue and Conduit Avenue, South, Henry Dougherty, Clinton and Union street, Bay Parkway; Edward Spitz, No. 109 East One Hundred and Twenty-fifth street; Robert T. Atwell, No. 103 Park avenue; Henry Greenberg, No. 540 West Fifty-eighth street.

Second Class.

Daniel S. Brown, No. 294 Court Avenue, Brooklyn; Donald S. Van Wagener, Bay Parkway and Sea Breeze Avenue; John J. McCullough, Schools and Bogart Avenue, Brooklyn; Charles Field, Henderson's Walk, Coney Island; George A. Keeler, No. 620 West Twenty-fifth street; James Harrigan, Park Avenue and Forty-first street; Peter Nelson, No. 606 Broadway; Henry W. Green, No. 417 East Fifty-fifth street.

Third Class.

William F. Baker, No. 166 Park Avenue; Louis Spalding, No. 30 Church street (offices); George Brown, No. 5 Red Hook Lane, Brooklyn; William McSiff, No. 203 Jay street, Brooklyn; Charles Boile, No. 12 Verona Street, Brooklyn; Earl Roberts, 100 of Fifty-second street, Brooklyn; Arthur McKenna, 100 of Pearl street, Brooklyn; Gustave Ruhm, Manhattan Beach, Brooklyn; Frank De Hamm, Seventy-seventh street and Avenue A; Harry Siegel, No. 100 West Eighteenth street; Patrick D. Loughlin, No. 902 East Seventy-second street; Charles E. Henderson, No. 401 West End Avenue; Michael Griesman, No. 55 East Fifty-eighth street; William A. Boyle, Lexington Avenue and Twenty-ninth street; Hugie McGinley, No. 405 Broadway; Joseph Mutterer, No. 400 East Fifty-seventh street; Henry March, No. 247 Third Avenue; Bruno Michael, No. 82 Beaver street; Frank Boehm, No. 232 Third Avenue; Willard P. Whitney, No. 310 West Sixty-sixth street; Martin Hoen, No. 202 East Twelfth street; James C. Lyon, No. 39 Ann street; Thoswell E. Torgerson, No. 432 East One Hundred and Second street; Joseph McGivney, No. 12 Murray street.

Special.

Charles Gehl, No. 2223 Belmont Avenue; George T. McAtee, No. 340 East Fourteenth street.

Respectfully,

HENRY BREIN, Lieutenant in Command.

POLICE DEPARTMENT.

Sanitary Company (Boiler Squad).
July 2, 1909.

To the Police Commissioner:

Sir—In compliance with orders relative to engineers' certificates issued by me under section 312 of chapter 410 of the Laws of 1902 as amended, the following report will show the names of the persons to whom licenses were issued, class of license and location for the same, during the twenty-four hours ending 12 midnight, July 1, 1909:

First Class.

Hermon Abbott, No. 237 Bedford street, Brooklyn; James A. Wood, 100 North Twelfth street, Brooklyn; John H. H. No. 47 Mercer street.

Second Class.

Charles F. Kaline, 561 Avenue and West Twelfth street, Coney Island; Henry O'Neill, Manhattan Beach Hotel, Brooklyn; George Langbridge, No. 325 East Thirty-eighth street; Fred Schmidt, No. 214 East Ninety-third street.

Third Class.

John J. Brown, Adams and Conduit street, Brooklyn; Aron H. Zimmerman, No. 21 and 22 Marey Avenue, Brooklyn; August J. Fitter, No. 404 Fulton street, Brooklyn; J. C. Coakley, No. 116 Broad street; William A. Boughton, No. 244 Water street, Brooklyn; James Canning, No. 177 Hudson street; Arnold Christodorus, No. 329

Canal street; Christian Pedersen, No. 116 West Thirty-fourth street; John W. Corcoran, No. 143 Liberty street; Harry C. Snow, No. 158 West Twenty-seventh street; Noyes E. Devac, No. 317 West Fifty-second street; Patrick W. Mooney, No. 53 Elizabeth street; Walter Squires, No. 278 South street; James F. McBeath, No. 452 West street; John Johns, No. 636 Broadway; John H. Tomlinson, No. 742 East Fourteenth street; Henry Peemiller, Broadway and Seventy-seventh street; William H. Quinn, No. 404 East Thirty-first street; William Serrett, No. 508 East Seventy-second street; E. B. Demarest, No. 362 Lexington Avenue, Brooklyn; Frank Woods, No. 79 Broadway; Hippolyte R. Lamotte, No. 471 Park Avenue; John J. Dillon, No. 143 Liberty street.

Special.

Charles A. McLeary, No. 193 Washington Avenue, Brooklyn; Bartholomew J. Mahoney, No. 105 West One Hundred and Second street.

Respectfully,

HENRY BREIN, Lieutenant in Command.

POLICE DEPARTMENT.

July 12, 1909.

Herewith is transmitted for publication in the City Record a list of deaths, retirements, etc., from June 28 to July 3.

June 28.

Death Reported—Patrolman Charles Nell, Twenty-fifth Precinct, at 905 a. m., time 27, 1909.

June 29.

Resignation Accepted—Patrolman William McCarthy, to take effect 12 noon, June 24, 1909.

June 30.

Appointed Patrolmen—Joseph P. Adelman, Bernard P. Allen, Michael Durante, Morris H. Gleisman, John V. Marshall, Peter A. McCann, John G. Neum, Charles A. Pano, Frank J. Sheehan.

Dismissed—Probationary Patrolmen Cornelius Cueto and Martin G. H. Nielsen, to take effect June 30, 1909.

Retired and Awarded the Following Pensions.

To Take Effect 12 Midnight, June 29, 1909—Patrolmen William C. Kelly, Sixty-third Precinct, at \$700 per annum; James McCusker, Jr., Sixty-sixth Precinct, at \$700 per annum; John J. Hinde, Bridge Precinct A, at \$443 per annum.

Dismissed—Patrolman Martin O'Connor, Sixteenth Precinct, Charges: Neglect of duty, conduct unbecoming an officer. To take effect 4:45 p. m., June 29, 1909.

Deaths Reported—Patrolman Thomas B. McNamee, One Hundred and Sixty-eighth Precinct, at 1:15 a. m., June 30; Michael H. Malone, Two Hundred and Ninety-second Precinct, at 12:15 a. m., June 30.

Resignation Accepted—Stenographer Robert Lisi, to take effect 11 a. m., June 30. Resignation Accepted, To Take Effect 6 P. M., June 30—Bert Hanan, Third Deputy Police Commissioner; Frank D. Wilson, Secretary to Third Deputy Police Commissioner; Guy H. Seall, Secretary to First Deputy Police Commissioner.

Promoted to Rank of Captain—Lieutenant Frank J. Morris.

Employed as Patrolmen on Probation—Domenick McKenna, David A. Barry, John P. Moran, Anthony Brauer, Charles Bellino, George F. Van Holt, Frederick Steiner, John H. Thomas, Edward M. Drudek, William J. Drury, Nicholas C. Rogers, William F. Gallagher, Dennis J. Rodgers, James A. Mahoney, Charles Graham, John A. McCarron, George P. Schmidt, William J. Reinhard, Daniel J. Cashman, Joseph S. Dillon, Herman C. Hauer, William Williams, John J. McGroarty, Paul H. Schaeffer, Warren Leathem, Jay J. McDonald, John W. Totschke, Edward D. Tracy, Russell McKee, William P. Smith, Otto H. Rinn, Bernard Reiter, Bernard J. McMillen, Edward P. Larkin, Michael J. O'Connell, William J. Walsh, Francis E. McTigue, Charles Koch, Andrew J. Sosay, James H. Harvey, William A. Lowry, Thomas L. Gleason, William J. McAndrews, Edwin O. Kehl, Peter A. Rizzo, William J. Maher, Joseph Cohen, Frank J. Pennington, Edward J. Stauffer, Thomas J. Brady, Frederick Brevis, George P. Veith, John F. King, Michael Magor, Otto Johnson, Paul Dickey, William C. O'Connor, Thomas M. Farrell, Robert D. West, Walter J. Raleigh, Patrick F. Dunford, Anthony Schmidt, John Hendon, Daniel O'Neill, Charles A. Cafferton, Simon P. Green, John Reis, Alphonse M. Henger, Edward J. Mack, James S. Maher, Charles H. Vaughn, William H. Weber, William F. Carroll, Reuben J. Weltev, John J. Brown, Edward Water, Edward J. Leonard, Richard Fitzsimons, Hugh McKenna, William Boston, Edward H. Gerstenfeld, John J. Keane, George J. Brust, Jr., Joseph Burns, Arthur D. Dowds, Jacob Harnett, Otto M. Whitney, James P. Mooney, Andrew Anderson, John J. Ryan, Patrick Stanton, Louis Paulus, Jr., John G. Burns, Lawrence P. O'Brien, John J. Ryan, William Weisbauer, Joseph D. Kiley, Charles J. Presmar, Leslie R. Sutton, Thomas F. Donavan, Richard Reynolds, Joseph L. Vichnow, Hogan McCurdy, James S. Flynn, Daniel J. Moran, Urban W. King, Louis Hermon, Albert J. Finch, John J. Preman, George Noll, Isidor Piser, Edward J. Heffron, Louis J. Owens, Henry D. Lewis, Leonard Hesinger, Ludwig J. Nadel, Samuel Weiss, Edward Minster, Sebastian Wehner, Fred Seidlinger, Edward Bender, Charles Weiss, Jr., James T. Brady, Stephen Hennessy, James Pelleym, John A. Lindsay, Lawrence English, John J. Delaney, Anthony J. Padreco, William H. Haney, Arthur Wagner, George D. Huber, Louis P. Kiefer, Harry G. Bartels, Roger D. Potter, Michael J. Golden, Frederick H. Fitzgerald, Frederick W. Young, Antonio Pascale, Eugene S. Franklin, James J. McLeinen, Edward A. Nierat, George F. Ostrowsky, Patrick C. Hearn, John R. Walsh, Alfred Franzenberger, Joseph J. Dorsey, George H. Walker, Charles S. Robinson, Frederick S. Ruloff, Matthew J. McCann, Thomas P. Gilney, Charles E. Frye, James W. Ward, Henry G. Single, Jr.

July 1.

Dismissed—Patrolmen William H. Frank, Two Hundred and Seventy-fifth Precinct, Charges: Neglect of duty, conduct unbecoming an officer; and conduct injurious to the public peace and welfare. To take effect 4:45 p. m., June 30. John Sexton, Sixteenth Precinct, Charge: Neglect of duty, to take effect 4 p. m., June 30. Martin Davis, Sixteenth Precinct, Charge: Conduct unbecoming an officer. To take effect 4:45 p. m., June 30.

Resignation Accepted, To Take Effect 12:30 P. M., July 1—Frederick H. Bugher, Second Deputy Police Commissioner; Arthur Woods, Fourth Deputy Police Commissioner; L. S. Wellers, Secretary to Second Deputy Police Commissioner; Daniel G. Slattery, Secretary to Police Commissioner.

Salary Increased—Stenographer Winfield W. Robinson, to \$1,500 per annum, to take effect July 1, 1909.

Resignation Accepted, To Take Effect 1 p. m., July 1, 1909; Thomas Glynn, Older, Steam Yacht "Patrol," to take effect July 1, 1909.

Appointed as Police Commissioner—William F. Baker.

Appointed as Third Deputy Police Commissioner—Josiah A. Stover.

July 2.

Removed—Executive Clerk Charles L. Mullen.

Employed as Patrolmen on Probation, To take effect June 30, Lawrence P. English, James S. Maher, to take effect July 1, 1909; John A. Lindsay.

Retired on His Own Application at the Following Pension—Patrolman John W. Heath, Seventh District Court Squad, Manhattan, at \$700 per annum, to take effect 12 midnight, July 1.

July 3.

Appointed First Deputy Police Commissioner—Frederick H. Bugher.

Dismissed—Patrolman James Dillon, One Hundred and Forty-ninth Precinct, having been convicted of a criminal offense by a court of competent jurisdiction, to take effect June 29, 1909.

Retired on His Own Application at the Following Pension—Patrolman William Nelson, Central Office Squad, at \$700 per annum, to take effect 12 midnight, July 3, 1909.

WM. F. BAKER, Commissioner.

DEPARTMENT OF FINANCE.

Abstract of transactions of the Department of Finance for the week ending March 6, 1909:			
Deposited in the City Treasury.			6,159,854 44
To the credit of the City Treasury.			291,671 71
To the credit of the Sinking Funds.			
Total.			\$11,451,526 15

Warrants Registered for Payment.

Appropriation Accounts "A" Warrants.	\$2,654,227 53
Special Revenue Bond Fund Accounts "B" Warrants.	164,467 01
Corporate Stock Funds Accounts "C" Warrants.	2,206,686 25
Special and Trust Fund Accounts "D" Warrants.	994,835 59
Total.	\$6,020,216 38

Stocks and Bonds Issued.

Four per cent. Stock.	\$9,133,000 00
Three and one-half per cent. Bonds.	100,000 00
Total.	\$9,233,000 00

Suits, Court Orders, Judgments, etc.

Court.	Title of Action.	Amount.	Subject Matter.	Attorney.
Supreme, N. Y. Co.	Metropolitan Street Rail-way.		Certified copy of order entered February 26, 1909, reducing assessments, 1904, 1905, 1906, 1907, 1908.	
Supreme, N. Y. Co.	Home Insurance Company.		Certified copy of order entered February 26, 1909, vacating assessment 1908.	Master & Nichols.
Supreme, N. Y. Co.	U.S. Forest.	\$1,000 00	Copy of judgment entered Jan. 29, 1909.	Richards & Head.
Supreme, N. Y. Co.	Edgewater Realty Com-pany.		Certified copy of order entered March 1, 1909, reducing assessment, 1908.	
Supreme, Kings.	Christopher account.		Certified copy of order entered February 18, 1909, directing payment of awards to Hyman Aaron and another.	M. L. Rippe.
Supreme, Kings.	Seventeenth avenue.		Certified copy of order entered February 18, 1909, directing payment of award to Wm. Prokes.	M. J. Rippe.
Supreme, N. Y. Co.	Edgewater Realty Com-pany.		Two certified copies of order entered March 1, 1909, reducing assessment, 1908.	
Supreme, N. Y. Co.	J. Edward Marsh.		Two certified copies of order entered March 1, 1909, reducing assessment, 1908.	
Supreme, Queens.	Parkway street.		Certified copy of order entered March 1, 1909, directing payment of award to John O'Dowd.	Foster & Foster.
Supreme, Queens.	Ninth avenue.		Certified copy of order entered March 1, 1909, directing payment of award to Frederick Fischbeck.	
Supreme, Queens.	Ninth avenue.		Certified copy of order entered March 1, 1909, directing payment of award to Amos Q. Garber.	
Supreme, Kings.	Christopher avenue.		Certified copy of order entered March 1, 1909, directing payment of award to Benjamin Rothbel and another.	M. L. Rippe.
Supreme, Kings.	Seventeenth avenue.		Certified copy of order entered March 1, 1909, directing payment of award to Hans C. Pfleider.	M. J. Rippe.
Supreme, Kings.	East Thirteenth street.		Certified copy of order entered March 1, 1909, directing payment of award to Elizabeth Zimmerman.	M. L. Rippe.
Supreme, Kings.	Benson avenue.		Certified copy of order entered March 1, 1909, directing payment of award to Harry S. Wilson.	M. L. Rippe.
Supreme, Queens.	Parky street.		Certified copy of order entered March 1, 1909, directing payment of award to Rose Bauer.	Foster & Foster.
Supreme, N. Y. Co.	Second avenue.		Copy of petition, notice of motion, re awards to Amelia S. Hewitt.	Ed. W. Murphy.
Supreme, N. Y. Co.	Pleasant avenue.		Copy of petition, notice of motion, re awards to Minnie A. Indell.	Ed. W. Murphy.
Supreme, N. Y. Co.	Pleasant avenue.		Copy of petition, notice of motion, re awards to Bridget O. McDonough.	Ed. W. Murphy.
Supreme, N. Y. Co.	George M. Smith and another.		Certified copy of order entered February 26, 1909, directing order to be cancelled.	Albert B. Hager.
Supreme, Kings.	George W. Tugend, Tractor, against Lower-Hudson Ward Realty Company.		Copy of canceled summons and complaint.	Benj. P. Morris.
Supreme, N. Y. Co.	West One Hundred and Fifty-first street.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, N. Y. Co.	West One Hundred and Sixty-sixth street.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, N. Y. Co.	West street.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, N. Y. Co.	Freeman street.		Notice of motion to confirm report.	F. K. Pendleton.

Court	Title of Action.	Amount.	Subject Matter.	Attorney.
Supreme, N. Y. Co.	Astor avenue.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, N. Y. Co.	First avenue.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, N. Y. Co.	DeKalb avenue.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, Kings.	Butler avenue.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, N. Y. Co.	Elm street.		Copy of affidavit, notice of motion, re award, John M. Cornell, execu-tor.	M. J. McQueen.
Supreme, Kings.	Westchester avenue.		Certified copy of order entered March 4, 1909, directing payment of award to Lawrence A. Boyd.	Eugene Sherk.
	Notice of appearance.		Filed by Hayes & Gray, re Ninety-first street.	Hayes & Gray.
Supreme, Kings.	Church avenue.		Notice of motion to confirm report.	F. K. Pendleton.
Supreme, N. Y. Co.	Clinton Backlot.		Copy of affidavit, notice of motion, re award of monies.	Edward M. Gross and another.
Supreme, N. Y. Co.	Wm. H. Smith and another against John Shanks.		Copy of supplemental summons and complaint.	Wilson Baker-Wagen.
Supreme, N. Y. Co.	Eliza Warfield.	\$89 70	Transcript of judgment entered March 1, 1909.	Stern & Ballin.
Supreme, Kings.	Louis King, administratrix.	\$100 00	Transcript of judgment entered March 4, 1909.	John L. Ohlmann.
Supreme, N. Y. Co.	Bergen Manufacturing Company against City of New York.	\$2,000 00	Certified copy of judgment entered March 5, 1909.	R. W. Kress.
U. S. Dist.	Louis M. Levy & Co.		Copy of motion and order.	
Supreme, Wm. H. C. Cross River Proceeding.			Notice of motion to confirm report.	F. K. Pendleton.
Claims Filed.				
Date Filed.	Claimant.	Amount.	Nature of Claim.	Attorney.
1909, Mar. 1	Lorraine Williamson.	\$2,000 00	Personal injuries sustained February 1, 1909, by falling, due to hole in the sidewalk in front of the "Ginger House" on Franklin Avenue, Hammonton, New Jersey.	
Mar. 2	Arthur Stick, infant.	\$60 40	Personal injuries sustained February 1, 1909, by falling, due to an unguarded and unguarded hole in Franklin street, between Stanton street and Harrison street, Hammonton.	John B. Gibson.
Mar. 2	Stimmons & Walters Company.	\$6 75	Amount due for 12 days' wages paid to Department of Parks, February 26, 1909, at \$500.	Morris Mizrahi.
Mar. 2	Stephen Rizzo.	\$1,000 00	Personal injuries sustained February 1, 1909, by falling, due to a hole in the pavement at Washington Avenue and Franklin Avenue, Hammonton.	Jimmy & St. John.
Mar. 2	J. Upton Morgan.	\$10 10	Damage of water meter charges on premises No. 17, East Thirteenth street, Manhattan, paid August 14, 1908.	Feldman & Rosenblum.
Mar. 3	James H. Jones.	\$310 92	Award for his undivided interest in Park No. 46, in the matter of Park 46, 1/2, East River, with the building improvements thereto.	Truman H. and George E. Baldwin.
Mar. 3	Nestor Marx and Eva V. U. Hawley.	\$310 92	Award for their undivided interest in Park No. 46, in the matter of Park 46, 1/2, East River, with the building improvements thereto.	Truman H. and George E. Baldwin.
Mar. 3	Cardellius Seward.	\$310 92	Award for his undivided interest in Park No. 46, in the matter of Park 46, 1/2, East River, with the building improvements thereto.	Truman H. and George E. Baldwin.
Mar. 4	New York Life Insurance and Trust Company, etc.	\$3,071 84	Award for their interest in Park No. 46, in the matter of Park 46, 1/2, East River, with the building improvements thereto.	Truman H. and George E. Baldwin.
Mar. 4	Frank H. Gelt.	\$60 00	Personal injuries sustained December 4, 1908, by falling, due to an unguarded hole in the sidewalk at the south end of Walker street, between Centre and Bleecker streets, Manhattan.	Frank H. Gelt.
Mar. 4	Richard F. Gilman.	\$10 00	Balance of wages due, Maxon, Electrician, Water Supply, Gas and Electricity, from March 31, 1908, 20 days, at \$100.	H. Blake Gilman.
Mar. 4	Caroline Koenig.	\$10 00	Personal injuries sustained February 1, 1909, by falling, due to an accumulation of snow and ice in front of Nos. 140 and 141, East One Hundred and Sixty-sixth street, Manhattan.	Francis H. McAllister.
Mar. 4	Thomas Mulroy.	\$10,000 00	Personal injuries sustained October 18, 1908, by falling, due to the defective condition of the sidewalk at Prospect street, at or near Pearl street, Brooklyn.	J. Arthur Hill.
Mar. 4	Simon Aarons.	\$23,000 00	Personal injuries caused December 8, 1908, by falling, due to a vicious horse used by the claimant.	Michael J. Scanlon.
Mar. 4	Michael Deladine.	\$26,000 00	Damage on account of breach of contract of June 15, 1908, in the City's failing to maintain the viaducts, one on the North River and one on the East River, due to Wallman, Gross & Sonnen.	
Mar. 5	Anna Anderson, administratrix.		Death of Anna Anderson by the collapse of the Gold street viaduct November 29, 1908.	Henry L. McAllister.

