

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXVII.

MARCH, 1896.

No. 2



A Monthly Journal Devoted to
ARCHITECTURE,
CONSTRUCTION, DECORATION AND FURNISHING
IN THE WEST.

PUBLISHED BY THE INLAND PUBLISHING CO.,
19 Tribune Building, Chicago, Ill.

L. MULLER, Jr., Manager. ROBERT CRAIK MCLEAN, Editor.

SPECIAL CONTRIBUTORS:

DANKMAR ADLER,	D. H. BURNHAM,	W. L. B. JENNEY,
HENRY VAN BRUNT,	P. B. WIGHT,	IRVING K. POND,
LOUIS H. SULLIVAN,	ALLEN B. POND,	J. R. WILLETT.
WILLIAM S. MACHARG.	C. E. ILLSLEY.	

TERMS: Regular number, \$5 a year; Photogravure edition, \$10 a year. Single copies, Regular number, 50c.; Photogravure edition (including 7 photogravures), \$1. Advance payment required.

The columns and illustration pages of THE INLAND ARCHITECT are open to all alike, merit and availability only determining what shall be published. Contributions appropriate to its pages are always desired.

AMERICAN INSTITUTE OF ARCHITECTS.

OFFICERS FOR 1896:

PRESIDENT	GEORGE B. POST, New York, N. Y.
SECRETARY	ALFRED STONE, Providence, R. I.
TREASURER	SAMUEL A. TREAT, Chicago, Ill.

VICE-PRESIDENTS:

FIRST VICE-PRESIDENT	HENRY VAN BRUNT, Kansas City, Mo.
SECOND VICE-PRESIDENT	WILLIAM C. SMITH, Nashville, Tenn.

BOARD OF DIRECTORS:

For three years.

Daniel H. Burnham, Chicago, Ill.	Normand S. Patton, Chicago, Ill.
J. W. McLaughlin, Cincinnati, Ohio.	*Robert D. Andrews, Boston, Mass.
*William S. Eames, St. Louis, Mo.	F. Miles Day, Philadelphia, Pa.
Charles F. McKim, New York, N. Y.	H. Langford Warren, Boston, Mass.

For two years.

Louis H. Sullivan, Chicago, Ill.	Charles L. Cummings, Boston, Mass.
George C. Mason, Jr., Philadelphia, Pa.	E. I. Nickerson, Providence, R. I.
Theodore Carl Link, St. Louis, Mo.	W. L. B. Jenney, Chicago, Ill.
Samuel Hannaford, Cincinnati, Ohio.	Wilson Eyre, Philadelphia, Pa.

For one year.

*E. H. Kendall, New York, N. Y.	G. A. Frederick, Baltimore, Md.
Cass Gilbert, St. Paul, Minn.	Warren R. Briggs, Bridgeport, Conn.
C. F. Schweinfurth, Cleveland, Ohio.	Jeremiah O'Rourke, Orange, N. J.
Thomas Hastings, New York, N. Y.	Robert Stead, Washington, D. C.

*These with President, Secretary and Treasurer ex-officio, form Executive Committee.

STANDING COMMITTEES FOR 1896:

Committee on Foreign Correspondence.—W. L. B. Jenney, chairman, Chicago, Ill.; R. S. Peabody, Boston; Henry Van Brunt, Kansas City, Mo.; C. F. McKim, New York; Thomas Hastings, New York.

Committee on Education.—Henry Van Brunt, chairman, Kansas City, Mo.; Professor William R. Ware, New York, N. Y.; Professor N. Clifford Ricker, Urbana, Ill.; A. W. Longfellow, Boston, Mass.; Theophilus P. Chandler, Jr., Philadelphia, Pa.

Committee on Publication and Library.—Frank Miles Day, chairman, Philadelphia, Pa.; W. L. B. Jenney, Chicago, Ill.; Cass Gilbert, St. Paul, Minn.; Theo. C. Link, St. Louis, Mo.; W. R. Briggs, Bridgeport, Conn.

Committee upon Conservation of Public Buildings.—Richard Upjohn, chairman, New York, N. Y.; the Presidents of the several Chapters.

Committee on Building Laws.—T. M. Clark, chairman, Boston, Mass.; N. Le Brun, New York, N. Y.; Alfred Stone, Providence, R. I.

Committee on Congressional Bill for the Erection of United States Government Buildings.—George B. Post, chairman; Bruce Price, New York; John M. Carrère, New York; James G. Hill, Washington, D. C.; Alfred Stone, Providence, R. I. *Alternates.*—E. H. Kendall, New York; H. J. Hardenbergh, New York; Robert Stead, Washington, D. C.; R. S. Peabody, Boston.

Necessity and Wisdom of the Aldrich Bill.

The failure of the McKaig bill to pass the Senate in the LIII Congress has necessitated the formulation of another bill which has been presented by Mr. Aldrich, of Illinois, for passage. The text of the Aldrich bill is similar to that of the McKaig, retaining all of its valuable features with some slight additions, the necessity for which has developed during the year the matter has been before Congress. Sentiment in favor of such a bill has grown to an extent that it can hardly fail to pass when properly presented. It seems imperative that it should become a law immediately for other than the general reasons which make such a law advisable. The agitation for a special architect in private practice to design the new government building at Chicago has led to similar movements by other cities. That in behalf of the Chicago building has passed, and it is probable that a Chicago architect (Henry Ives Cobb) will accept the appointment which has been offered him. Philadelphia has a bill before Congress upon which action has yet to be taken, and New York is also requesting a similar measure. These special requests are all directly in the line of the general tenor of the Aldrich bill, which, when passed, will give this much sought-for privilege to every city alike. It would also place the power of appointment in the hands of an expert committee and relieve congressmen and senators of the annoyance of listening to the demands of constituents in favor of the appointment of their friends. It would give a chance between several of the best architects in the country rather than the appointment of that one having the largest influence. So many general benefits are incorporated in the passage of the Aldrich bill, added to its similarity to the special bills now being urged, and the passage of which will lead to an endless procession from other cities, it would seem that congressmen and senators would see the great advantage of the immediate passage of the Aldrich bill. It has the same provisions for special appropriations to pay for skilled service in assisting the Supervising Architect, and in the case of the New York customhouse bill, even the same provision for a special commission is mentioned. In fact, the only difference between these bills for special cases and the Aldrich bill lies in their special character. If the legislators interested in these several bills would unite their efforts in the interest of the Aldrich bill rather than expend individual labor and interest in favor of local buildings, the entire subject would be settled at once and the work carried out under the best possible method. It is not necessary to speak of the system now in vogue, as the fact that the three largest cities in the country have indicated that the public has at last awakened to its absolute inefficiency should show the general demand for its abolition. It is almost fifteen years since the architectural press first pointed out the incompetency of the supervising architect's office of the Treasury Department and suggested changes that would give to the country better, less costly, and more artistic buildings, and the American Institute of Architects has constantly labored to secure the passage of a law that would make the architectural talent of the country available to the government, and legislators should now unite in favor of its immediate passage.

THE MODERN OFFICE BUILDING.

BY HARR FERREE.

PART II.

THE structure of a foundation is determined by what it is to carry. While we build our buildings up from the foundations, their engineering begins with a consideration of the loads to which they are to be subjected — the strains and stresses. The weight of the building being calculated and fixed, the next step — though the first in actual construction — is the determination of the form of the foundations.

The nature of the foundation of a high building depends on the weights of the structure, the nature of the soil, the nature of the adjoining edifices and their foundations, and economy or cost. Economy, which usually comes first in mechanical operations, is the least important of the conditions, since, as the object of a foundation is to carry its building, no economical arrangement can be employed that does not recognize this fact. The adaptability of the building to its foundation need not be considered, since any sort of a steel frame can, in practice, be applied to any sort of a foundation.

The foundation will, to a great extent, depend upon the soil upon which it is built. The most desirable are those built directly upon rock; but modern engineering is independent of the nature of the soil, though whether this be rock, clay, sand or gravel will largely determine what sort of foundation is to be laid. For present purposes this aspect of the question may be neglected, and the foundations considered with reference to their structure only.

The foundations of high buildings may be divided broadly into two classes: continuous and isolated.

Continuous foundations, as their name implies, are solid, uninterrupted walls, carried wholly or in part around the building. They may rest (1) on earth or rock; (2) on piles; or (3) on beds of concrete.

A continuous foundation on earth simply requires that the soil shall be of sufficient density to support the weight that will be applied to it through the foundations. Rock requires to be cut away at the surface, and any imperfect or decaying strata got rid of.

A continuous foundation on piles is a type not much used in the largest modern buildings. The Standard Oil building, New York, is a good example of this kind of foundation. A similar foundation supports the Chamber of Commerce in Boston; but the piles are practically driven in groups or piers, the foundations being formed of large, rectangular sections, connected by short, narrow pieces. The interior foundations rest on true isolated piers.

Continuous foundations on beds of concrete are not frequently built. A recent example is furnished by the New York Commercial buildings (Broadway and Waverly place), where a continuous brick wall is built directly on a bed of concrete. The foundation wall is strengthened by offsets, also resting on the concrete bed, and interrupted at alternate distances. Another method is to spread a bed of concrete upon the ground and to erect the bases of the columns upon it, as in the new Havemeyer building; or to support a bed of concrete on piles, and then place the column footings upon it, as in the American Tract Society's building, New York. This, however, is practically a pier foundation on an artificial base.

Modern building practice is chiefly concerned with isolated piers for high structures. This system was devised to distribute the heavy loads of high buildings on earth foundations over a wide area, in order to effect a uniform distribution of the weight in an economical manner. They are formed of (1) piles, (2) brick or concrete piers, (3) beams or rails, (4) caissons. Cantilever foundations have recently come into use, but as the cantilevers must be supported by one of the methods just named, that system may be neglected at present. The selection of one of these systems will depend, in great measure, upon the nature of the soil.

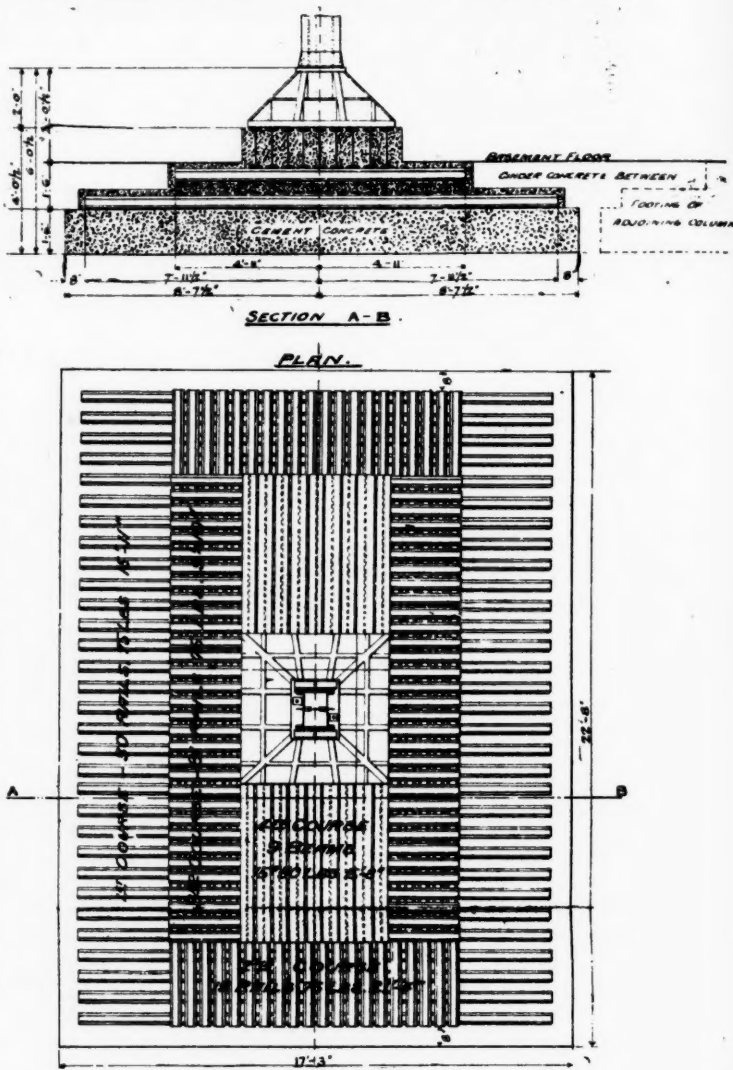
(1) Pile foundations for high buildings offer few features in construction that are not familiar to engineers. Their long-continued use renders them, in many respects, highly desirable foundations where the rock bed cannot be reached, and where there is a hard stratum to which they can be driven. Piles were almost universally employed prior to the introduction of the isolated pier system, but were somewhat neglected after steel rails began to be used. Recently their employment has been revived to a considerable extent, and in Chicago they have, in some instances, taken the place of the distinctive rail foundations. In 1889, piles were employed for the Wisconsin Central depot, and, subsequently, in the Schiller Theater, the Newberry Library, and the Stock Exchange in Chicago. Special pains were taken with the foundations of the Newberry Library, which were subjected to an elaborate series of tests. Good practice requires that the piles should be driven to rock or to hard pan. A proper penetration of a hard stratum is often sufficient, if the rock is too low down, for the piles may be held in place by frictional resistance without actually resting on a solid substance. The piles should be cut off below water-level at a sufficient depth to permit any timber grillage erected on them to be permanently under water.

(2) Brick or concrete piers are seldom employed in the best and latest construction, on account of their poor economy of space. The Drexel building, Philadelphia, is supported by foundation piers of hard brick in concrete, connected by inverted arches whose heads are embedded in the concrete on which the

footings rest. Some of the large piers of this foundation are of granite.

(3) The raft or rail foundations were devised to overcome the difficulty of supplying an adequate support to the great office buildings on the compressible soil, largely of clay, of Chicago. Since their introduction they have been found to have so many advantages that they have been used elsewhere. At first they consisted of old rails, then of I-beams for the upper course or courses; at present, I-beams especially manufactured for this purpose are employed. This type of foundation is relatively simple; a layer of concrete supports the layers of I-beams, all encased in concrete to protect the steel, and supporting a casting to which is applied the base of the column of the frame. It has many advantages.

It causes a great saving of space. A steel foundation, whose height between its bed of concrete and the bottom of the casting on which the column rests is 1 foot 8 inches, will be equivalent to a masonry foundation 7 feet high, when the latter is stepped out to transmit the load over the same area. This saving of space



Section and plan of a Chicago steel rail and beam foundation, as used in "The Fair" Building, Chicago.

amounts to the height of a basement, which is an item of more moment in Chicago than in New York, because the soil of Chicago does not offer opportunity for basements and sub-basements with ordinary construction. At the same time, the steel foundation is much lighter in weight than the corresponding foundation of stone, and this permits the addition of an extra story to the building without adding to the load on the soil. Steel foundations are more costly in themselves than stone ones, but their great economy in space, in weight, and in the time necessary for their erection, more than compensates for their increased price. To the other advantages must be added the final one that masonry foundations are often unfortunate for side walls, because they cannot be properly stepped out on both sides without encroaching on the adjacent lot.

Examples.—Beam and rail footings, Chicago: The Fair, Manhattan, Isabella, The Rookery, Monadnock, Woman's Temple, Masonic Temple, Marshall Field, Rand-McNally, Reliance, Teutonic.

Beam foundations, Chicago: Leiter, Y. M. C. A., New York Life, Fort Dearborn, Tacoma, Pontiac, Caxton, New Monadnock, Venetian, Marquette, Steinway Hall, Atwood (with cantilevers),

Old Colony (with cantilevers). New York: New Havemeyer, Wilks. Pittsburg: Carnegie.

In the New Havemeyer, Wilks and Carnegie buildings, the concrete covers nearly the whole area of the foundations, and on this the I-beams of the footings are placed. In Chicago the con-

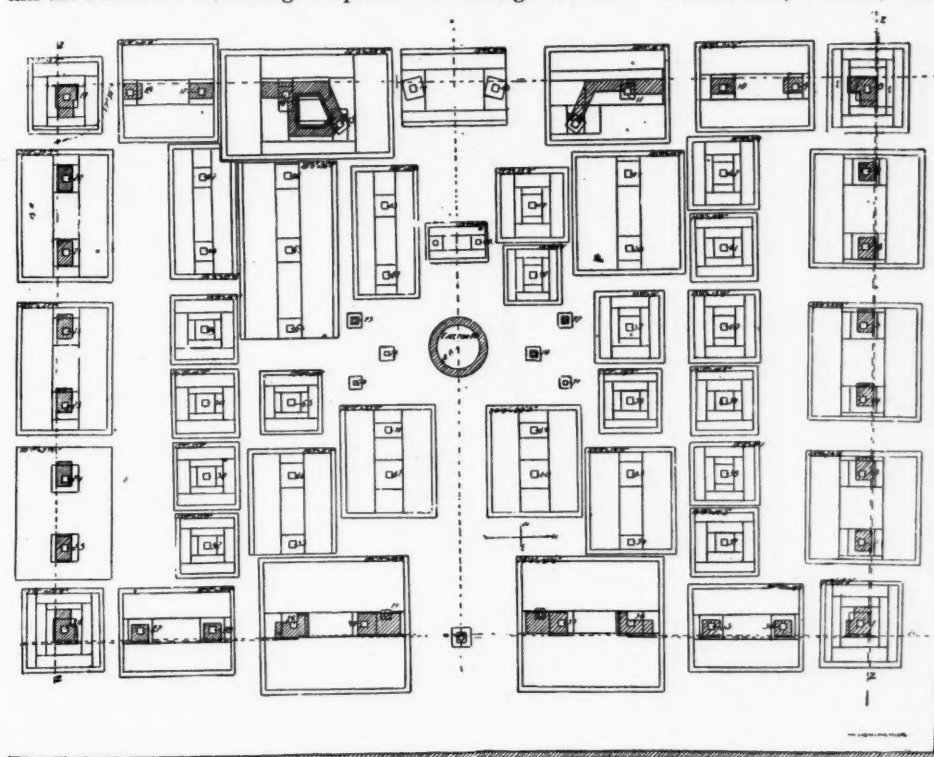
considerable number of types of foundations already considered do not fulfill every possible requirement. But those just noted are the usual types of office building foundations, and one or the other of them may be found in almost every great building. Special circumstances, however, call for special treatment, and some interesting examples of what may be termed special foundations may be briefly noted.

Cable Building, New York.—To obviate the intense vibrations of the cable machinery, a system of double foundations was devised. The inner columns of the superstructure rest on steel foundations of the usual type, applied to concrete inclosed within steel cylinders 6 feet deep and from 4 to 12 feet in diameter. A heavy layer of concrete covers the ground around these cylinders, and serves as a foundation for the machinery. The outer columns were built within the inclosing walls, on grillages formed of a single layer of steel beams, 24 feet above the beginning of the walls.

Marquette Building, Chicago.—The foundations of the west wall of this building were designed to carry an additional structure not yet built. The present load is, therefore, unequal and different from the final load. A special device was introduced to meet this condition in the column footing applied to the usual I-beam and concrete base, consisting of a cast-steel shoe resting on six plates, which, in turn, rest on two large iron castings, with a space between, in which is an hydraulic apparatus with four lifts. Should the wall give evidence of settling, the pressure can be applied and the thin plates between the castings removed, or additional ones inserted, as may be required.

New Havemeyer Building, New York (on site of old Herald Building).—A similar device of hydraulic lifts will be applied to this building, to provide for a possible heavy adjoining building in the future.

Fisher Building, Chicago.—In this structure an attempt was made to provide a device which would squeeze the water out of the



Foundation piers of the Masonic Temple, Chicago, Ill.

crete is spread in beds under the footings, practically covering the area, but arranged in definite shapes and sizes.