Date Filed	Claimant	Amount	Nature of Claim	Attorney	Date Filed	Claimant	Amount	Nature of Claim	Attorney
1909, Mar. 5	James A. Simmons,.....	\$,000.00	Personal injuries sustained January 10, 1909, by being thrown from hansom in collision with an unlighted pile of bricks in front of No. 151 West Twenty-eighth street, Manhattan.....	Joseph H. Hayes	1909, Mar. 6	R. S. Stern Company,.....	9,362.40	Damages to merchandise at Nos. 186 and 188 Crosby street and Nos. 422 and 434 Broadway, Manhattan, and expenses incurred by the flooding of subcellar from a water main on February 1, 1909,.....	George H. Bruce
Mar. 5	Samuel Weinst,.....	505.25	Extra labor and material furnished on contract No. 21980 for the erection of a new male dormitory at the New York City Farm Colony, Richmond,.....	Arthur Kroc	Mar. 6	Emil H. & Louis Kasmak,.....	40,000.00	Award for No. 201 Hester street, Manhattan, in the matter of acquiring title to lands and premises on northeast corner of Baxter and Hester streets, Manhattan, for a school site,.....	John P. Schuchman
Mar. 5	Albert L. Silberstein,.....	69.00	Refund of water charges for the year 1906, paid in error on July 17, 1906, on Lot No. 10, Block 1902, Abraham B. Keye		Mar. 6	Metropolitan Building Company, assignee,.....	1,816.80	Award for Paper No. 2, made to the Corporate Realty Association in the matter of opening West One Hundred and Eighty-sixth street, Manhattan, from Amsterdam avenue to a new street west of High Bridge Park,.....	Strauss & Anderson
Mar. 6	Magnus Larsen,.....	1,350.00	Rent of Lots Nos. 5, 6, 7 and 21, Hunter and Van Aist Farms, Long Island City, as per renewal of lease dated March 21, 1903, used as Corporation yard,.....	John B. Merrill	Mar. 6	Clarence J. Irving,.....	20.54	Restoration of amounts deducted from his salary as an employee of the Commissioner of Juries, New York County, for October and November, 1908, pursuant to section 1391 of the Code,.....	
Mar. 6	Patrick Murphy,.....	500.00	Personal injuries sustained January 27, 1909, by falling on icy sidewalk caused by a leaky hydrant in front of No. 276 Morris street, Manhattan,.....	Aaron Merrill	Mar. 6	Bernard Murphy,.....		Personal injuries sustained January 19, 1909, by falling on the icy sidewalk in front of No. 2921 Atlantic avenue, Brooklyn,.....	Joseph P. Reilly
Mar. 6	Rudolph J. Pucko,.....	104.80	Damages to showcar and contents, March 2, 1909, at No. 148 Hamilton place, Manhattan, by a horse and wagon of the Department of Water Supply, Gas and Electricity,.....		Mar. 6	Charles E. Jeffife, Receiver,.....	625.00	Amount due Hodge Son for supervising the construction of launches A and B for the Police Department, built by J. W. Sullivan,.....	

Contracts Registered for the Week Ending March 6, 1909.

No.	Date of Contract	Department	Borough	Names of Contractors	Names of Sureties	Amount of Bond	Description of Work	Cost
22741	Feb. 14, 1909	President of the Borough of Brooklyn,.....	Brooklyn,.....	The New York and New Jersey Telephone Company,.....	American Surety Company of New York,.....	10,000.00	For furnishing telephone service during the year 1909,.....	Estimate, \$5,131.50
22752	Feb. 1, 1909	The Assessors Commissioners	The Bronx,.....	J. W. Pike Iron Works,.....	American Bonding Company of Baltimore,.....	10,000.00	For furnishing, erecting and painting iron and wooden fencing at Jerome Park Reservoir, in the Twenty-fourth Ward,.....	Estimate, \$5,537.12
22753	Jan. 13, 1909	Education,.....	All Boroughs,.....	Joseph Dresser Crucible Company,.....	American Surety Company of New York,.....	4,500.00	For furnishing and delivering drawing supplies, etc., for use in the Day and Evening Elementary Schools,.....	Estimate, 9,000.00
22754	Jan. 13, 1909	Education,.....	All Boroughs,.....	Adolph Easter,.....	The United States Fidelity and Guaranty Company,.....	100.00	For furnishing and delivering scissors for use in the Day and Evening Elementary Schools,.....	Estimate, 1,000.00
22755	Jan. 13, 1909	Education,.....	All Boroughs,.....	William B. Thompson,.....	The United States Fidelity and Guaranty Company,.....	2,500.00	For furnishing and delivering hardware, sewing supplies, etc., for use in the Day and Evening High Schools, the Day and Evening Elementary Schools, the Manual Training High School,.....	Estimate, 5,000.00
22756	Jan. 13, 1909	Education,.....	All Boroughs,.....	Wadsworth, Howland & Co., Inc.,.....	American Bonding Company of Baltimore,.....	750.00	For furnishing and delivering drawing supplies, etc., for use in the Day and Evening Elementary Schools,.....	Estimate, 1,500.00
22757	Jan. 13, 1909	Education,.....	All Boroughs,.....	Eagle Pencil Company,.....	The Fidelity and Guaranty Company of New York,.....	6,000.00	For furnishing and delivering drawing supplies, stationery, etc., for use in the Day and Evening Elementary Schools,.....	Estimate, 12,000.00
22758	Jan. 13, 1909	Education,.....	All Boroughs,.....	Schaeferling, Daly & Gales,.....	Fidelity and Deposit Company of Maryland,.....	400.00	For furnishing and delivering physical training supplies for use in the Day and Evening Elementary Schools,.....	Estimate, 800.00
22759	Jan. 13, 1909	Education,.....	All Boroughs,.....	American Lead Pencil Company,.....	American Surety Company of New York,.....	2,500.00	For furnishing and delivering stationery, etc., for use in the Day and Evening Elementary Schools,.....	Estimate, 5,000.00
22760	Jan. 13, 1909	Education,.....	All Boroughs,.....	The Macmillan Company,.....	The United States Fidelity and Guaranty Company,.....	350.00	For furnishing and delivering compasses, etc., for use in the Day and Evening Elementary Schools,.....	Estimate, 700.00
22761	Jan. 13, 1909	Education,.....	All Boroughs,.....	Intercorps Supply Company,.....	United Surety Company,.....	750.00	For furnishing and delivering chinaware, etc., for use in the Day and Evening Elementary Schools,.....	Estimate, 1,500.00
22762	Feb. 1, 1909	Education,.....	All Boroughs,.....	The Munro-Eastwood Pen Company,.....	The Empire State Surety Company,.....	350.00	For furnishing and delivering stationery (pens) for use in the Day and Evening Elementary Schools,.....	Estimate, 700.00
22763	Jan. 13, 1909	Education,.....	All Boroughs,.....	Kniffel & Ester Company,.....	National Surety Company,.....	150.00	For furnishing and delivering drawing supplies, etc., for use in the Day and Evening High Schools and the Day and Evening Elementary Schools,.....	Estimate, 300.00
22764	Jan. 13, 1909	Education,.....	All Boroughs,.....	O. M. Dawson,.....	The Empire State Surety Company,.....	750.00	For furnishing and delivering sewing supplies, etc., for use in the Day and Evening Elementary Schools,.....	Estimate, 1,500.00
22765	Jan. 26, 1909	Health,.....	Manhattan, The Bronx, Brooklyn and Queens,.....	American Ice Company,.....	The United States Fidelity and Guaranty Company,.....	1,611.00	For furnishing and delivering ice,.....	Estimate, 3,201.00
22766	Jan. 25, 1909	Health,.....	Manhattan and Brooklyn,.....	Samuel E. Hunter,.....	The Empire State Surety Company,.....	625.00	For furnishing and delivering vegetables,.....	Estimate, 1,200.50
22767	Jan. 27, 1909	Health,.....	Manhattan and Brooklyn,.....	John A. Dahn & Son,.....	American Surety Company of New York,.....	2,320.00	For furnishing and delivering bread,.....	Estimate, 6,346.75
22768	Feb. 2, 1909	Health,.....	Manhattan, The Bronx and Brooklyn,.....	New York Bottling Company,.....	The United States Fidelity and Guaranty Company,.....	1,125.00	For furnishing and delivering milk,.....	Estimate, 2,425.50
22769	Feb. 12, 1909	Fire,.....	Brooklyn,.....	Horace Ingemill Company,.....	The Empire State Surety Company,.....	18,000.00	For furnishing and delivering forage,.....	Total, 35,004.24
22770	Feb. 22, 1909	Street Cleaning,.....	Manhattan, The Bronx,.....	James Egan,.....	The Empire State Surety Company,.....	5,000.00	For harsening,.....	Estimate, 21,525.00
22771	Feb. 22, 1909	President of the Board of Education,.....	Manhattan,.....	The Barber Asphalt Paving Company,.....	The United States Fidelity and Guaranty Company, People's Surety Company of New York	10,000.00	For repairing and maintaining the street asphalt pavements on Avenue A, from Eighty-first to Eighty-second street, etc., etc.,	Estimate, 122,300.00

No.	Date of Contract	Department	Borough	Names of Contractors	Names of Sureties	Amount of Bond	Description of Work	Cost
22772	Feb. 16, 1908	Education.....	Queens.....	L. E. Decker.....	The Title Guaranty and Surety Company.....	400.00	For furnishing and operating stages or other conveyances to convey pupils to and from the schools.....Estimate.	462.00
22773	Oct. 26, 1908	Education.....	Queens.....	Schoerling, Daly & Gates	Fidelity and Deposit Company of Maryland.....	200.00	For furniture, Item 4, for new Public School 56, Total,	672.00
22774	Nov. 9, 1908	Education.....	Brooklyn.....	Siegel Cooper Company...	United States Guaranty Company.....	1,600.00	For furniture, Item 2, for addition to Public School 54, Total,	3,648.00
22775	Nov. 23, 1908	Education.....	Brooklyn.....	Max Klaesner.....	The Empire State Surety Company.....	600.00	For furniture, Item 3, for new Public School 93, Total,	1,200.00
22776	Nov. 23, 1908	Education.....	Manhattan....	Blake & Williams.....	National Surety Company; Massachusetts Bonding and Insurance Company.....	10,000.00	For installing heating and ventilating apparatus in new Public School 114.....Total,	46,284.00
22777	Nov. 30, 1908	President of the Borough of Brooklyn....	Brooklyn....	John J. Crem Company...	The Empire State Surety Company; People's Surety Company of New York; The Title Guaranty and Surety Company (amount 1000.00)	For constructing a sewer in Scott avenue, from Newkirk Creek, south of Metropolitan avenue, to St. Nicholas avenue, etc., etc.	(191.41) 94	
22778	Nov. 30, 1908	President of the Borough of Brooklyn....	Brooklyn....	William P. Miller.....	The Empire State Surety Company.....	600.00	For grading to the level of the curb the lot lying on the east side of Third avenue, between Eighty-eighth and Eighty-ninth streets.....Estimate,	98.47
22779	Nov. 31, 1908	President of the Borough of Brooklyn....	Brooklyn....	Frank J. Ulrich.....	The Empire State Surety Company.....	200.00	For paving with cement five feet wide the sidewalks opposite lot lying on the northwest side of Hauman street, between St. Nicholas avenue and the Borough line, etc., etc.	185.70
22780	Dec. 3, 1908	President of the Borough of Brooklyn....	Brooklyn....	St. John's Construction Company.....	The Aetna Indemnity Company.....	700.00	For regulating, grading and curbing Corseka street, from Kinderhook avenue to the boundary line between the Borough of Brooklyn and Queens.....Estimate,	1,437.40
22781	Nov. 23, 1908	President of the Borough of Brooklyn....	Brooklyn....	The Manger Company....	The Empire State Surety Company.....	1,200.00	For regulating, grading, setting curb on concrete and laying cement sidewalks on Fifty-seventh street, between Fourteenth and Fifteenth avenues, etc., etc.	3,000.00
22782	Nov. 12, 1908	President of the Borough of Brooklyn....	Brooklyn....	Crawford Company.....	The Empire State Surety Company; the United States Fidelity and Guaranty Company.....	1,000.00	For paving Sixty-second avenue with asphalt on concrete, between Kirkway avenue and Saratoga avenue, etc., etc.	12,017.60
22783	Nov. 12, 1908	President of the Borough of Brooklyn....	Brooklyn....	Crawford Company.....	The Empire State Surety Company; the United States Fidelity and Guaranty Company.....	1,200.00	For paving with asphalt on concrete base Rockdale avenue, between St. Marks avenue and the Boulevard (Eastern Parkway), etc.	14,827.80
22784	Nov. 12, 1908	President of the Borough of Brooklyn....	Brooklyn....	Crawford Company.....	The Empire State Surety Company; the United States Fidelity and Guaranty Company.....	2,000.00	For paving with asphalt on concrete foundation, Prospect place, between Rockdale and Buffalo avenues, etc., etc.	5,737.50
22785	Nov. 12, 1908	President of the Borough of Brooklyn....	Brooklyn....	Crawford Company.....	The Empire State Surety Company; the United States Fidelity and Guaranty Company.....	1,500.00	For paving Riverside street with asphalt on concrete, between Water and Riverside avenues, etc., etc.	16,184.40
22786	Nov. 17, 1908	President of the Borough of Brooklyn....	Brooklyn....	Richard T. Jennings.....	The Empire State Surety Company.....	200.00	For paving with a wooden rail fence six feet high the lot lying on the south side of Hancock street, between Haugh and Howard avenues, etc., etc.	398.12
22787	Dec. 15, 1908	President of the Borough of Manhattan....	Manhattan....	Harlem Contracting Company	American Surety Company of New York; the United States Fidelity and Guaranty Company.....	1,200.00	For paving with asphalt block pavement on concrete foundation, curb and rework West One Hundred and Thirty-ninth street, from Broadway to Riverside drive, etc., etc.	4,420.10
22788	Dec. 15, 1908	President of the Borough of Manhattan....	Manhattan....	Harlem Contracting Company	American Surety Company of New York; the United States Fidelity and Guaranty Company.....	2,000.00	For paving with asphalt block pavement on concrete foundation, curb and rework West One Hundred and Forty-first street, from Broadway to Riverside drive, etc., etc.	4,855.50
22789	Dec. 15, 1908	President of the Borough of Manhattan....	Manhattan....	Harlem Contracting Company	American Surety Company of New York; the United States Fidelity and Guaranty Company.....	3,000.00	For paving with asphalt block pavement on concrete foundation, curb and rework West One Hundred and Forty-first street, from Lenox avenue eastward to Fifth avenue, etc., etc.	11,620.30
22790	Dec. 15, 1908	President of the Borough of Manhattan....	Manhattan....	Harlem Contracting Company	American Surety Company of New York; the United States Fidelity and Guaranty Company.....	400.00	For paving with asphalt block pavement on concrete foundation, curb and rework West One Hundred and Forty-first street, between Edgewater and St. Nicholas avenues, etc., etc.	2,241.00
22791	Dec. 15, 1908	President of the Borough of Manhattan....	Manhattan....	Harlem Contracting Company	American Surety Company of New York; the United States Fidelity and Guaranty Company.....	4,000.00	For paving with asphalt block pavement on concrete foundation, curb and rework West One Hundred and Fifty-seventh street, from Amsterdam avenue to Edgewater road, etc., etc.	12,000.00
22792	Dec. 15, 1908	President of the Borough of Manhattan....	Manhattan....	Harlem Contracting Company	American Surety Company of New York; the United States Fidelity and Guaranty Company.....	5,000.00	For paving with asphalt block pavement on concrete foundation, curb and rework West One Hundred and Sixty-ninth street, from Amsterdam avenue to Edgewater road, etc., etc.	12,000.00

No.	Date of Contract	Department	Borough	Names of Contractors	Names of Sureties	Amount of Bond	Description of Work	Cost
22792	Dec. 22, 1908	President of the Borough of The Bronx	The Bronx	John Coleman, etc.	National Surety Company, etc.	6,000 00	For regulating and grading, setting curbstones and flagging sidewalks a space four feet wide, laying crosswalks, building approaches and erecting fences where necessary for Belmont street, from Weeks street to Egan avenue, etc. Estimate.	616 96
22793	Nov. 17, 1908	President of the Borough of The Bronx	The Bronx	The Asphalt Construction Company	The United States Fidelity and Guaranty Company; National Surety Company	4,500 00	For paving with asphalt blocks on a concrete foundation Morris avenue, from Tremont avenue to Burnside avenue, and setting curbs where necessary, etc. Estimate.	4,084 19
22794	Dec. 15, 1908	President of the Borough of The Bronx	The Bronx	J. Culver Voorhers, etc.	The Bankers' Surety Company, etc.	1,000 00	For regulating and grading, setting curbstones, flagging sidewalks a space four feet wide, laying crosswalks, building approaches and erecting fences where necessary in Morris avenue, from Field place to Fordham road, etc. Estimate.	1,907 00
22795	Dec. 22, 1908	President of the Borough of The Bronx	The Bronx	P. J. Kent, etc.	National Surety Company, etc.	1,500 00	For regulating and grading, setting curbstones, flagging sidewalks a space four feet wide, laying crosswalks, building approaches and erecting fences where necessary in St. Mary's street, from Baldwin avenue to Southern Boulevard, etc. Estimate.	1,182 55
22796	Dec. 17, 1908	President of the Borough of The Bronx	The Bronx	H. W. Moran, etc.	National Surety Company, etc.	2,000 00	For regulating and grading, setting curbstones, flagging sidewalks a space four feet wide, laying crosswalks, building approaches and erecting fences where necessary in Harry street, from Longwood avenue to Tiffany street, etc. Estimate.	1,851 00
22797	Nov. 17, 1908	President of the Borough of The Bronx	The Bronx	The Asphalt Asphalt Paving Company	The United States Fidelity and Guaranty Company; People's Surety Company of New York	20,000 00	For paving with asphalt block pavement on a concrete foundation Morris Park avenue, between West Avenue and Bear Swamp road, etc. Estimate.	30,781 20
22798	Jan. 18, 1909	President of the Borough of The Bronx	The Bronx	J. M. Sigmund, etc.	National Surety Company; Mass Mutual Building and Marine Company	45,000 00	For constructing a sewer and approaches in Almondo parkway, between Middle Parkway South and Jerome avenue, etc. Estimate.	77,581 00
22799	Dec. 22, 1908	President of the Borough of The Bronx	The Bronx	Gabriel Hill, etc.	United States Company	100 00	For constructing a sewer basis on the northeast corner of Wesley avenue and Eighth avenue, in the First Ward. Estimate.	100 00
22800	Dec. 22, 1908	President of the Borough of The Bronx	Queens	Gabriel Hill, etc.	United States Company	100 00	For constructing a sewer and approaches in Wesley avenue, from Franklin avenue to Webster avenue, in the First Ward. Estimate.	100 00
22801	Dec. 22, 1908	President of the Borough of The Bronx	Queens	Gabriel Hill, etc.	United States Company	100 00	For constructing a sewer and approaches in Wesley avenue, from Franklin avenue to Webster avenue, in the First Ward. Estimate.	100 00
22802	Dec. 22, 1908	President of the Borough of The Bronx	Queens	Gabriel Hill, etc.	United States Company	100 00	For constructing a sewer and approaches in Webster avenue, from First avenue to Third avenue, in the First Ward. Estimate.	100 00
22803	Dec. 22, 1908	President of the Borough of The Bronx	Queens	Wm. Hause, etc.	United States Company	100 00	For constructing a sewer and approaches in Third avenue, from Broadway to Franklin avenue, in the First Ward. Estimate.	100 00
22804	Dec. 22, 1908	President of the Borough of The Bronx	Queens	Wm. Hause, etc.	United States Company	100 00	For constructing one catch basin on the northeast corner of Sanford street and Hamilton street, in the First Ward. Estimate.	100 00
22805	Dec. 22, 1908	President of the Borough of The Bronx	Queens	Henry J. Moran, etc.	The Bankers' Surety Company	100 00	For regulating, grading, curbing and laying sidewalks and crosswalks on Franklin avenue, from Flushing avenue to Wilson avenue, in the First Ward. Estimate.	100 00
22806	Nov. 17, 1908	President of the Borough of The Bronx	Queens	Continental Cement and Construction Company	National Surety Company	1,000 00	For regulating, grading, curbing and flagging with cement and laying crosswalks on Astoria street, from Washington avenue to Flushing avenue, in the First Ward. Estimate.	9,450 00
22807	Nov. 17, 1908	President of the Borough of The Bronx	Queens	Richard S. Hougham, etc.	The Empire State Surety Company	6,000 00	For regulating and grading Second Avenue, from Jackson Avenue to Flushing Avenue, in the First Ward. Estimate.	13,500 00
22808	Dec. 17, 1908	President of the Borough of The Bronx	Queens	David Dunn, etc.	National Surety Company	1,000 00	For regulating, grading, curbing with limestone and flagging William street, from Parsons Avenue to Leslie Avenue, in the First Ward. Estimate.	7,355 13
22809	Dec. 18, 1908	President of the Borough of The Bronx	Queens	Train & Covellies, etc.	The Bankers' Surety Company	6,000 00	For regulating, grading, curbing and flagging and laying crosswalks on Vandewater Avenue, from Steinway Avenue to Old Bowery Bay road, in the First Ward. Estimate.	14,181 00
22810	Dec. 18, 1908	President of the Borough of The Bronx	Queens	Astoria Contracting Company	The Bankers' Surety Company	6,000 00	For regulating, grading, curbing, resurfacing, bridging, flagging and reflagging with limestone and paving with granite block, Tenth Avenue to Ricker Avenue, in the First Ward. Estimate.	13,446 00
22811	Dec. 19, 1908	President of the Borough of The Bronx	Queens	Astoria Contracting Company	The Bankers' Surety Company	1,000 00	For regulating, grading, curbing and flagging with limestone and laying crosswalks on Fourteenth Avenue, from Grand Avenue to Vandewater Avenue, in the First Ward. Estimate.	10,096 26
22812	Dec. 17, 1908	President of the Borough of The Bronx	Queens	Continental Asphalt Paving Company	The United States Fidelity and Guaranty Company; Fidelity and Deposit Company of Maryland	7,000 00	For paving with asphalt block pavement Temple street, from the boulevard to Ely Avenue, in the First Ward. Estimate.	10,345 00
22813	Nov. 16, 1908	President of the Borough of The Bronx	Queens	Continental Asphalt Paving Company	The United States Fidelity and Guaranty Company; Fidelity and Deposit Company of Maryland	1,000 00	For paving with asphalt block pavement on a concrete foundation the roadway of Elm street, from Franklin Avenue to Ely Avenue, in the First Ward. Estimate.	9,146 92

No.	Date of Contract.	Department.	Borough.	Names of Contractors.	Names of Sureties.	Amount of Bond.	Description of Work.	Cost.
22814	Dec. 17, 1908	President of the Borough of Queens.	Queens.	The Hastings Pavement Company	American Surety Company of New York; the United States Fidelity and Guaranty Company	14,000.00	For paving with asphalt black pavement on a concrete foundation Second avenue, from Flushing avenue to Palmer avenue in the First Ward, etc. Estimate.	11,611.00
22815	Feb. 8, 1909	President of the Borough of Richmond.	Richmond.	Domenick, Bauschi & Miseri, Vincenti	American Bonding Company of Baltimore	1,800.00	For constructing a temporary sanitary sewer, with connections in Richmond triangle from the Little Grove road to and connecting with the present sewer at a point about 100 feet west of Manor road, in the First and Second Wards, etc.	1,511.00
22816	Dec. 24, 1908	Street Cleaning.	Brooklyn.	Andrew J. Robinson Company			For completion of Contract No. 22715, for construction of unfinished items, in the new stable on the block bounded by Flushing avenue, Graham street, Kent avenue and Little Nassau street, etc. Total.	1,000.00
22817	Jan. 29, 1909	Army Board.	Manhattan.	C. L. Dudley	The Empire State Surety Company	3,000.00	For item No. 11, for furnishing and installing labor and materials required in alterations, improvements, etc., in the Sixty-ninth Regiment Armory, N. Y., N. Y. Total.	2,846.00
22818	Dec. 16, 1908	Education.	Queens.	Management Machine Company	Pidelity and Deposit Company of Maryland	1,200.00	For furniture, equipment, etc., for the Atlantic High School.	1,200.00
22819	Dec. 11, 1908	Education.	Brooklyn.	American Seating Company	American Surety Company of New York	8,000.00	For furniture, Item 8, for new Public School 110. Total.	7,890.00
22820	Dec. 11, 1908	Education.	Brooklyn.	Superior Manufacturing Company	American Surety Company of New York	2,000.00	For furniture, Items 1 and 4, for new Public School 110. Total.	1,811.00
22821	Dec. 11, 1908	Education.	Brooklyn.	The E. T. Johnson Company	The Empire State Surety Company	1,000.00	For furniture, Item 3, for new Public School 110. Total.	1,000.00
22822	Feb. 16, 1909	Education.	Brooklyn.	Jacob Landa	National Surety Company	900.00	For alterations, repairs, etc., for Public Schools 111 and 112.	1,064.00
22823	Nov. 11, 1908	Education.	Brooklyn.	Alexander R. Brown	Massachusetts Bonding and Insurance Company	600.00	For furniture, Item 5, for new Public School 111.	1,064.00
22824	Jan. 10, 1909	Education.	Brooklyn.	The Manhattan Supply Company	National Surety Company	1,000.00	For furniture, Item 1, for new Public School 111. Total.	1,000.00
22825	Nov. 16, 1908	Education.	Brooklyn.	The Manhattan Supply Company	National Surety Company	1,000.00	For furniture, Item 1, for addition to Public school 111. Total.	1,000.00
22826	Nov. 16, 1908	Education.	Brooklyn.	Bethany School Furniture Company	The Empire State Surety Company	1,200.00	For furniture, Items 1 to 4, for new Public School 111. Total.	1,047.00
22827	Dec. 12, 1908	Education.	Brooklyn.	William C. O'Connell	Massachusetts Bonding and Insurance Company	1,000.00	For general construction, etc., of new temporary building, Item 2, at Public School 111. Total.	1,000.00
22828	Nov. 18, 1908	Education.	Manhattan.	J. M. Knapp	The Empire State Surety Company	2,000.00	For new temporary main entrance to Public school 111. Total.	2,000.00
22829	Feb. 21, 1909	Education.	Richmond.	U. W. Gibbons & Son	National Surety Company	2,000.00	For alterations, repairs, etc., of Public Schools 118, 119 and 120.	2,000.00
22830	Feb. 21, 1909	Education.	Brooklyn.	Tim Brant	The Bankers' Surety Company	800.00	For the erection of outside iron fence at Public School 119.	800.00
22831	Nov. 17, 1908	Board of Trustees of Bellevue and Allied Hospitals.	Manhattan.	Grand Hand Furniture Company of New York	American Fidelity Company	600.00	For furniture, etc., for the new Training School for Women Nurses, Bellevue Hospital. Total.	1,152.00
22832	Dec. 28, 1908	Board of Trustees of Bellevue and Allied Hospitals.	Manhattan.	P. J. Cahn Construction Company	National Surety Company; The Bankers' Surety Company; Illinois Surety Company; American Surety Company of New York	80,000.00 20,000.00 20,000.00 20,000.00	For the excavating, piling, masonry, brick-paving, waterproofing, coppering, steel, electric heating and ventilation, plastering, and other work for the boiler house and cooling system of the new Bellevue Hospital. Total.	91,800.00
22833	Dec. 8, 1908	Board of Trustees of Bellevue and Allied Hospitals.	Manhattan.	Single Glazier Company	United States Insurance Company	700.00	For furniture, etc., for the new training school for Women Nurses, Bellevue Hospital. Total.	1,367.00
22834	Nov. 24, 1908	Board of Trustees of Bellevue and Allied Hospitals.	Manhattan.	William H. Thompson	The United States Fidelity and Guaranty Company	1,000.00	For furniture, etc., for the new Training School for Women Nurses, Bellevue Hospital. Total.	1,000.00
22835	Nov. 17, 1908	Fire.	Manhattan.	William Horne Company	National Surety Company	200.00	For additions and alterations to quarters of Engine Company 28, No. 81 West One Hundred and Fifteenth street, and to quarters of Engine Company 13, No. 221 East One Hundred and Nineteenth street.	1,870.00
22836	Nov. 9, 1908	Fire.	Manhattan.	Abeary Construction Company	National Surety Company	7,500.00	For additions and alterations to building of Engine Company 27, No. 81 Lawrence street.	14,500.00
22837	Nov. 10, 1908	Fire.	Queens.	Edward Stapleton	The Empire State Surety Company	1,500.00	For additions to and alterations to the building of Valentine Eagle Hook and Ladder Company 1 and Union Hose Company 1, for quarters of Hook and Ladder and Hose Company, College Point.	1,300.00

Approval of Sureties for the Week Ending March 6, 1909.

The Comptroller approved of the adequacy and sufficiency of the sureties on the following proposals, viz:

March 1, 1909—For supplies of toilet paper, City of New York—For the Department of Parks.

Albany Perforated Wrapping Paper Company, No. 80 Hudson street, Principal.

American Surety Company of New York, No. 100 Broadway, Surety.

March 1, 1909—For furnishing tools, etc., City of New York—For the Department of Parks.

Sickels and Notting Company, No. 35 Barclay street, Principal.

American Surety Company of New York, No. 100 Broadway, Surety.

March 1, 1909—For furnishing lumber, City of New York—For the Department of Parks.

The East River Mill and Lumber Company, No. 425 East Ninety-second street, Principal.

National Surety Company, No. 346 Broadway, Surety.

March 1, 1909—For repairs, etc., to the Brooklyn Disciplinary Training School—For the President of the Borough of Brooklyn.

F. G. Schaefer, No. 370 Pearl street, Principal.

The Actua Indemnity Company, No. 68 William street, Surety.

March 1, 1909—For electric lamps, etc., Borough of The Bronx—For the Department of Water Supply, Gas and Electricity.

Westchester Lighting Company, Mount Vernon, Principal.

National Surety Company, No. 346 Broadway, Surety.

March 1, 1909—For electric lamps, etc., Borough of Manhattan—For the Department of Water Supply, Gas and Electricity.

United Electric Light and Power Company, No. 1170 Broadway, Principal.

National Surety Company, No. 346 Broadway, Surety.

March 1, 1909—For furnishing gas, etc., Borough of The Bronx—For the Department of Water Supply, Gas and Electricity.

Central Union Gas Company, No. 150 Alexander avenue, Principal.

National Surety Company, No. 346 Broadway, Surety.

March 1, 1909—For furnishing forage, Borough of Richmond—For the Police Department.

W. L. Stephens, Harbor road, Mariners Harbor, Staten Island, Principal.

People's Surety Company of New York, No. 26 Court street, Brooklyn, Surety.

March 1, 1909—For supplies of ice to public buildings—For the President of the Borough of Brooklyn.
 American Ice Company, Ninth street and East River, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Surety.

March 1, 1909—For furnishing forage to the stable of the Poor House Farm, Borough of Richmond—For the Department of Health.
 William L. Stephens, Staten Island, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 3, 1909—For furnishings, etc., for Training School for Women Nurses, Borough of Manhattan—For the Trustees of Bellevue and Allied Hospitals.
 B. Altman & Co., Fifth avenue and Thirty-fourth street, Principal.
 United States Guarantee Company, No. 111 Broadway, Surety.

March 3, 1909—For furnishing carpets, etc., for Training School for Women Nurses, Borough of Manhattan—For the Trustees of Bellevue and Allied Hospitals.
 New York Linoleum Company, No. 32 Union square, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York, Surety.

March 3, 1909—For furnishing desks, Borough of Manhattan—For the Trustees of Bellevue and Allied Hospitals.
 Siegel-Cooper Company, Eighteenth street and Sixth avenue, Principal.
 United States Guarantee Company, No. 111 Broadway, Surety.

March 3, 1909—For building an addition, etc., to the quarters of Hose Company 6, Borough of Queens—For the Fire Department.
 Otto Metz, No. 22 East Twenty-first street, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 3, 1909—For furnishing screens for windows and doors of the new Nurses' Home, Blackwells Island—For the Department of Public Charities.
 Porter Screen Manufacturing Company, No. 36 East Twenty-third street, Principal.
 The Title Guaranty and Surety Company, No. 84 William street, Surety.

March 3, 1909—For removing four hospital pavilions from the grounds of Bellevue Hospital, and erecting the same at Metropolitan Hospital, Blackwells Island—For the Department of Public Charities.
 Thomas Galligan, No. 609 East Eighteenth street, Principal.
 People's Surety Company of New York, No. 20 Court street, Brooklyn, Surety.

March 3, 1909—For furniture for Public School 157, Borough of Brooklyn—For the Department of Education.
 American Seating Company, No. 19 West Eighteenth street, Principal.
 American Surety Company of New York, No. 109 Broadway, Surety.

March 3, 1909—For alterations, etc., to the quarters of Hose Company 4, Borough of Queens—For the Fire Department.
 Otto Metz, No. 22 East Twenty-first street, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 3, 1909—For building an addition, etc., to the quarters of Hook and Ladder Company 75, Borough of Queens—For the Fire Department.
 Otto Metz, No. 22 East Twenty-first street, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 3, 1909—For furnishing three extra large size hose wagons, Boroughs of Manhattan and The Bronx—For the Fire Department.
 Combination Ladder Company, No. 32 Park place, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Surety.

March 3, 1909—For furnishing furniture, rugs, etc., in the new Nurses' Home, Blackwells Island—For the Department of Public Charities.
 Siegel-Cooper Company, Eighteenth street and Sixth avenue, Principal.
 United States Guarantee Company, No. 111 Broadway, Surety.

March 3, 1909—For furniture for Public School 156, Borough of Brooklyn—For the Department of Education.
 The Manhattan Supply Company, No. 127 Franklin street, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 3, 1909—For furniture for Public School 157, Borough of Brooklyn—For the Department of Education.
 W. G. Hill, No. 70 Wall street, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York, Surety.

March 3, 1909—For alterations, etc., Public School 129, Borough of Brooklyn—For the Department of Education.
 Joseph Ryan, Fulton street, Brooklyn, Principal.
 The Aetna Indemnity Company, No. 68 William street, Surety.

March 3, 1909—For furniture for Public School 157, Borough of Brooklyn—For the Department of Education.
 Richmond School Furniture Company, No. 16 Court street, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York, Surety.

March 4, 1909—For constructing stable building, Bureau of Highways—For the President of the Borough of The Bronx.
 The Concourse Construction Company, No. 2065 Ryer avenue, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 4, 1909—For paving, etc., Camirello avenue—For the President of the Borough of The Bronx.
 Barber Asphalt Paving Company, No. 30 Church street, Principal.
 People's Surety Company of New York, No. 26 Court street, Brooklyn; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., One Hundred and Sixty-fifth street—For the President of the Borough of The Bronx.
 Barber Asphalt Paving Company, No. 30 Church street, Principal.
 People's Surety Company of New York, No. 26 Court street, Brooklyn; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For repaving, etc., East One Hundred and Fiftieth street—For the President of the Borough of The Bronx.
 Barber Asphalt Paving Company, No. 30 Church street, Principal.
 People's Surety Company of New York, No. 26 Court street, Brooklyn; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., East One Hundred and Fifty-second street—For the President of the Borough of The Bronx.
 Barber Asphalt Paving Company, No. 30 Church street, Principal.
 People's Surety Company of New York, No. 26 Court street, Brooklyn; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., East One Hundred and Seventy-ninth street—For the President of the Borough of The Bronx.
 The Asphalt Construction Company, No. 207 Broadway, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; National Surety Company, No. 346 Broadway, Sureties.

March 4, 1909—For paving, etc., Elm place—For the President of the Borough of The Bronx.
 The Asphalt Construction Company, No. 207 Broadway, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; National Surety Company, No. 346 Broadway, Sureties.

March 4, 1909—For paving, etc., East One Hundred and Thirty-ninth street—For the President of the Borough of The Bronx.
 The Asphalt Construction Company, No. 207 Broadway, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; National Surety Company, No. 346 Broadway, Sureties.

March 4, 1909—For repaving, etc., Ludlow street—For the President of the Borough of Manhattan.
 Sicilian Asphalt Paving Company, No. 41 Park row, Principal.
 National Surety Company, No. 346 Broadway; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., Chrystie street—For the President of the Borough of Manhattan.
 Sicilian Asphalt Paving Company, No. 41 Park row, Principal.
 National Surety Company, No. 346 Broadway; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., Twenty-first street—For the President of the Borough of Manhattan.
 Sicilian Asphalt Paving Company, No. 41 Park row, Principal.
 National Surety Company, No. 346 Broadway; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., Prince street—For the President of the Borough of Manhattan.
 United States Wood Preserving Company, No. 29 Broadway, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; The Title Guaranty and Surety Company, No. 84 William street, Sureties.

March 4, 1909—For repaving, etc., Jennings street—For the President of the Borough of The Bronx.
 The Asphalt Construction Company, No. 207 Broadway, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; National Surety Company, No. 346 Broadway, Sureties.

March 4, 1909—For constructing sewer in West One Hundred and Seventy-second street—For the President of the Borough of Manhattan.
 Michael Marzulli, No. 414 East One Hundred and Sixteenth street, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 4, 1909—For paving, etc., Second avenue—For the President of the Borough of Manhattan.
 Sicilian Asphalt Paving Company, No. 41 Park row, Principal.
 National Surety Company, No. 346 Broadway; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., Forsyth street—For the President of the Borough of Manhattan.
 Sicilian Asphalt Paving Company, No. 41 Park row, Principal.
 National Surety Company, No. 346 Broadway; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For paving, etc., Broome street—For the President of the Borough of Manhattan.
 United States Wood Preserving Company, No. 29 Broadway, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; The Title Guaranty and Surety Company, No. 84 William street, Sureties.

March 4, 1909—For paving, etc., Stone street—For the President of the Borough of Manhattan.
 United States Wood Preserving Company, No. 29 Broadway, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; The Title Guaranty and Surety Company, No. 84 William street, Sureties.

March 4, 1909—For paving, etc., Madison street—For the President of the Borough of Manhattan.
 Uvalde Asphalt Paving Company, No. 1 Broadway, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York; The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.

March 4, 1909—For regulating, etc., Church street, corner Duane street—For the President of the Borough of Manhattan.
 W. J. Fitzgerald, No. 547 West Forty-fifth street, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York, Surety.

March 4, 1909—For regulating, etc., Varick street—For the President of the Borough of Manhattan.
 W. J. Fitzgerald, No. 547 West Forty-fifth street, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York, Surety.

March 4, 1909—For regulating, etc., White street—For the President of the Borough of Manhattan.
 W. J. Fitzgerald, No. 547 West Forty-fifth street, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York, Surety.

March 4, 1909—For regulating, etc., Twelfth street—For the President of the Borough of Manhattan.
 W. J. Fitzgerald, No. 547 West Forty-fifth street, Principal.
 The Empire State Surety Company, No. 34 Pine street, New York, Surety.

March 4, 1909—For regulating, etc., Thirteenth street—For the President of the Borough of Manhattan.
 Continental Asphalt Paving Company, No. 79 Wall street, Principal.
 Fidelity and Deposit Company of Maryland, No. 2 Reeder street, Surety.

March 4, 1909—For regulating, etc., Fifty-seventh street—For the President of the Borough of Manhattan.
 Rafferty Brothers, No. 622 West Fifty-second street, Principal.
 National Surety Company, No. 346 Broadway, Surety.

March 4, 1909—For constructing sewer in Broadway—For the President of the Borough of Manhattan.
 John Slattery, No. 368 Park avenue, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Surety.

March 4, 1909—For repairing sidewalks—For the President of the Borough of Manhattan.
 James W. Conlon, Sixty-fifth street and Avenue A, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Surety.

March 4, 1909—For regulating, etc., Bartlett street—For the President of the Borough of Brooklyn.
 Cranford Company, No. 190 Montague street, Principal.
 The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York; The Empire State Surety Company, No. 34 Pine street, New York, Sureties.

March 4, 1909—For paving, etc., Hendrix street—For the President of the Borough of Brooklyn.	March 4, 1909—For regulating, etc., Elm street—For the President of the Borough of Brooklyn.
Craford Company, No. 190 Montague street, Principal. The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, The Empire State Surety Company, No. 34 Pine street, New York, Sureties.	Uvalde Asphalt Paving Company, No. 1 Broadway, Principal. The Empire State Surety Company, No. 34 Pine street, New York, The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.
March 4, 1909—For paving, etc., Marcy avenue—For the President of the Borough of Brooklyn.	March 4, 1909—For constructing sewer in Senator street—For the President of the Borough of Brooklyn.
Craford Company, No. 190 Montague street, Principal. The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, The Empire State Surety Company, No. 34 Pine street, New York, Sureties.	Empire Court Company, No. 234 Eighth-avvib street, Principal. American Bonding Company of Baltimore, No. 32 Nassau street, Surety.
March 4, 1909—For paving, etc., Sutter avenue—For the President of the Borough of Brooklyn.	March 4, 1909—For paving, etc., Arlington avenue—For the President of the Borough of Brooklyn.
Craford Company, No. 190 Montague street, Principal. The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, The Empire State Surety Company, No. 34 Pine street, New York, Sureties.	Uvalde Asphalt Paving Company, No. 1 Broadway, Principal. The Empire State Surety Company, No. 34 Pine street, New York, The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.
March 4, 1909—For paving, etc., Walton street—For the President of the Borough of Brooklyn.	March 4, 1909—For furnishing coal, City of New York—For the Department of Docks and Ferries.
Craford Company, No. 190 Montague street, Principal. The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, The Empire State Surety Company, No. 34 Pine street, New York, Sureties.	Curtiss-Blairstown Company, Fifty-sixth street and East River, Principal. Fidelity and Deposit Company of Maryland, No. 2 Recor street, Surety.
March 4, 1909—For paving, etc., Wierfield street—For the President of the Borough of Brooklyn.	March 4, 1909—For constructing sewer in Seventy-third street—For the President of the Borough of Brooklyn.
Craford Company, No. 190 Montague street, Principal. The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, The Empire State Surety Company, No. 34 Pine street, New York, Sureties.	Clip & McLain, Gravesend avenue, Principals. American Bonding Company of Baltimore, No. 32 Nassau street, Surety.
March 4, 1909—For paving, etc., Decatur street—For the President of the Borough of Brooklyn.	March 4, 1909—For heating work in the Manual Training High School, Borough of Brooklyn—For the Department of Education.
Craford Company, No. 190 Montague street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, People's Surety Company of New York, No. 26 Court street, Brooklyn, Sureties.	Raister Heating Company, No. 1800 Broadway, Principal. The Title Guaranty and Surety Company, No. 84 William street, Surety.
March 4, 1909—For paving, etc., Sheffield avenue—For the President of the Borough of Brooklyn.	March 4, 1909—For installing a water supply system in the Parental School, Borough of Queens—For the Department of Education.
Craford Company, No. 190 Montague street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, People's Surety Company of New York, No. 26 Court street, Brooklyn, Sureties.	George E. Gibson, No. 511 Park avenue, Principal. Illinois Surety Company, No. 5 Nassau street, Surety.
March 4, 1909—For paving, etc., Hayes place—For the President of the Borough of Brooklyn.	March 4, 1909—For electric lighting and power wiring in public buildings—For the President of the Borough of Manhattan.
Craford Company, No. 190 Montague street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, People's Surety Company of New York, No. 26 Court street, Brooklyn, Sureties.	Fidelity Electric Construction Company, No. 16 East Twenty-third street, Principal. People's Surety Company of New York, No. 26 Court street, Brooklyn, Sureties.
March 4, 1909—For paving, etc., Prospect place—For the President of the Borough of Brooklyn.	March 4, 1909—For electric lamps, etc., Borough of Brooklyn—For the Department of Water Supply, Gas and Electricity.
Craford Company, No. 190 Montague street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, People's Surety Company of New York, No. 26 Court street, Brooklyn, Sureties.	Edison Electric Illuminating Company of Brooklyn, No. 360 Pearl street, Principal. National Surety Company, No. 246 Broadway, Massachusetts Bonding and Insurance Company, Nos. 27 and 29 Pine street, Sureties.
March 4, 1909—For grading, etc., Fifth avenue—For the President of the Borough of Brooklyn.	Opening of Proposals for the Week Ending March 1, 1909.
The Mangani Company, No. 190 Thirty-first street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, Surety.	The Comptroller, by representatives, attended the opening of proposals at the following Departments, viz:
March 4, 1909—For regulating, etc., Fifty-second street—For the President of the Borough of Brooklyn.	March 1, 1909—For supplies of coal, Bureau of Quartermaster—For the Department of Water Supply, Gas and Electricity.
Patrick S. Hickey, No. 498 Eleventh street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, Surety.	March 2, 1909—For chemicals, drugs, whiskey, etc., The City of New York—For the Department of Health.
March 4, 1909—For grading, etc., Sixth avenue—For the President of the Borough of Brooklyn.	March 2, 1909—For steam fire engines, hose wagons and hook and ladder trucks, Boroughs of Manhattan, The Bronx and Brooklyn—For the Fire Department.
The Mangani Company, No. 190 Thirty-first street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, Surety.	March 3, 1909—For supplies of coal, for laundry needs, for improvements in twenty different streets, Borough of Brooklyn—For the President of the Borough.
March 4, 1909—For regulating, etc., East Eighth street—For the President of the Borough of Brooklyn.	March 3, 1909—For furnishing, etc., lighting fixtures in the Training School for Women Nurses, Borough of Manhattan—For the Trustees of Bellevue and Allied Hospitals.
Walter L. Castle, No. 225 Bedford avenue, Principal. People's Surety Company of New York, No. 26 Court Street, Brooklyn, Sureties.	March 3, 1909—For supplies of coal to the houses, Boroughs of The Bronx, Richmond and Queens—For the Fire Department.
March 4, 1909—For regulating, etc., East Eighth street—For the President of the Borough of Brooklyn.	March 3, 1909—For furnishing miscellaneous supplies for laboratories, Boroughs of Manhattan and The Bronx—For the Department of Water Supply, Gas and Electricity.
Walter L. Castle, No. 225 Bedford avenue, Principal. People's Surety Company of New York, No. 26 Court Street, Brooklyn, Sureties.	March 4, 1909—For furnishing paints, oil, lower murals and top buggies, Borough of The Bronx; for furnishing chariot horses, Borough of Manhattan—For the Department of Parks.
March 4, 1909—For regulating, etc., East Fourth street—For the President of the Borough of Brooklyn.	March 4, 1909—For hardware, paints, iron, steel fixings, etc., The City of New York—For the Department of Correction.
M. J. O'Hara, No. 227 Third street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, Surety.	Edward O'H. Jervis, Clerk to sign Comptroller's name with his initials immediately following such signature, indicating that the authority was actually made by him to warrants drawn upon the City Chamberlain from Tuesday, March 2, 1909, to June 1, 1909.
March 4, 1909—For regulating, etc., Dumas avenue—For the President of the Borough of Brooklyn.	N. TAYLOR PHILLIPS, Deputy Comptroller.
M. J. O'Hara, No. 227 Third street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, Surety.	
March 4, 1909—For grading, etc., lot on the south side of Fifty-second street—For the President of the Borough of Brooklyn.	
M. J. O'Hara, No. 227 Third street, Principal. The Empire State Surety Company, No. 34 Pine street, New York, Surety.	
March 4, 1909—For furnishing well driving machines—For the Department of Water Supply, Gas and Electricity.	
Keystone Dribler Company, No. 170 Broadway, Principal. The Aetna Indemnity Company, No. 68 William street, Surety.	
March 4, 1909—For constructing sewer in Gun Hill road—For the President of the Borough of The Bronx.	
Joseph Burns, No. 147 East One Hundred and Twenty-fifth street, Principal. National Surety Company, No. 346 Broadway, Surety.	
March 4, 1909—For constructing sewer in Bronx Dam road—For the President of the Borough of The Bronx.	
Joseph Burns, No. 147 East One Hundred and Twenty-fifth street, Principal. National Surety Company, No. 346 Broadway, Surety.	
March 4, 1909—For constructing receiving basin in Walton avenue—For the President of the Borough of The Bronx.	
Joseph Burns, No. 147 East One Hundred and Twenty-fifth street, Principal. National Surety Company, No. 346 Broadway, Surety.	
March 4, 1909—For regulating, etc., Second avenue—For the President of the Borough of Brooklyn.	
M. F. Hickey, Sixth street and Second avenue, Principal. The Empire State Surety Company, No. 34 Pine street, New York, Surety.	
March 4, 1909—For regulating, etc., Harrison avenue—For the President of the Borough of Richmond.	
Wm. J. Quinlan, Staten Island, Principal. National Surety Company, No. 346 Broadway, Surety.	
March 4, 1909—For repairing, etc., docks on the North and East Rivers—For the Department of Docks and Ferries.	
Uvalde Asphalt Paving Company, No. 1 Broadway, Principal. The Empire State Surety Company, No. 34 Pine street, New York, The United States Fidelity and Guaranty Company, No. 66 Liberty street, New York, Sureties.	