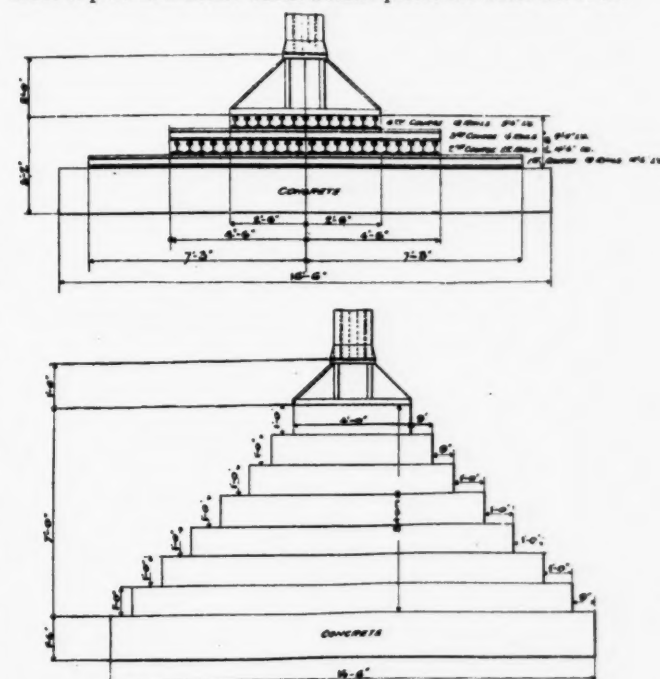
(4) While the raft system has been found practically sufficient to carry the heaviest buildings of Chicago, it has been thought desirable, by some engineers and architects, to carry the foundations down to the rock level. For this purpose, caissons, sunk by pneumatic or hydraulic processes, have come into use. Local circumstances will determine the process of sinking them. As foundations, they consist of circular, rectangular, or variously shaped cylinders or inclosures of sheet metal, filled with concrete and brick. These are covered with a proper cap, to which is applied the casting for the base of the columns. They are, in fact, simple columns or piers of masonry, which carry the weight of the building to the rock below. Examples of this type of foundation are found in the Manhattan, the American Surety and Johnston buildings in New York, and in the new addition to the Standard Oil building in the same city.

Where it is possible to build directly upon the building line, and the shape and size of the site permit the structure to be carried directly upon foundations so placed, the engineer has no other course to pursue than to apply his frame directly to them. But it is not always possible to get the foundations directly upon the building line; other structures may be so closely built upon it that their safety would be imperiled by sinking foundations for a new edifice; or other local circumstances may call for special treatment.

An obvious device for transferring the load from an impossible position to one where it may be safely located, is the cantilever. In New York, it has been employed in the new addition to the Western Union building, to transfer a load from one corner to a more secure footing. In Chicago, it has been used in the Manhattan and the Rand-McNally buildings, because heavy machinery in the basements of the adjoining structures could not be moved to permit the introduction of new party-footings. More recent examples in the same city are supplied by the Atwood and the Old Colony buildings. In the former the north and west walls are carried on cantilevers; in the latter, the south wall. In New York a part of one wall of the American Tract Society's building is carried on cantilevers.

In all these instances only a portion of the building, as a corner or a single wall, is carried on the cantilevers. A much bolder innovation was to carry the weight of an entire building on them, as in the Manhattan building in New York. This structure has a frontage on Broadway of 67 feet, and is 119 feet deep to New street on the north, and 125 feet on the south. Its height above Broadway is 242 feet, with a tower and dome, that make the total height, from curb to foot of flagstaff on the dome, 348 feet. A series of rectangular and circular caissons was sunk, some carrying two columns, some one. A cross section of the foundation shows four supports for the cantilever girders, and on these are applied the columns of the superstructure.

The problems that come before the constructive engineer in the high buildings are so varied and complicated that even the very



Comparative section of steel and stone foundation.

ground before the building was placed on it. In this way it was hoped to form a solid base which would overcome the settlement which follows from the squeezing of the water by the weight of a heavy building, and at the same time obtain a resisting stratum for the piles, sufficiently firm to render driving to hard pan unnecessary. Piles 25 to 27 feet in length were driven close together under each column. About 6 inches of concrete was packed close below the tops of the piles, and 18 inches placed on top. On this

THE MODERN OFFICE BUILDING.

BY BARR FERREE.

PART II.

THE structure of a foundation is determined by what it is to carry. While we build our buildings up from the foundations, their engineering begins with a consideration of the loads to which they are to be subjected — the strains and stresses. The weight of the building being calculated and fixed, the next step — though the first in actual construction — is the determination of the form of the foundations.

The nature of the foundation of a high building depends on the weights of the structure, the nature of the soil, the nature of the adjoining edifices and their foundations, and economy or cost. Economy, which usually comes first in mechanical operations, is the least important of the conditions, since, as the object of a foundation is to carry its building, no economical arrangement can be employed that does not recognize this fact. The adaptability of the building to its foundation need not be considered, since any sort of a steel frame can, in practice, be applied to any sort of a foundation.

The foundation will, to a great extent, depend upon the soil upon which it is built. The most desirable are those built directly upon rock; but modern engineering is independent of the nature of the soil, though whether this be rock, clay, sand or gravel will largely determine what sort of foundation is to be laid. For present purposes this aspect of the question may be neglected, and the foundations considered with reference to their structure only.

The foundations of high buildings may be divided broadly into two classes: continuous and isolated.

Continuous foundations, as their name implies, are solid, uninterrupted walls, carried wholly or in part around the building. They may rest (1) on earth or rock; (2) on piles; or (3) on beds of concrete.

A continuous foundation on earth simply requires that the soil shall be of sufficient density to support the weight that will be applied to it through the foundations. Rock requires to be cut away at the surface, and any imperfect or decaying strata got rid of.

A continuous foundation on piles is a type not much used in the largest modern buildings. The Standard Oil building, New York, is a good example of this kind of foundation. A similar foundation supports the Chamber of Commerce in Boston; but the piles are practically driven in groups or piers, the foundations being formed of large, rectangular sections, connected by short, narrow pieces. The interior foundations rest on true isolated piers.

Continuous foundations on beds of concrete are not frequently built. A recent example is furnished by the New York Commercial buildings (Broadway and Waverly place), where a continuous brick wall is built directly on a bed of concrete. The foundation wall is strengthened by offsets, also resting on the concrete bed, and interrupted at alternate distances. Another method is to spread a bed of concrete upon the ground and to erect the bases of the columns upon it, as in the new Havemeyer building; or to support a bed of concrete on piles, and then place the column footings upon it, as in the American Tract Society's building, New York. This, however, is practically a pier foundation on an artificial base.

Modern building practice is chiefly concerned with isolated piers for high structures. This system was devised to distribute the heavy loads of high buildings on earth foundations over a wide area, in order to effect a uniform distribution of the weight in an economical manner. They are formed of (1) piles, (2) brick or concrete piers, (3) beams or rails, (4) caissons. Cantilever foundations have recently come into use, but as the cantilevers must be supported by one of the methods just named, that system may be neglected at present. The selection of one of these systems will depend, in great measure, upon the nature of the soil.

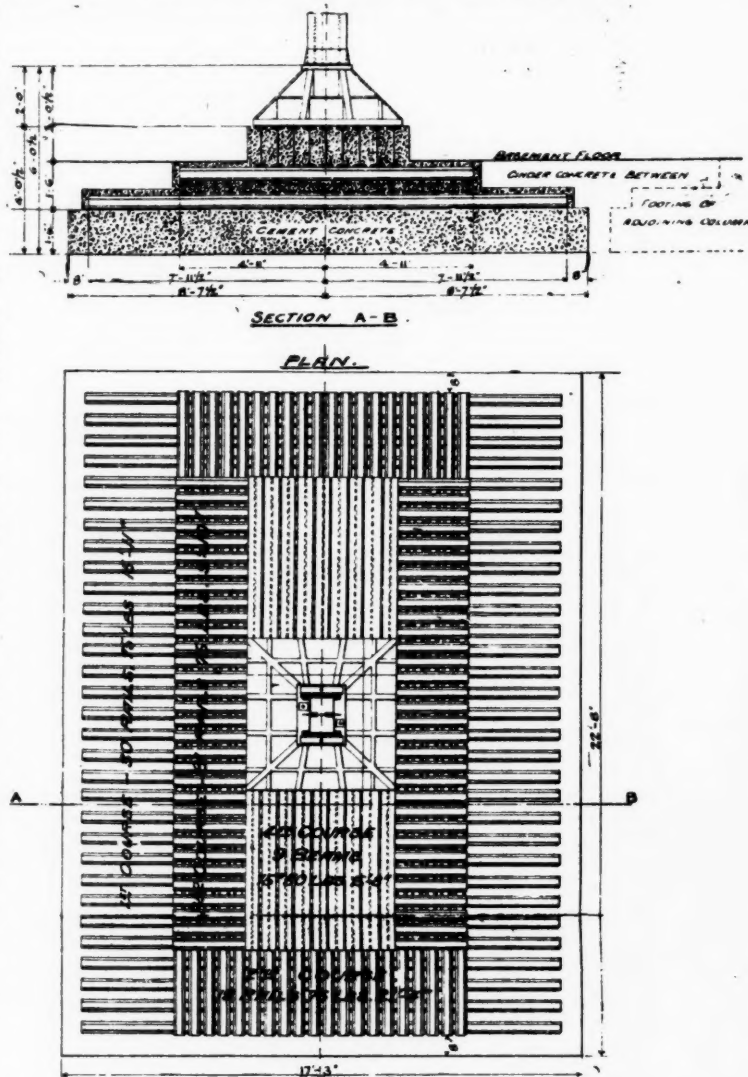
(1) Pile foundations for high buildings offer few features in construction that are not familiar to engineers. Their long-continued use renders them, in many respects, highly desirable foundations where the rock bed cannot be reached, and where there is a hard stratum to which they can be driven. Piles were almost universally employed prior to the introduction of the isolated pier system, but were somewhat neglected after steel rails began to be used. Recently their employment has been revived to a considerable extent, and in Chicago they have, in some instances, taken the place of the distinctive rail foundations. In 1889, piles were employed for the Wisconsin Central depot, and, subsequently, in the Schiller Theater, the Newberry Library, and the Stock Exchange in Chicago. Special pains were taken with the foundations of the Newberry Library, which were subjected to an elaborate series of tests. Good practice requires that the piles should be driven to rock or to hard pan. A proper penetration of a hard stratum is often sufficient, if the rock is too low down, for the piles may be held in place by frictional resistance without actually resting on a solid substance. The piles should be cut off below water-level at a sufficient depth to permit any timber grillage erected on them to be permanently under water.

(2) Brick or concrete piers are seldom employed in the best and latest construction, on account of their poor economy of space. The Drexel building, Philadelphia, is supported by foundation piers of hard brick in concrete, connected by inverted arches whose heads are embedded in the concrete on which the

footings rest. Some of the large piers of this foundation are of granite.

(3) The raft or rail foundations were devised to overcome the difficulty of supplying an adequate support to the great office buildings on the compressible soil, largely of clay, of Chicago. Since their introduction they have been found to have so many advantages that they have been used elsewhere. At first they consisted of old rails, then of I-beams for the upper course or courses; at present, I-beams especially manufactured for this purpose are employed. This type of foundation is relatively simple; a layer of concrete supports the layers of I-beams, all encased in concrete to protect the steel, and supporting a casting to which is applied the base of the column of the frame. It has many advantages.

It causes a great saving of space. A steel foundation, whose height between its bed of concrete and the bottom of the casting on which the column rests is 1 foot 8 inches, will be equivalent to a masonry foundation 7 feet high, when the latter is stepped out to transmit the load over the same area. This saving of space



Section and plan of a Chicago steel rail and beam foundation, as used in "The Fair" Building, Chicago.

amounts to the height of a basement, which is an item of more moment in Chicago than in New York, because the soil of Chicago does not offer opportunity for basements and sub-basements with ordinary construction. At the same time, the steel foundation is much lighter in weight than the corresponding foundation of stone, and this permits the addition of an extra story to the building without adding to the load on the soil. Steel foundations are more costly in themselves than stone ones, but their great economy in space, in weight, and in the time necessary for their erection, more than compensates for their increased price. To the other advantages must be added the final one that masonry foundations are often unfortunate for side walls, because they cannot be properly stepped out on both sides without encroaching on the adjacent lot.

Examples.—Beam and rail footings, Chicago: The Fair, Manhattan, Isabella, The Rookery, Monadnock, Woman's Temple, Masonic Temple, Marshall Field, Rand-McNally, Reliance, Teutonic.

Beam foundations, Chicago: Leiter, Y. M. C. A., New York Life, Fort Dearborn, Tacoma, Pontiac, Caxton, New Monadnock, Venetian, Marquette, Steinway Hall, Atwood (with cantilevers),

Old Colony (with cantilevers). New York: New Havemeyer, Wilks. Pittsburg: Carnegie.

In the New Havemeyer, Wilks and Carnegie buildings, the concrete covers nearly the whole area of the foundations, and on this the I-beams of the footings are placed. In Chicago the con-

considerable number of types of foundations already considered do not fulfill every possible requirement. But those just noted are the usual types of office building foundations, and one or the other of them may be found in almost every great building. Special circumstances, however, call for special treatment, and some

interesting examples of what may be termed special foundations may be briefly noted.

Cable Building, New York.

—To obviate the intense vibrations of the cable machinery, a system of double foundations was devised. The inner columns of the superstructure rest on steel foundations of the usual type, applied to concrete inclosed within steel cylinders 6 feet deep and from 4 to 12 feet in diameter. A heavy layer of concrete covers the ground around these cylinders, and serves as a foundation for the machinery. The outer columns were built within the inclosing walls, on grillages formed of a single layer of steel beams, 24 feet above the beginning of the walls.

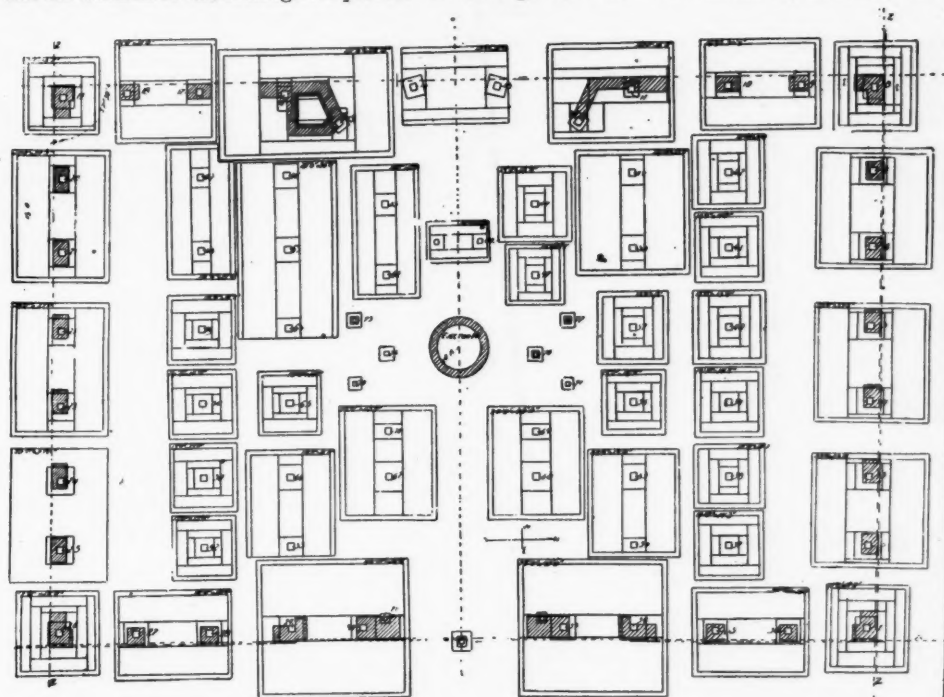
Marquette Building, Chicago.

—The foundations of the west wall of this building were designed to carry an additional structure not yet built. The present load is, therefore, unequal and different from the final load. A special device was introduced to meet this condition in the column footing applied to the usual I-beam and concrete base, consisting of a cast-steel shoe resting on six plates, which, in turn, rest on two large iron castings, with a space between, in which is an hydraulic apparatus with four

lifts. Should the wall give evidence of settling, the pressure can be applied and the thin plates between the castings removed, or additional ones inserted, as may be required.

New Havemeyer Building, New York (on site of old Herald Building).—A similar device of hydraulic lifts will be applied to this building, to provide for a possible heavy adjoining building in the future.

Fisher Building, Chicago.—In this structure an attempt was made to provide a device which would squeeze the water out of the



Foundation piers of the Masonic Temple, Chicago, Ill.

crete is spread in beds under the footings, practically covering the area, but arranged in definite shapes and sizes.

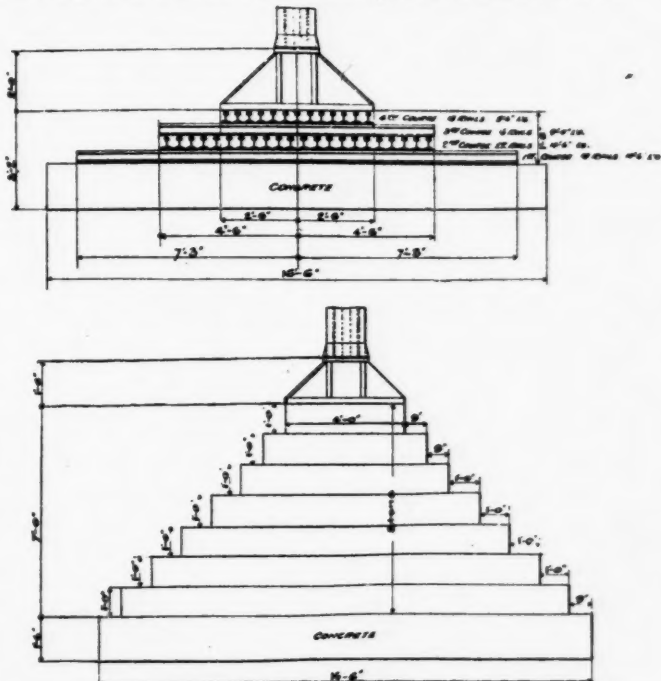
(4) While the raft system has been found practically sufficient to carry the heaviest buildings of Chicago, it has been thought desirable, by some engineers and architects, to carry the foundations down to the rock level. For this purpose, caissons, sunk by pneumatic or hydraulic processes, have come into use. Local circumstances will determine the process of sinking them. As foundations, they consist of circular, rectangular, or variously shaped cylinders or inclosures of sheet metal, filled with concrete and brick. These are covered with a proper cap, to which is applied the casting for the base of the columns. They are, in fact, simple columns or piers of masonry, which carry the weight of the building to the rock below. Examples of this type of foundation are found in the Manhattan, the American Surety and Johnston buildings in New York, and in the new addition to the Standard Oil building in the same city.

Where it is possible to build directly upon the building line, and the shape and size of the site permit the structure to be carried directly upon foundations so placed, the engineer has no other course to pursue than to apply his frame directly to them. But it is not always possible to get the foundations directly upon the building line; other structures may be so closely built upon it that their safety would be imperiled by sinking foundations for a new edifice; or other local circumstances may call for special treatment.

An obvious device for transferring the load from an impossible position to one where it may be safely located, is the cantilever. In New York, it has been employed in the new addition to the Western Union building, to transfer a load from one corner to a more secure footing. In Chicago, it has been used in the Manhattan and the Rand-McNally buildings, because heavy machinery in the basements of the adjoining structures could not be moved to permit the introduction of new party-footings. More recent examples in the same city are supplied by the Atwood and the Old Colony buildings. In the former the north and west walls are carried on cantilevers; in the latter, the south wall. In New York a part of one wall of the American Tract Society's building is carried on cantilevers.

In all these instances only a portion of the building, as a corner or a single wall, is carried on the cantilevers. A much bolder innovation was to carry the weight of an entire building on them, as in the Manhattan building in New York. This structure has a frontage on Broadway of 67 feet, and is 119 feet deep to New street on the north, and 125 feet on the south. Its height above Broadway is 242 feet, with a tower and dome, that make the total height, from curb to foot of flagstaff on the dome, 348 feet. A series of rectangular and circular caissons was sunk, some carrying two columns, some one. A cross section of the foundation shows four supports for the cantilever girders, and on these are applied the columns of the superstructure.

The problems that come before the constructive engineer in the high buildings are so varied and complicated that even the very

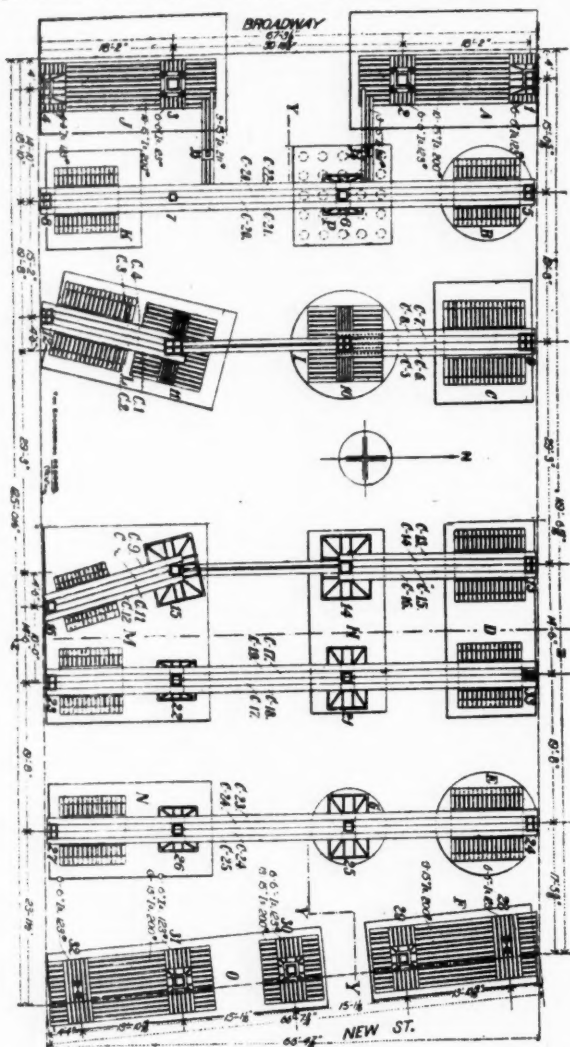


Comparative section of steel and stone foundation.

ground before the building was placed on it. In this way it was hoped to form a solid base which would overcome the settlement which follows from the squeezing of the water by the weight of a heavy building, and at the same time obtain a resisting stratum for the piles, sufficiently firm to render driving to hard pan unnecessary. Piles 25 to 27 feet in length were driven close together under each column. About 6 inches of concrete was packed close below the tops of the piles, and 18 inches placed on top. On this

was built a steel beam and concrete foundation, with a shoe of the usual form. This system has been employed by the same architects and engineers in the Mabley building, in Detroit.

Old Colony Building, Chicago.—This building offers a good type of a combination of a direct and cantilever foundation. The



Plan of foundation Manhattan Life Insurance Building, New York.

north wall is carried on cantilevers; the others are supported by columns that rest directly on concrete and beam foundations of the usual type. The distribution of the load was such that six columns were included on the single large concrete base supporting the footings of the cantilevers.

The typical modern office building consists of a cage of steel inclosed within stone and terra cotta or brick walls, the weights, strains and pressures being carried wholly on the metal frame, and by it transmitted to the foundations. This system is well defined in the Chicago building law:

"The term 'skeleton construction' shall apply to all buildings wherein all external and internal loads and strains are transmitted from the top of the building to the foundations by a skeleton or framework of metal. In such framework the beams and girders

shall be riveted to each other at their respective junction points. If pillars made of rolled iron or steel are used, their different parts shall be riveted to each other, and the beams and girders resting upon them shall have riveted connections to unite them with the pillars.

If buildings are made fireproof entirely, and have skeleton construction so designed that their inclosing walls do not carry the weight of floors or roof, then their walls may be reduced in thickness one-third from the thicknesses hereinafter provided for walls of buildings of the different classes, excepting only that no wall shall be less than 12 inches in thickness; and provided also, that wherever the weight of such walls rests upon beams or pillars, such beams or pillars must be strong enough in each story to carry the weight of the wall resting upon them without reliance upon the walls below them. But if walls of hollow tiles are used as filling between the members of the skeleton construction, they shall be of the full thickness specified for non-skeleton buildings."

All office buildings are not of this type, and practice varies among engineers to a much greater extent than is generally supposed. Some very large office buildings have been built of solid walls throughout; in others some or all of the walls are self-sustaining; in others, again, such self-sustaining walls are strengthened by steel girders, or the lower part of the wall will be self-sustaining and the upper parts be carried on girders, thus reducing the space and weight of the lower walls; in others, finally, and this is the typical skeleton construction, the walls are carried on the frame at each story.

Solid walls, without steel columns.—Monadnock, old part; Auditorium; The Rookery; Woman's Temple; Marshall Field; Owings building—all in Chicago.

Mixed walls, part solid, part veneer.—The New Monadnock in Chicago consists of two parts, exactly alike externally. One, the Katahdin building, has its exterior walls supported by masonry piers, seven feet thick at the level of the first floor; the other part, the Wachusett building, is of the pure skeleton type.

The Mail and Express building, New York, is an L-shaped structure, with an exceedingly narrow arm reaching out to Broadway. All the walls are self-sustaining, including the fronts on Broadway and Fulton street, except the side walls of the narrow arm, whose steel construction was necessitated by the fact that solid walls would have left no practical renting area between them.

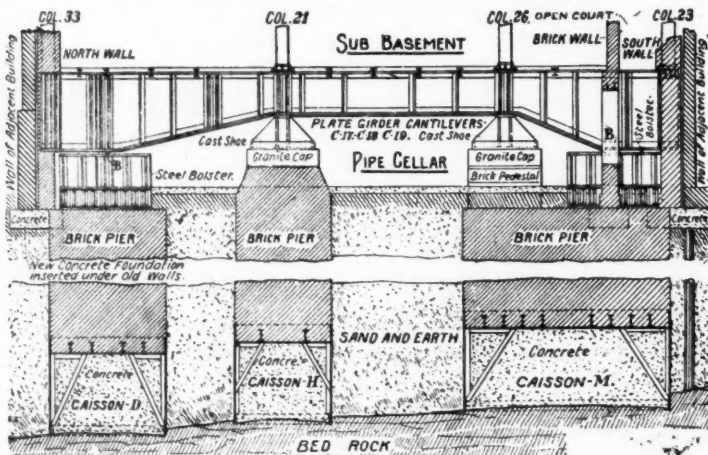
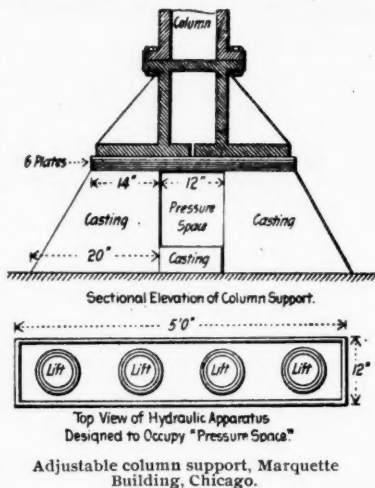
In the Manhattan building, New York, the walls are wholly, or in part, of the skeleton type, except the Broadway front. "The first story on Broadway, up to the springing of the arches of the windows, is of granite, the full thickness of the wall. Thence up to the first story cornice the thickness of the stone is equal to the reveals of the windows directly over the openings, the piers running up solid to the cornice, and being backed up over the windows with brickwork to the full thickness. Each stone is securely anchored and tied to the brickwork, and a thorough and efficient bond is maintained throughout the entire brickwork once in every five courses, and every course of brick is solidly filled in with cement. The intervening walls between piers on the north and south lines are supported on arches extending from pier to pier."

Self-sustaining walls, carrying themselves only, as in the Auditorium Annex and the Masonic Temple in Chicago.—In the last example it was found that the maximum pressure on brickwork, twelve tons per square foot, would be exceeded at the fifth story.

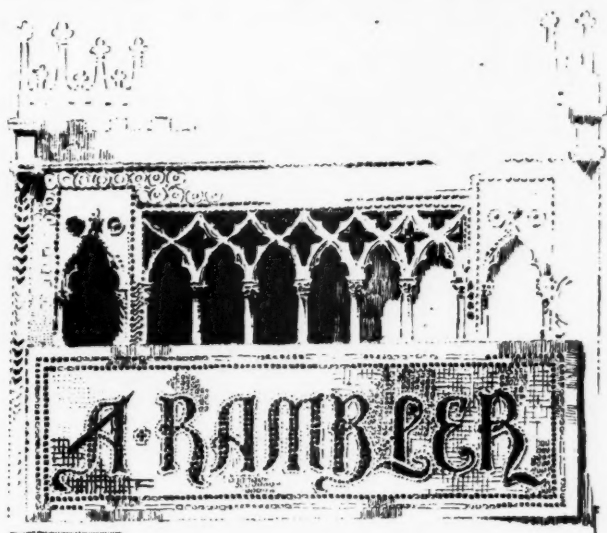
Brackets were, therefore, attached to the metal columns placed within the masonry piers, at the fifth and sixteenth floors, to carry the masonry work. The walls were thus only self-sustaining to the brackets of the fifth floor.

The World building, New York, offers a type peculiar to itself, which may be classified under this head. It consists of two parts, a shell and an interior. The walls are entirely free from the steel columns which carry the weights of the floors, and which stand free from the self-sustaining inclosing walls. In the Cortlandt Street Havemeyer building, New York, a later structure by the same architect, the walls are immensely thick piers of masonry containing a metal column placed near the inner surface, that carries the floor load.

Veneer walls, in which all the weights are carried on metal columns.—This is the typical Chicago system of high building construction, and the list of examples includes a large number of the more important office buildings of that city. Among these may be named the Home Insurance building, Manhattan, The Fair, Leiter, Y. M. C. A., Isabella, New York Life, Fort Dearborn, Tacoma, Pontiac, Caxton, Venetian, Old Colony, Champlain, Marquette, Stock Exchange, Great Northern Hotel, Ashland, Rand-McNally, Reliance, Title and Trust, Boyce, Hartford, Unity, Security, Columbus Memorial, Teutonic.



Section through foundations, Manhattan Life Insurance Building, New York.



BY F. W. FITZPATRICK.

AFTER sketching the above heading, it suddenly flashed upon me that, to the casual observer, or to the bicycle enthusiast, it might, perhaps, at first glance, convey the idea of a bicycle advertisement. There is, I believe, a "Rambler" make of that article that is widely advertised; but, dear reader, I hasten to assure you that it has nothing to do with that unstable motor. I despise the pesky things, and never had any dealings with their kind and never intend to. Why, I'd never dare look an honest saddle-horse in the face again should I so far fall from grace as to mount a "calf-developer." No, I mean by this heading of "Rambler," derived from the verb "to ramble," simply that I wander around the country a good deal, a sort of semi-respectable tramp, you know, and intend to occasionally fill up some space in THE INLAND ARCHITECT—that might, perhaps, be more profitably filled by advertising the other, the two-wheeled Rambler—with observations (sane and otherwise) and sketches jotted down by the wayside and other places.

Am not even a young rambler—one of those youths filled up with enthusiasm for art, original ideas and space for opportunities and pie, who travel through the country wearing beautiful golf (pronounced "g-a-w-f," remember) stockings and a kodak, and who fill up roll after roll of film, and sketch-book after sketch-book with matter, with suggestions, details and dreams to be used in the bright days to come, when they, too, will immortalize themselves by monuments of everlasting granite! Alas, poor youths, what bitter disappointments lie across your paths!

I am an old rambler, a crusty old fellow who has been in the architectural harness for nigh unto "t-wen-ty long ye-ars" (spoken with the proper falsetto twang one gets in his dotage). I have had many hopes blighted and some realized—mostly the former; and if my ramblings are not always to your liking, kind reader, pray consider my age and infirmities, and cover them with that mantle of charity we so often read about and so very rarely see.

**

Reading the other day an article said to be the last contribution poor Stewardson made to architectural literature, I couldn't help but wonder, with him, where the profession is going to land. He says "... the increase in the number of students in law and medicine is small compared with their increase in architecture."

Taking up this thread, let us glance at a few figures. There are to-day in the United States 7,840 architects, practising under 5,218 firm-names (this includes those who are *practising* in all senses of the word). There are 546 firms in New York city and 420 in Chicago. These figures are as nearly correct as can be reached in a profession where no licenses are issued, or other means exist of keeping an accurate record of "bornings"; and they represent an increase of 210 per cent since 1876!

There are probably over 10,000 what might be termed students who, it is fair to assume, represent a like percentage of increase. This almost alarming growth is due, I think, partly to the fact that it is the easiest profession or genteel trade that a youngster can pick up.

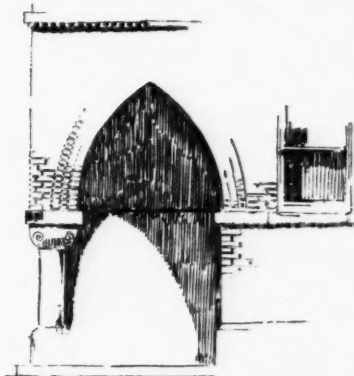
Years ago, when a young chap was "articled" for a term of years and had to study and reach some degree of proficiency before being intrusted with a "job," the increase was not proportionately so great as now, when any little boy (and some little girls, by the way), showing the slightest aptitude for drawing impossible trees and bandy-legged horses is proudly pointed out by papa as the architect of the family and rushed into some architect's office at the first opportunity. Papa is pleased with the budding talent that he has discovered. He, of course, aspires to a future for his progeny above that of the humble mechanic or clerk, and hails with delight a chance to shove his well-beloved into one of the learned professions, without having to expend large sums of money for his preparation therefor; why, the boy is expected to *earn* money the first year.

The student (?) will remain in that office two or three years, tracing and copying "standard" details; and is occasionally intrusted with designing a porch to some little cottage or other. Does he study? Why, no; he is learning the profession *practically*, and scorns mere books and theories; he has, as we have seen, some aptitude for drawing, so after awhile he makes a beautiful perspective, with figures traced from and style of rendering painfully and unrecognizably a la Gregg, or Ellis, or Lautrup!

By-and-by, some cousin or friend of his father's will build a house, and thinks he will encourage little Willie, and at the same time save three-quarters of the exorbitant and, after all, useless fee he would have to pay Mr. So-and-So, the architect. So little Willie graduates into our thickening ranks, is one of us, gets other jobs (from an all-too-confiding public, that thinks that an architect is an architect, so what's the difference), waxes fat, employs a good draftsman, one who has toyed with theories and has gone to school, perhaps; and, before you can say "Jack Robinson," is at the head of his profession, and the leading light in his town.

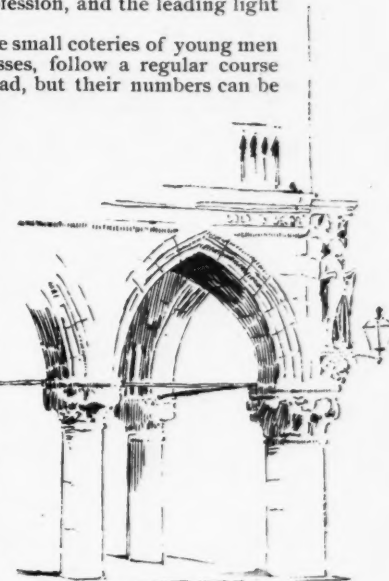
In the larger cities there are small coteries of young men who do study, attend art classes, follow a regular course and top off with a year abroad, but their numbers can be expressed with painfully few ciphers. With such training as the younger generation deigns to receive today, and which the above description does not exaggerate, how, let me ask of the thinking ones, can we expect to maintain a high standard of ethics and attainments in our profession? The states interfere with and regulate the practice of medicine and law upon the assumption that these two can affect the health and rights of citizens. Why not architecture, too? A poorly-built structure is surely as great a menace to life and health as is an overdose of aqua something or other, and as for rights, what right has anyone to inflict upon us such monstrosities, sometimes called designs, as we are compelled to look upon every day?

There have been spasmodic efforts made by a few of us to hedge ourselves about with some sort of a fence or wall; aye, even a moat, portcullis and bastions, and inner-guard passwords and other frill, but, so far, such efforts have been but wasted energies. I am not an extremist, but I do firmly believe that if we desire to maintain some semblance or claim to a *profession* and stay the march that is surely leading down hill, we ought to make it a little more difficult to enter our ranks; we ought to insist on slightly more preparation—barring out all prayer and fasting—than the mere providing one's self with a sign upon which the magic affix "architect" appears after one's name!



THE NEW.

is only a blind, for there probably is an iron column and lintel concealed therein; but do you not always feel like hurrying away from what seems to you must surely be the scene of a disaster sooner or later? Or, if particularly brave, do you not feel like leaning your back against the column and bracing your heels in a crack in the sidewalk until some means can be provided to prevent the bulge that will surely come? The other day I modestly asked an architect, who had just perpetrated one of these corner arches, where he had taken his motif. I gave the word the French accent and it flattered him, for he proudly produced a photograph of Giovanni Buon's addition to the ducal palace of Venice! Criticism was silenced; he had precedent to work upon; his work was a faithful copy of an old master's, hence must be classical in its purity! Kind reader, gaze upon one, then upon the other.



THE OLD.

You have often seen otherwise substantial enough buildings provided with a corner entrance through an arch something like the illustration. It represents one of the higher class designs of the character I refer to. Others there are with a much flatter arch and even less brick or stone outside of it, and five or six heavy stones and perhaps a corner bay cocking out over the arch. Of course, there is a tie-rod, and possibly the arch

I see by the papers that Messrs. Harding & Gooch have had a dream, conceived, and have brought forth a design for a two-hundred

storied building in New York. Let us pray that it may never get further than the drafting-table stage. From an engineering point of view, the problem presents difficulties, but is not impossible of solution, but they ought to wait until aerial navigation is perfected



NOTRE DAME CHURCH AND NEW YORK LIFE BUILDING.

or an altruistic people inhabit our cities, for the difficulties in handling such hordes as these buildings would house seem, in our generation at least, insurmountable.

We smile at such dreams, some may even call them freaks; yet, it was not so many years ago that Buffington, of Minneapolis, patented his twenty-six storied steel-frame construction, and caused a broad smile to appear upon most of our faces; he was dubbed a crank and unmercifully grieved, but today twenty-six stories do not seem so very extraordinary. Who says but that in course of time we may, so to speak, acclimate ourselves to the rarefied atmosphere of a two-hundred storied affair? In the meantime, we must admit that it borders somewhat on the verge of freakiness.

Speaking of Buffington and his patent, reminds me that some time ago he instituted suits against several architects and owners of tall buildings for infringing upon his rights. Some of the leading lawyers, at that time, assured me that he had actionable grounds and would probably win in the end if he could command money and influence enough to stay in the fight. I wonder whatever came of the suits? We never hear them mentioned now. Patent invalid or money given out, I suppose.



VICTOR BOURGEOU.

Some of their big office-buildings in New York are certainly very handsome and imposing externally; but, in the language of the street, "are not in it" for convenience of arrangement, light, and general excellence of plan with the same character of structures in Chicago. Their corridors are narrow, poorly lighted and circuitous—maze-like in their twistings, and almost necessitating a guide to pilot one to his destination.

New York may hug herself with the notion that she is the home of the brightest stars in the architectural firmament if she so wishes to delude herself, but you Chicagoans have certainly learned how to plan buildings that, to my taste, at least, have no equals—except duplications—anywhere in the country.



INTERIOR OF ST. PETER'S CATHEDRAL.

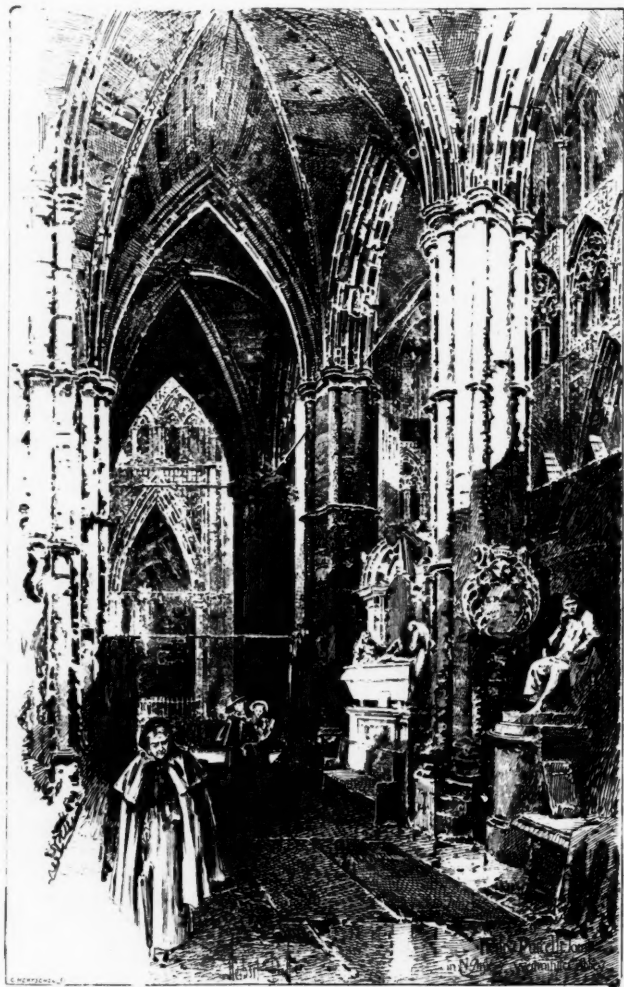
is the New York Life building in Montreal, by Babb, Cook & Willard, of New York. It is the most pretentious affair there, ex-

pensively built, fairly lighted and arranged, and quite elaborate in finish and material.