BOROUGH OF RICHMOND.

BUREAU OF BUILDINGS.

I herewith submit a report of the operations of the Bureau of Buildings, Borough of Richmond, for the week ending July 3, 1909.	21
Plans filed for new buildings (estimated cost, \$59,204).....	6
Plans filed for alterations (estimated cost, \$8,435).....	2
Plans filed for plumbing (estimated cost, \$600).....	1
Violation notice issued.....	1
Unsafe building reported.....	1
Construction inspections made.....	332
Plumbing and drainage inspections made.....	62
Moving permit granted.....	1
Demolition permit granted.....	1
Modifications of the law allowed as regards concrete footings under foundations	14

JOHN SEATON, Superintendent of Buildings.

James Nolan, Chief Clerk.

THE ARMORY BOARD.

New York, July 2, 1909.

A meeting of the Armory Board was held this day at 2 o'clock p.m. at the office of the Mayor.

Present—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith, Brigadier-General John G. Eddy.

The minutes of the meetings held June 2 and 7, 1909, were approved as printed.

Mr. John Guilfoyle, representing the Comptroller, was present. In response to advertisements in the City Record of date June 21, 1909, the following bids or proposals were received:

ITEM No. 1.

For All Work and Material Required in Furnishing Improvements, Repairs, etc., to the Armory of the Second Company Signal Corps.	\$14,473 00
George Stanton, No. 120 Worth street.....	25,700 00
Guidone & Galardi Company, No. 162 East Twenty-third street.....	14,900 00

William Horne Company, No. 71 West One Hundred and Thirty-second street	14,940 00
Neptune B. Smyth, No. 1123 Broadway	17,469 00
ITEM NO. 2.	
For All Work and Material Required in Furnishing Alterations, Additions, etc., to the Armory of the Seventh Regiment, N. Y.	
F. T. Nesbit & Co., No. 116 Nassau street	\$215,000 00
George Hildebrand, No. 38 Park row	189,740 00
Isaac A. Hopper, No. 231 West One Hundred and Twenty-fifth street	189,795 00
Kelly & Kelley, Inc., No. 45 East Forty-second street	172,984 00
Guidone & Galardi Company, No. 162 East Twenty-third street	194,600 00
Neptune B. Smyth, No. 1123 Broadway	189,387 00
North-Eastern Construction Company, No. 225 Fifth avenue	193,400 00
Daniel J. Ryan, No. 723 Third avenue	219,700 00
P. J. Brennan & Son, No. 624 Madison avenue	194,700 00
J. C. Vreeland Building Company, No. 1 Madison avenue	212,682 00

All of which were referred to the Secretary for tabulation and report.

Communications were received from the Secretary of the Commissioners of the Sinking Fund, dated June 10 and 11, 1909, transmitting certified copies of resolutions adopted by that body at meetings held June 9 and 11, 1909, as follows:

Concurring in resolutions of the Armory Board, accepting the bids of S. Motta, Charles Spangenberg, Neptune B. Smyth, Guidone & Galardi Company, Baker Smith & Co., William Horne Company and William J. Olvany.

Concurring in resolution of the Armory Board and authorizing an issue of Corporate Stock to the amount of \$300 to complete the installation of fixtures, etc., in the Second Brigade Headquarters, in the Twenty-third Regiment armory, Borough of Brooklyn.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

Request of H. A. Jacobsen for the consent of the Armory Board to the assignment by him to H. Schieffelin Sayers to all moneys due or to grow due by virtue of said H. A. Jacobsen's contract for heating, ventilating, etc., in the armory of the Second Company Signal Corps.

Which was adopted by the following vote:

The Mayor offered the following:

Order confirming bid, filed by Henry C. Fischer against the Interborough Supply Company (contract for iron grills in Squadron C armory).

Discharge of mechanic's lien against James McFerran (contractor for the erection of the Second Battalion Naval Militia armory), filed by John McKenzie.

Which were referred to the Comptroller.

The following communication was received from the Corporation Counsel:

Law Department, I

June 25, 1909.

The Armory Board, Hall of Record:

Sir—A communication from your Secretary dated June 3, 1909, has been received, in which it is stated that on June 2, the Armory Board opened bids for the construction of an electric passenger elevator in the Sixty-ninth Regiment armory. The construction of the building was that:

"No bid or estimate will be considered unless as a condition precedent to the reception 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 moneys to the amount of five per centum of the amount of the bid required as provided in section 420 of the Greater New York Charter."

It appears the Rhode Island Elevator and Machine Company, the lowest bidder, submitted with their bid the check you inclose, but that there is some question as to whether the check complies with the conditions.

It is stated that the Comptroller's office declines to accept the check as a certified check.

It also appears that the most lowest bid for the work was but one dollar above that of the Rhode Island Elevator and Machine Company.

It is requested that you be advised concerning the acceptance of the bid in question.

The bid was not accompanied by a certified check upon one of the State or National Banks of The City of New York and therefore cannot be considered.

Respectfully yours,

JAMES P. HICHR, Acting Corporation Counsel.

Mr. W. H. Linton, representing the Rhode Island Elevator and Machine Company, addressed the Board.

The President of the Board of Aldermen offered the following:

Resolved, That the bid of the Oneida Elevator Company, Borough of Manhattan, for Item No. 1 (construction of an electric passenger elevator in the armory of the Sixty-ninth Regiment, Borough of Manhattan), in the sum of \$4,950 be accepted, being the lowest formal bid received for said work, that the sum be submitted to the Commissioners of the Sinking Fund for their concurrence, and to the Comptroller for his approval of the sum of the bid, and when so approved the chairman of this Board be authorized to execute the contract on behalf of the Board, that all the other bids be rejected and the Comptroller requested to return the deposits received from the unsuccessful bidders.

Which was adopted by the following vote:

Ayes—The President of the Board of Aldermen.

Nos—The Mayor, the Comptroller, Brigadier-General George Moore Smith, and Brigadier-General John G. Eddy.

The Comptroller offered the following:

Resolved, That the matter be referred back to the Corporation Counsel and the Comptroller for further report.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

The following report was received from the Comptroller and the President of the Board of Aldermen, to whom was referred the request of Messrs. Walker & Morris, architects for the new Twenty-second Regiment armory, that they be permitted to hire various experts for heating, lighting and ventilating in said armory:

Report

June 21, 1909.

To the Honorable, the Armory Board:

Gentlemen—At meeting of the Armory Board held June 8, 1908, a communication was presented from Messrs. Walker & Morris, architects, for the proposed new armory building for the Twenty-second Regiment Engineers, N. Y., Fort Washington avenue, One Hundred and Sixty-eighth and One Hundred and Sixty-ninth streets, Borough of Manhattan, requesting the employment of experts for heating, lighting and ventilating in said proposed new building. This matter was referred to the Comptroller and the President of the Board of Aldermen.

Your Committee would report that it has not been the custom in the past to employ any other experts in the construction of any armory buildings other than the architect, by employing his own experts and paying for said services out of his fees.

Therefore, it is our opinion that no fee should be allowed except five per cent. (5%), the architects' fee on the cost of the building.

Yours very truly,

H. A. METZ, Comptroller.

P. F. McGOWAN, President, Board of Aldermen.

The President of the Board of Aldermen offered the following:

Resolved, That the request of Messrs. Walker & Morris, architects for the proposed new Twenty-second Regiment Engineers' armory, for permission to employ experts for heating, lighting and ventilating in said building, be and is hereby denied, and that no fee be allowed other than the five per cent. of the cost of the building named in the terms of the competition as the fee to be paid the successful architect.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

Report of Committees on Armories.

The City of New York,

June 30, 1909.

The Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Armory Board.

Sir—The Committees on Armories report the consideration of the following matters at a meeting held this day, at two o'clock p. m., at the office of the President of the Board of Aldermen:

Report of the Chief Engineer of the Finance Department, in the matter of the proposed modifications of and addition to the work of the erection of the Second Battery armory.

Your Committee recommend that the modifications and additions be made, and that \$8,000 be appropriated therefor.

The President of the Board of Aldermen offered the following:

Resolved, That the sum of \$8,000 (including architect's fees) be and is hereby appropriated for modifications, additions, etc., in the Second Battery armory, in accordance with the plans and specifications prepared by C. C. Haight, architect; that the Commissioners of the Sinking Fund be requested to concur and to authorize the Comptroller to issue Corporate Stock therefor, and that the Guidone & Galardi Company, the contractors for the erection of the building, be directed to do the work.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

Request of H. A. Jacobsen for the consent of the Armory Board to the assignment by him to H. Schieffelin Sayers to all moneys due or to grow due by virtue of said H. A. Jacobsen's contract for heating, ventilating, etc., in the armory of the Second Company Signal Corps.

The Mayor offered the following:

Resolved, That the consent of the Armory Board be and is hereby given to the assignment by H. A. Jacobsen of all moneys due or to grow due in and by virtue of a certain contract between the Armory Board and the said H. A. Jacobsen, for Item No. 2, furnishing and installing heating, ventilating, plumbing and gasfitting in the armory of the Second Company Signal Corps, N. Y., N. Y., in the Borough of Brooklyn.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

Request of H. A. Jacobsen for an extension of time, to June 21, 1909, on his contract for heating, ventilating, etc., in the armory of the Second Company Signal Corps, Borough of Brooklyn. Your Committee recommend that such extension of time be granted.

The Mayor offered the following:

Resolved, That the time for the completion of the contract of H. A. Jacobsen, Item No. 2, heating and ventilating, plumbing and gasfitting, Second Company Signal Corps armory, dated November 23, 1908, and running one hundred working days be and the same is hereby extended to June 21, 1909.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

Request of the Interborough Supply Company for an extension of time, to June 21, 1909, on its contract for furniture, etc., in the First Company Signal Corps armory. Your Committee recommend that such extension of time be granted.

The Mayor offered the following:

Resolved, That the time for the completion of the contract of the Interborough Supply Company, for furniture, etc., First Company Signal Corps armory, be and is hereby extended to June 21, 1909.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

Request of the S. Fox Construction Company for an extension of time, to June 21, 1909, on their contract for mason work, etc., Second Company Signal Corps armory. Your Committee recommend that such extension of time be granted.

The Mayor offered the following:

Resolved, That the time for the completion of the contract of the S. Fox Construction Company, for mason work, etc., in the armory of the Second Company Signal Corps, be and the same is hereby extended to June 21, 1909.

Which was adopted by the following vote:

Ayes—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

Communication from the Chief Engineer of Light and Power (Department of Water Supply, Gas and Electricity), recommending the purchase of the twenty-four flaming arc lamps installed in the Drill Hall of the Twenty-second Regiment armory, by the General Electric Company, at cost of \$998.40.

Your Committee recommend that the lamps be purchased and that an appropriation of \$998.40 be made therefor.

After discussion the matter was referred to the Comptroller for investigation and report.

The Secretary reported that the following bill, for repairs, etc., to various armories of the N. Y., N. Y., properly certified, had been approved by the Armory Board on June 11 and 28, 1909, and forwarded to the Comptroller for payment:

Name and Description	Amount
George Stanton—Painting, etc., Thirteenth Regiment	\$585 00
S. Fox Construction Company—Building partition, Seventy-first Regiment	375 00
H. J. Bakkenstien—Repairs to locks, etc., Squadron A	55 00
Peter McKay—Painting, etc., Twenty-second Regiment	475 00
George F. Libbey—Carpenter work, etc., Fourteenth Regiment	898 00
Alfred Gaskell—Disinfectant, Third Battery	32 50
Samuel Pollack—Glazing, Sixty-ninth Regiment	19 74
Remington Typewriter Company—Typewriter, First Company, Signal Corps	
T. J. Cummins Plumbing Company—Plumbing, etc., Sixty-ninth Regiment	74 00
D. J. Barry & Co.—Carpet, Twelfth Regiment	53 26
F. J. Morse Supply Company—Reupholstering, Twenty-third Regiment	142 84
Guidone & Galardi Company—Contract, Second Battery, erection	220 00
Charles C. Haight—Contract, professional services, Second Battery	26,225 10
Charles C. Haight—Contract, professional services, Second Battery	655 62
R. L. Kjorner—Professional services, heating apparatus, Seventh Regiment	30 00
Walter E. Parlin—Professional services, rifle ranges, Thirteenth Regiment	125 00
Robinson & Knost—Professional services, iron railings, Twelfth Regiment	27 04
Robinson & Knost—Professional services, gas fixtures, Twelfth Regiment	13 15
Robinson & Knost—Professional services, improvements, Twelfth Regiment	28 50
Robinson & Knost—Professional services, alterations, Sixty-ninth Regiment	40 80
Robinson & Knost—Professional services, alterations, Second Signal Corps	119 80
Robinson & Knost—Professional services, alterations, Second Signal Corps	2,375 00
T. W. G. Davidson—Services as Surveyor, Twenty-second Regiment armory site	77 05
Nathan M. Clark—Services as Commissioner, Twenty-second Regiment armory site	23 50
De Lancey Carter—Services as Commissioner, Twenty-second Regiment armory site	50 00
Edward C. Crowley—Services as Commissioner, Twenty-second Regiment armory site	140 00
Charles C. Schneider—Excavating, Second Battery	1,200 00
J. M. Knopp—Repairs to floors, Eighth Coast Artillery District	67 00
S. Fox Construction Company—Alterations, Seventy-first Regiment	485 00
Cavanagh Bros. & Co.—Fitting up lockers, Forty-seventh Regiment	264 00
Clark & Gibbs—Desk, etc., Thirteenth Coast Artillery District	81 75
William J. Olvany—Boiler work, Fourteenth Regiment	55 31
Interborough Supply Company—Electrical work and partitions, Seventy-first Regiment	95 00
Interborough Supply Company—Removing door trim, etc., Seventy-first Regiment	160 00
Interborough Supply Company—Ironwork, Seventy-first Regiment	220 00

Interborough Supply Company—Repairs to oak closets, etc., Seventy-first Regiment.	185.00
Interborough Supply Company—Removing window, etc., Seventy-first Regiment.	55.00
H. J. Baudenhausen—Repairs to locks, etc., Eighth Coast Artillery District	18.90
H. J. Baudenhausen—Repairs to locks, etc., Eighth Coast Artillery District	39.73
J. M. Knopp—Carpenter work, etc., Eighth Coast Artillery District	61.06
New York Book Silicate Company—Blackboards, etc., Twenty-second Regiment.	18.00
The Phoenix Oil Company—Oil soap, Seventy-first Regiment.	33.11
Woolf Hypozon Company—Disinfectant, Seventy-first Regiment.	21.25
F. J. Morse Supply Company—Leather davenport, Seventy-first Regiment.	79.00
Geo. F. Simram—Coat, Squadron A.	5.25
Cavanaugh Bros. & Co.—Varnish, Squadron A.	59.00
T. J. Cummins Plumbing Company—Plumbing, Squadron A.	64.45
Cavanaugh Bros. & Co.—Cylinder, First Battery.	25.00
John F. O'Ryan—Removing tankark, First Battery.	150.00
Cavanaugh Bros. & Co.—Carpet-sweeper, Headquarters, First Brigade.	5.00
Stanley & Patterson—Lamps, Headquarters, National Guard, New York.	47.70
F. H. Dewitt—Cleaning carpet, Thirteenth Regiment.	20.00
George W. Cohn—Desk, Twenty-third Regiment.	27.00
Carsten-Offerman Coal Company—Coal, Twenty-third Regiment.	56.70
Art Metal Con. Company—Case, Twenty-third Regiment.	110.00
W. R. Ostrander Company—Desk lights, Forty-seventh Regiment.	08.77
Chicago Pneumatic Tube Company—Cleaning machine, Forty-seventh Regiment.	100.00
Northern Elec. Manufacturing Company—Lathe, Forty-seventh Regiment.	355.00
Carsten-Offerman Coal Company—Coal, Squadron C.	59.91
Wadsworth-Howland Company—Paints, Squadron C.	123.00
Wm. F. Stone, Inspector—Carfare.	3.00
J. R. Emerson, Inspector—Carfare.	3.41
Robert Telfer, Inspector—Carfare.	6.50
Suzanne Heber—Micrographing.	10.25
New York and New Jersey Telephone Company—Telephone, various apartments.	134.89
John H. Meyer—Coal, Eighth Coast Artillery Dist.	270.12
Samuel Lewis—Supplies, Ninth Regiment.	118.40
Carsten-Offerman Coal Company—Coal, Twenty-third Regiment.	56.70

The Secretary presented a statement of the bids received at this meeting, and reported as follows:

That for Item No. 1, improvements, repairs, etc., to the armory of the Second Company Signal Corps, five bids were received, the lowest being that of George Stanton, in the sum of \$14,473. That the bid is formal and within the appropriation.

The President of the Board of Aldermen offered the following:

Resolved, That the bid of George Stanton, Borough of Manhattan, for Item No. 1, improvements, repairs, etc., in the armory of the Second Company Signal Corps, in the sum of \$14,473, be accepted, being the lowest formal bid received for said work, that the same be submitted to the Commissioners of the Sinking Fund for concurrence and to the Comptroller for his approval of the articles theron, and when so approved the Chairman of this Board be authorized to execute the contract on behalf of the Board; that all the other bids be rejected, and the Comptroller requested to return the deposits received from the unsuccessful bidders.

Which was adopted by the following vote:

Also—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

That for Item No. 2, alterations, additions, etc., to the armory of the Seventh Regiment, N. Y. N. Y., ten bids were received, the lowest being that of Kelly & Kelley, in the sum of \$172,984. That the bid is formal and within the appropriation.

Brigadier-General George Moore Smith offered the following:

Resolved, That the bid of Kelly & Kelley, Borough of Manhattan, for Item No. 2, alterations, additions, etc., to the armory of the Seventh Regiment, in the Borough of Manhattan, in the sum of \$172,984, be accepted, being the lowest formal bid received for said work, that the same be submitted to the Commissioners of the Sinking Fund for concurrence and to the Comptroller for his approval of the articles theron, and when so approved the Chairman of this Board be authorized to execute the contract on behalf of the Board; that all the other bids be rejected, and the Comptroller requested to return the deposits received from the unsuccessful bidders.

Which was adopted by the following vote:

Also—The Mayor, the Comptroller, the President of the Board of Aldermen, Brigadier-General George Moore Smith and Brigadier-General John G. Eddy.

A motion to adjourn was adopted.

HARRIC DAVIS, Secretary.

THE CITY CHAMBERLAIN.

City of New York,
Office of the City Chamberlain,
July 14, 1909.

As provided in chapter 729 of the Laws of 1905, as amended, I have this day paid into the General Fund of The City of New York, the sum of four hundred and twenty-three thousand two hundred and eighty-eight dollars, and fifteen cents (\$423,288.15), which is one-half of the net amount of mortgage tax collected for the quarter ending June 30, 1909.

Attached is a detailed statement.

JAMES J. MARTIN, Chamberlain.

MORTGAGE TAX ACCOUNT

Statement for Quarter Ending June 30, 1909.