The Canadians are rather slow in adopting novelties, though. Their elevators are few and far between, and are looked at askance by many yet who would as soon attempt to walk upon the waters, as did Peter of old, as to trust their precious lives in one of those "bird-cages." I admit that with most of these elevators it would be a saving of time for a busy man to walk, even leisurely, up or down stairs.

I never lose an opportunity of visiting old Notre Dame Church in Montreal, particularly if I am there Sunday morning, in time for "grand mass." The church is impressive rather by its size than by its design, for it is somewhat heavy and lacks that daintiness of touch that one expects in its style. Its interior is garish in the extreme—blues, yellows, striped with green and red, a very medley of color. A cobalt blue vaulting, relieved by stars of gold, set in painfully regular order, yet the whole is subdued, softened by the quiet tones of the rose windows and skylights that admit most of the light. It is a vast interior, and the beauty of its altars, pulpit and organ goes far to repay one for any little disappointment he might feel with the remainder. These details are the work of Victor Bourgeau, and are designed in the most flamboyant of Gothic, laden with carving and statuary, and are certainly works of art. They are comparatively late additions to this very old church—1876, I believe, is their date.

This Victor Bourgeau also erected St. Peter's Cathedral—a small scab copy of St. Peter's at Rome—and also most of the Catholic



DRAWING BY HERBERT RAILTON.

churches, convents, schools, and other institutions in lower Canada. He was a most eccentric old gentleman and intensely loyal to Canada. The story is told of him that the Bishop of Montreal sent him to Rome to see St. Peter's, and to profit by the examples of the old masters. He remained in the Eternal City three days, then returned to Canada, disgusted with foreign stuff—"why," said he, "I saw nothing but that we *Canajens* could improve upon, and, besides, in Rome everything smelt so bad . . .!" He died three years ago, over eighty years of age, and for years occupied in Canada the position now held in this country by our reverend brother Dunham, of Burlington, Iowa—that of grand father or dean of the profession.

I said I liked to go to grand mass in old Notre Dame. Imagine, dear reader, that you know something of the beautiful symbolism of the service, the vestments worn by the celebrants, and the sacred vessels used in the mass. Imagine a chancel filled with nearly two hundred priests in gorgeous apparel, choristers in

somber black and altar boys in red. Picture to yourself the glitter of gold, and sparkle of gems, and flicker of numberless tapers upon the altar. Take an imaginary sniff at the sweet incense, then try and remember the most impressive music you ever heard, and multiply it by one hundred, and imagine it comes from a choir away up above you—seemingly in heaven—and that its strains are the combined effects of the grandest organ upon this continent, an orchestra of forty pieces, and something like four hundred trained male voices! Look about you and see eight thousand heads bowed in prayer, and you will appreciate my reasons for liking to be there, and you will likewise feel an undefinable, yet irresistible desire to pray—agnostic though you be. Why, it is spectacular grand opera, and has more attractions for me than has "Lohengrin," even with all the pomp and circumstance given it at Bayreuth.

I read Mr. Adler's article on "Fireproof Building," in THE INLAND'S last number, with a great deal of interest, and only regret that it was not published in some of the big dailies, where it would be read by the masses. My one consolation is that the daily press so frequently copies such matter from THE INLAND ARCHITECT, and may give that article the wide circulation it merits. It would do much to counteract the prejudice of the public against that class of building. It, the public, has so often been told by architects, unprincipled and otherwise, that such and such a building was fireproof, only to see it in a little while burn down or seriously damaged by fire, that the entire profession is in disrepute and looked upon as triflers with the truth.

Not long ago mill construction was called "fireproof." I have seen slow-burning construction foisted upon its owners and gravely accepted by them as "fireproof"; why, everything that has a steel beam in it is thought, by the layman, to represent a claim made by us that it cannot burn, a claim found by him, the layman, to be untenable, false, a delusion and a snare!

How much better it would be to frankly admit that the word "fireproof" is a misnomer; that all our efforts are in the direction of fire-retarding and slow-burning construction; that a really fireproof building must needs be in the center of a bare ten-acre field—if it is to have windows—and must be built solely of firebrick and concrete, tile floors, steel doors, mica "glass," and its furnishings of steel, its hangings of asbestos, lighted by day only and heated by some solar system, besides being inhabited with people of iron will, clothed in asbestos and mail, and who never indulge in alcoholic beverages or sulphurous language.

It seems a common impression among us that the English draftsmen are exceedingly mechanical, stiff, in their drawing. I have heard it said by prejudiced Americans that an English draftsman never made a straight line otherwise than with a ruling-pen, and that all their drawings partook of the nature of ruling-pen, cast-iron, copper-bound affairs, nothing sketchy, picturesque or dainty.

The drawings of T. Raffles Davidson would seem to contradict this assertion, if no one else did that sort of thing; but for a really artistic, effective, dashy, yet accurate drawing in all its architectural detail, recommend me to the accompanying sketch, by Herbert Railton, of Henry Purcell's tomb in Westminster, that I find in a late *Illustrated London News*. Do we find anything strictly American in our journals that surpasses it?

DIRECTORS' MEETING, AMERICAN INSTITUTE OF ARCHITECTS.

AN adjourned meeting of the Board of Directors of the American Institute of Architects, was held in New York, February 14, 1896, the president, Mr. George B. Post, in the chair.

There were present, in addition to the president and secretary, Messrs. E. H. Kendall, Jeremiah O'Rourke, G. A. Frederick, Robert Stead, Warren R. Briggs, George C. Mason, Jr., Theo. C. Link, Frank Miles Day, C. F. Schweinfurth, and R. D. Andrews, of the Board, and R. W. Gibson, a former member of the Board.

The secretary reported that Dankmar Adler, of Chicago, had returned to professional practice after a slight interval, and it was decided that his name should be continued on the rolls, and that his membership be considered as not lapsed.

The Institute having received a request to appoint a member to a joint committee on Standard Rules for Electrical Construction and Operation, the president requested the secretary to act in that capacity.

Since the last meeting of the Board, notice has been received of the death of Mr. A. Page Brown, of San Francisco, who died January 21, from injuries received last October; of Mr. A. P. Cutting, of Worcester, Massachusetts, who died February 6, from extreme nervous exhaustion, at Los Angeles, California, where he had gone for his health, and of Rev. William H. Furness, D.D., the oldest of the honorary members of the Institute.

The president reported that there had been no meeting of the committee appointed to prepare a bill for securing plans for the erection of the public buildings of the United States, and no active work done except to ascertain the state of public opinion as to what can be done. A good deal of favorable opinion has been developed in Chicago and Philadelphia, and the present Committee on Public Buildings and Grounds is more favorable to a bill, taking the work of designing public buildings out of the office of the Supervising Architect, than was the committee of the last Congress. The senate committee is also considered to be

more favorable to such a bill. A former self-constituted committee had raised some \$250 to meet necessary expenses of their inquiries, and the present committee wished instructions. It was found that there were two committees in existence—the committee appointed January 9, 1894, apropos of the Buffalo Federal Building, and that appointed January 4, 1895, to draft a bill to regulate the designing of government buildings. After a full debate, Mr. Day offered the following resolutions, which were unanimously adopted:

Resolved, That the Chair appoint a committee of five, of which the president, Mr. George B. Post, shall be chairman, with five alternates, to secure the passage of the Aldrich Bill, or such bill of similar import as shall commend itself to the committee.

Resolved, That the said committee be empowered to raise, by voluntary subscriptions, funds for the said purpose.

Resolved, That all previous committees appointed for similar purposes be discharged.

The Chair appointed as members of the committee, in addition to himself as chairman, Messrs. Bruce Price, John M. Carrère, J. G. Hill, Alfred Stone; alternates, E. H. Kendall, H. J. Hardenbergh, Robert Stead, R. S. Peabody.

The president reported the efforts of the Chapters in the state of New York to procure the passage of a law licensing architects, and the secretary was requested to communicate with Mr. J. H. Pierce, of Elmira, and procure data on the subject and communicate it to the architectural journals.

The secretary read a letter from the St. Louis Chapter, acknowledging the receipt of the vote of thanks passed by the St. Louis Chapter.

The secretary read the following report from the Washington Chapter, with a request that action be taken thereon:

The committee appointed by the Washington Chapter of the American Institute of Architects to report on the advantage of Washington as a place for the headquarters of the American Institute of Architects, submit the following:

1. Washington city, as the seat of the Government, is the proper place for the headquarters of all national associations.

2. The broadest field the American Institute of Architects has for producing good results lies in obtaining national legislation in relation to art and construction.

The question of government testing stations, which was advocated some years ago by the Washington Chapter, and endorsed by the convention of the Institute at Buffalo, as well as the Tarsney, McKaig and Aldrich bills in reference to the Supervising Architect's office, can be more efficiently advocated with the home office of the Institute located in the national capital.

3. Washington city is rapidly taking a prominent part among the cities of the country as an educational center; here the government has already collected a large number of valuable documents, books and material relating to history and the arts, as well as statuary in memory of the country's great men.

It seems that here should be collected and displayed for use the material belonging to the Institute. Here should be placed paintings, monuments or tablets in memory of architects who have accomplished enough to be worthy of having their names honored.

It is in this city that the people of this and foreign countries expect to see and study such subjects.

4. The government could give aid in the establishment of an architectural museum in this city when it would not in any other city of the country. Through consuls and gifts from foreign governments, as well as appropriations, a museum could be started here, under the auspices of the Institute, that would soon surpass any similar collection in the country.

5. If the Institute desires to erect its own building, a site centrally located could be bought in this city at less cost than in any other city of the same magnitude. A location opposite one of the government reservations would allow for more artistic treatment than would probably be available on sites that could be obtained at reasonable cost in other cities.

6. If it is not considered desirable to erect a building at the present time, two institutions in this city will assign rooms to the Institute.

The Corcoran Gallery of Art will, upon formal application, give the Institute quarters in their new building on Seventeenth street and New York avenue. One of a group consisting of the President's house, Treasury, War, State and Navy Department buildings, a building overlooking the Mall, centrally located and in every way suitable for the purpose.

7. The Smithsonian Institution will form an association with the American Institute of Architects similar to the one they now have with the American Historical Association.

The charter of the Institute in this case must be modified on the lines indicated in the charter of the American Historical Association, a copy of which is attached to this report.

The Institute in this case would obtain rooms for the display of books, photographs and other matter pertaining to the society, and have their proceedings printed by the government free of expense.

In this way the proceedings of the Institute could be more fully illustrated, and in them could be published measured drawings of some of the older buildings and drawings of merit as they are presented.

This would open a wide field of usefulness for the American Institute of Architects.

We submit this report with the request that the Institute be urged by the Chapter to make Washington city its permanent headquarters, and accept the offer of either the Corcoran Gallery of Art or the Smithsonian Institution.

(Signed)

ROBERT STEAD,

GLENN BROWN,

Committee.

Approved by the Washington Chapter with the request that the Institute act upon the report of the committee.

(Signed)

ROBERT STEAD, President W. C. A. I. A.

GLENN BROWN, Secretary W. C. A. I. A.

The president thought that the Institute did not realize its strength, and expressed the opinion that money could be raised to provide suitable quarters.

After a full discussion, it was voted that the report be referred to the committee appointed at the St. Louis convention, which committee shall have power to add to its membership, and that said committee be requested to report to the next meeting of the Board of Directors.

The Washington Chapter also presented a printed copy of a resolution passed at a meeting of the Chapter, held on Friday evening, February 7, in reference to the prominence given in the newspapers to Mr. Edward P. Casey, as architect of the Congressional Library Building. The report was received and ordered to be put on file, and Mr. R. D. Andrews and Mr. Frank Miles Day were appointed a committee to confer with Mr. Casey, and report to the Washington Chapter their findings in the matter.

Mr. A. H. Thorp's communication in regard to alterations in the schedule of charges was laid on the table, as the Board was not prepared to take the action asked for.

The proposal of I. Haas & Co. to publish a history of the Institute, together with photographs and biographical sketches of the officers and fellows of the same, and write-ups and photographs of prominent builders, to be paid for by said builders, was declined.

A communication of Mr. R. L. Corthell, in regard to an International Congress of Engineers and Architects, was placed on file.

A communication of Mr. B. H. Bell, in regard to a memorial to Mr. Hunt, was referred to the New York Chapter, with full power to represent the Institute in the matter.

A communication from Mr. A. E. Borie, in regard to a memorial to Mr. John Stewardson, was referred to the Philadelphia Chapter, with full power to represent the Institute in the matter.

The Board of Directors, in accordance with the powers vested in them, voted to elect Leopold Eidlitz, of New York, and George Keller, of Hartford, Fellows of the American Institute of Architects.

The applications of the following gentlemen were received, their drawings examined, and their names approved for submission to the Fellows of the Institute for election by letter ballot: George Henry Clemence, Worcester, Mass.; Leon E. Dossez, Washington, D. C.; Louis E. Stutz, Washington, D. C.; Will Sterling Hubbard, San Diego, Cal.

The Chair appointed Messrs. William C. Smith, of Nashville; George C. Mason, of Philadelphia, and Alfred Stone, a committee of arrangements for the Nashville convention to be held in October, 1896. Adjourned.

NEW SUPERVISING ARCHITECT'S OFFICE BILL.*

IN the House of Representatives, December 12, 1895, Mr. Aldrich introduced the following bill, which was read twice, referred to the Committee on Public Buildings and Grounds, and ordered to be printed:

A BILL TO PROVIDE FOR THE SECURING OF PLANS AND FOR THE ERECTION OF THE PUBLIC BUILDINGS OF THE UNITED STATES.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President, by and with the advice and consent of the Senate, shall appoint a commission on public architecture consisting of three architects of high scientific and artistic attainment and large practical experience, and two officers of the Engineer corps of the United States Army. If necessary, a separate appointment of any or all of three members of the commission who are architects may be made for each building under consideration, and members of the commission for one building may act upon other buildings. That the commission, under the general direction of the Secretary of the Treasury, shall discharge all the administrative duties relating to the procuring of designs and the appointing of architects for all buildings hereafter erected by the Government of the United States.

Sec. 2. That the Secretary of the Treasury shall be the president of the commission ex officio, and the Supervising Architect of the Treasury Department shall be a member of the commission ex officio. In the absence of the president of the commission one of the members shall be elected as chairman by ballot, and he shall preside at the meetings and perform such other duties as the rules of the commission may prescribe; and the Supervising Architect of the Treasury shall act as secretary of the commission.

Sec. 3. That the Secretary of the Treasury shall convene the commission whenever in his judgment the exigencies of the service require it.

Sec. 4. That the commission shall adopt rules and regulations governing competition in the procuring of designs and for the government of its meetings and the general performance of its duties. The members of the commission shall be paid their actual expenses and subsistence and a per diem allowance of ten dollars while actually engaged in the performance of their official duties, but no per diem allowance or salary shall be allowed to any civil or military officer on account of his being employed on the commission, but his actual traveling expenses and subsistence shall be paid while engaged thereon.

Sec. 5. That in case the limit of cost provided by law is one hundred thousand dollars or over, the commission shall select by ballot, for each building, five architects to prepare designs in competition; in case the limit of cost is less than one hundred thousand dollars, the commission may, in its discretion, select by ballot an architect without competition. No architect shall be eligible for entering as a competitor, or for appointment, who has not had at least ten years' experience as an architect-in-chief, and unless he can satisfy the commission, through work already done by him, or otherwise, that he is competent to take charge of the economical construction of the building. The commission shall cause to be made and issued to competing architects surveys, schedules of requirements for the building, limitations of cost, and all facts which might control or influence the character of the required design. The commission shall specify the number and character of the drawings required, and fix a definite time for their completion. The Secretary of the Treasury, upon the recommendation of the commission, shall pay to each unsuccessful competitor, to reimburse him for expenses incurred in preparing the competitive drawings, the following amounts: For designs for buildings to cost not more than one hundred and fifty thousand dollars, the sum of one hundred and fifty dollars, and for each and every one hundred thousand dollars of the limit of cost of the

building above that amount, the additional sum of one hundred dollars; but in no case shall more than one thousand dollars be paid to any unsuccessful competitor.

Sec. 6. That the commission shall reject and return to the author any drawings which have failed to exactly comply with the requirements and regulations adopted by the commission for the competition, and no compensation for their preparation shall be paid, and the author thereof shall be debarred from all further participation in the competition. The commission shall carefully examine the drawings of each competitor in competition and shall select one design as the design of the proposed building, and shall recommend its author as the architect for that building and return forthwith all other drawings to their authors. The Secretary of the Treasury shall thereupon appoint the architect so recommended and he shall perform all the customary duties performed by an architect in private practice, namely: The making of all preliminary sketches, the modification of his designs to meet possible requirements of the commission, the preparation of a set of general working drawings to procure estimates; the preparation of a set of general details on a larger scale, a set of full-size drawings, for molded, carved, or ornamental work, and a set of all other original drawings and specifications required by the commission. He shall supervise the construction of the building, and no payment shall be made to any contractor until the certificate of the architect has been received by the Secretary of the Treasury that the work has been executed in conformity with the contract. He shall file a complete set of the construction drawings in the Treasury Department, from which all duplicates shall be made, which duplicates shall be paid for out of the appropriation for the building. The architect shall be paid for his services a fee of five per centum upon the total cost of the work and the usual traveling expenses. The expenses of the commission and the fees of the architect shall be paid by the Secretary of the Treasury out of the appropriation for the building in the erection of which they were incurred.

Sec. 7. That the Secretary of the Treasury, upon the recommendation of the commission, shall authorize the architect to employ a competent clerk of the works, at a salary to be established by the commission, and he shall be paid for his services out of the appropriation for the building.

Sec. 8. That the Supervising Architect of the Treasury Department, under the direction of the Secretary of the Treasury, shall be the representative of the Government in all matters connected with the erection and completion of public buildings and the payment therefor. He shall receive proposals for the work, and, with the approval of the architect of the building, he shall award the contracts therefor. He shall perform all other duties that now pertain to his office except such duties as are vested by this Act in the architect of the building.

Sec. 9. That all Acts and parts of Acts inconsistent with this Act are hereby repealed.

OUR ILLUSTRATIONS.

Residence of T. T. Seelye.

Residence of John U. May. Franklin B. Meade, architect.

Detroit Wheelmen Clubhouse. Edward C. Van Leyen, architect.

Flat Building for John C. Morper, Chicago. W. L. Klewer, architect.

Details from Guaranty Building, Buffalo. Louis H. Sullivan, architect, Chicago.

Residence of John H. Brown. Alfred Hoyt Granger, architect, Cleveland, Ohio.

An Inglenook, T-Square Club. First mention, David Knickerbocker Boyd, Philadelphia.

Photogravure Plate: Residence of Edward C. Potter, Chicago. Charles S. Frost, architect.

Appraiser's Warehouse, New York. William Martin Aiken, U. S. Supervising Architect.

Law Library, Interior View, St. Paul, Minnesota. William Martin Aiken, U. S. Supervising Architect.

Stair and Elevator Hall, Milwaukee, Wisconsin. William Martin Aiken, U. S. Supervising Architect.

Apartment Building for L. G. Wells, Chicago. J. H. Dinwiddie and Robert T. Newberry, architects.

The proposed New Market Building of St. Louis, Missouri. Louis Mullgardt, architect. It is planned to cover four blocks in the heart of the city.

Towers as follows: For Post Office, Customhouse and Courthouse, Milwaukee, Wisconsin; for Courthouse and Post Office at Savannah, Georgia; for Post Office at Washington, D. C.; William Martin Aiken, U. S. Supervising Architect.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure Edition.

Entrance, Chicago Athletic Club. Henry Ives Cobb, architect.

View in Rotunda, Marquette Building, Chicago. Holabird & Roche, architects.

Parlor in Residence of Mrs. J. C. Coonley, Chicago. Pond & Pond, architects; also Stair-Hall.

View in Hall, Second Floor, New York Life Building, Chicago. Jenney & Mundie, architects.

View in Residence of J. C. Brocklebank, North Edgewater, Chicago. George W. Maher, architect.

Interior View, Remodeled Entrance of Continental Bank Building, Chicago. Patton & Fisher, architects.

*54th Congress, First Session, H. R. 1470.

OBITUARY.

CHARLES A. KESSELL.

Among the charter members of the Chicago Architectural Sketch Club when organized eleven years ago, none were more active in directing its course than Charles A. Kessell, and his death on March 4 was a shock to a large number of architects and draftsmen, particularly those with whom he has associated for the past decade. He held the office of treasurer of the club for two years, and was afterward elected its president. During the construction of the buildings for the Columbian Exposition he was employed in the office of Director of Works, and had charge of the construction drawings of the Administration and the Fisheries buildings, the Choral Hall, and other minor works. As his constructive talents were of a high order, the same could be said of his artistic ability, his water colors always ranking high in club exhibitions, while those of landscapes, etc., particularly those executed during a visit to Norway some years ago, showed exceptional skill with the brush. In manner he was quiet, and in purpose energetic and persevering, and although but forty-three years of age, his studious life had made him a master of his profession. He was born in Norway, but came to Chicago when one year old. Two sisters mourn him, and the profession, of which he was so honored a member, will miss his presence at those gatherings in which he was a genial and cordial participant.