Recpt.	\$127,441.15
New York County, April, 1909.	178,941.94
New York County, May, 1909.	205,052.41
New York County, June, 1909.	201,137.54
Kings County, April, 1909.	501,188.62
Kings County, May, 1909.	55,932.75
Kings County, June, 1909.	63,261.00
Queens County, April, 1909.	515,933.00
Queens County, May, 1909.	17,343.40
Queens County, June, 1909.	14,291.49
	47,536.89
Richmond County, April, 1909.	52,198.50
Richmond County, May, 1909.	2,000.50
Richmond County, June, 1909.	2,000.50
	7,479.50
	\$840,836.30

Disbursement	
Bank Messenger, salary, April, 1909.	100.00
Bank Messenger, salary, May, 1909.	100.00
Bank Messenger, salary, June, 1909.	100.00
	300.00
Balance	\$46,536.30

Balances Apportioned.

Treasury, State of New York.	\$423,288.15
Chamberlain, City of New York.	423,288.15
	\$840,836.30

JAMES J. MARTIN, Chamberlain.

EXECUTIVE DEPARTMENT.

City of New York,
Office of the Mayor,
July 2, 1909.

The Mayor has this day appointed John E. Smith, of No. 83 Seminary Avenue, Borough of Brooklyn, a Commissioner of Elections, to succeed Randolph C. Fuller, deceased.

WILLIAM A. WILLIS,
Executive Secretary.

CHANGES IN DEPARTMENTS, ETC.

TENEMENT HOUSE DEPARTMENT

July 12—Resigned, Albert T. A. Gerhard, No. 75 Cliff street, Rosebank, S. I., first grade Clerk, salary \$540 per annum. This resignation to take effect at the close of business Saturday, July 10, 1909.

DEPARTMENT OF DUCKS AND FERRIES

July 12—The resignation of Edward T. Duffy from the position of Deckhand has been accepted by the Deputy and Acting Commissioner.

PRESIDENT OF THE BOROUGH OF BROOKLYN.

July 10—Report of changes in the several Bureaus under the jurisdiction of the President of the Borough of Brooklyn during the period of June 16 to 30, inclusive.

Bureau of Highways.

Granted leave of absence to Thomas Dunne, No. 290 Seventeenth street, LaGuardia, to date from June 25 on account of illness.

Appointed the following named Laborers at a compensation of \$2 per day, all to date from May 26:

Robert McCaffrey, No. 688 Warren street.

Maguire, K., No. 204 Valley street; James Henn, No. 81 Congress street; John Connaire, No. 582 Lincoln road; Harry J. Jones, No. 188 Belmont street; Frank N. Dilling, No. 193 South Third street.

Clinton Archibald, No. 77 Garfield place; Henry Tschmidauer, No. 479 Pacific street.

Charles J. Simpson, No. 689 Franklin street.

Frank E. Wolcott, No. 382 Franklin street.

H. A. Conroy, No. 491 Knob street, and Patrick Lundy, No. 230 Nassau street, were dropped on June 17 for failure to report.

John Doherty, No. 109 South Sixth street, LaGuardia, dropped on June 18.

Appointed the following named Asphalt Workers at a compensation of \$2 per day each, with the exception of John Healy, who receives \$250, all to date from June 9:

Frank F. Deasy, No. 52 Third street; William Dehaven, No. 654 Warren street; Almanzo Brea, No. 87 Market street, Manhattan.

James Wiley, No. 254 Sixth street; Alexander M. Hamilton, No. 92 Tappan street; Michael A. Dolan, No. 614 Thirty-fifth street.

Edward G. Gough, No. 14 Navy street; John Meany, No. 1007 Myrtle avenue; Nicholas Davis, No. 22 Garfield place; John Healy, No. 79 Briggs avenue; John E. Crowley, No. 86 Madison street, Manhattan.

Pasquale Parisi, No. 102 Stillman street; George Sheildan, No. 994 Pacific street; Pietro Parisi, No. 73 Superior street.

Thomas P. Farley, No. 27 Bay Street, Brooklyn, redesignated to date from June 22.

Granted leave of absence for six months without pay, to date from June 1, on account of illness, to Edward Burke, No. 181 Clinton place, Foreman Asphalt Worker.

Fixed the salary of James E. Beaganan, No. 27 Pacific street, LaGuardia, at \$250 per day, to date from June 25.

Richard N. Cox, No. 400 Graham avenue, transferred from Asphalt Worker to Laborer, at a compensation of \$250 per day, to date from June 25.

Appointed the following named Inspectors of Regulation, Grading and Paving, at a compensation of \$4 per day each, all to date from June 16:

Matthew T. Richardson, No. 210 West One hundred and Fourth street.

James W. Ledwith, No. 227 East Eighty-first street.

Charles M. Torrey, No. 326 Avenue H, Brooklyn.

John M. Hayes, Metropolitan avenue and Curtis, Richmond Hill, L. I.

Frederick W. Darling, No. 609 East One Hundred and Seventeenth street, The Bronx.

Bernard McNamee, No. 426 East Eightieth street.

Henry A. Michu, No. 90 Fingerboard road.

Joseph E. Duriach, No. 1270 Seventy-fourth street, Brooklyn.

Francis J. McLaughlin, No. 216 York street, Brooklyn.

John J. McManus, No. 169 Fifteenth street.

John J. McNamee, No. 774 Classon avenue.

Albert Cumit, No. 96 Loft street.

James McCormick, No. 51 East One Hundred and Sixth street.

Daniel F. Hayes, No. 143 West One Hundred and Thirty-second street.

John F. Gaynor, No. 259 Warren street, Brooklyn.

Fred J. Gordon, No. 697 Bergen street.

Cornelius E. Murphy, No. 1422 Seventy-first street.

Charles F. Kelly, No. 110 East Ninety-sixth street, Manhattan, Inspector of Regulating, Grading and Paving, resigned, to date from June 21.

Dropped the following named persons on June 24 for failure to report:

Michael Hardy, No. 135 Albany avenue, Laborer.

Charles A. Hudelson, No. 901 Dean street, LaGuardia.

Thomas Walsh, No. 194 Hoyt street, LaGuardia.

Thomas Mollin, No. 895 Bergen street, Asphalt Worker.

John J. McGrath, No. 235 West Twelfth street, Manhattan, Asphalt Worker.

Appointed William D. Reilly, Jr., No. 699 Park place, Inspector of Regulating, Grading and Paving, at a compensation of \$4 per day, to date from June 21.

Transferred John A. Sullivan, No. 251 Adelphi street, Clerk, from the Department of Water Supply, Gas and Electricity, to date from July 1, at a compensation of \$1,050 per annum.

Transferred the following named Laborers from the Bureau of Public Buildings and Offices at a compensation of \$2.50 per day each, all to date from June 26:

Cornelius Cleary, No. 73 Winton street.

Robert Sweeney, No. 10 Winton street.

Marco McLaughlin, No. 322 Thirteenth street.

Thomas Mollin, No. 895 Hudson street.

Reinhardt John F. O'Brien, No. 423 Bedford avenue, as Laborer, at a compensation of \$2 per day, to date from July 1.

Appointed William Vogel, No. 363 President street, Asphalt Worker, at a compensation of \$2 per day, effective June 30.

Appointed Michael Whalen, No. 362 Carroll street, Asphalt Worker, at a compensation of \$2 per day, to date from June 23.

Topographical Survey.

Fixed the salaries of the following named Assistant Engineers at \$2,250 per annum each, both to date from June 1:

Frank Schellenberg, No. 433 Fifty-second street.

David Pilkethly, No. 163 Euclid avenue.

Dropped the following named Laborers on June 16 for failure to report:

John Minogue, No. 230 Hicks street.

John J. O'Brien, No. 15 Cheever place.

Transferred Patrick Reilly, No. 634 Eleventh street, Laborer, from the Bureau of Highways, at a compensation of \$2,50 per day, to date from June 15.

Fixed the salaries of the following named Assistant Engineers at the amounts indicated opposite their respective names, all to date from June 1:

Edward F. Bolson, \$2,250 per annum.

Isaac H. Kirby, \$2,250 per annum.

James B. Van Vleck, \$2,250 per annum.

Promoted Arthur L. Brigham from Draughtsman to Assistant Engineer, and fixed his compensation at \$2,500 per annum, to date from June 1.

Transferred John Gruninger, No. 324 Twenty-sixth street, Laborer, from the Bureau of Highways, at a compensation of \$2,50 per day, to date from June 29.

Appointed the following named Draughtsmen, at a compensation of \$1,500 per annum, to date from June 22 and 24 respectively:

William P. Valley, No. 335 Thirty-third street, Mechanic.

Charles P. Meller, No. 380 Clinton street, Brooklyn, Long Island.

Appointed V. Kasteloff, No. 107 Washington street, Morrisania, at a compensation of \$2,50 per day, to date from June 30.

Appointed of Mechanics:

John L. Frank, Draftsman, second year Clerk in the Department of Water supply, Gas and Electricity, Brooklyn, has been transferred to a similar position in the Bureau.

DEPARTMENT OF WATER SUPPLY.

July 15—Appointments:

Samuel Fink, No. 224 First Avenue, supervisor and Foreman, \$900 per annum, July 12, 1909.

Samuel Fink, Cold Storage, No. 3, 17th and 44th streets, Brooklyn, \$1,000 per annum, July 2, 1909.

John P. Dwyer, Cornhill Hall, 11th and 12th streets, Brooklyn, \$400 per annum, July 2, 1909.

Edward F. Morris, Jr., No. 147 Clark and 5th streets, Brooklyn, \$400 per annum, July 2, 1909.

John F. McNamee, No. 147 Clark and 5th streets, Brooklyn, \$400 per annum, July 2, 1909.

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BUREAU FOR THE COLLECTION OF TAXES.
Borough of Manhattan—Stewart Building, Room 100.
David E. Austin, Receiver of Taxes.
John J. McDermott and William H. Longfellow, Deputy Receivers of Taxes.
Borough of The Bronx—Municipal Building, Third and Tremont avenues.
John B. Underhill and Stephen A. Nugent, Deputy Receivers of Taxes.
Borough of Brooklyn—Municipal Building, Rooms 2-3.
Thomas J. Drennan and William Gallagher, Deputy Receivers of Taxes.
Borough of Queens—Hackett Building, Jackson Avenue and Fifth street, Long Island City.
George H. Cross and Mason O. Smidley, Deputy Receivers of Taxes.
Borough of Richmond—Borough Hall, St. George, New Brighton.
John De Morgan and F. Wiley Owen, Deputy Receivers of Taxes.

BUREAU FOR THE COLLECTION OF ASSESSMENTS AND ARREARS.

Borough of Manhattan, Stewart Building, Room 100.
Daniel Moynihan, Collector of Assessments and Arrears.
Richard R. Weldon, Deputy Collector of Assessments and Arrears.
Borough of The Bronx—Municipal Building, Rooms 1-2.
James J. Donovan, Jr., Deputy Collector of Assessments and Arrears.
Borough of Brooklyn—Mechanics' Bank Building, corner Court and Montague streets.
John M. Gray, Deputy Collector of Assessments and Arrears.
Borough of Queens—Hackett Building, Jackson Avenue and Fifth street, Long Island City.
Thomas A. Healy, Deputy Collector of Assessments and Arrears.
Borough of Richmond—St. George, New Brighton.
John J. McNamee, Deputy Collector of Assessments and Arrears.

BUREAU FOR THE COLLECTION OF CITY REVENUE AND MARKET.

Stewart Building, Chambers street and Broadway, Room 141.
Peter Aiken, Collector of City Revenue and Superintendent of Markets.
David O'Brien, Deputy Collector of City Revenue.

BUREAU FOR THE EXAMINATION OF CLAIMS.

Frank J. Frial, Chief Examiner, Room 181.

BUREAU OF THE CITY CHAMBERLAIN.

Stewart Building, Chambers street and Broadway, Room 62 to 64.
James J. Martin, City Chamberlain.
Henry J. Walsh, Deputy Chamberlain.
Telephone, 4252 Worth.

DEPARTMENT OF HEALTH.

Southwest corner of Fifty-third street and Sixth Avenue, Borough of Manhattan, 9 a.m. to 4 p.m.
Initial Permit and Contagious Disease offices always open.
Telephone, 2200 Columbus.
Thomas Harrington, M. D., Commissioner of Health and President.
Alfred D. Holley, M. D., William P. Tolson, Commissioners.
Walter Bond, M. D., Sanitary Superintendent.
Eugene W. Schaffer, Secretary.
Berman M. Eppes, M. D., General Medical Officer.
James McC. Miller, Chief Clerk.
William H. Gullion, M. D., Registrar of Deaths.
Borough of Manhattan.

Traverse R. Macleod, M. D., Assistant Sanitary Superintendent; George A. Roberts, Assistant Clerk; Charles J. Burke, M. D., Assistant Registrar of Deaths.

Borough of The Bronx, No. 250, Third Avenue.
Alfred Blauvelt, M. D., Acting Assistant Sanitary Superintendent; George A. Roberts, Assistant Clerk; Arthur J. Leahy, M. D., Assistant Registrar of Deaths.

Borough of Brooklyn, Nos. 30 and 32 Clinton street.
Alfred Blauvelt, M. D., Assistant Sanitary Superintendent; Alfred J. Mollica, Assistant Clerk; S. J. Byrne, M. D., Assistant Registrar of Deaths.

Borough of Richmond, Nos. 24 and 26 Water street, Staten Island.
John T. Sprague, M. D., Assistant Sanitary Superintendent; Charles E. Hoyer, Assistant Clerk; J. Walter Winal, M. D., Assistant Registrar of Deaths.

DEPARTMENT OF PARKS.

Henry Smith, Commissioner of Parks for the Boroughs of Manhattan and Richmond, and President Park Board.
William J. Francis, Secretary.
Offices, Arsenal, Central Park.

Michael J. Kennedy, Commissioner of Parks for the Boroughs of Brooklyn and Queens.
Offices, Elysian Mansion, Prospect Park, Brooklyn.
Telephone, 2350 South.
Joseph L. Berry, Commissioner of Parks for the Borough of The Bronx.
Offices, Zborowski Mansion, Claremont Park.
Office hours, 9 a.m. to 1 p.m.; Saturdays, 12 m.
Telephone, 262 Tremont.

DEPARTMENT OF PUBLIC CHARITIES.

PRINCIPAL OFFICE.
Foot of East Twenty-sixth street, 9 a.m. to 4 p.m.
Saturdays, 12 m.
Telephone, 106 Madison Square.
Robert W. Helderman, Commissioner.
Richard C. Baker, First Deputy Commissioner.
Thomas W. Hynes, Second Deputy Commissioner for Brooklyn and Queens, Nos. 327 to 331 Schermerhorn street, Brooklyn. Telephone, 2072 Main.
J. McKee Justice, Secretary.
Plans and Specifications, Contracts, Proposals and Estimates for Work and Materials for Building, Repairs and Supplies, Bills and Accounts, 9 a.m. to 4 p.m.; Saturdays, 12 m.
Bureau of Dependent Adults, foot of East Twenty-sixth street. Office hours, 8 a.m. to 4 p.m.
The Children's Bureau, No. 66 Third Avenue. Office hours, 9 a.m. to 4 p.m.
Jeremiah County, Superintendent for Richmond Borough, Borough Hall, St. George, Staten Island. Telephone, 2200 Tompkinsville.

DEPARTMENT OF STREET CLEANING.

Nos. 12 to 21 Park Row, 9 a.m. to 4 p.m.
Telephone, 2262 Cortlandt.
William H. Edwards, Commissioner.
James J. Hogan, Deputy Commissioner, Borough of Manhattan.
Owen J. Murphy, Deputy Commissioner, Borough of Brooklyn.
Julian Scott, Deputy Commissioner, Borough of The Bronx.
John J. O'Brien, Chief Clerk.

DEPARTMENT OF TAXES AND ASSESSMENTS.

Hall of Records, corner of Chambers and Centre streets. Office hours, 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.
Commissioners—Lawson Pandy, President; Frank Raymond, James H. Tully, Charles Putzel, Hugh Hastings, Charles J. McCormack, John J. Halloran. Telephone, 2262 Worth.

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

Nos. 15 to 21 Park Row, 9 a.m. to 4 p.m.
Telephone, Manhattan, 3220 Cortlandt; Brooklyn, 262 Main; Queens, 420 Greenpoint; Richmond, 94 Tompkinsville; Bronx, 2 Tremont.
John H. O'Brien, Commissioner.
M. V. Loughman, Deputy Commissioner.
J. M. de Varona, Chief Engineer.
George W. Birdsell, Consulting Hydraulic Engineer.
George F. Seaver, Consulting Electrical Engineer.
Charles F. Lamont, Chief Engineer of Light and Power.

Hilary S. Wynnion, Electrical Engineer.
Michael C. Padon, Water Register, Manhattan.
William A. Hawley, Secretary to Commissioner.
William C. Carter, Deputy Commissioner, Borough of Brooklyn, Municipal Building, Brooklyn.
Walter E. Saylor, Chief Engineer.

John W. McKey, Assistant Engineer in Charge, Borough of Richmond.

William R. McGuire, Water Register, Brooklyn.
Joseph J. Martin, Deputy Commissioner, Borough of The Bronx, Croton Park Building, One Hundred and Seventy-seventh street and Third Avenue.

Thomas M. Lynch, Water Register, The Bronx.
Charles E. Wissel, Deputy Commissioner, Borough of Queens, Hackett Building, Long Island City.

John P. Jones, Deputy Commissioner, Borough of Richmond, Municipal Building, St. George.

EXAMINING BOARD OF PLUMBERS.

Bethelmore P. Dunnigan, President; John J. Moore, Secretary; John J. Dean, Treasurer, or office, Hayes Looms and Mathew E. Healy.
Rooms Nos. 12, 13 and 14 Aldrich Building, New Haven, 111 Church street.

Open from during business hours every day in the year, except legal holidays. Examinations are held on Monday, Wednesday and Friday after 1 p.m.

FIRE DEPARTMENT.

Office hours for all, except where otherwise noted from 9 a.m. to 4 p.m.; Saturdays, 12 m.

HEADQUARTERS.

Nos. 137 and 139 East Sixty-seventh street, Manhattan.

Telephone, 650 Plaza, Manhattan; 1633 Main, Brooklyn.

Nicholas J. Hayes, Commissioner.

J. A. Whitney, Deputy Commissioner.

Charles L. Wise, Deputy Commissioner, Boroughs of Brooklyn and Queens.

William A. Keaney, Secretary; Mark Levy, Secretary to the Commissioner; George F. Tolson, Jr., Secretary to the Deputy Commissioner, Boroughs of Brooklyn and Queens.

Edward P. O'Grady, Chief of Department.

Thomas J. Judd, Deputy Chief of Department in charge, Boroughs of Brooklyn and Queens.

Joseph L. Huron, Inspector of Combustibles, Nos. 67 and 101 East Sixty-seventh street, Manhattan.

Telephone, 225 Plaza.

Peter J. O'Grady, Secretary of Relief Fund, Nos. 137 and 139 East Sixty-seventh street, Manhattan.

Telephone, 650 Plaza.

Peter J. O'Grady, Fire Marshal, Boroughs of Manhattan, Brooklyn and Richmond.

William L. Jones, Fire Marshal, Boroughs of Brooklyn and Queens.

Andrew P. Martin, Chief Inspector, Fire Alarm Telegraph Bureau, Boroughs of Manhattan, The Bronx and Richmond.

Timothy S. Mahoney, in charge Telegraph Bureau, Boroughs of Brooklyn and Queens.

William J. Higgins, Chief of Battalion in charge Bureau of Vibrations and Auxiliary Fire Appliances, Boroughs of Manhattan, The Bronx and Richmond.

Nos. 137 and 139 East Sixty-seventh street, Manhattan.

Brooklyn and Queens, Nos. 395 and 397 Jay street, Brooklyn.

Central office open at all hours.

LAW DEPARTMENT.

OFFICE OF CORPORATION COUNSEL.

Hall of Records, Chambers and Centre streets, 6th, 7th and 8th stories, 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.

Telephone, 2262 Worth.

Francis K. Pendleton, Corporation Counsel.

Assistants—Theodore Connolly, George L. Stelling, Charles D. Glazebrook, William P. Harr, R. Percy Chapman, David Rosner, William B. Clegg, John F. O'Brien, George F. Tolson, Jr., Edward J. McCullagh, Cornelius F. Collins, John F. O'Brien, Edward S. Malone, Edwin J. Friedman, Carter A. Peters, Louis H. Hahn, Stephen O'Brien, Frank B. Pierce, Charles A. O'Neill, Richard H. Mitchell, John Widdicombe, Joel J. Squier, Arthur Sweeny, William H. King, George P. Nicholson, George Harold Fowles, Harold P. Walker, Alfred W. Bournon, J. Gabriel Britt, Francis J. Byrne, Francis Martin, Charles McIntyre, Clarence L. Barber, John J. Burke, James P. O'Connor, William H. Jackson, Edward Maxson, Elliott S. Benedict, Isaac Phillips, Edward A. McShane, Eugene Fay, Ricardo M. DeAcosta, Francis X. McQuade, Raymond J. Fosdick, John M. Barrett, J. Townsend Burden, Jr., Secretary to the Corporation Counsel—Edmund Kirby.

Chief Clerk—Andrew T. Campbell.

RECEIPTS OFFICE.

Borough Hall, 2280, 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.

Telephone, 2262 Main.

James D. Bell, Assistant in charge.

BUREAU OF STREET OPENINGS.

Nos. 10 and 12 Broadway, 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.

Telephone, 2262 Cortlandt.

John P. Dunn, Assistant in charge.

BUREAU FOR THE RECOVERY OF PENALTIES.

Nos. 10 and 12 Nassau street, 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.

Telephone, 2262 Cortlandt.

Herman Shiebel, Assistant in charge.

BUREAU FOR THE COLLECTION OF ARREARS OF PERSONAL TAXES.

No. 56 Broadway, 10th floor. Office hours for public 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.
Telephone, 2262 Worth.

Geo. O'Reilly, Assistant in charge.

TENEMENT HOUSE BUREAU AND BUREAU OF BUILDINGS.

No. 44 East Twenty-third street, 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.
Telephone, 2262 Gramercy.

John P. O'Brien, Assistant in charge.

METROPOLITAN SEWERAGE COMMISSION.

Office, No. 22 Battery place. George A. Super, Ph. D., President; James H. Fahey, Secretary; H. B. Parsons, Charles S. Smith, Lundy R. Williams, M. D., Telephone, 2262 Reuter.

MUNICIPAL CIVIL SERVICE COMMISSION.

No. 22 Broadway, 9 a.m. to 4 p.m.
Frank L. Park, R. Ross Appleton, Arthur J. O'Keefe.

Frank A. Spencer, Secretary.

John F. Shelly, Assistant Secretary.

LABOR BUREAU.

No. 54-56 Lafayette street.
Telephone, 2262 Worth.

MUNICIPAL EXPLOSIVES COMMISSION.

No. 227 and 229 East Sixty-seventh street, Brooklyn Fire Department.

Patrick A. Whitney, Deputy Fire Commissioner and Chairman; William Montgomery, John Sherry, C. Andrade, Jr., Abram A. Brennan.

Telephone, 2262 Plaza.

Frank J. Wolf, Secretary, Nos. 227-229 Jay street, Brooklyn.

States meeting, Friday at each week at 1 p.m.
Telephone, 2262 Main.

POLICE DEPARTMENT.

CENTRAL OFFICE.

No. 225 Mulberry street, 9 a.m. to 4 p.m.

Telephone, 2262 Spring.

William F. Baker, Commissioner.

Frederick J. Dugler, First Deputy Commissioner.

Joseph A. Stump, Third Deputy Commissioner.

Alfred W. Hartman, Fourth Deputy Commissioner.

William H. Kapp, Chief Clerk.

PUBLIC SERVICE COMMISSION.

The Public Service Commission for the First District, Tribune Building, No. 154 Nassau street, Manhattan.

Office hours, 9 a.m. to 12 p.m., every day in the year, including holidays and Sundays.

Stated public meetings of the Commission, Tuesdays and Fridays at 12.30 p.m. in the Public Hearing Room of the Commission, third floor of the Tribune Building unless otherwise ordered.

Commissioners—William B. Wilson, Chairman.

William McCann, Edward M. Bassett, Miss B. Martin, John E. Curtis, Counsel; George S. Collier, Secretary; Tracy H. Whitney.

Telephone, 2262 Beckman.

TENEMENT HOUSE DEPARTMENT.

Manhattan Office, No. 44 East Twenty-third street.

Telephone, 2262 Gramercy.

Edward J. Baker, Commissioner.

Wm. H. Abbott, Jr., First Deputy Commissioner.

Brooklyn Office (Boroughs of Brooklyn, Queens and Richmond), Temple Bar Building, No. 44 Court street.

Telephone, 2262 Main.

John McKeon, Second Deputy Commissioner.

Borough Office, Nos. 226, 228 and 230 Third Avenue.

Telephone, 2262 Melrose.

William E. Calvert, Superintendent.

BOROUGH OFFICES.

BOROUGH OF THE BRONX.

Office of the President, corner Third Avenue and One Hundred and Seventy-seventh street, 9 a.m. to 4 p.m.; Saturdays, 9 a.m. to 12 m.

Louis F. Hallin, President.

Henry E. Quigley, Secretary.

John F. Murray, Commissioner of Public Works.

John A. Hawley, Assistant Commissioner of Public Works.

Frank A. Brings, Chief Engineer.

Frederick C. Lindberg, Principal Assistant Topographical Engineer.

Charles H. Graham, Engineer of Sewers.

Thomas H. O'Neill, Superintendent of Sewers.

Samuel C. Thompson, Engineer of Highways.

Patrick J. Reilly, Superintendent of Buildings.

COMMISSIONER OF RECORDS.

Hall of Records.
Office hours, 9 a. m. to 4 p. m., excepting months of July and August, then 9 a. m. to 2 p. m.; Saturdays, 9 a. m. to 12 m.
Lewis M. Swasey, Commissioner.
D. H. Ralston, Deputy Commissioner.
Telephone, 1114 Main.
Thomas D. Moscrop, Superintendent.
William J. Beattie, Assistant Superintendent.
Telephone, 108 Main.

COUNTY CLERK.

Hall of Records, Brooklyn. Office hours, 9 a. m. to 4 p. m., during months of July and August, 9 a. m. to 2 p. m.; Saturdays, 9 a. m. to 12 m.
Frank E. Ehrler, County Clerk.
Robert A. Sharkey, Deputy County Clerk.
John Cooper, Assistant Deputy County Clerk.
Telephone call, 4930 Main.

COUNTY COURT.

County Court-house, Brooklyn, Rooms, 10, 17, 18, 22 and 23. Court opens at 10 a. m. daily and sits until business is completed. Part I., Room No. 23; Part II., Room No. 10, Court-house. Clerk's Office, Rooms 17, 18 and 22, open daily from 9 a. m. to 4 p. m.; Saturdays, 12 m.
Norman S. Duke and Lewis L. Fawcett, County Judges.
Charles S. Devor, Chief Clerk.
Telephone, 4754 and 4755 Main.

DISTRICT ATTORNEY.

Office, County Court-house, Borough of Brooklyn. Hours, 9 a. m. to 5 p. m.
John F. Clarke, District Attorney.
Telephone number, 2935-6-7 Main.

PUBLIC ADMINISTRATOR.

No. 41 Court street (Temple Bar), Brooklyn, 9 a. m. to 2 p. m.
Charles E. Teale, Public Administrator.
Telephone, 2840 Main.

REGISTER.

Hall of Records. Office hours, 9 a. m. to 4 p. m., excepting months of July and August; then from 9 a. m. to 2 p. m., provided for by statute.
William A. Presler, Register.
Frederick H. E. Elstein, Deputy Register.
Telephone, 2830 Main.

SHERIFF.

County Court-house, Brooklyn, N. Y.
9 a. m. to 4 p. m.; Saturdays, 12 m.
Alfred T. Hobley, Sheriff.
James P. Connel, Under Sheriff.
Telephone, 1845, 6846, 6847, Main.

SURROGATE.

Hall of Records, Brooklyn, N. Y.
Herbert T. Ketcham, Surrogate.
Edward J. Berger, Chief Clerk and Clerk of the Surrogate's Court.
Court opens at 10 a. m. Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 2014 Main.

QUEENS COUNTY.

COMMISSIONER OF JURORS.
Office hours, 9 a. m. to 4 p. m.; July and August, 9 a. m. to 2 p. m.; Saturdays, 9 a. m. to 12 m. Queens County Court-house, Long Island City.
John P. Ballert, Commissioner of Juries.
Rodman Richardson, Assistant Commissioner.
Telephone, 453 Greenpoint.

COUNTY CLERK.

No. 24 Fulton street, Jamaica, Fourth Ward, Borough of Queens, City of New York.
Office open, 9 a. m. to 4 p. m.; Saturday, 9 a. m. to 12 m.
John Niederstein, County Clerk.
Frank C. Klingenberg, Secretary.
Henry Walter, Jr., Deputy County Clerk.
Telephone, 241 Jamaica.

COUNTY COURT.

Temporary County Court-house, Long Island City. County Court opens at 10 a. m. Trial Terms begin first Monday of each month, except July, August and September. Special Terms each Saturday, except during August and first Saturday of September. County Judge's office always open at No. 330 Fulton street, Jamaica, N. Y.
Hart J. Humphrey, County Judge.
Telephone, 241 Jamaica.

DISTRICT ATTORNEY.

Office, Queens County Court-house, Long Island City, 9 a. m. to 5 p. m.
Frederick G. De Witt, District Attorney.
Telephone, 241 Greenpoint.

PUBLIC ADMINISTRATOR.

No. 17 Court Avenue, Elmhurst.
John T. Robinson, Public Administrator, County of Queens.
Telephone, 235 Newtowm.

SHERIFF.

County Court-house, Long Island City, 9 a. m. to 12 m.; Saturdays, 9 a. m. to 12 m.
Herbert S. Harvey, Sheriff.
John M. Phillips, Under Sheriff.
Telephone, 453 Greenpoint (office).
Henry O. Schatz, Warden, Queens County Jail.
Telephone, 241 Greenpoint.

SURROGATE.

Daniel Niles, Surrogate.
Wm. F. Hendrikson, Clerk.
Office, No. 24 Fulton street, Jamaica.
Court open on Sundays, holidays and half holidays. The office is open from 9 a. m. to 4 p. m.; Saturdays, from 9 a. m. to 12 m.
The calendar is called on Tuesday of each week at 10 a. m., except during the months of August.
Telephone, 241 Jamaica.

RICHMOND COUNTY.

COMMISSIONER OF JURORS.
Village Hall, Staten Island.
Charles J. Kullman, Commissioner.
John T. McCaughey, Assistant Commissioner.

Office open from 9 a. m. until 4 p. m.; Saturdays, from 9 a. m. to 12 m.
Telephone, 241 Tompkinsville.

COUNTY CLERK.

County Office Building, Richmond, S. I., 9 a. m. to 4 p. m.
C. L. Boatwick, County Clerk.
County Court-house, Richmond, S. I., 9 a. m. to 4 p. m.
Telephone, 241 New Dorp.

COUNTY JUDGE AND SURROGATE.

Terms of Court, Richmond County, 1909.
County Courts—Stephen D. Stephens, County Judge.
First Monday of June, Grand and Trial Jury.
Second Monday of November, Grand and Trial Jury.

Fourth Wednesday of January, without a Jury.
Fourth Wednesday of February, without a Jury.
Fourth Wednesday of March, without a Jury.
Fourth Wednesday of April, without a Jury.
Fourth Wednesday of July, without a Jury.
Fourth Wednesday of September, without a Jury.
Fourth Wednesday of October, without a Jury.
Fourth Wednesday of December, without a Jury.

Surrogate's Court—Stephen D. Stephens, Surrogate.

Mondays, at the Borough Hall, St. George, at 10:30 o'clock a. m.

Tuesdays, at the Borough Hall, St. George, at 10:30 o'clock a. m.

Wednesdays, at the Surrogate's Office, Richmond at 10:30 o'clock a. m.

DISTRICT ATTORNEY.

Borough Hall, St. George, S. I.
Samuel H. Evans.
Telephone, 241 Tompkinsville.

SHERIFF.

County Court-house, Richmond, S. I.
Office hours, 9 a. m. to 4 p. m.
Joseph J. Barth.

THE COURTS.

APPELLATE DIVISION OF THE SUPREME COURT.

FIRST JUDICIAL DEPARTMENT.

Court-house, Madison Avenue, corner Twenty-fifth street. Court opens at 1 p. m. (Friday, Motion day at 10:30 a. m.)

Edward Patterson, Presiding Justice; George L. Ingraham, Chester B. McLaughlin, Frank C. Langham, John Proctor Clarke, James W. Houghton, Francis M. Scott, Justices; Alfred Wagstaff, Clerk; William Lamb, Deputy Clerk.
Clerk's Office opens at 9 a. m.
Telephone, 318 Madison Square.

SUPREME COURT-FIRST DEPARTMENT.

County Court-house, Chambers street. Court open 10:15 a. m. to 4 p. m.

Special Term, Part I. (motions), Room No. 16.
Special Term, Part II. (ex parte business), Room No. 13.

Special Term, Part III., Room No. 19.
Special Term, Part IV., Room No. 20.
Special Term, Part V., Room No. 6.
Special Term, Part VI. (Elevated Railroad cases), Room No. 31.

Trial Term, Part II., Room No. 34.
Trial Term, Part III., Room No. 22.

Trial Term, Part IV., Room No. 21.
Trial Term, Part V., Room No. 24.

Trial Term, Part VI., Room No. 18.
Trial Term, Part VII., Room No. 25.

Trial Term, Part VIII., Room No. 31.

Trial Term, Part IX., Room No. 35.
Trial Term, Part X., Room No. 26.

Trial Term, Part XI., Room No. 27.
Trial Term, Part XII., Room No. 28.

Trial Term, Part XIII., and Special Term, Part VII., Room No. 30.

Trial Term, Part XIV., Room No. 28.
Trial Term, Part XV., Room No. 37.

Trial Term, Part XVI., Room No. 29.

Trial Term, Part XVII., Room No. 30.

Trial Term, Part XVIII., Room No. 29.

Appellate Term, Room No. 29.

Naturalization Bureau, Room No. 28, third floor, Assignment Bureau, room 30, on mezzanine floor, northeast.

Clerk's office in attendance from 10 a. m. to 4 p. m.

Clerk's Office, Special Term, Part I. (motions), Room No. 31.

Clerk's Office, Special Term, Part II. (ex parte business), ground floor, southeast corner.

Clerk's Office, Special Term, Calendar, ground floor, south.

Clerk's Office, Trial Term, Calendar, room northeast corner, second floor, east.

Clerk's Office, Appellate Term, room southwest corner, third door.

Trial Term, Part I. (criminal business). Criminal Court-house, Centre street.

Justices—Charles H. Tracy, Charles P. MacLean, Henry Bischoff, Leonard A. Gleicher, P. Henry Duggie, Henry A. Gildersleeve, James Fitzgerald, James A. O'Gorman, James A. Blanchard, Samuel Greenbaum, Edward E. McCall, Edward B. Ames, Vernon M. Davis, Victor J. Dowling, Joseph E. Newburger, John W. Goff, Samuel Seabury, M. Warby Platzer, Peter A. Hendrick, John Ford, Charles W. Daycock, John J. Brady, Mitchell L. Erbinger, Charles L. Guy, James W. Gerard, Irving Lehman.

Peter J. Dooling, Clerk, Supreme Court.

Telephone, 4520 Cortlandt.

COURT OF CRIMINAL DIVISION—SUPREME COURT.

Building for Criminal Courts, Centre, Elm, White and Franklin streets.

Court opens at 10:30 a. m.

Peter J. Dooling, Clerk; Edward R. Carroll, Special Deputy to the Clerk.

Clerk's Office open from 9 a. m. to 4 p. m.

Telephone, 241 Franklin.

COURT OF GENERAL SESSIONS.

Held in the Building for Criminal Courts, Centre Elm, White and Franklin streets.

Court opens at 10:30 a. m.

Thomas C. T. Craig, Otto A. Rosalick, Warren W. Foster, Thomas C. O'Sullivan, Edward Swan,

Joseph F. Musqueen, James T. Malone, Judges of the Court of General Sessions. Edward R. Carroll, Clerk. Telephone, 241 Franklin.

Clerk's Office open from 9 a. m. to 4 p. m.

During July and August Clerk's Office will close at 2 p. m., and on Saturdays at 12 m.

CITY COURT OF THE CITY OF NEW YORK.

No. 33 Chambers street, Brownstone Building, City Hall Park, from 10 a. m. to 4 p. m.

Part I.

Part II.

Part III.

Part IV.

Part V.

Part VI.

Part VII.

Part VIII.

Special Term Chambers will be held from 10 a. m. to 4 p. m.

Clerk's Office open from 9 a. m. to 4 p. m.

Edward F. O'Dwyer, Chief Justice; Lewis J. Conlan, Francis B. Delehanty, Joseph L. Green, Alexander Fineflet, Thomas P. Donnelly, John V. McAvoy, Peter Schmuck, Richard T. Lynch, Edward B. L. Fahey, Justices. Thomas F. Smith, Clerk.

Telephone, 241 Franklin.

COURT OF SPECIAL SESSIONS.

Building for Criminal Courts, Centre street, between Franklin and White streets, Borough of Manhattan.

Court opens at 10 a. m.

Justices—First Division—William E. Wyatt, Willard H. Olmsted, Joseph M. Drury, Lauren Zeller, John B. Mayo, Franklin Chase Hoyt, William M. Fuller, Acting Clerk.

City Magistrates to sit in the Court of Special Sessions until November 30, 1909—Charles W. Harris, Joseph F. Moss.

Clerk's Office open from 9 a. m. to 4 p. m.

Telephone, 241 Franklin.

COURT OF COMMON PLEAS.

Building for Criminal Courts, Centre, Elm, White and Franklin streets.

Court opens at 10:30 a. m.

Justices—First Division—William E. Wyatt, Willard H. Olmsted, Joseph M. Drury, Lauren Zeller, John B. Mayo, Franklin Chase Hoyt, William M. Fuller, Acting Clerk.

City Magistrates to sit in the Court of Common Pleas until November 30, 1909—Charles W. Harris, Joseph F. Moss.

Clerk's Office open from 9 a. m. to 4 p. m.

Telephone, 241 Franklin.

COURT OF CHANCERY.

Building for Criminal Courts, Centre, Elm, White and Franklin streets.

Court opens at 10:30 a. m.

Justices—First Division—William E. Wyatt, Willard H. Olmsted, Joseph M. Drury, Lauren Zeller, John B. Mayo, Franklin Chase Hoyt, William M. Fuller, Acting Clerk.

City Magistrates to sit in the Court of Chancery until November 30, 1909—Charles W. Harris, Joseph F. Moss.

Clerk's Office open from 9 a. m. to 4 p. m.

Telephone, 241 Franklin.

COURT OF APPEALS.

Building for Criminal Courts, Centre, Elm, White and Franklin streets.

Court opens at 10:30 a. m.

Justices—First Division—William E. Wyatt, Willard H. Olmsted, Joseph M. Drury, Lauren Zeller, John B. Mayo, Franklin Chase Hoyt, William M. Fuller, Acting Clerk.

City Magistrates to sit in the Court of Appeals until November 30, 1909—Charles W. Harris, Joseph F. Moss.

Clerk's Office open from 9 a. m. to 4 p. m.

Telephone, 241 Franklin.

COURT OF APPEALS.

Building for Criminal Courts, Centre, Elm, White and Franklin streets.

Court opens at 10:30 a. m.

Justices—First Division—William E. Wyatt, Willard H. Olmsted, Joseph M. Drury, Lauren Zeller, John B. Mayo, Franklin Chase Hoyt, William M. Fuller, Acting Clerk.

City Magistrates to sit in the Court of Appeals until November 30, 1909—Charles W. Harris, Joseph F. Moss.

Clerk's Office open from 9 a. m. to 4 p. m.

The Engineer's estimate of the quantities is as follows:

- 400 cubic yards of concrete, bulkhead, in clearing all accessories, docks, excavation, removing old bulkhead, etc.
- 40 linear feet of inch iron pipe railing complete, including 224 ft. each bolts, 22 plates.
- Excavating the sand to required depth.
- Putting and removing old piles and removing old bulkhead beyond the face of concrete wall.

The excavated sand and vitrified brick becomes the property of the City, and is to be removed by the City authorities.

The time allowed for doing and completing the above mentioned work will be sixty (60) working days.

The amount of security required will be Fifteen Hundred Dollars (\$1,500).

The bidder will state the price of each brick or article contained in the specifications or schedules herein contained or hereafter annexed, per square yard, linear foot or other unit of measure by which the bids will be tested.

The estimates must be made and tested up, as the bids will be read from a table.

Bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the President of the Borough of Queens, Island, Long Island City, July 8, 1898.

LAWRENCE GROSSER, President.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF HEALTH.

DEPARTMENT OF HEALTH, CHAMBER OF FIFTH AVENUE AND SIXTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

A T A MEETING OF THE BOARD OF HEALTH of the Department of Health of the City of New York held July 7, 1898, the following resolutions and orders were adopted:

Whereas, the Board of Health of the Department of Health of the City of New York having taken and had under its consideration and is satisfied as to the period to which the resolution that the same in the opinion of the Board is qualified is a public danger to the health of the community, under the general authority of said Board to preserve the public health and their interests does hereby:

Ordered, That the Board of Health and all persons in the service, assume authority of all public places in the City of New York to a public danger, whenever in life and property as well as persons being taken to the hospital, the removal of bodies, the removal of dead animals, and in the removal of the same as a public danger and persons are hereby authorized to take dogs, swine, hawks, pigeons or any bird by them, to be cut loose and at large in the streets, avenues, highways or other public places in the City of New York, and no dog shall be allowed to run loose and at large in any of the places aforesaid unless caused to such manner as to prevent persons from being bitten, or unless held by a lead or chain not more than four feet in length; and it is further so ordered.

Ordered, That any and all dogs loose and at large in any of the public places aforesaid, which are of a public danger to the City of New York unless caused to be cut loose shall be destroyed by persons or other duly authorized agents and officers of the Department designated, and as directed by the Sanitary Superintendent, further so ordered.

Ordered, That this order and regulation be and the same shall remain in force and effect until the 1st day of September, 1898, and that notice under the provisions hereof be given and is given and kept posted in each of the Bureau offices of the Department of Health for five days to commence beginning July 8, 1898.

A. 1900. E. PAULINE W. SCHLEPER, Secretary.

July 15, 1898.

DEPARTMENT OF PARKS.

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDINGS, FIFTH AVENUE AND SIXTY-EIGHTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED BY THE PARK BOARD AT THE ABOVE OFFICE OF THE DEPARTMENT OF PARKS UNTIL 3 O'CLOCK P.M. ON

THURSDAY, JULY 20, 1898.

Borough of the Bronx.

FOR FURNISHING ALL THE LABOR AND MATERIALS FOR ERECTING AN EIGHT HUNDRED YARD FENCE WITH REINFORCED CONCRETE AND WOOD PILES, EASTERN EXTENSION OF BRONX PARK, IN THE CITY OF NEW YORK.

The time allowed for the completion of the whole work will be sixty (60) consecutive working days.

The amount of the security required is Two Thousand Five Hundred Dollars (\$2,500).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Commissioner of Parks, Bronx Park, Bronx Park, Bronx, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDINGS, FIFTH AVENUE AND SIXTY-EIGHTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED BY THE PARK BOARD AT THE ABOVE OFFICE OF THE DEPARTMENT OF PARKS UNTIL 3 O'CLOCK P.M. ON

THURSDAY, JULY 20, 1898.

Borough of the Bronx.

FOR FURNISHING AND DELIVERING EIGHT HUNDRED (800) BARRELS OF SPRINKLING WATER, SPRINKLING OIL, NO. 1000, FOR TANKS, BOROUGH OF THE BRONX.

The time for the delivery of the articles named and required and the completion of the contract is before November 1, 1898.

The amount of security required is One Thousand Dollars (\$1,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Bronx Park, Bronx, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED BY THE PARK BOARD AT THE ABOVE OFFICE OF THE DEPARTMENT OF PARKS UNTIL 3 O'CLOCK P.M. ON

THURSDAY, JULY 22, 1898.

Borough of Brooklyn.

FOR COMPLETING THE CONTRACT OF JOSEPH A. BOYLE, WHICH WAS AWARD-ED, FOR FURNISHING AND DELIVERING CRUSHED TIDE ROCK AND TRAP ROCK SCREENINGS IN PARKWAYS, BOROUGH OF BROOKLYN.

The time for the completion of the contract is one hundred (100) days.

The amount of security required is Six Thousand Dollars (\$6,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Brooklyn, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE RECEIVED BY THE PARK BOARD AT THE ABOVE OFFICE OF THE DEPARTMENT OF PARKS UNTIL 3 O'CLOCK P.M. ON

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The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Brooklyn, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

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The time for the completion of the contract is one hundred (100) days.

The amount of security required is Six Thousand Dollars (\$6,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Brooklyn, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE RECEIVED BY THE PARK BOARD AT THE ABOVE OFFICE OF THE DEPARTMENT OF PARKS UNTIL 3 O'CLOCK P.M. ON

MONDAY, JULY 26, 1898.

Borough of Manhattan.