MOSAICS.

CHARLTON, GILBERT & DEMAR, architects, of Marquette, Michigan, have opened a branch office in the First National Bank building, Milwaukee, Wisconsin.

He looked over the plans for the new building that he intended to have erected and shook his head.

"What's the matter?" asked the architect.

"Too elaborate," was the reply; "too much unnecessary fancy work to suit me."

"No more than is usual on first-class buildings," protested the architect. "What would you have left off?"

"The ornamental work at the top."

"But, my dear sir," protested the architect, "that is quite the thing now. We make the buildings plain, except at the bottom and the top."

"Well," returned the capitalist decidedly, "it's all right to have a little ornamentation for the first story, but I object to paying for artwork for the angels. We'll have the top plain."

The Colliery Engineer Company, of Scranton, Pennsylvania, have issued the first number of a new paper called *Home Study*, which is intended to furnish elementary instruction in the industrial sciences to students and to readers of the technical press who desire a better knowledge of arithmetic, geometry, trigonometry and the principles of physics and drawing. The initial number of *Home Study* is certainly excellent, and if the same high standard is maintained there can be but one result—success. The subjects treated include mechanical, steam and electrical engineering, architecture, plumbing, heating and ventilation, mining engineering, drawing, civil engineering, geometry and popular science. The writers are representative instructors in their respective lines, and seem to have hit the happy mean of popular interest without descending to mere dilettanteism.

ASSOCIATION NOTES.

CLEVELAND ARCHITECTURAL CLUB.

The first annual exhibition of the Cleveland Architectural Club was held from February 10 to 15, 1896, inclusive, in the Garfield building. The exhibition was a success from every standpoint, from the large attendance financially, and from the kindly treatment given by the local press.

Exhibits were made by the P. D. Club, Boston; Chicago Architectural Club, Grand Rapids Architectural Club, St. Louis Architectural Club, Sketch Club of New York, the Mural Painters, the T-Square Club of Philadelphia, the Schools of Architecture of the University of Pennsylvania, Columbia College, and Harvard University, and by many of the architects of all the principal cities of the country.

The club wishes to take this opportunity to thank all who contributed to the success of the exhibition.

A catalogue containing about sixty reproductions was issued and has been very favorably commented upon.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, March 10, 1896.

The two months just closed have developed a few encouraging indications for the coming ten months. It is now clear that there will be a larger volume of business in 1896 than in 1895. As to prices, the seemingly warranted inference is that they will be somewhat more remunerative than last year. The prospects are encouraging for a general expansion of business and on a more satisfactory basis. This is undeniably true in regard to general construction. Preparations have been made for very large and continuous building operations in all large cities and in scores of smaller cities and towns where records are kept. One prominent feature this year will be office building in

cities. The requirements in this direction have recently assumed larger proportions than ever. The investments are exceptionally remunerative, as a rule. Besides this, trolley line construction has opened up urban and suburban opportunities for construction that means much for building interests. An impulse has been given to house building that will expand construction in that direction, possibly for years to come. The decline in cost of most material exercises a favorable influence. Facilities for an increased production of building material are being regularly added. Competition in every branch has reached an acute stage. Enormous operations only are profitable. With cheap prices and narrow margins, however, have come increased opportunities. The workers for wages, as savings bank returns and building and loan association statistics demonstrate, are widening the margin between them and want, and hence it is that there is such a strong setting in of house ownership. Lumber has not weakened perceptibly, but planing mill products are perhaps at their lowest known level. House furnishment is cheap. All the factors in greater house building are on the side of greater enterprise. The wealth producing capacity in some respects is better and greater than in the phenomenal year of 1892. Then general and average individual indebtedness was greater. Since then liquidation and economy have gone hand in hand, with competition in the saddle to drive. As a result the people find themselves relatively much better off, cost of production and living reduced, and earnings, if not relatively increased, at least not less in purchasing power. The political conditions prevailing unavoidably affect business. Higher tariffs, to the limit of yielding a government-supporting revenue, are probable a year hence. Silver legislation favorable to its restitution is not immediate, but it is the burning fagot that will singe the noses of the contending dogs in the fight. The American people have an abundance of sound sense and they can be trusted to do pretty nearly right.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Buffalo, N. Y.—The designs of William H. Archer, architect, have been accepted from among all submitted for the new building for the Working Boys' Home. The lot is of peculiar shape and required great study to utilize every inch of space. The building will have a frontage of 98 feet on Niagara square and Genesee street, and runs back 134 feet to Guthrie alley, and 48 feet of frontage in rear. The new building will be four stories high and basement, and will be constructed of pressed brick, with Medina stone and terra cotta trimmings, and when completed will present a handsome appearance. The basement, which is 11 feet high, contains bowling alleys, billiard, gymnasium and bath rooms. In the rear, kitchen, store rooms, pastry room, laundry, steam drying room and refrigerator, with two flights of stairs to first floor. On the first floor is located the committee rooms, reception room, library, office, association room and parlor. In the rear are the priests', sisters' and boys' dining rooms, and serving room with dumb waiter and stairs to kitchen. The hall on this floor is lighted by large dome in ceiling, giving a handsome effect. The second floor is reached by grand and rear staircases. Rooms on this floor are superintendent's apartments, reading, school, class and recitation rooms, and lecture hall to seat 300. Third floor contains eight rooms for use of sisters, with an infirmary for boys, and twelve private bedrooms. The chapel, with 300 sittings, is located on this floor. On the fourth floor are dormitories and private rooms, the latter for the boys who for their good conduct merit them. Father Walsh will be able to accommodate 100 boys in his new building, which will be a credit to the city and a decided improvement to Niagara square; cost about \$50,000.

Chicago, Ill.—Architect George W. Maher: For Judge Brentano, at North Edgewater, a handsome three-story residence, 58 by 70 feet in size; it will be of pressed brick with stone trimmings, have all hardwood finish, the best of modern open sanitary plumbing, gas and electric fixtures, gas ranges and fireplaces, specially designed mantels, sideboards and consoles, electric light, steam heating, etc. For Mrs. S. R. Molloy, a two-story residence, to be erected at Kenilworth; it will be of frame construction, with stone basement, hardwood interior finished in quarter-sawn oak, have the best of sanitary improvements, gas and electric fixtures, mantels, sideboards, etc. For George E. Arndt, a two-story residence, 34 feet front and 47 feet deep, to be erected at North Edgewater; it will be of brick veneer, have oak interior finish, the best of modern plumbing, gas and electric fixtures, mantels, sideboards, laundry fixtures, steam heating. For J. L. Cochrane, a two-story residence of very handsome design in the Old Colonial style of architecture; size 74 by 70 feet; to be erected at Sheridan Drive; it will be of pressed brick and stone with Spanish tile roof, have elegant hardwood finish, special mantels, sideboards and consoles, the best of open nickel-plated plumbing, gas ranges and fireplaces, electric light and steam heating. Also for same owner at Sheridan Drive, a fine residence 66 feet front and 70 feet deep; it will be constructed of boulders and pressed brick, and have tile roof, elegant hardwood finish, mantels, sideboards, consoles, the best of open nickel-plated plumbing, gas and electric fixtures, laundry fixtures, gas ranges, and fireplaces, hot-water heating, etc. For Mr. Jordan, a two-story, basement and attic residence, 32 by 50 feet in size; to be erected at Edgewater; it will be of stone basement and frame superstructure, have all hardwood finish, the best of modern sanitary conveniences, mantels, sideboards, consoles, gas and electric fixtures, electric bells, speaking tubes, hot-water heating. For A. D. Sheridan, a two-story residence, 44 by 35 feet in size; to be erected at Edgewater; it will be of very handsome design, in frame and plaster construction, have hardwood interior, mantels, consoles and sideboards, gas and electric fixtures, electric bells and speaking tubes, heating, etc. Also made plans for three three-story residences to be erected at Edgewater, for J. L. Cochrane; frame, stone basements, hardwood finish, mantels, gas and electric fixtures, furnaces, etc. For E. G. Barrett, a two-story, basement and attic residence, 65 by 40 feet in size; to be erected at Kenilworth; to be of frame with stone basement, have hardwood interior finish, mantels, sideboards and consoles, gas and electric fixtures, electric light, hot-water heating, electric bells, speaking tubes, laundry fixtures. Also made plans for interior finish for residence at Omaha, Nebraska, for F. H. Davis; mantels, sideboards, consoles, hardwood cabinet finish, etc.

Architect J. W. Ackerman: For F. J. Howes, a two-story, basement and attic residence, 24 by 50 feet in size; to be built at Edgewater; it will be of frame with brick basement, have hardwood interior, mantels and sideboards, gas and electric fixtures, heating, etc.

Architects Wilson & Marshall: For Mrs. Vincent, a three-story flat, 25 by 86 feet in size; to be erected at Grand boulevard, near Forty-second street; it will be of buff Bedford stone front, have interior finished in oak, mantels, sideboards, gas and electric fixtures, the modern sanitary improvements, heating, etc. For H. K. Wilson, two handsome three-story residences, to be erected at Grand boulevard near Fifty-fifth street; they will have fifty feet frontage, be constructed of buff pressed brick with Bedford stone trimmings, have elegant hardwood interior finish, special mantels, sideboards and consoles, gas and electric fixtures, all open nickel-plated plumbing, gas ranges and fireplaces, electric bells, speaking tubes, etc.; they will be in the Old Colonial style of architecture and cost \$16,000 each. Same architects designed a four-story and basement apartment house, 50 by 50 feet in size; to be erected at Fortieth street and Lake avenue, for H. M. Wilcox; it will have a buff Bedford stone front, interior to be finished in birch, mahogany and quarter-

sawed oak, have fine mantels, consoles and sideboards, the best of modern open plumbing, gas and electric fixtures, electric bells, speaking tubes, electric light, mosaic and tile work and marble wainscoting, heating, etc.; cost \$20,000.

Architect Alfred Smith: Making plans for St. Augustine's Episcopal Church, 25 by 60 feet in size; to be erected at Wilmette; it will be of frame construction on a brick basement, have gas fixtures, oak finish, stained glass windows, pews, furnace, etc.

Architects D. E. & O. H. Postle: For E. Smethe, a four-story warehouse, 40 by 90 feet in size; to be erected at 129 to 131 West Randolph street; it will be of pressed brick front, with trimmings of enameled terra cotta.

Architects Hessemmueller & Meldahl: For M. Taggart, a three-story and basement apartment house, 75 by 90 feet in size; to be erected at the northwest corner of Sixty-third street and Drexel avenue; the first story will be of buff Bedford stone and the remainder will be of pressed brick with Bedford stone trimmings, the interior to be finished in quarter-sawn oak and Georgia pine, have the best of open plumbing, gas and electric fixtures, electric light, gas ranges and fireplaces, steam heating, etc.; cost about \$45,000.

Architects Lapointe & Hickok: For Adam Darrie, a two-story flat building, 22 by 70 feet in size; to be built at 306 Congress street; it will be of pressed brick and stone front, have plumbing, etc. For John Martin, a two-story store and flat building, 24 by 54 feet in size; to be built at Diversey avenue near Western avenue; it will be of pressed brick and stone front, have oak finish, mantels, sideboards, gas fixtures. For James Foley, a three-story apartment house, 50 by 85 feet in size; to be erected at 42 and 44 Plum street; it will be of stone and pressed brick front, have oak and Georgia pine finish, mantels, sideboards, gas fixtures, gas ranges and fireplaces, mosaic floor, tile bathrooms, electric bells, speaking tubes, steam heating.

Architects Schroeder & Koster: For Jacob Russman, a two-story and basement flat building, 22 by 72 feet in size; to be built at Sixty-second and May streets; it will be of pressed brick and stone front, have oak and Georgia pine finish, mantels, sideboards, gas fixtures, open plumbing, heating, etc. For J. H. Koster, a two-story frame residence, 22 by 52 feet in size; to be built at State street between Seventieth and Seventy-first streets; it will have stone basement, oak interior finish, mantels, sideboards, gas fixtures, furnace, etc.

Architects Huehl & Schmid: For William Waller, a two-story store and photographic gallery, 55 by 63 feet in size; to be erected at Clark street near North avenue; it will be of pressed brick with Bedford stone trimmings, have the modern plumbing, gas and electric fixtures. For Goss Printing Press Company, at Sixteenth street and Ashland avenue, a two-story factory, 144 by 190 feet in size; to be of common brick, have steam heating, electric light, plumbing, etc. Also making plans for a two-story addition, 60 by 50 feet in size; and boiler house for the Q. & C. Company, at Chicago Heights. For John G. Jones, a four-story store and flat building, 25 by 76 feet in size; to be erected at 442 West Van Buren street; to be of pressed brick and stone front, have the modern plumbing, gas fixtures, steam heating.

Architect Thomas H. Mullay: For Stephen Fay, a two-story and basement flat building, 22 by 60 feet in size; to be erected at Kedzie avenue near Polk street; to be of buff Bedford stone front, have oak finish, mantels, sideboards, gas fixtures, electric bells, speaking tubes, heating.

Architects Handy & Cady: For H. L. Bruchner, a three-story apartment house, 30 by 72 feet in size; to be erected at Fifty-sixth street and Indiana avenue; it will be of pressed brick and stone front, have hardwood interior finish, mantels and sideboards, gas and electric fixtures, electric light, gas ranges and fireplaces, steam heating, electric bells, etc.

Architect W. K. Gibb: For David Baumbach, a three-story and basement flat building, 24 by 54 feet in size; to be erected at Fifty-fifth street and Kimball avenue; it will be of pressed brick with buff Bedford stone trimmings, have hardwood interior finish, mantels, sideboards, gas fixtures, etc.

Architect C. A. Strandel: For Frank Lundquist, a three-story and basement flat building, 44 by 66 feet in size; to be built at Roscoe street near Evans-ton avenue; it will be of buff Bedford stone front, have interior finish in quarter-sawn oak and Georgia pine, mantels, sideboards, gas and electric fixtures, electric light, electric bells, speaking tubes, laundry fixtures, steam heating. For M. Lindholm, a three-story and basement flat building, 22 by 56 feet in size; to be built at Reta street near Cornelia; it will be of pressed brick front, with buff Bedford stone trimmings, have quarter-sawn oak finish, mantels, sideboards, gas fixtures, etc. For John Anderson, a three-story and basement store and flat building, 24 by 91 feet in size; to be built at Clark street near Wellington avenue; it will be of pressed brick with Bedford stone trimmings, have hardwood finish, hardwood floors, laundry fixtures, electric bells, speaking tubes, gas and electric fixtures, heating. For Matt Larson, a two-story frame flat building, 23 by 66 feet in size; to be built at Wilson avenue near Clark street, Ravenswood; it will have a pressed brick basement, hardwood interior finish, mantels and sideboards, gas and electric fixtures, laundry fixtures, electric bells, etc.

Architect George Grussing: For Thomas Jubb, a two-story and basement flat building, 24 by 68 feet in size; to be built at Flournoy street near Kedzie avenue; it will be of stone and pressed brick, have all open modern plumbing, gas fixtures, mantels, sideboards, etc. Also making plans for a two-story and basement flat building, 50 by 58 feet in size; to be erected at Winchester avenue near Polk street; it will be of pressed brick and stone front, have interior finished in quarter-sawn oak and Georgia pine, all open nickel-plated plumbing, gas and electric fixtures, steam heating.

Architect John A. Rogers: Making plans for sixteen-story addition to Ashland Block, corner of Randolph and Clark streets; it will be of steel construction, with terra cotta facing, have marble wainscoting, mosaic floors, elevators, steam heating, electric light, modern plumbing. Also making plans for a handsome frame residence, 34 by 60 feet in size; to be built at Indianapolis, for H. C. Atkins; it will be two-story, basement and attic, with stone basement, have hardwood finish throughout, all open modern sanitary plumbing, gas fixtures, etc.

Architect Albert S. Hecht: For himself, a three-story and basement flat building, 25 by 67 feet in size; to be erected at Addison street near Rokeby; it will be of buff Bedford stone front, have interior finished in quartered oak, mantels, sideboards, gas fixtures, laundries, electric bells, speaking tubes, gas ranges and fireplaces, the best of open plumbing, steam heating, etc.

Architect Dwight H. Perkins: Preparing working drawings for the Post Graduate Medical School, to be erected at Twenty-fourth and Dearborn streets; it will be a handsome-looking building, five-story, basement and attic, 50 by 100 feet in size; have pressed brick front with terra cotta trimmings, have hardwood interior finish, the best of modern sanitary conveniences, heating and ventilation, cement and marble floors, elevators, electric light, etc.; also making plans for the interior finish for the Kuntz & Remmler restaurant at 303 Wabash avenue; it will be very elaborate—the classic Renaissance—have freecoing, marble wainscoting, marble floors, electric light, steam heating, etc. Also made drawings for remodeling building at 118 Monroe street, for the Building Trades Club; will put in dining room, billiard room, parlor, business offices, private lobby, retiring rooms, electric light, plumbing and heating. Same architect made plans for remodeling the Leader store, at Adams and State streets, for C. D. Peacock; will put in new store fronts, and very fine decorations, marble and mosaic work, electric light, steam heating, special electric display lighting, etc.; it is 86 by 145 feet in size; they will occupy the basement also and will have the finest jewelry store in Chicago. Also, for Mrs. A. M. Hitchcock, a handsome three-story residence, to be erected at 4741 Greenwood avenue; it will have a buff Bedford stone front, fine hardwood interior finish, special mantels, sideboards and consoles, the best of modern sanitary conveniences, gas and electric fixtures, gas ranges and fireplaces, electric light and steam heating. For James J. Wait, a three-story residence, to be erected at Forty-eighth street and Greenwood avenue; the front will be of Roman pressed brick, with terra cotta and Bedford stone trimmings, the interior to be of elegant hardwood finish, have all the modern improvements and conveniences.

Architects Bright & Burfeind: Making plans for a frame church, 44 by 60 feet in size; to be erected at the corner of St. Lawrence avenue and Oakley avenue Ravenswood, for the Evangelical Lutheran Congregation; to have stone foundation, oak interior finish, pews to seat six hundred persons, gas fixtures, stained glass windows, etc.

Architect Robert S. Smith: For B. S. Pruett, a three-story store and flat building, 75 by 84 feet in size; to be erected at 5339 to 5343 Wentworth avenue; to be of pressed brick and stone front, have hardwood finish, mantels, gas fixtures, steam heating, etc.; cost \$125,000.

Architect W. W. Boyington: For Orlando Powers & Sons, a six-story store and office building, 150 by 150 feet in size; to be erected at Decatur; it will be of Roman pressed brick with terra cotta trimmings, have hardwood finish, marble and tile work, electric light, steam heating, gas and electric fixtures, elevators, etc.

Architects Ostling Brothers: For J. Lygren, a four-story and basement flat building, to be erected at 146 Sedgwick street; to have modern plumbing, gas fixtures, etc.

Architects Fry & Cunyngnam: For J. W. Rossiter, a two-story frame residence, to be built at West Fifty-third street near Chicago avenue; to have stone basement oak and Georgia pine finish, gas fixtures laundry furnace.

Architect W. J. Van Keuren: Making plans for two two-story residences, to be erected at Oak Park; one will be of frame with stone basement, and the other of pressed brick front and sides; will put in all the modern plumbing, oak and Georgia pine finish, mantels, sideboards, gas fixtures, laundry fixtures, electric bells, speaking tubes, furnaces.

Architects Treat & Folz: For Dudley & B. M. Winston, a six-story apartment house, 45 by 98 feet in size; to be erected at 135 to 137 Pine street; it will be of pressed brick with terra cotta trimmings, have mahogany entrance, marble steps, the best of modern plumbing, gas and electric fixtures, elevator, electric light, steam heating, etc. Also made plans for six four-story buildings, to be erected at the southeast corner of Halsted and Twenty-second streets, for Col. H. A. Du Pont; they will be of fireproof construction and cost about \$100,000.

Architects Tuthill & Atchison: Made plans for a three-story and basement flat building, 50 by 62 feet in size; to be erected at Kedzie avenue between Fifteenth and Sixteenth streets; to be of buff Roman pressed brick and Bedford stone, have oak finish, modern plumbing, steam heating.

Architect W. T. Leshar: For Charles E. Follansbee & Son, a four-story and basement apartment house, 160 by 200 feet in size; to be erected at the northwest corner of Wabash avenue and Twenty-third street; it will have two floors of pressed brick and stone, copper halls, hardwood finish, marble, mosaic and tile work, electric light, steam heating, elevators; cost \$200,000.

Cleveland, Ohio.—Messrs. Coburn, Barnum, Benes & Hubbell have formed a partnership under the above name and will remove about April 1 from 40 Blackstone building to well-equipped offices on the thirteenth floor of the New England building. They have in preparation plans for a brick and terra cotta building for the Western Reserve Historical Society, to be built on Euclid avenue opposite Wade Park; the building will be used for museum purposes, and will be fitted up with every modern convenience; the cost will be about \$50,000. For the Plain Dealer Publishing Company they are preparing plans for extensive alterations to the buildings at the northwest corner of Superior and Bond streets, fitting them up with every convenience for a modern printing establishment and newspaper offices. They also have plans prepared for an 8-room brick schoolhouse, to be built at Norwalk, Ohio.

Mr. Alfred Hoyt Granger and Mr. Frank B. Meade have formed a partnership under the name of Granger & Meade, with offices at 731 Garfield building. They report the following: For George W. Cody, at Wickliffe, Ohio, a frame and shingle country residence, 70 by 90 feet in size; modern improvements, hot water; cost \$10,000. For Kenyon Painter, a stone and half-timber residence, to be built on Euclid avenue; cost \$10,000. For A. C. Dustin, at Grand View, a \$15,000 shingle and half-timber residence; hardwood, hot water and modern improvements. For Ernest Pfeuffer, at Akron, Ohio, a modern residence, to cost \$5,000.

Messrs. Lehman & Schmitt, 619 Hickox building, have received the commission to build the new courthouse for Bradford county, Pennsylvania, at Towanda; cost \$150,000.

Architect W. W. Sabia, 33 Blackstone building, is preparing plans for a police station for the city of Cleveland, to be built on East Madison avenue near Woodland avenue.

Much interest is being taken in the competition for the new building for the Chamber of Commerce. The drawings are to be delivered to the committee April 1, 1906.

Cincinnati, Ohio.—Architects Des Jardins & Hayward: For Lewis Season-good, brick and stone residence; cost \$25,000.

Denver, Colo.—Architect F. E. Edbrooke: For J. S. Richie, two-story brick block. For J. F. Campion, three-story stone dwelling; cost \$50,000. Three dwellings, aggregating \$15,000.

Detroit, Mich.—Architect Goslov A. Mueller: For C. D. Midman, three-story brick and stone stores, heated by steam; size 100 by 115 feet; cost \$25,000; projected. For Schwartz Bros., two-story brick and stone store; cost \$5,000; projected. For H. W. Pickel & Co., office building; steam heated, etc.; cost \$5,000; projected.

Architects Rogers & McFarlane: For Merz Capsule Co., three-story brick manufactory; size 60 by 100 feet; cost \$16,000; projected.

Architects Macdonald & Higginbotham: For J. B. Ford, two-story brick and stone residence; cost \$6,000.

Architect H. A. Brede: For Improved Match Co., three-story factory; size 60 by 105 feet; cost \$18,000; projected.

Architect Harry J. Hill: For Jacob Greenstein, block of three two-story brick stores and flats; cost \$5,500; projected.

Architects Company's Draughtsmen: For Michigan Peninsular Car Co., steel frame construction manufactory; cost \$15,000.

Architect John Schuman: For Steinheiser Bros., brick warehouse and office building; cost \$5,000.

Emmet, Michigan.—Architect Harry J. Rill: For Roman Catholic Society, church edifice; brick and stone, furnace heated; size 62 by 139 feet; cost \$16,000. Also parochial residence, three-story, brick and stone, heated by hot water; size 42 by 56 feet; cost \$6,000.

Joliet, Ill.—Architect H. Boehme: For Rev. Father Dane, schoolhouse of brick and stone, oak finish, electric light, slate roof, ornamental glass, steam heat; cost \$18,000. For Henry Schring, residence of brick and stone, electric light, steam heat, ornamental glass, oak finish full plumbing; cost \$8,000.

Marietta, Ohio.—Architects Welton, Kohn & Trowbridge of Detroit, Michigan: For First Presbyterian Society, church edifice of Ohio sandstone, slate roof, stained glass windows; size 54 by 106 feet; cost \$17,000; projected.

Milwaukee, Wis.—Architects Schnetzky & Liebert: For George Brumber, office building of stone and brick; size 128 by 90 by 180 feet, eight stories and basement; cost \$300,000.

Architects H. C. Koch & Co.: Remodeling old Insurance building; cost \$300,000.

Architects E. Brillmaier & Sons: Church of stone, brick and terra cotta; size 220 by 130 feet; hot-air heating; cost \$150,000.

Architect Charles Kirchoff, Jr.: For Joseph Schlitz Brewing Company, storage and office building, at Springfield, Illinois; size 36 by 104 feet; brick; cost \$10,000.

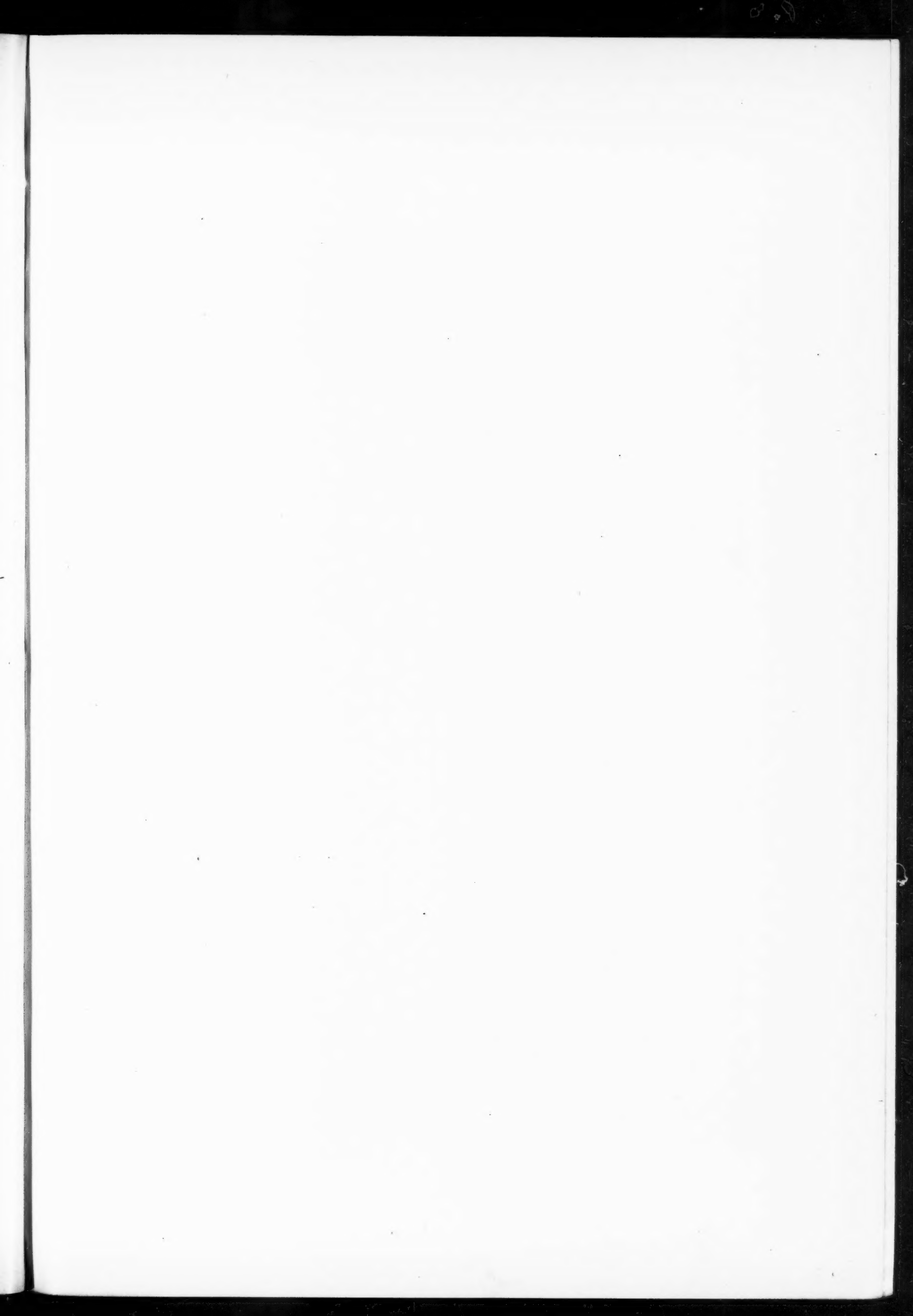
Minneapolis, Minn.—Architects Long & Kees: For Gregor Menzel, business block; size 100 by 102 feet, five stories and basement; pressed brick with stone trimmings; cost \$75,000.

St. Louis, Mo.—A generally hopeful feeling exists in all of the building trades and among the working people of the city, who feel that a year of prosperity and continuous employment is before them.

Architects Eames & Young: For estate of Wayman Crow, bank building, size 86 feet 10 inches by 127 feet 3 inches, one story; cost \$70,000.

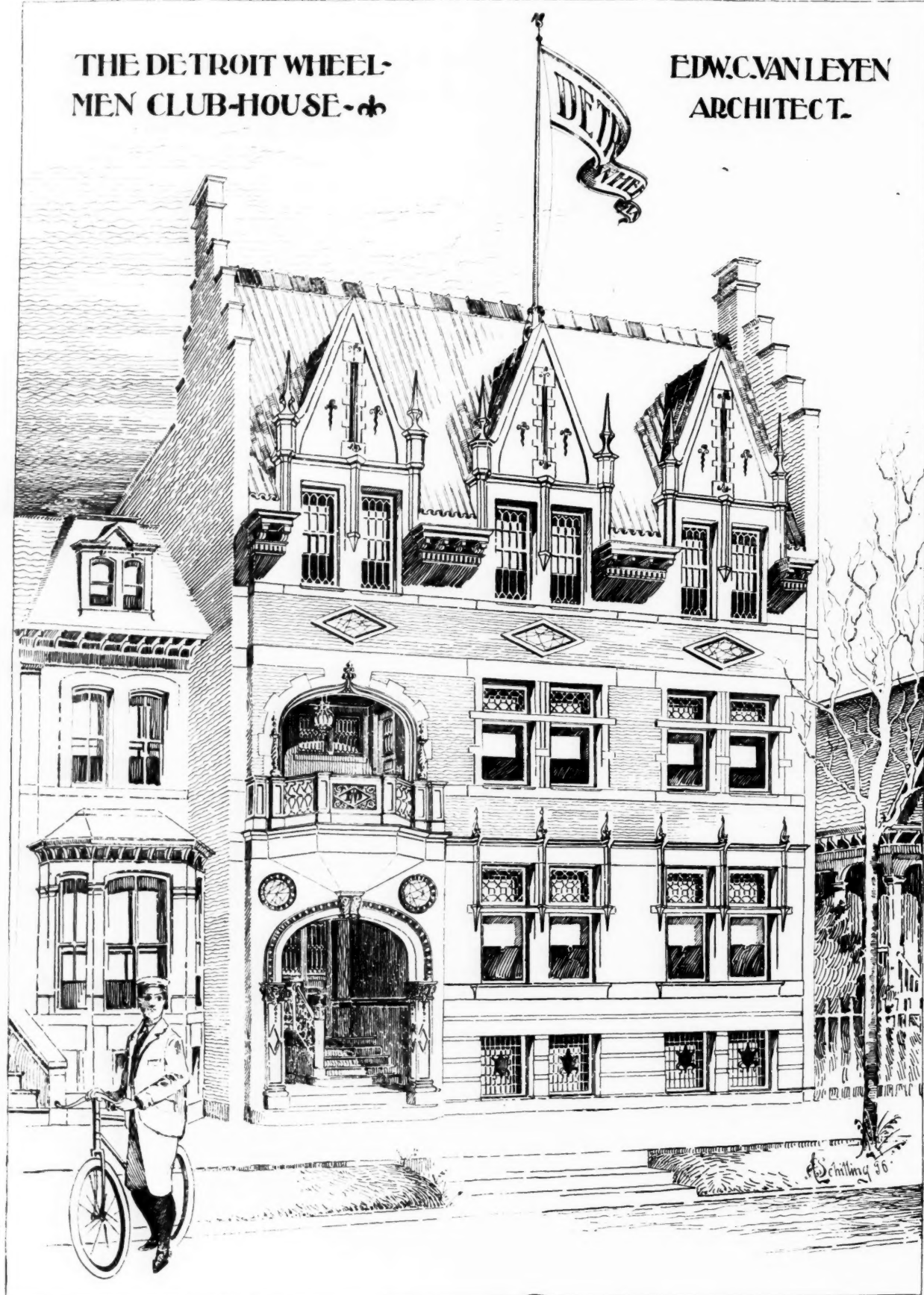
St. Paul, Minn.—Architect Cass Gilbert: For George W. Freeman, residence of brick and stone; size 45 by 60 feet; cost \$15,000.

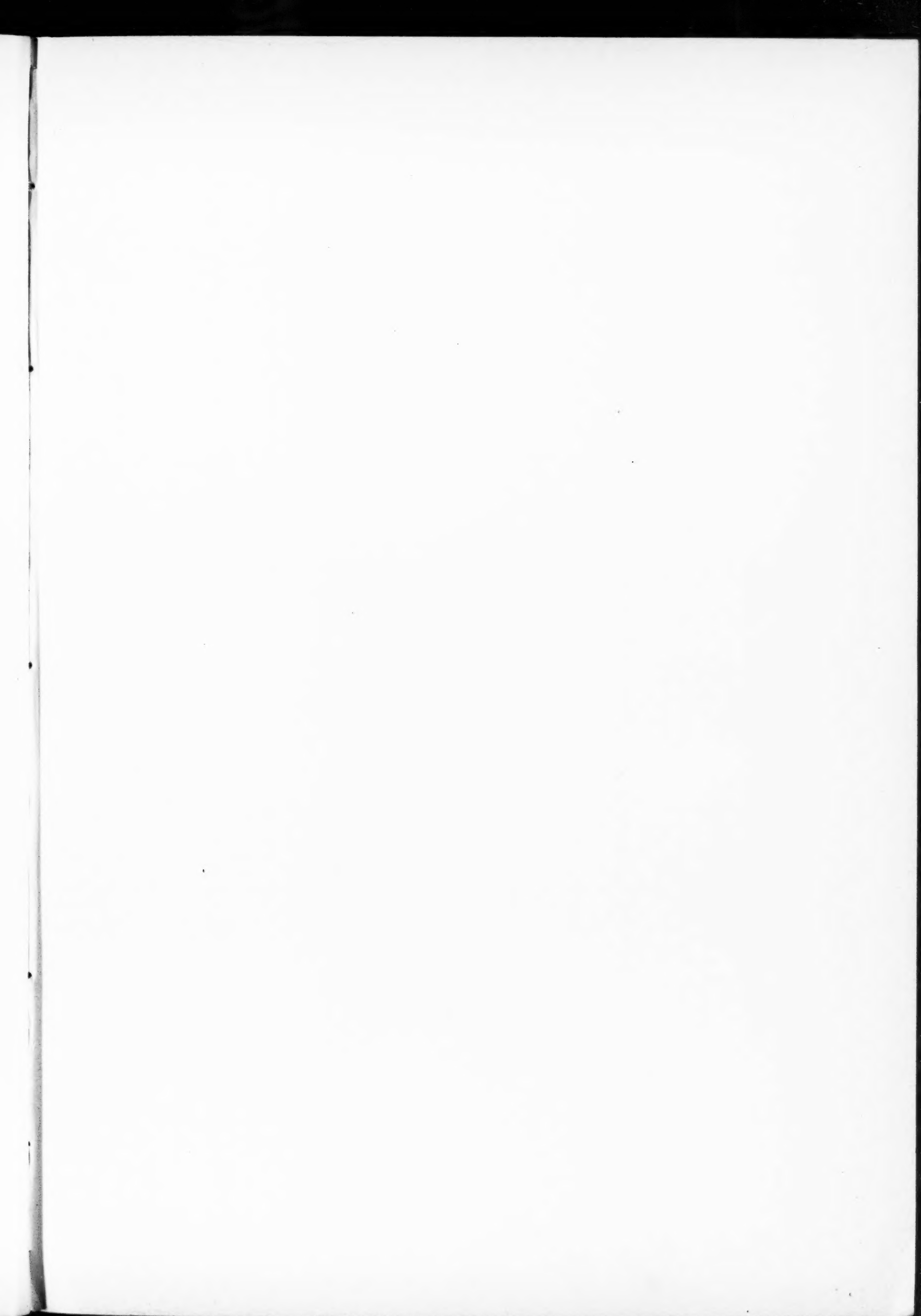
Ypsilanti, Mich.—Architects Malcomson & Higginbotham, of Detroit, Michigan: For Students' Christian Association, association building, two stories; of field stone, cut stone trimmings, tile roof, heated by furnace; size 60 x 65 feet; cost \$12,000; projected.

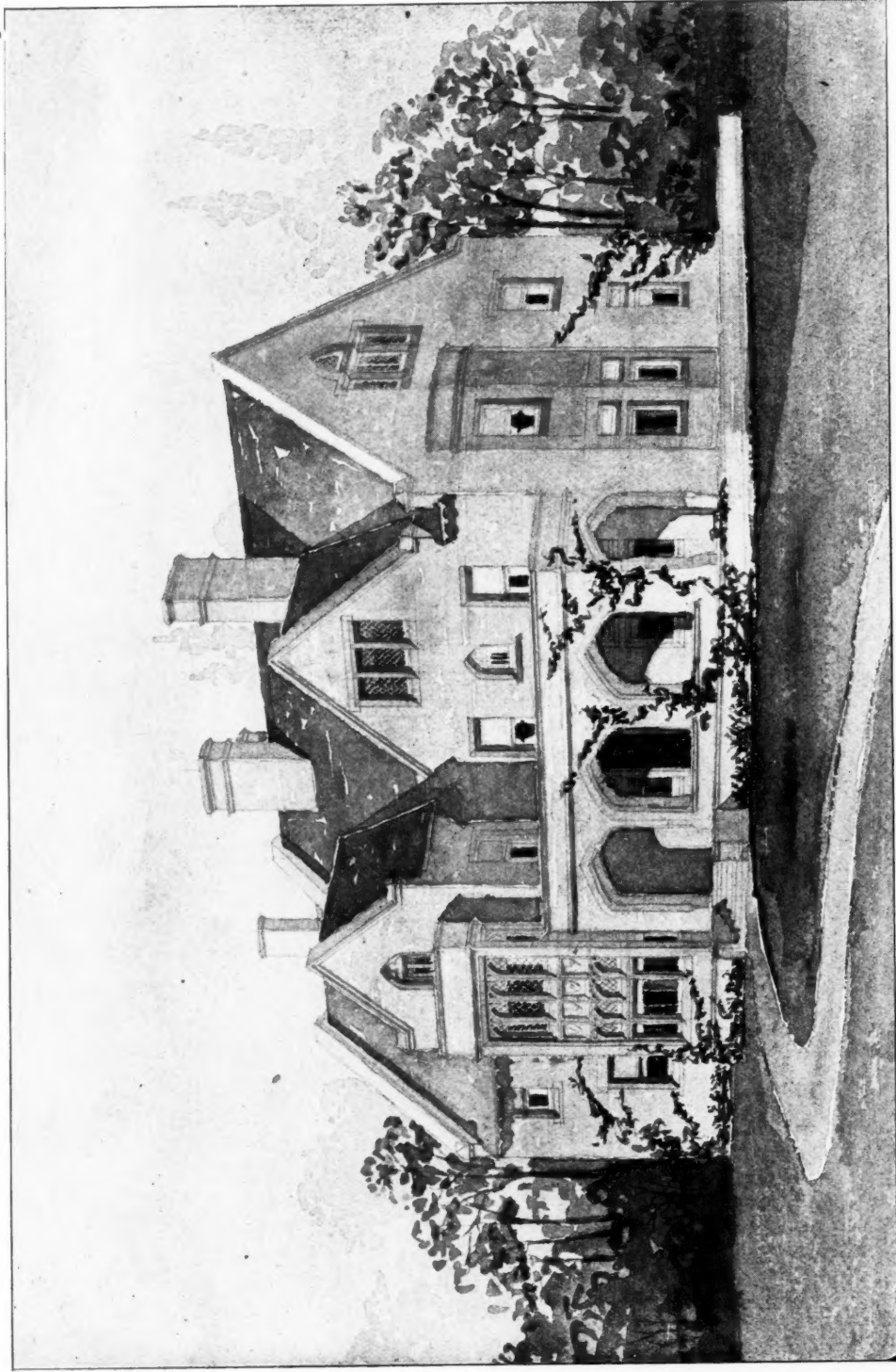


THE DETROIT WHEEL-
MEN CLUB-HOUSE. ♦

EDW. C. VAN LEYEN
ARCHITECT.