FOR ALL LABOR AND MATERIALS REQUIRED FOR THE ERECTOR OF THE FIFTH AVENUE AND SIXTY-EIGHTH STREET BRIDGE, LOCATED IN THE FIFTH AVENUE, SIXTY-EIGHTH STREET AND WEST THIRTY-EIGHTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

The amount of security required is Eight Thousand Dollars (\$8,000).

The time allowed to complete the whole work will be one hundred (100) consecutive working days.

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Borough of Manhattan, Central Park, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE RECEIVED BY THE PARK BOARD AT THE ABOVE OFFICE OF THE DEPARTMENT OF PARKS UNTIL 3 O'CLOCK P.M. ON

MONDAY, JULY 26, 1898.

Borough of Manhattan.

FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR THE ERECTOR OF THE FIFTH AVENUE AND SIXTY-EIGHTH STREET BRIDGE, LOCATED IN THE FIFTH AVENUE, SIXTY-EIGHTH STREET AND WEST THIRTY-EIGHTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

The time allowed to complete the whole work will be one hundred (100) consecutive working days.

The amount of security required is Eight Thousand Dollars (\$8,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Borough of Manhattan, Central Park, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

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The time allowed to complete the whole work will be one hundred (100) consecutive working days.

The amount of security required is Eight Thousand Dollars (\$8,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Borough of Manhattan, Central Park, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

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FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR THE ERECTOR OF THE FIFTH AVENUE AND SIXTY-EIGHTH STREET BRIDGE, LOCATED IN THE FIFTH AVENUE, SIXTY-EIGHTH STREET AND WEST THIRTY-EIGHTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

The time allowed to complete the whole work will be one hundred (100) consecutive working days.

The amount of security required is Eight Thousand Dollars (\$8,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Borough of Manhattan, Central Park, New York.

HENRY SMITH, President.

JOSEPH J. BERRY,

Commissioner of Parks.

July 15, 1898.

See General Instructions to Bidders on the last page, last column, of the "City Record."

SEALED BIDS OR ESTIMATES WILL BE RECEIVED BY THE PARK BOARD AT THE ABOVE OFFICE OF THE DEPARTMENT OF PARKS UNTIL 3 O'CLOCK P.M. ON

MONDAY, JULY 26, 1898.

Borough of Manhattan.

FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR THE ERECTOR OF THE FIFTH AVENUE AND SIXTY-EIGHTH STREET BRIDGE, LOCATED IN THE FIFTH AVENUE, SIXTY-EIGHTH STREET AND WEST THIRTY-EIGHTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

The time allowed to complete the whole work will be one hundred (100) consecutive working days.

The amount of security required is Eight Thousand Dollars (\$8,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Borough of Manhattan, Central Park, New York.

HENRY SMITH, President.

The Engineer's estimate of the quantities is as follows:

3,338 square yards of asphalt pavement (five years' maintenance).

520 cubic yards of concrete, for pavement foundation.

The time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Twenty-four Hundred Dollars (\$2,400).

No. 19. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF NEW YORK AVENUE, FROM MARTEENSE AVENUE (MARTEENSE STREET) TO CLARKSON AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

6,208 square yards of asphalt pavement (five years' maintenance).

887 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Thirty-nine Hundred Dollars (\$3,900).

No. 20. FOR REGULATING, GRAVELING AND CURBING NORTH HENRY STREET, FROM GREENPOINT AVENUE TO GREENE STREET, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

1,710 linear feet of new curbstone set in concrete.

14,300 cubic yards of earth filling (to be furnished).

168 cubic yards of concrete, not to be bid for.

The time for the completion of the work and the full performance of the contract is sixty (60) working days.

The amount of security required is Twenty-four Hundred Dollars (\$2,400).

No. 21. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF OCEAN AVENUE, FROM A POINT 180 FEET MORE OR LESS SOUTH OF AVENUE F TO AVENUE H, AND FROM AVENUE I TO KINGS HIGHWAY, WHERE NOT ALREADY PAVED, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

26,242 square yards of asphalt pavement (five years' maintenance).

5,100 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is sixty (60) working days.

The amount of security required is Twenty-four Thousand Five Hundred Dollars (\$24,500).

No. 22. FOR REGULATING, GRAVELING, CURBING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF PLEASANT PLACE, FROM ATLANTIC AVENUE TO A POINT 47 FEET NORTHERLY, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

175 square yards of asphalt pavement (five years' maintenance).

25 cubic yards of concrete for pavement foundation.

103 linear feet of new curbstone set in concrete.

50 cubic yards of earth excavation.

10 cubic yards of earth filling, not to be bid for.

The time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Thirty-four Hundred Dollars (\$3,400).

No. 23. FOR REGULATING AND GRADING PLEASANT PLACE, FROM UTICA AVENUE TO ROCHESTER AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

6,730 cubic yards of earth excavation.

400 cubic yards of earth filling, not to be bid for.

The time for the completion of the work and the full performance of the contract is eighty (80) working days.

The amount of security required is Fifty-three Hundred Dollars (\$5,300).

No. 24. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF SIXTY-FIRST STREET, FROM FIFTH AVENUE TO SIXTH AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

2,427 square yards of asphalt pavement (five years' maintenance).

330 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Sixteen Hundred Dollars (\$1,600).

No. 25. FOR REGULATING, GRAVING, CURBING, AND PAVING ON SIXTY-SEVENTH STREET, FROM SEVENTH AVENUE TO FORT HAMILTON AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

3,240 linear feet of new curbstone, set in concrete.

28,400 cubic yards of earth excavation.

1,720 cubic yards of earth filling, not to be bid for.

175 cubic yards of concrete, not to be bid for.

The time for the completion of the work and the full performance of the contract is one hundred and twenty (120) working days.

The amount of security required is Sixty-two Hundred Dollars (\$6,200).

No. 26. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF SEVENTY-THIRD STREET, FROM FIFTEENTH AVENUE TO SIXTEENTH AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

2,582 square yards of asphalt pavement (five years' maintenance).

300 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Seventeen Hundred Dollars (\$1,700).

No. 27. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF SEVENTY-FOURTH STREET, FROM FORT HAMILTON AVENUE TO TENTH AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

2,582 square yards of asphalt pavement (five years' maintenance).

300 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Sixteen Hundred Dollars (\$1,600).

The Engineer's estimate of the quantities is as follows:

2,211 square yards of asphalt pavement (five years' maintenance).

308 cubic yards of concrete for pavement foundation.

340 square yards of brick gutter, to be laid on concrete.

The time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Thirteen Hundred and Fifty Dollars (\$1,350).

No. 28. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF TENTH AVENUE, FROM SEVENTY-NINTH STREET TO EIGHTY-SIXTH STREET, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

6,208 square yards of asphalt pavement (five years' maintenance).

1,240 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is thirty-five (35) working days.

The amount of security required is Fifty-nine Hundred Dollars (\$5,900).

No. 29. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF WEST TWENTY-THIRD STREET, FROM MERMAID AVENUE TO NEPTUNE AVENUE, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantities is as follows:

2,762 square yards of asphalt pavement (five years' maintenance).

330 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Eighteen Hundred Dollars (\$1,800).

No. 30. FOR REPAIRING WITH ASPHALT BLOCKS ON A CONCRETE FOUNDATION THE ROADWAY OF WEAVER AVENUE, FROM FLUSHING AVENUE TO MYRTLE AVENUE, WORK ABANDONED BY THE INTERSTATE PAVING COMPANY.

The Engineer's estimate of the quantities is as follows:

5,000 square yards of asphalt block pavement, including 1/2-inch mortar bed.

20 cubic yards of concrete for pavement foundation.

The time for the completion of the work and the full performance of the contract is twenty-five (25) working days.

The amount of security required is Thirty-five Hundred Dollars (\$3,500).

The bidder will quote the price of each item or article contained in the specifications as schedules herein contained or herein annexed, per linear foot, cubic yard, square yard, 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 for each contract.

Blank forms and further information may be obtained at the office of the Bureau of Highways, Room 14, Municipal Building, the Borough of Brooklyn.

BIRD S. COLER, President.

Dated July 3, 1909.

197.21

See General Instructions to Bidders on the last page, last column, of the "City Record."

COMMISSIONERS OF THE SINKING FUND.

PUBLIC NOTICE IS HEREBY GIVEN

that the Commissioners of the Sinking Fund, in accordance with the provisions of chapter 372 of the Laws of 1907, will hold a public hearing in Room 14, City Hall, Borough of Manhattan, at 11 o'clock in the forenoon, on

MONDAY, JULY 20, 1909,

relative to the request of the Commissioner of Decks that the Commissioners of the Sinking Fund authorize and assist in the institution of condemnation proceedings for the acquisition of the following described property:

Beginning at the intersection of the northerly side of the northerly waiting room with the waiting room line of City property at the foot of Broadway;

Running thence westerly along the northerly side of said northerly waiting room 108 feet, more or less, to the northwest corner of said waiting room;

Running thence northerly along the northerly side of the pier between the northerly ferry slip to East Twenty-second street and the northerly ferry slip to East Twenty-third street, Manhattan;

Running thence westerly in a meandering line along the northerly side of the said pier, 247 feet, more or less, to the northeast line established 1857, and ascertained by the Secretary of War February 8, 1890;

Running thence northerly along said pierhead line 140 feet, more or less, to the northerly line of City property under the jurisdiction of the Department of Bridges;

Running thence easterly along the northerly side of said property to its intersection with the northerly prolongation of the northerly line of South Sixth street, and thence still easterly and along the northerly line of South Sixth street and its prolongation to the bulkhead line established by the Secretary of War February 8, 1890;

Running thence northerly along said bulkhead line 117 feet, more or less, to the westerly prolongation of the northerly line of South Sixth street;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

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Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 25 feet, more or less, to the northerly side of said two-story brick building;

Running thence easterly along the westerly side of said two-story brick building 28 feet, more or less, to the northerly side of said two-story brick building;

the directions of the Bureau of Sewers, Borough of Queens, 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 opening in the street is 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 portion as shall then be left standing, together with all moneys paid by said purchaser on securing them 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 costs 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 nature and description brought against it, third or any of them, and against and from all damage and costs to which it, they or any of them, may be put by reason of failure 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 damage or defective materials or machinery, instruments, or apparatus used in the removal of such buildings.

Party walls and leases, when existing against adjacent property, not sold, shall not be taken down. All fixtures, plaster, common, supporting brick, etc., on the basis of work party walls, are to be taken down and removed. The walls shall be made permanent by self-mortaring, boussole, etc., dried up, and the wall surface and made to exclude wind and rain, and exposed to clean exterior. The walls of adjacent buildings should be so open, cleaned and painted, and made watertight, where the same have been disturbed by the operations of the contractor.

The Commissioners 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 reduce said and all bids, and it is hereby

Resolved, That until the said sale is held under the supervision of the Commissioners of the Sinking Fund, the Comptroller is authorized to issue the sale to be advertised and to give the sale thereof at funeral office of the City.

H. A. METZ, Comptroller.
City of New York, Department of Finance, Comptroller's Office, June 29, 1909.

18216

CITY OF NEW YORK, DEPARTMENT OF FINANCE,
BUREAU FOR THE COLLECTION OF ASSESSMENTS
AND ARREARS, ROOM H, NO. 200 BROADWAY,
BUREAU OF MUNICIPALITY.

NOTICE OF CONTINUATION OF MANHATTAN TAX SALE.

THE SALE OF THE LIENS FOR UNPAID TAXES, ASSESSMENTS AND WATER RENTS FOR THE BOROUGH OF MANHATTAN, AS TO PERSONS REMAINING, AT THE TERMINATION OF THE SALES OF JUNE 10, 17 AND JULY 1, 1909, NOT MADE CONTINUED TO THURSDAY, JULY 15, 1909.

At 10 a. m., instant, in room 102 of the Greater New York Charter, and will be continued at that time of the Assessors' Chamber, in the City Hall, as heretofore.

DANIEL MOYNAHAN,
Collector of Assessments and Arrears,
July 1, 1909.

18217

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1818 OF THE GREATER NEW YORK CHARTER, THE COMPTROLLER OF THE CITY OF NEW YORK HEREBY GIVES NOTICE TO ALL PERSONS OWNERS OF PROPERTY, AFFERED TO THE FOLLOWING ASSESSMENTS FOR LOCAL IMPROVEMENTS IN THE BOROUGH OF MANHATTAN:

TWELFTH WARD, SECTION 6.
TWO HUNDRED AND THIRTEENTH
STREET—REGULATING, CURBING, PAVING,
AND FLAGGING, AND CONSTRUCTING
SEVEN-THIRTY-THREE AVENUE, AND
THREE HUNDRED EIGHTY-THREE AVENUE, FROM BROADWAY TO TWENTH AVENUE, BOTH SIDES OF TWO HUNDRED AND THIRTEENTH AVENUE, FROM BROADWAY TO TWENTH AVENUE, AND TO THE EXTENT OF HALF THE BLOCK AT THE INTERSECTING AVENUE.

That the same was confirmed by the Board of Assessors on June 1, 1909, and applied June 10, 1909, in the Board of Tales of Assessments, based on the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount named for same on any part of property paid in full within thirty days after the day of sale, same will be subject to a charge of interest at the rate of seven per centum per annum, to be calculated to the date of payment from the date when above assessment became due to the day of payment.

HERMAN A. METZ, Comptroller.
City of New York, Department of Finance, Comptroller's Office, June 29, 1909.

NORTH PRINCE STREET—REGULATING,
CURBING, FLAGGING AND PAVING, ON THE
WEST SIDE, BETWEEN BROADWAY AND STATE
STREET, AREA OF ASSESSMENT: WEST SIDE OF NORTH
PRINCE STREET, FROM BROADWAY TO STATE STREET,
AND TO THE EXTENT OF HALF THE BLOCK AT THE
INTERSECTING STREET.

UNION STREET—REGULATING, CURBING,
FLAGGING AND PAVING, ON THE EAST
SIDE, FROM BROADWAY TO MADISON AVENUE,
AREA OF ASSESSMENT: EAST SIDE OF UNION STREET,
FROM BROADWAY TO MADISON AVENUE, AND TO
THE EXTENT OF HALF THE BLOCK AT THE INTERSECTING
STREET.

That the same were confirmed by the Board of Assessors June 29, 1909, and entered on June 29, 1909, in the Board of Tales of Assessments, kept by 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 street or property shall be paid within thirty days after the date of sale, same will be subject to a charge of interest at the rate of seven per centum per annum, to be calculated to the date of payment from the date when above assessment became due to the day of payment.

Section 1818 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are liable to the Collection of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents at the Hudson Building, No. 14, Hudson Avenue, New York City, Bureau for the Collection of Assessments, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 1 p. m., and all amounts made thereon on or before August 28, 1909, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became due to the day of payment.

HERMAN A. METZ, Comptroller.
City of New York, Department of Finance, Comptroller's Office, June 29, 1909.

18218

of Second Avenue, from Ninety-second street to Shore road, and extending back 100 feet from Second Avenue.

SIXTEENTH STREET—GRADING, PAVING
AND GUTTERING, FROM FOURTH AVENUE TO
TWENTY-SECOND AVENUE, AREA OF ASSESSMENT:
Both sides of Sixteenth street, from Fourth Avenue
to Twenty-second Avenue, and extending back
100 feet from Sixteenth street.

SIXTY-SEVENTH STREET—PAVING AND
GUTTERING, FROM FOURTH AVENUE TO FIFTH
AVENUE, AREA OF ASSESSMENT: Both sides of
Sixty-seventh street, from Fourth Avenue to Fifth Avenue, and extending back 100 feet from Sixty-seventh street.

SEVENTEENTH STREET—PAVING AND
GUTTERING, FROM NEW Utrecht Avenue TO
EIGHTH AVENUE, AREA OF ASSESSMENT: Both
sides of Sixty-seventh street, from New Utrecht
avenue to Eighth Avenue, and extending back
100 feet from Sixty-seventh street.

SEVENTEENTH STREET—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO EIGHTH AVENUE, AREA OF ASSESSMENT:
Both sides of Sixty-seventh street, from Eigh-
teenth Avenue to Eighth Avenue, and extending
back 100 feet from Sixty-seventh street.

SIXTY-NINTH STREET—PAVING AND
GUTTERING, FROM EIGHTH AVENUE TO
SHORE ROAD, AREA OF ASSESSMENT: Both
sides of Sixty-ninth street, from Eighth Avenue
to Shore road, and extending back 100 feet from
Sixty-ninth street.

SEVENTH AVENUE—PAVING AND GUTTERING,
FROM THE RIVER AVENUE TO SEVENTH
AVENUE, AREA OF ASSESSMENT: Both sides of
Seventh Avenue, from the River Avenue to Seven-
th Avenue, and extending back 100 feet from
Seventh Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

SEVENTH AVENUE—PAVING, PAVING
AND GUTTERING, FROM EIGHTEENTH
AVENUE TO SEVENTH AVENUE, AREA OF ASSESSMENT:
Both sides of Seventh Avenue, from Eigh-
teenth Avenue to Seventh Avenue, and extending
back 100 feet from Eigh-
teenth Avenue.

terrace to Ionic street; both sides of John street, from Richmond terrace to Ionic street; both sides of Irving Avenue, from Ionic street to Richmond terrace; both sides of Sand street, extending about 700 feet south of Ionic street; both sides of Grant street, extending about 250 feet south of Ionic street; both sides of Johnson Avenue and Nicholas Avenue, from Richmond terrace to Ionic street; both sides of Broad Avenue, from Ionic street to Charles Avenue; both sides of Lafayette Avenue, from Bedford Avenue to Madison Avenue; both sides of Sharpe Avenue, from Charles Avenue to Richmond terrace, and both sides of Elm street, from Charles Avenue to Richmond terrace.

That the same were confirmed by the Board of Assessors June 29, 1909, and entered on June 29, 1909, in the Board of Tales of Assessments, kept by 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 street or property shall be paid within thirty days after the date of sale, same will be subject to a charge of interest at the rate of seven per centum per annum, to be calculated to the date of payment from the date when above assessment became due to the day of payment.

Section 1818 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are liable to the Collection of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents at the Hudson Building, No. 14, Hudson Avenue, New York City, Bureau for the Collection of Assessments, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 1 p. m., and all amounts made thereon on or before August 28, 1909, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became due to the day of payment.

HERMAN A. METZ, Comptroller.
City of New York, Department of Finance, Comptroller's Office, June 29, 1909.

18219

NOTICE TO PROPERTY OWNERS.
IN PURSUANCE OF SECTION 1818 OF THE GREATER NEW YORK CHARTER, THE COMPTROLLER OF THE CITY OF NEW YORK HEREBY GIVES NOTICE TO ALL PERSONS OWNERS OF PROPERTY, AFFERED TO THE FOLLOWING ASSESSMENTS FOR LOCAL IMPROVEMENTS IN THE BOROUGH OF MANHATTAN:

TWELFTH WARD, SECTION 6.
TWO HUNDRED AND THIRTEENTH
STREET—REGULATING, CURBING, PAVING,
AND FLAGGING, AND CONSTRUCTING
SEVEN-THIRTY-THREE AVENUE, AND
THREE HUNDRED EIGHTY-THREE AVENUE, FROM BROADWAY TO TWENTH AVENUE, BOTH SIDES OF TWO HUNDRED AND THIRTEENTH AVENUE, FROM BROADWAY TO TWENTH AVENUE, AND TO THE EXTENT OF HALF THE BLOCK AT THE INTERSECTING AVENUE.

That the same was confirmed by the Board of Assessors on June 1, 1909, and applied June 10, 1909, in the Board of Tales of Assessments, based on the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount named for same on any part of property paid in full within thirty days after the day of sale, same will be subject to a charge of interest at the rate of seven per centum per annum, to be calculated to the date of payment from the date when above assessment became due to the day of payment.

HERMAN A. METZ, Comptroller.
City of New York, Department of Finance, Comptroller's Office, June 29, 1909.

18220

NOTICE TO PROPERTY OWNERS.
IN PURSUANCE OF SECTION 1818 OF THE GREATER NEW YORK CHARTER, THE COMPTROLLER OF THE CITY OF NEW YORK HEREBY GIVES NOTICE TO ALL PERSONS OWNERS OF PROPERTY, AFFERED TO THE FOLLOWING ASSESSMENTS FOR LOCAL IMPROVEMENTS IN THE BOROUGH OF QUEENS:

FIRST WARD.
SEWER IN CLARK STREET, FROM Main Street to Van Alst Avenue, and in VAN ALST AVENUE, FROM Clinton R. Fiske Avenue to Wadsworth Avenue; both sides of Leonard Avenue, from Wadsworth Avenue to Wadsworth Place, in Wadsworth Place; both sides of Wadsworth Avenue, from Main Street to the point about 225 feet westerly; in COLLEGE AVENUE, from Main Street to the second proposed street east of Leonard Avenue; Area of assessment: Both sides of Leonard Avenue, from Clinton R. Fiske Avenue to Wadsworth Avenue; both sides of Leonard Avenue, from Wadsworth Avenue to Wadsworth Place, in Wadsworth Place; both sides of Leonard Avenue, from Main Street to the second proposed street east of Leonard Avenue, and to the extent of one-half the block at the intersecting and terminating streets and avenues.

THIRD WARD.
RELAVING AND EXTENDING THE NICHOLAS AVENUE SEWER, as a temporary outlet from a point about 100 feet north of Richmond terrace to the pierhead line. Area of assessment: Both sides of Richmond terrace, from Morningside Road to a point about 105 feet east of Lafayette Avenue; both sides of James Street, from Elm Street; both sides of Grove Avenue, from Lafayette Avenue extending about 102 feet east of Elm Street; both sides of Slight Street, from Nicholas Avenue to Lafayette Avenue; both sides of Harrison Avenue, from Richmond terrace to Nicholas Avenue; both sides of Bedford Avenue, from Richmond Avenue to Grant Street; both sides of Ionic Street, from Nicholas Avenue to John Street; both sides of Charles Avenue, from John Street to Sharpe Avenue; both sides of Bedford Avenue, from Nicholas Avenue to Richmond Avenue; both sides of Bedford Avenue, from Richmond Avenue to a point about 400 feet west of Lafayette Avenue; both sides of Blackford Avenue, from Richmond Avenue to Grant Street; both sides of Ionic Street, from Nicholas Avenue to John Street; both sides of Douglas Avenue, from John Street to Newark Avenue; both sides of Newark Avenue, from Richmond

terrace to Ionic street; both sides of John street, from Richmond terrace to Ionic street; both sides of Irving Avenue, from Ionic street to Richmond terrace; both sides of Sand street, extending about 700 feet south of Ionic street; both sides of Grant street, extending about 250 feet south of Ionic street; both sides of Johnson Avenue and Nicholas Avenue, from Richmond terrace to Ionic street; both sides of Broad Avenue, from Ionic street to Charles Avenue; both sides of Lafayette Avenue, from Bedford Avenue to Madison Avenue; both sides of Sharpe Avenue, from Charles Avenue to Richmond terrace, and both sides of Elm street, from Charles Avenue to Richmond terrace.