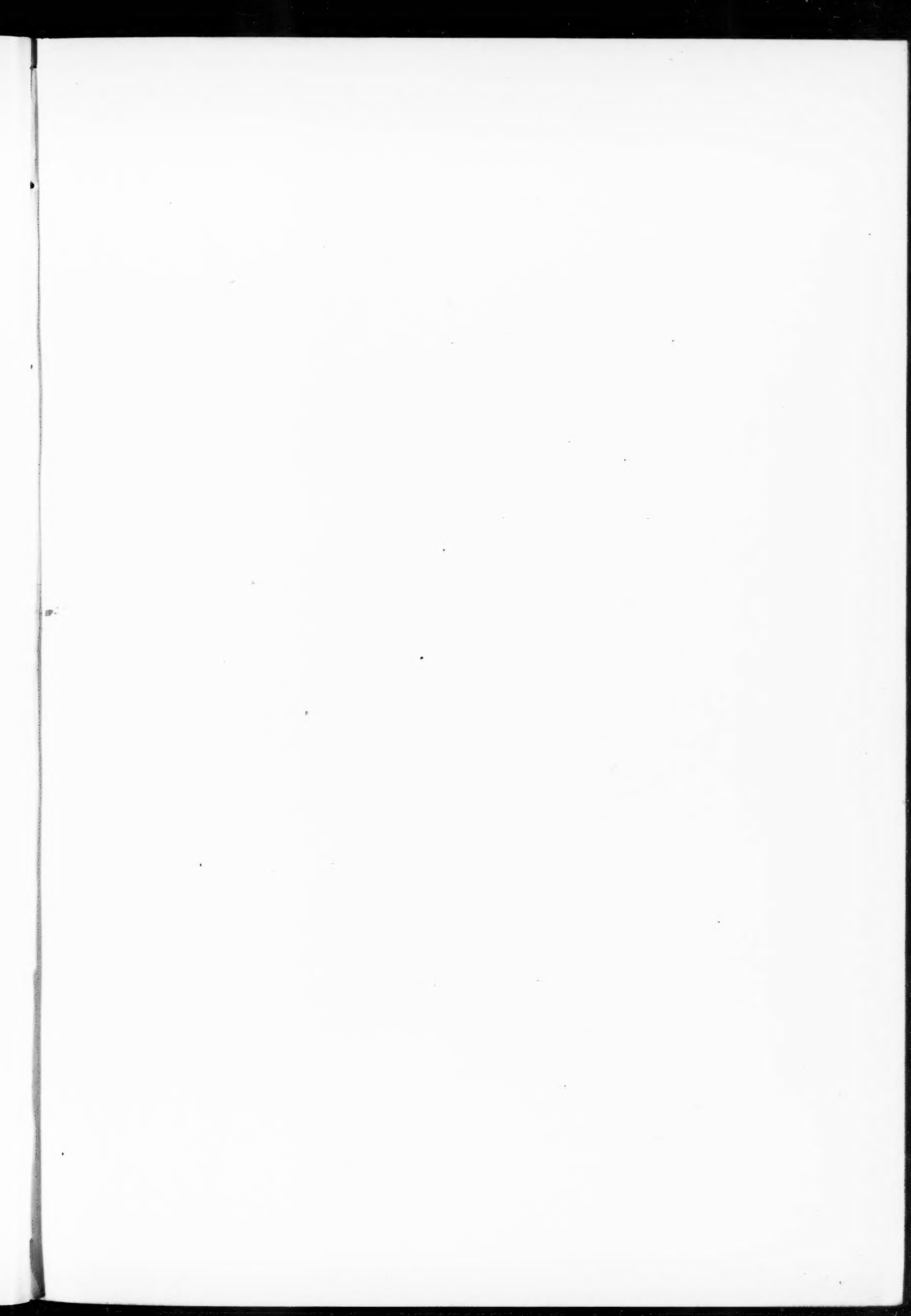


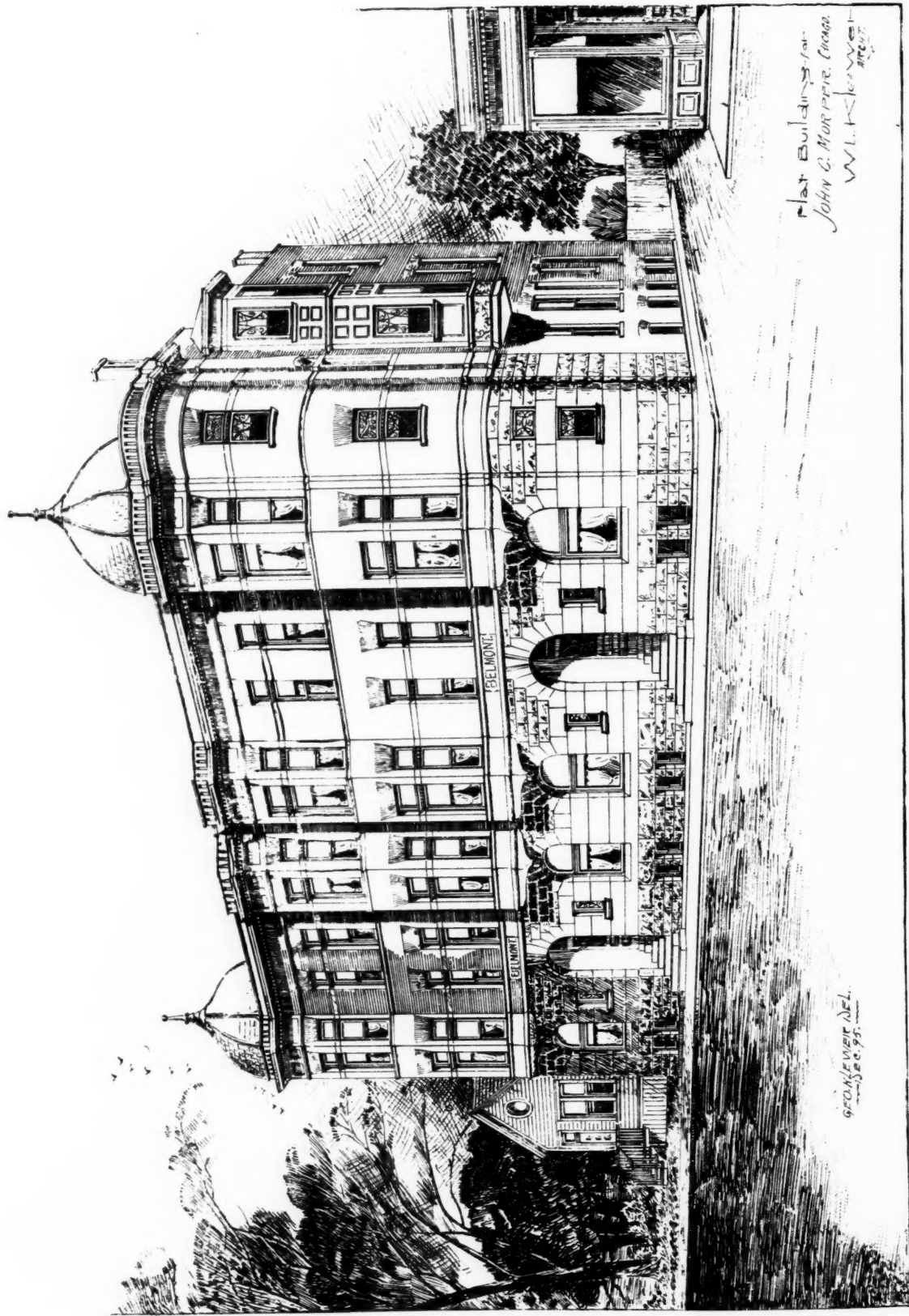


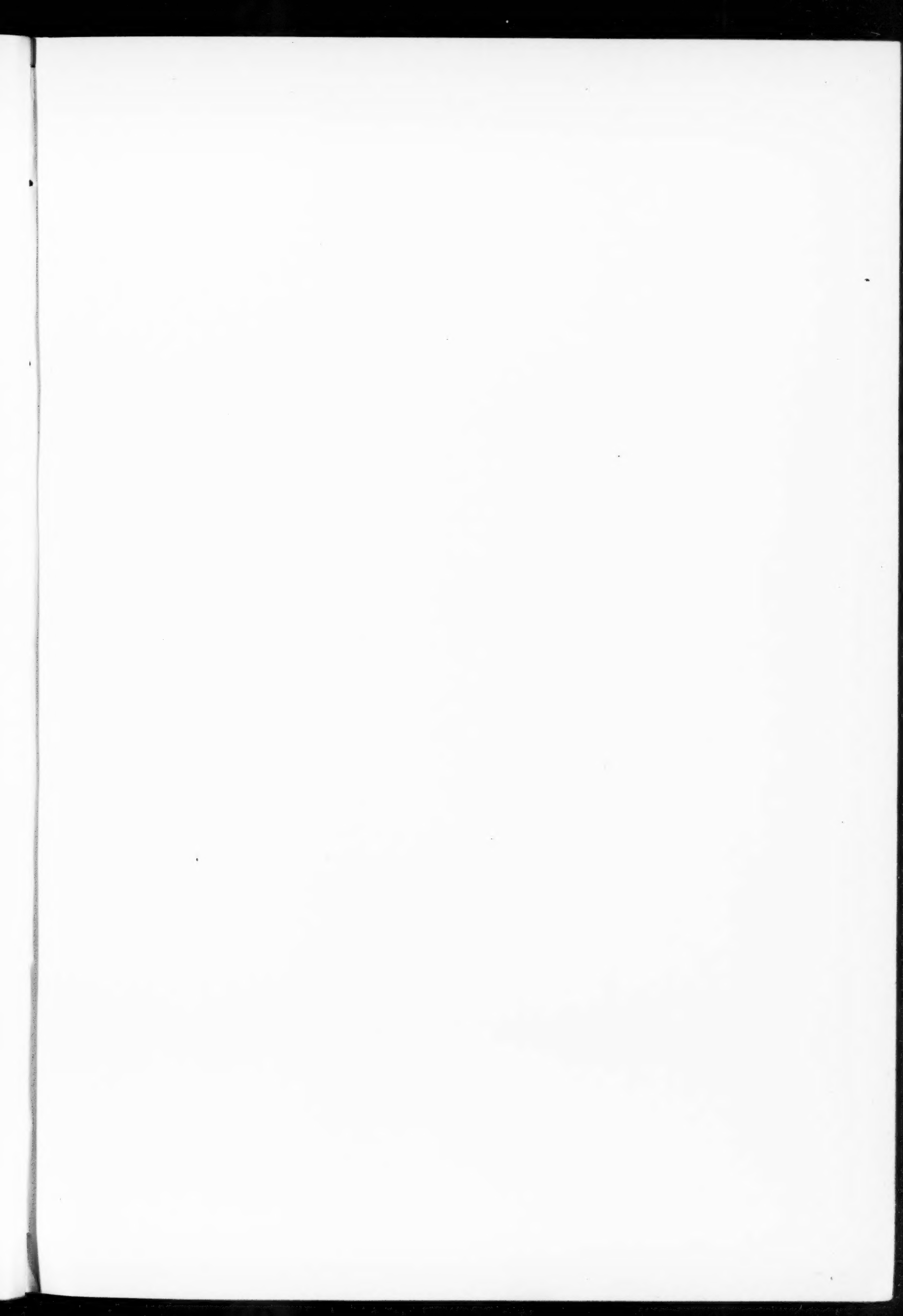


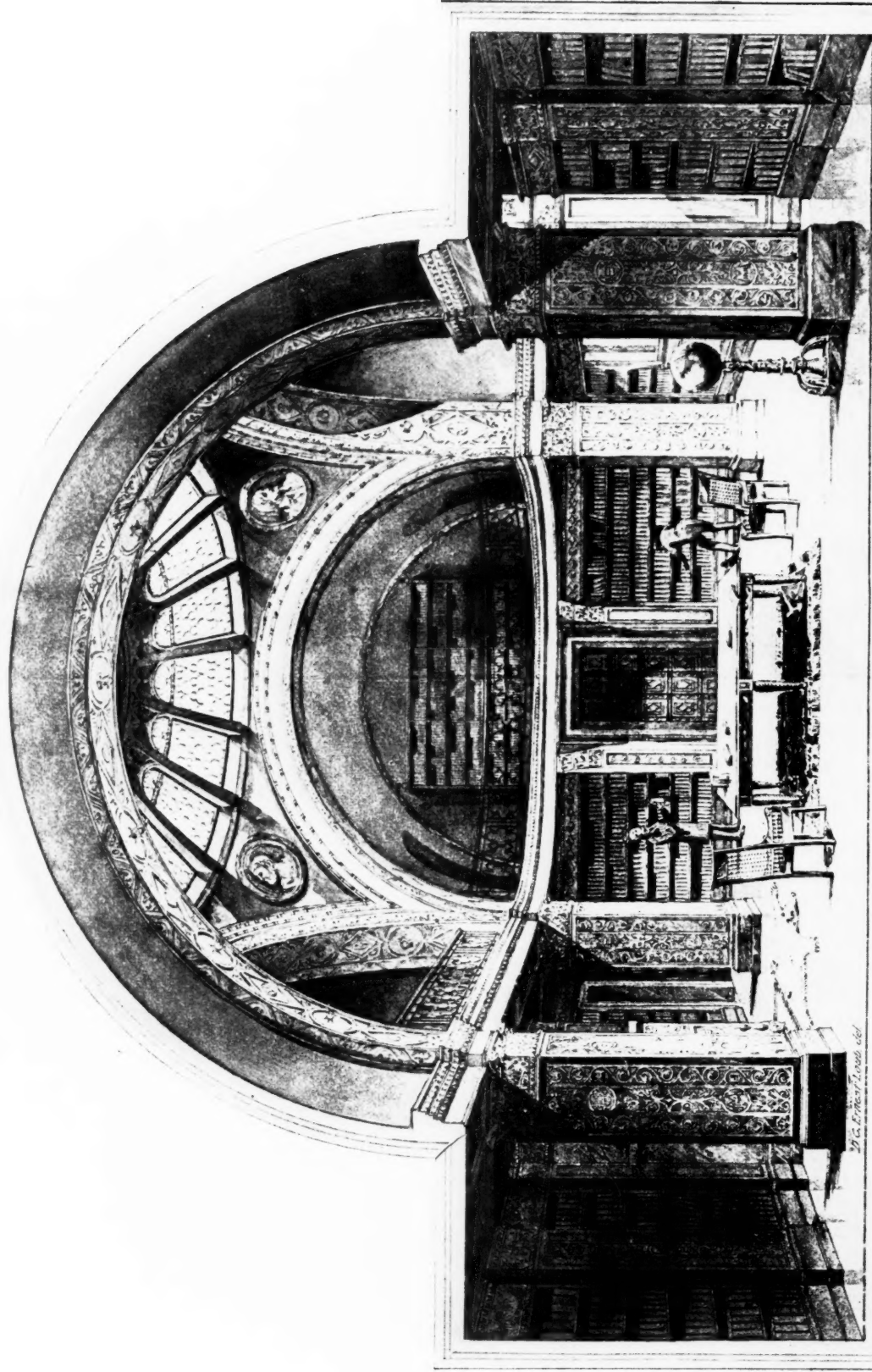
By courtesy of Cleveland Architectural Club.

RESIDENCE OF JOHN H. BROWN.
ALFRED HOYT GRANGER, ARCHITECT.





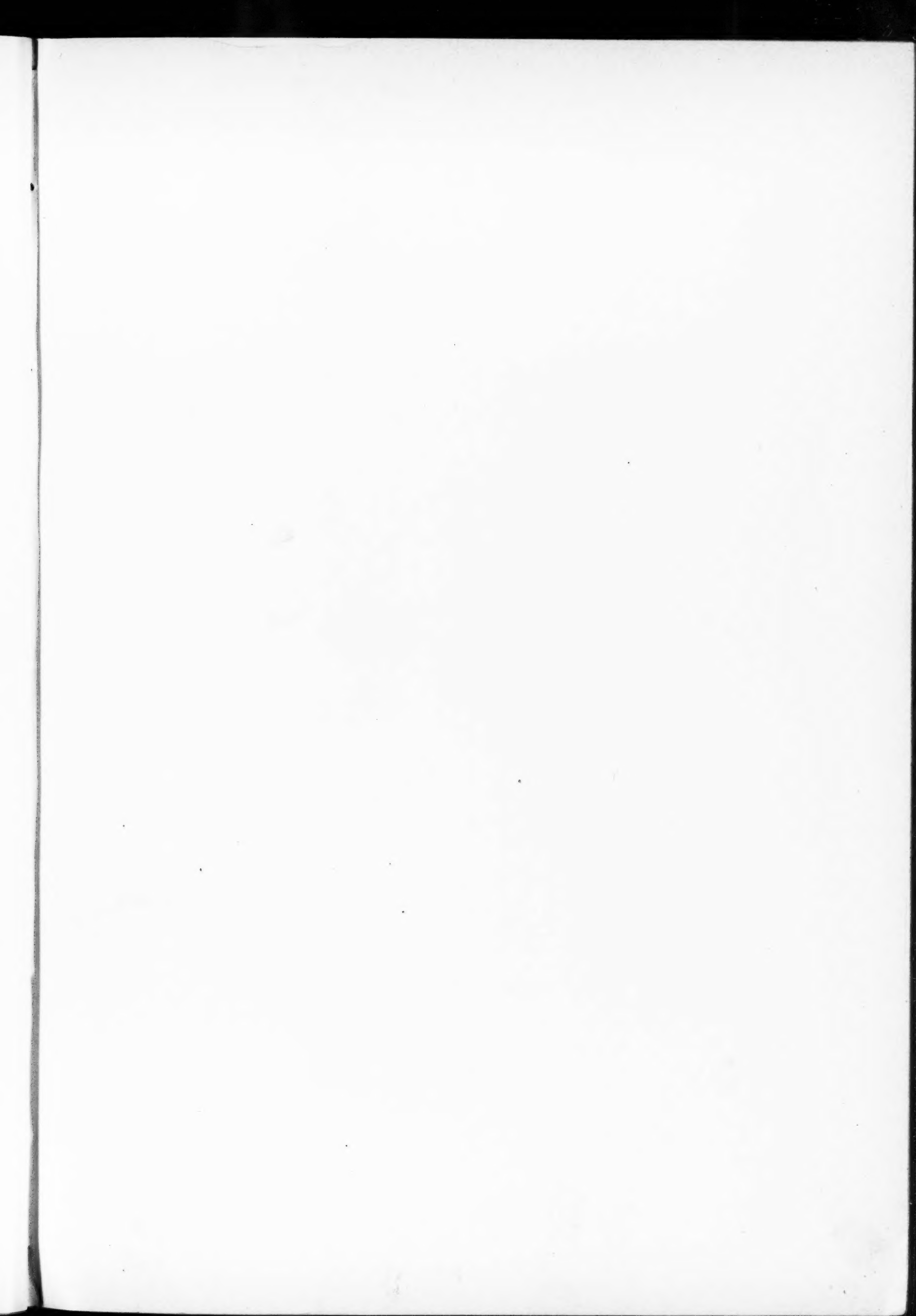


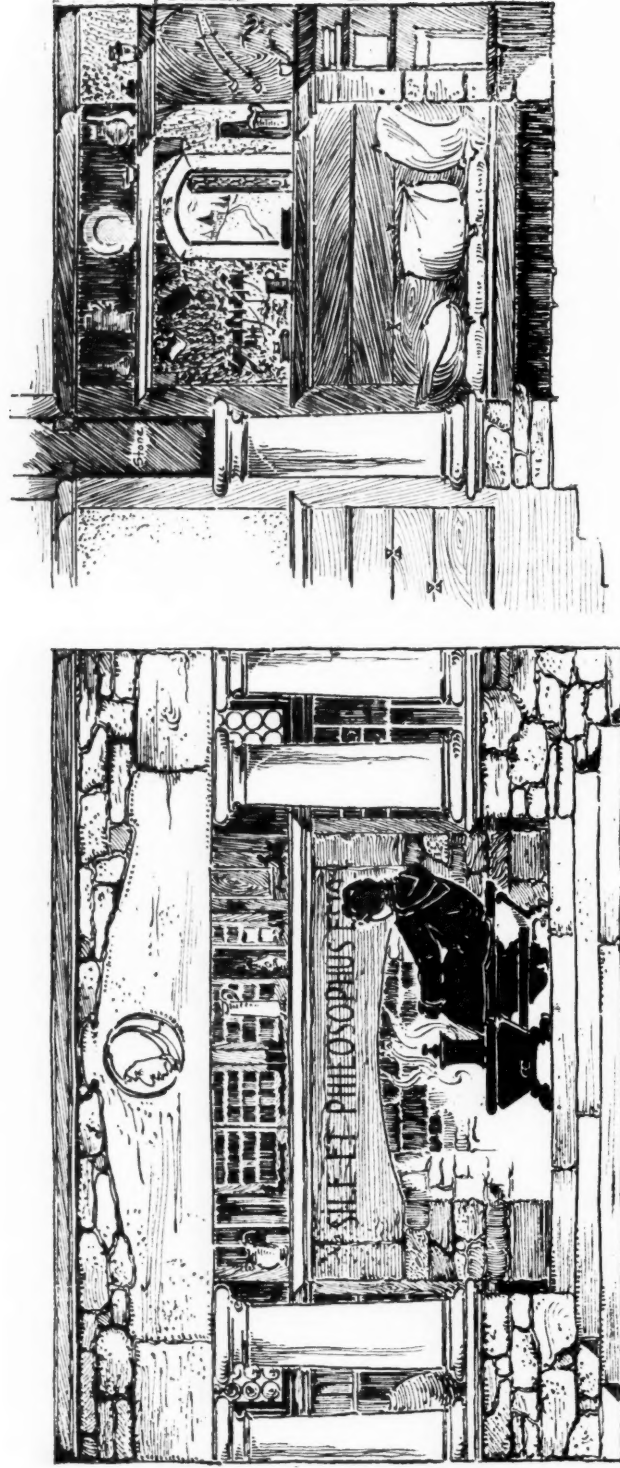


FINISH:
FROM FLOOR TO SPRING OF ARCHES, MAHOGANY.
VAULTED CEILING AND ARCHES, TINTED PLASTER.
SKYLIGHT, IRON AND STAINED GLASS.