That the same were confirmed by the Board of Assessors June 29, 1909, and entered on June 29, 1909, in the Board of Tales of Assessments, kept by 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 street or property shall be paid within thirty days after the date of sale, same will be subject to a charge of interest at the rate of seven per centum per annum, to be calculated to the date of payment from the date when above assessment became due to the day of payment.

Section 1818 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are liable to the Collection of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents at the Hudson Building, No. 14, Hudson Avenue, New York City, Bureau for the Collection of Assessments, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 1 p. m., and all amounts made thereon on or before August 28, 1909, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became due to the day of payment.

HERMAN A. METZ, Comptroller.
City of New York, Department of Finance, Comptroller's Office, June 29, 1909.

NOTICE TO PROPERTY OWNERS.
IN PURSUANCE OF SECTION 1818 OF THE GREATER NEW YORK CHARTER, THE COMPTROLLER OF THE CITY OF NEW YORK HEREBY GIVES NOTICE TO ALL PERSONS OWNERS OF PROPERTY, AFFERED TO THE FOLLOWING ASSESSMENTS FOR LOCAL IMPROVEMENTS IN THE BOROUGH OF MANHATTAN:

TWELFTH WARD, SECTION 6.
TWO HUNDRED AND THIRTEENTH
STREET—REGULATING, CURBING, PAVING,
AND FLAGGING, AND CONSTRUCTING
SEVEN-THIRTY-THREE AVENUE, AND
THREE HUNDRED EIGHTY-THREE AVENUE, FROM BROADWAY TO TWENTH AVENUE, BOTH SIDES OF TWO HUNDRED AND THIRTEENTH AVENUE, FROM BROADWAY TO TWENTH AVENUE, AND TO THE EXTENT OF HALF THE BLOCK AT THE INTERSECTING AVENUE.

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Salary, Police Doorman, \$1,000 per annum; Prison Keeper, \$800 per annum.

Vacancies, none at present.

Notice of the dates of physical and mental examinations to be given hereafter.

Application blanks may be obtained at No. 289 Broadway, Room 1119.

F. A. SPENCER, Secretary.
July 16

MUNICIPAL CIVIL SERVICE COMMISSION, No. 289 BROADWAY, CITY OF NEW YORK.

PUBLIC NOTICE WILL BE GIVEN on all competitive examinations two weeks in advance of the date upon which the receipt of applications for any scheduled examination will close. Applications will be received, for only such examinations as are scheduled. No application will be accepted at the office of the Commission, by mail or otherwise, after the closing hour for the receipt of same, set forth in the advertisement.

When an examination is advertised, a person desiring to compete in the same may obtain an application blank upon request made in writing or by personal application at the office of the Commission, Room 1119.

The Commission cannot guarantee that applications made in response to written requests will be received in time to permit of their being prepared and filed prior to closing hour.

All notices of examinations will be posted in the office of the Commission, and advertised in the City Record for two weeks in advance of the date upon which the receipt of applications will close for any stated position.

Public notices will also be given by advertisement in most of the City papers.

Wherever an examination is of a technical character, due notice is given by advertisement in the technical journals appertaining to the particular profession for which the examination is called.

Such notices will be sent to the daily papers as matters of news. The scope of the examination will be stated.

No information will be given by telephone, and the Commission will not be responsible for such as given by employees, either as to date of filing applications or upon other subjects.

Answers questions of previous examinations may be obtained at Room 1119.

Unless otherwise specifically stated, the minimum age requirement for all positions is 21.

FRANK J. POLE, President;
R. BOSS APPERTON,
ARTHUR J. O'KEEFE, Commissioners.

DEPARTMENT OF DOCKS AND FERRIES.

DEPARTMENT OF DOCKS AND FERRIES, PIER "A," Pier of BATTERY PLACE, NORTH RIVER, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED by the Commissioner of Docks at the above office until 12 o'clock noon on

TUESDAY, JULY 20, 1909.

CONTRACT No. 1192.

FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR DREDGING ABOUT 150,000 CUBIC YARDS IN THE BOROUGH OF MANHATTAN, BROOKLYN, QUEENS, THE BRONX, AND RICHMOND.

The time for the completion of the work and the full performance of the contract is on September 30, 1910.

The amount of security required is Five Thousand Dollars (\$5,000).

Bidders will state a price per cubic yard for dredging all of the dredging described and specified, by which price the bids will be tested, and according to which price any award of the contract will be made.

Dredging will be required to be done 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 said Department.

ALLEN N. SPOONER, Commissioner.

Dated July 6, 1909.

July 16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF DOCKS AND FERRIES, PIER "A," Pier of BATTERY PLACE, NORTH RIVER, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED by the Commissioner of Docks at the above office until 12 o'clock noon on

TUESDAY, JULY 20, 1909.

CONTRACT No. 1192.

FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR DREDGING ABOUT 150,000 CUBIC YARDS ON THE EAST AND HARLEM RIVERS, BOROUGHS OF MANHATTAN, BROOKLYN, QUEENS AND THE BRONX, AND IN THE BOROUGH OF RICHMOND.

The time for the completion of the work and the full performance of the contract is on or before the expiration of December 31, 1910.

The amount of security required is Twelve Thousand Dollars (\$12,000).

Bidders will state a price per cubic yard for the dredging and removing of material called for in the specifications, by which price the bids will be tested and according to which price any award of the contract will be made.

Work must be done 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 said Department.

ALLEN N. SPOONER, Commissioner.

Dated July 6, 1909.

July 16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF DOCKS AND FERRIES, PIER "A," Pier of BATTERY PLACE, NORTH RIVER, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED by the Commissioner of Docks at the above office until 12 o'clock m. on

TUESDAY, JULY 20, 1909.

Borough of Manhattan.

CONTRACT No. 1192.

FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR FURNISHING AND DELIVERING SAND AND BROKEN STONE.

The time for the completion of the work and the full performance of the contract is on or before the expiration of one hundred and eighty (180) calendar days.

The amount of security required is as follows:

On Class 2, for about 3,000 cubic yards of sand, Fifteen Hundred Dollars (\$1,500).

The bidder will state a price per cubic yard for furnishing and delivering the material called for in each class of the contract. Each class of the contract, if awarded, will be awarded as a separate contract to the lowest bidder in that particular class whose bid is regular in all respects.

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 said Department.

ALLEN N. SPOONER, Commissioner.

Dated July 6, 1909.

July 16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF DOCKS AND FERRIES, Pier "A," Pier of BATTERY PLACE, NORTH RIVER, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED by the Commissioner of Docks at Pier "A," foot of Battery place, in The City of New York, until 12 o'clock noon on

TUESDAY, JULY 15, 1909.

FOR INSURING THE FERRYBOATS "BAY RIDGE," "NASSAU" AND "GOWANUS" TO BE EMPLOYED ON THE MUNICIPAL FERRIES BETWEEN THE BOROUGH OF MANHATTAN AND THE BOROUGH OF BROOKLYN, FOR A PERIOD OF TWELVE (12) CALENDAR MONTHS FROM AUGUST 15, 1909.

The said vessels, title, apparel, stores, supplies, furniture, engines, boilers, machinery and apparatuses shall be insured at the following valuation:

For the ferryboats "Bay Ridge," "Gowanus," and "Nassau," \$200,000 for each boat, or a total of \$600,000 for the five boats; and in no case shall the Department be deemed as a co-insurer.

Each bid must be accompanied by a copy of the policy upon which the bid is based.

The person or persons making a bid or estimate shall furnish the same in a sealed envelope marked as follows:

"Bid for insuring ferryboats employed on the Municipal Ferry."

Bids will be received for insurance by or in behalf of any company not duly authorized by the Insurance Department to transact business in the State of New York.

Each bid must be accompanied by a copy of the policy upon which the bid is based.

The person or persons making a bid or estimate shall furnish the same in a sealed envelope marked as follows:

"Bid for insuring ferryboats employed on the Municipal Ferry."

The estimates received will be publicly opened by the Commissioner of Docks, and read, and the award of the contract made according to the law as now standing.

No bid or estimate will be considered unless, as a condition precedent to the reception 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 Commissioner of Docks, or money to the amount of one thousand dollars.

Amounts shall be payable in thirty days after proof of loss or damage, and of the amount thereof, and proof of the interest of the insured shall have been made and presented at the office of the Insurer or its representative in The City of New York.

No bid will be received for insurance by or in behalf of any company not duly authorized by the Insurance Department to transact business in the State of New York.

Each bid must be accompanied by a copy of the policy upon which the bid is based.

The person or persons making a bid or estimate shall furnish the same in a sealed envelope marked as follows:

"Bid for insuring ferryboats employed on the Municipal Ferry."

The estimates received will be publicly opened by the Commissioner of Docks, and read, and the award of the contract made according to the law as now standing.

No bid or estimate will be considered unless, as a condition precedent to the reception 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 Commissioner of Docks, or money to the amount of one thousand dollars.

The amount of security required is as follows:

On Class 2, for about 3,000 cubic yards of sand, Fifteen Hundred Dollars (\$1,500).

The bidder will state a price per cubic yard for furnishing and removing of material called for in each class of the contract. Each class of the contract, if awarded, will be awarded as a separate contract to the lowest bidder in that particular class whose bid is regular in all respects.

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 said Department.

ALLEN N. SPOONER, Commissioner.

Dated July 6, 1909.

July 16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF DOCKS AND FERRIES, Pier "A," Pier of BATTERY PLACE, NORTH RIVER, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED by the Commissioner of Docks at Pier "A," foot of Battery place, in The City of New York, until 12 o'clock noon on

TUESDAY, JULY 15, 1909.

FOR INSURING THE FERRYBOATS "BAY RIDGE," "NASSAU" AND "GOWANUS" TO BE EMPLOYED ON THE MUNICIPAL FERRIES BETWEEN THE BOROUGH OF MANHATTAN AND THE BOROUGH OF BROOKLYN, FOR A PERIOD OF ONE YEAR FROM JULY 15, 1909.

The said vessels, title, apparel, stores, supplies, furniture, engines, boilers, machinery and apparatuses shall be insured at the following valuation:

For the ferryboats "Bay Ridge," "Gowanus," and "Nassau," \$200,000 for each boat, or a total of \$600,000 for the five boats; and in no case shall the Department be deemed as a co-insurer.

Each bid must be accompanied by a copy of the policy upon which the bid is based.

The person or persons making a bid or estimate shall furnish the same in a sealed envelope marked as follows:

"Bid for insuring ferryboats employed on the Municipal Ferry."

The estimates received will be publicly opened by the Commissioner of Docks, and read, and the award of the contract made according to the law as now standing.

No bid or estimate will be considered unless, as a condition precedent to the reception 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 Commissioner of Docks, or money to the amount of one thousand dollars (\$1,500).

The bidder will state a price per cubic yard for furnishing and removing of material called for in each class of the contract. Each class of the contract, if awarded, will be awarded as a separate contract to the lowest bidder in that particular class whose bid is regular in all respects.

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 said Department.

ALLEN N. SPOONER, Commissioner.

Dated July 6, 1909.

July 16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF DOCKS AND FERRIES, Pier "A," Pier of BATTERY PLACE, NORTH RIVER, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED by the Commissioner of Docks at Pier "A," foot of Battery place, in The City of New York, until 12 o'clock noon on

TUESDAY, JULY 20, 1909.

FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR FURNISHING AND DELIVERING SAND AND BROKEN STONE.

The time for the completion of the work and the full performance of the contract is on or before the expiration of one hundred and eighty (180) calendar days.

The amount of security required is as follows:

On Class 2, for about 3,000 cubic yards of sand, Fifteen Hundred Dollars (\$1,500).

The bidder will state a price per cubic yard for furnishing and removing of material called for in each class of the contract. Each class of the contract, if awarded, will be awarded as a separate contract to the lowest bidder in that particular class whose bid is regular in all respects.

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 said Department.

ALLEN N. SPOONER, Commissioner.

Dated July 6, 1909.

July 16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF DOCKS AND FERRIES, Pier "A," Pier of BATTERY PLACE, NORTH RIVER, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE RECEIVED by the Commissioner of Docks at Pier "A," foot of Battery place, in The City of New York, until 12 o'clock noon on

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The bidder will state a price per cubic yard for furnishing and removing of material called for in each class of the contract. Each class of the contract, if awarded, will be awarded as a separate contract to the lowest bidder in that particular class whose bid is regular in all respects.

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 said Department.

be in attendance at their said office on the 3d day of August, 1909, 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, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in The City of New York, on or before the 2d day of August, 1909, and that the said Commissioner will hear parties so objecting, and for that purpose will be in attendance at his said office on the 3d day of August, 1909, 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 8th day of July, 1907, 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:

Bounded on the north by a line midway between East Two Hundred and Fourteenth street and East Two Hundred and Fifteenth street, through that portion of their length west of Barnes avenue, and by the prolongation of the said line on the east by a line 100 feet distant easterly from and parallel with the easterly line of Barnes (Fourteenth) avenue, the said distance being measured at right angles to the line of Barnes avenue on the south by a line midway between East Two Hundred and Fourteenth and East Two Hundred and Thirteenth streets, through that portion of their length west of Barnes avenue, and by the prolongation of the said line, and on the west by a line 100 feet distant westerly from and parallel with the westerly line of White Plains road, the said distance being measured at right angles to the line of the White Plains road.

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 abstracts, 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, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in said City, there to remain until the 10th day of August, 1909.

Fifth.—That, provided there be no objections filed in either of said abstracts the reports as to awards and as to assessments for benefit herein will be prepared for confirmation by 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 5th day of October, 1909, at the opening of the Court on that day.

Sixth.—In case, however, objections are filed in the foregoing abstracts of estimate and assessment, as to either of them, the motion to confirm the reports as to awards and as to assessments for benefit shall stand adjourned to the date to be hereafter appointed by the court provided in such cases to be given in relation to filing the final copies, pursuant to sections 901 and 902 of the Greater New York Charter, as amended by chapter 400 of the Laws of 1906.

Dated Borough of Manhattan, New York, July 8, 1909.

FRANK J. TIERNEY, Chairman;
DENNIS BURNS,
JOSEPH JACOBS,
Commissioners of Estimate.
DENNIS BURNS,
Commissioner of Assessment.
John P. DUNN, Clerk

July 13, 1909

FIRST DEPARTMENT.

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 purposes in fee, to the lands and premises required for the opening and extending of LANE AVENUE, between Westchester avenue and the West Farms road, with the PUBLIC PLACE bounded by Lane avenue, West Farms road, and Westchester avenue, and of WESTCHESTER AVENUE, between Main street or West Farms road and the Eastern boulevard, at Pelham Bay Park, in the Twenty-fourth Ward, Borough of The Bronx, City of New York.

NOTICE IS HEREBY GIVEN THAT THE supplemental and additional bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter, from October 22, 1908, up to and including July 7, 1909, will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by the provisions of section 902 of the Greater New York Charter, as amended by chapter 400 of the Laws of 1906.

Dated Borough of Manhattan, New York, July 12, 1909.

FLOYD M. LORD,
JOHN J. MACKIN,
EDWARD D. BOWLING,
Commissioners.

John P. DUNN, Clerk

July 12, 1909

FIRST JUDICIAL DISTRICT.

In the matter of the application of The City of New York, acting by and through the Commissioner of Docks, relative to acquiring right and title to and possession of the wharfage rights, terms, easements, emoluments and privileges appertaining to PIERS, OLD, No. 32, or JAMES SLIP PIER, and OLD No. 33, or OLIVER STREET PIER, East River, in the Borough of Manhattan, City of New York, not now owned by The City of New York, and all right, title and interest in and to said piers or any portion thereof, not now owned by The City of New York, and all wharfage rights, terms, easements, emoluments and privileges appertaining to all that certain boulevard, dock or wharf property on the westerly side of South street, in said Borough and City, between the easterly side of Pier, Old, No. 32, or James Slip Pier, and the westerly side of Pier, Old, No. 33, or Oliver Street Pier, not now owned by The City of New York, for the improvement of the waterfront of The City of New York, on the East River, pursuant to the plan heretofore adopted by the Board of Docks and approved by the Commissioners of the Sinking Fund.

Dated Borough of Manhattan, New York, July 9, 1909.

NOTICE IS HEREBY GIVEN THAT A BILL of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter, will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House, in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by law.

Dated Borough of Manhattan, New York, July 9, 1909.

JOSEPH M. SCHENCK, Clerk

July 10, 21

FIRST JUDICIAL DEPARTMENT.

In the matter of the application of The City of New York, acting by and through the Commissioner of Docks, relative to acquiring right and title to and possession of the wharfage rights, terms, easements, emoluments and privileges appertaining to Pier (old) 36, or Market Slip Pier West, East River, in the Borough of Manhattan, City of New York, and all right, title and interest in and to said pier, or any portion thereof, not now owned by The City of New York, and all wharfage rights, terms, easements, emoluments and privileges appertaining to certain bulkheads, dock or wharf property on or near the southwesterly line of South street, in said Borough and City, lying on both the easterly and westerly sides of said Pier (old) 36, or Market Slip Pier West, not now owned by The City of New York, for the improvement of the waterfront of The City of New York on the East River, pursuant to the plan heretofore adopted by the Board of Docks and approved by the Commissioners of the Sinking Fund.

NOTICE IS HEREBY GIVEN THAT A BILL of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter, will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by law.

Dated Borough of Manhattan, New York, July 9, 1909.

JOSEPH M. SCHENCK, Clerk

July 10, 21

FIRST JUDICIAL DISTRICT.

In the matter of the application of The City of New York, acting by and through the Commissioner of Docks, relative to acquiring right and title to and possession of the wharfage rights, terms, easements, emoluments and privileges necessary for the opening and extending of LANE AVENUE, between Westchester avenue and the West Farms road, with the PUBLIC PLACE bounded by Lane avenue, West Farms road, and Westchester avenue, and of WESTCHESTER AVENUE, between Main street or West Farms road and the Eastern boulevard, at Pelham Bay Park, in the Twenty-fourth Ward, Borough of The Bronx, City of New York.

NOTICE IS HEREBY GIVEN THAT A BILL of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter, will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by law.

Dated Borough of Manhattan, New York, July 9, 1909.

JOSEPH M. SCHENCK, Clerk

July 10, 21

FIRST DEPARTMENT.

In the matter of the application of The City of New York, acting by and through the Commissioner of Docks, relative to acquiring right and title to and possession of certain lands, lands filled in, wharf property, terms, easements, emoluments and privileges necessary to be taken for the improvement of the waterfront of The City of New York, on the North River, between West Twenty-second and West Twenty-third streets, Eleventh and Thirteenth avenues, pursuant to the plan heretofore adopted by the Board of Docks and approved by the Commissioners of the Sinking Fund.

NOTICE IS HEREBY GIVEN THAT A BILL of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter, will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by law.

Dated Borough of Manhattan, New York, July 9, 1909.

JOSEPH M. SCHENCK, Clerk

July 10, 21

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, whereby the same has not been heretofore acquired for the same purposes in fee, to the lands, tenements and hereditaments required for the widening of FREEMAN STREET (although not yet named by proper authority), from Stetson avenue to Intervale avenue, in the Twenty-third Ward, Borough of The Bronx, City of New York.

NOTICE IS HEREBY GIVEN THAT THE supplemental and additional bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by law.

Dated Borough of Manhattan, New York, July 9, 1909.

THOMAS R. LANE,
FRANK A. SPENCER, JR.,
Commissioners of Estimate.

THOMAS R. LANE,
Commissioner of Assessment.

John P. DUNN, Clerk

July 10, 21

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, whereby the same has not been heretofore acquired for the same purposes in fee, to the lands, tenements and hereditaments required for the opening and extending of COVES HAVEN LANE, between Twelfth avenue and Fifteenth street, in the Thirteenth Ward, Borough of Manhattan, City of New York.

NOTICE IS HEREBY GIVEN THAT THE supplemental and additional bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by law.

Dated Borough of Manhattan, New York, July 9, 1909.

LOUIS F. DOYLE,
WILLIAM L. DUNLEAVY,
JOHN W. JACOBS,

Commissioners.

John P. DUNN, Clerk

July 10, 21

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, whereby the same has not been heretofore acquired for the purpose of opening and extending of LANE AVENUE, between Westchester avenue and the West Farms road, with the PUBLIC PLACE bounded by Lane avenue, West Farms road, and Westchester avenue, and of WESTCHESTER AVENUE, between Main street or West Farms road and the Eastern boulevard, at Pelham Bay Park, in the Twenty-fourth Ward, Borough of The Bronx, City of New York.

NOTICE IS HEREBY GIVEN THAT THE supplemental and additional bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the County Court House in the Borough of Manhattan, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by the provisions of section 902 of the Greater New York Charter, as amended by chapter 400 of the Laws of 1906.

Dated Borough of Manhattan, New York, July 7, 1909.

HENRY J. SMITH,
GEORGE STARK,
Commissioners.

John P. DUNN, Clerk

July 17

SECOND DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title to the lands, tenements and hereditaments required for the purpose of opening and extending AVENUE C, from Gravesend avenue to Canal street, in the Twentieth Ward, in the Borough of Brooklyn, in The City of New York, as the same has been heretofore laid out.

NOTICE IS HEREBY GIVEN THAT THE bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I, to be held at the Kings County Court House, in the Borough of Brooklyn, in The City of New York, on the 22d day of July, 1909, at 10:30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of Kings, there to remain for and during the space of ten days, as required by the provisions of section 902 of chapter 400 of the Laws of 1906, as amended by chapter 400 of the Laws of 1907.

Dated Borough of Brooklyn, New York, July 15, 1909.

FREDERICK A. WELLS,
MATTHEW V. O'NEILL,
FRANCIS J. SULLIVAN,

Commissioners of Estimate.

FRANCIS J. SULLIVAN,
Commissioner of Assessment.

James P. QUINN, Clerk

July 15, 21

SECOND DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title to SUNNYSIDE AVENUE, from Vermont street in Highland Park, in the Twenty-third Ward, in the Borough of Brooklyn, in The City of New York.

NOTICE IS HEREBY GIVEN THAT JOSEPH E. OWENS, Thomas Cudick, Higgins and Harry Farrell were appointed by an order of the Supreme Court, made and entered the 21st day