LAW LIBRARY
ST. PAUL, MINN.

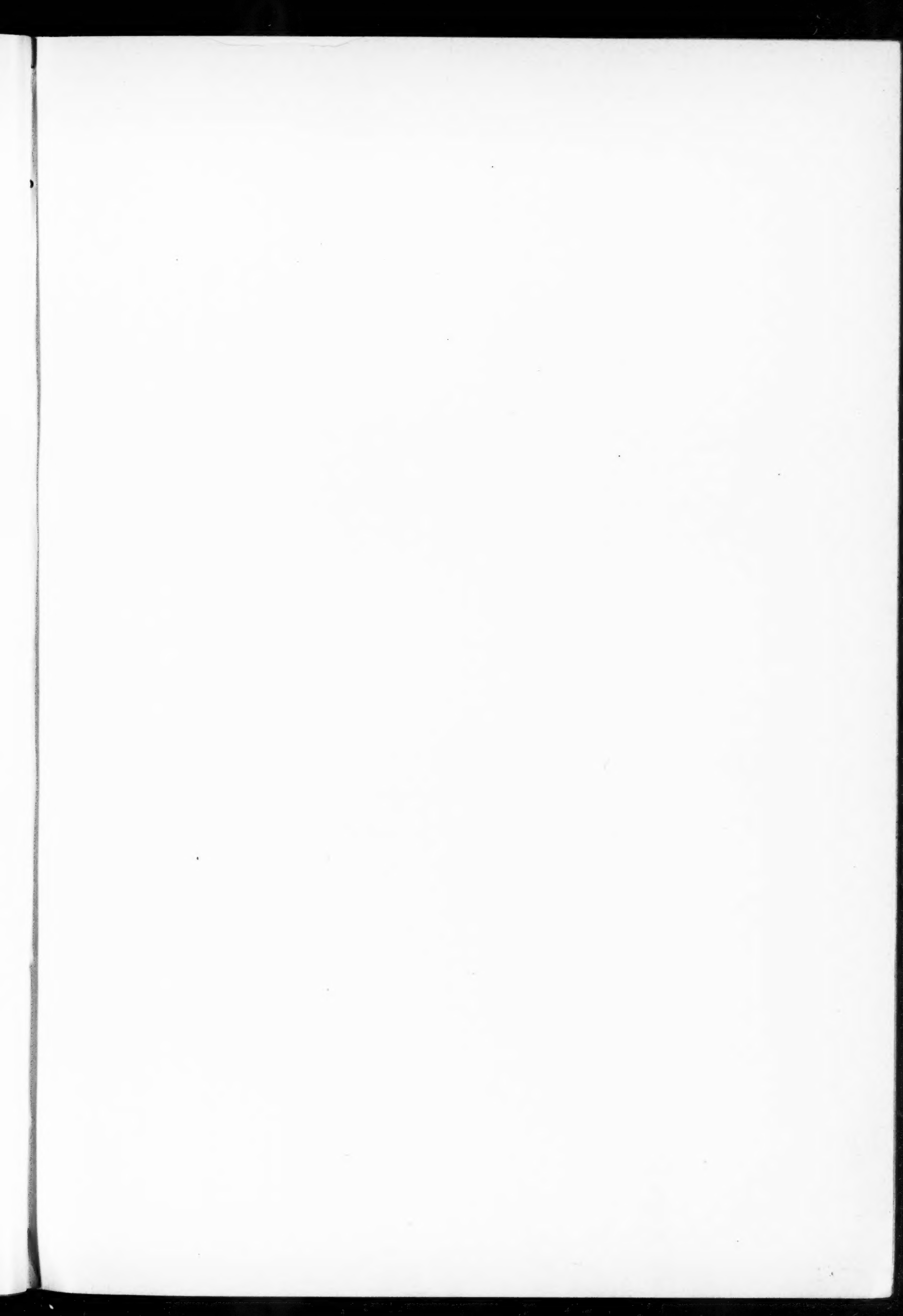
Wm. Martin, Minn.
Sponsoring Architect
TREASURY DEPARTMENT

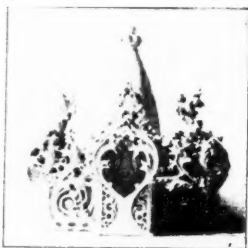
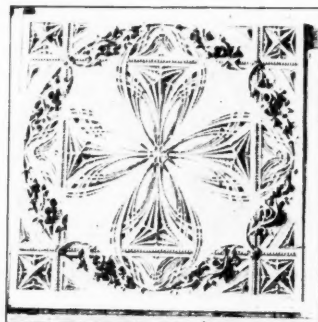
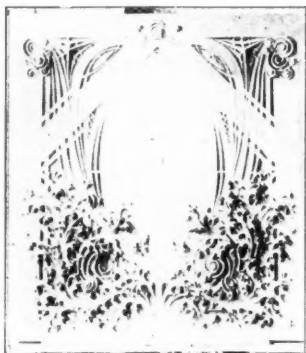
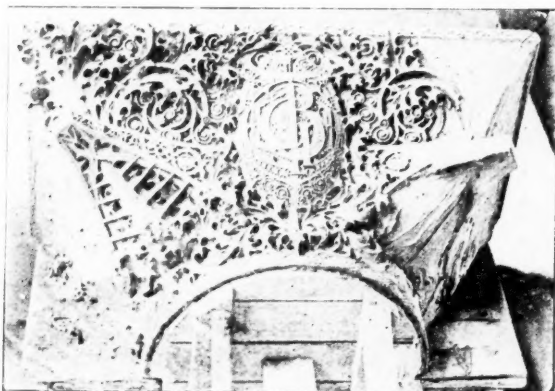
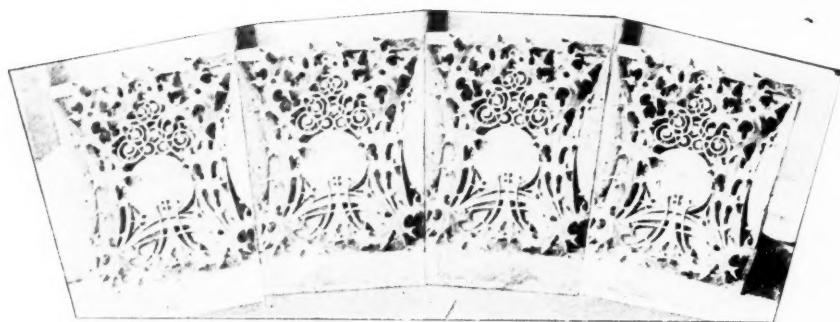




By courtesy of Cleveland Architectural Club.

AN INGLENOOK — T-SQUARE CLUB.
FIRST MENTION, DAVID KNICKERBOCKER BOYD, PHILADELPHIA.



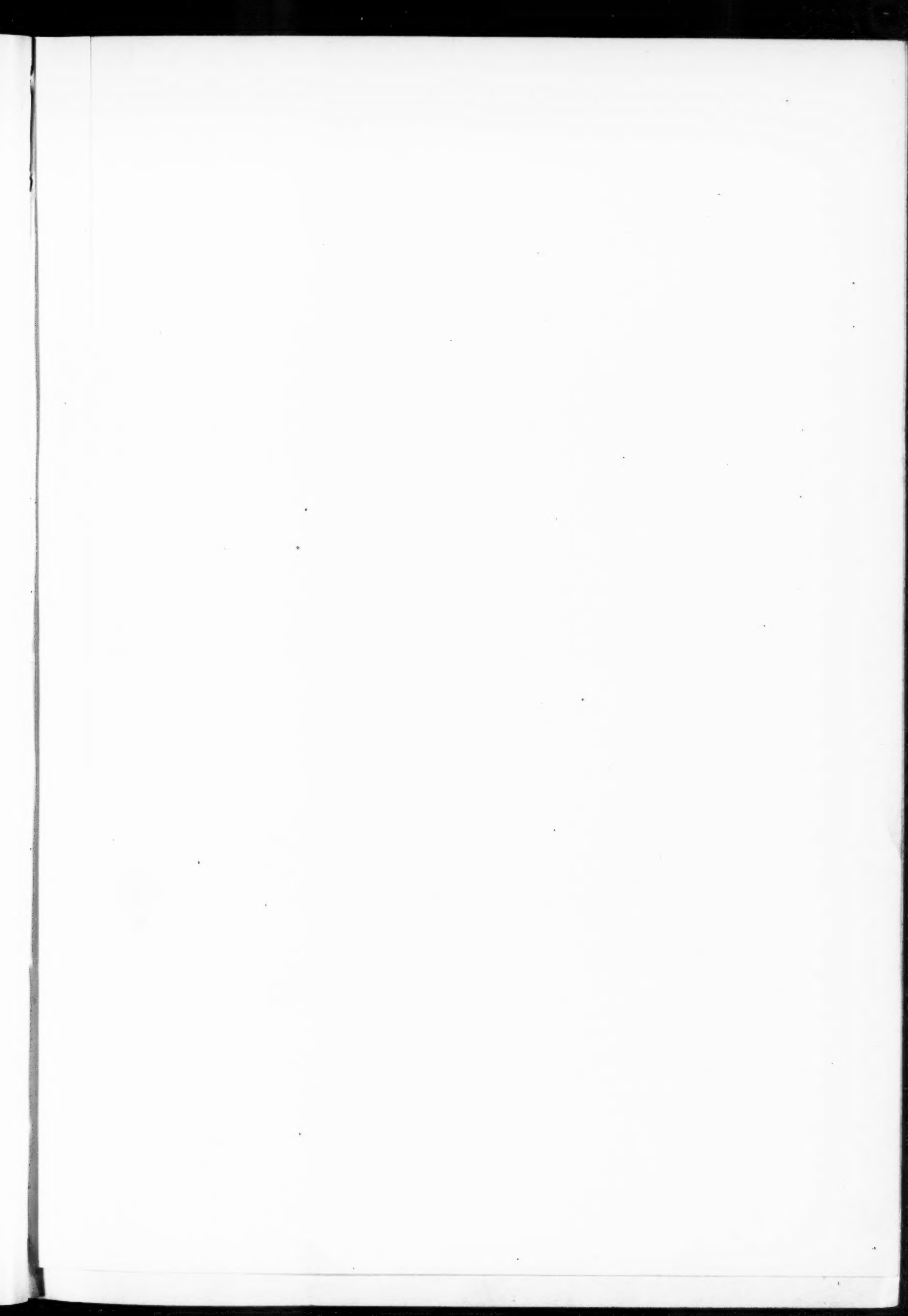


By courtesy of Cleveland Architectural Club.

DETAILS FROM GUARANTY BUILDING, BUFFALO.

LOUIS H. SULLIVAN. ARCHITECT, CHICAGO.

GENERAL LIBRARY
UNIV. OF MICH.
19 MAR 1917







RESIDENCE OF T. T. SEELYE.

Photo by Herbert B. Briggs.

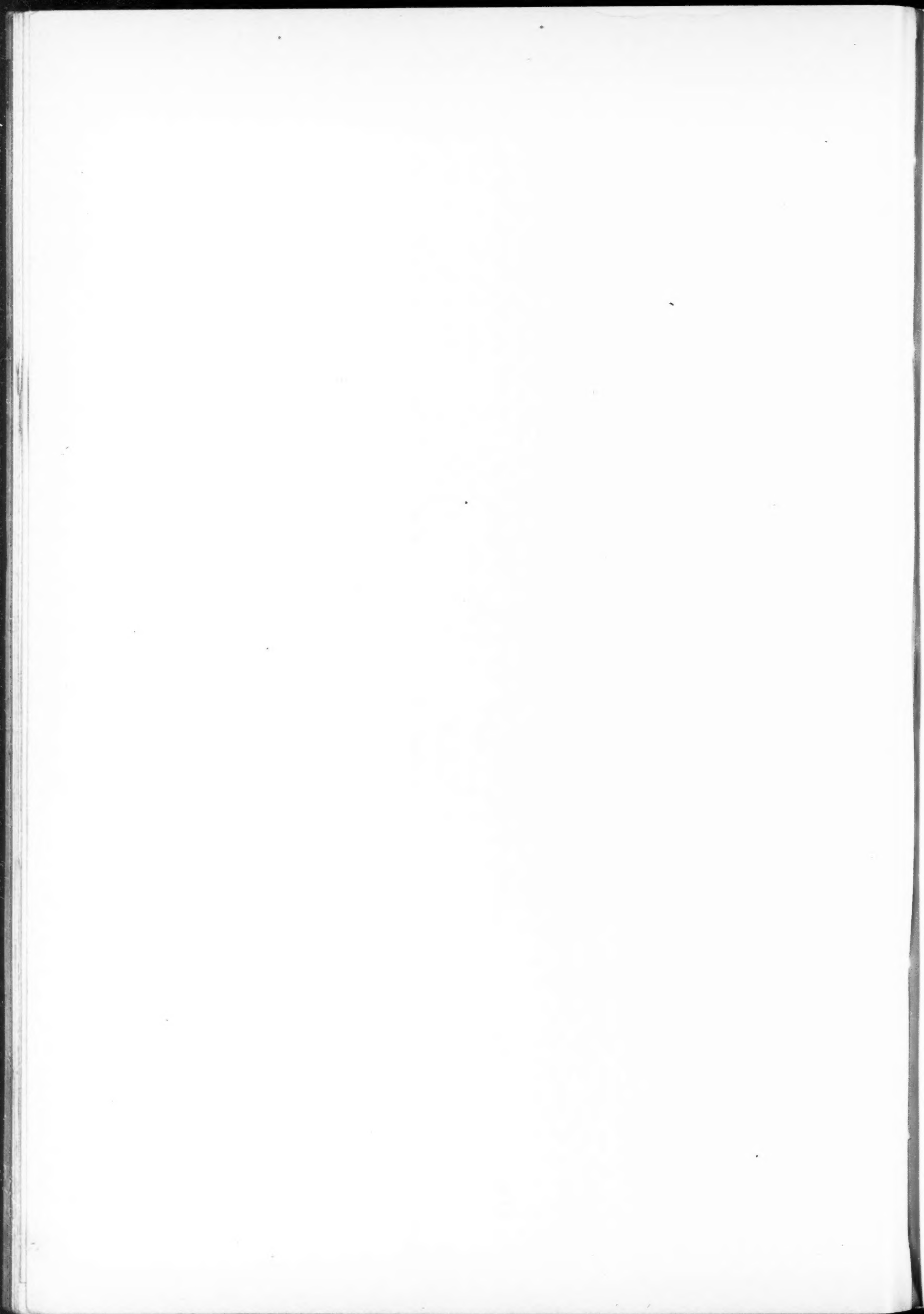


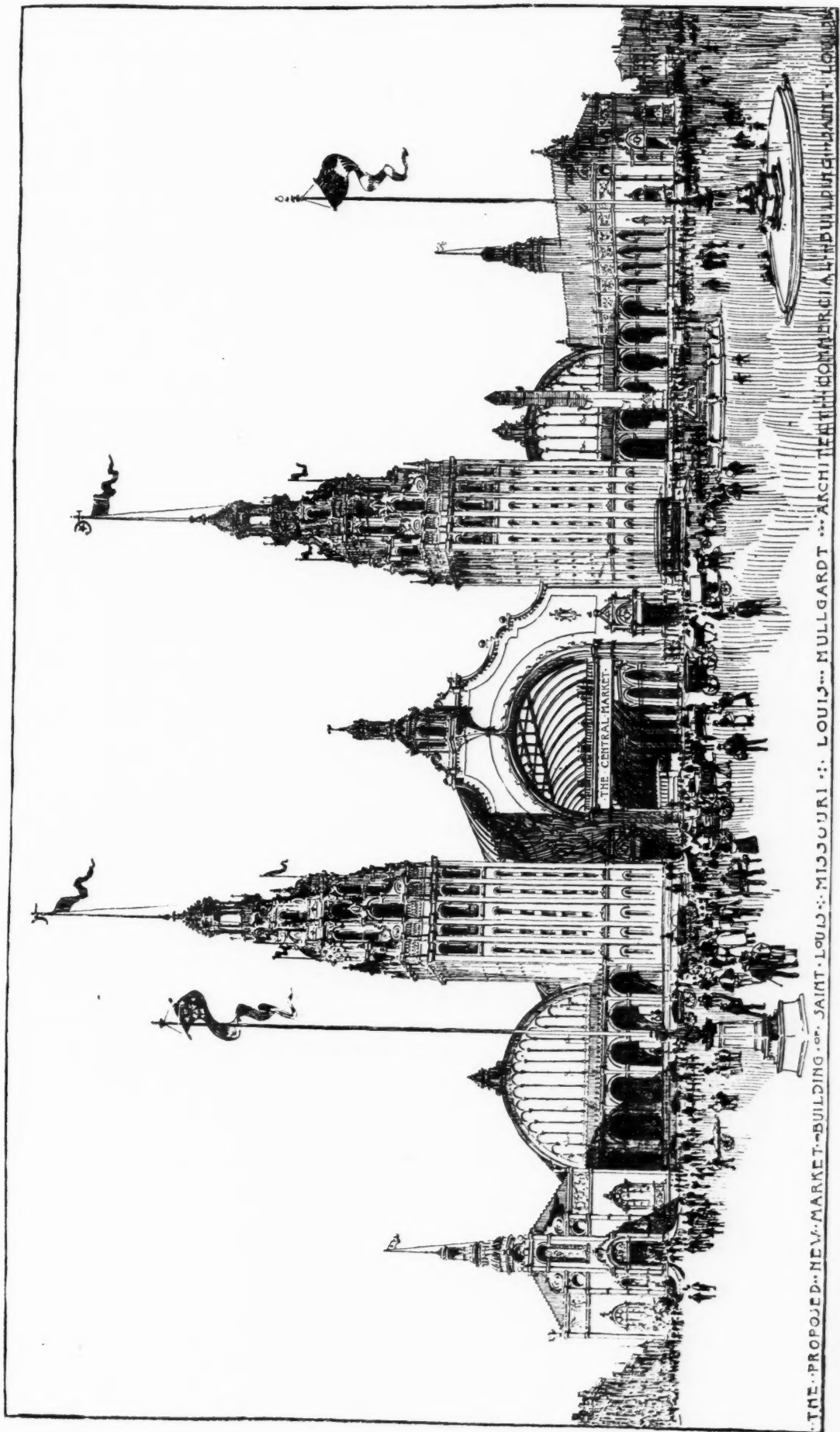
By courtesy of Cleveland Architectural Club.

Photo by Herbert B. Briggs.

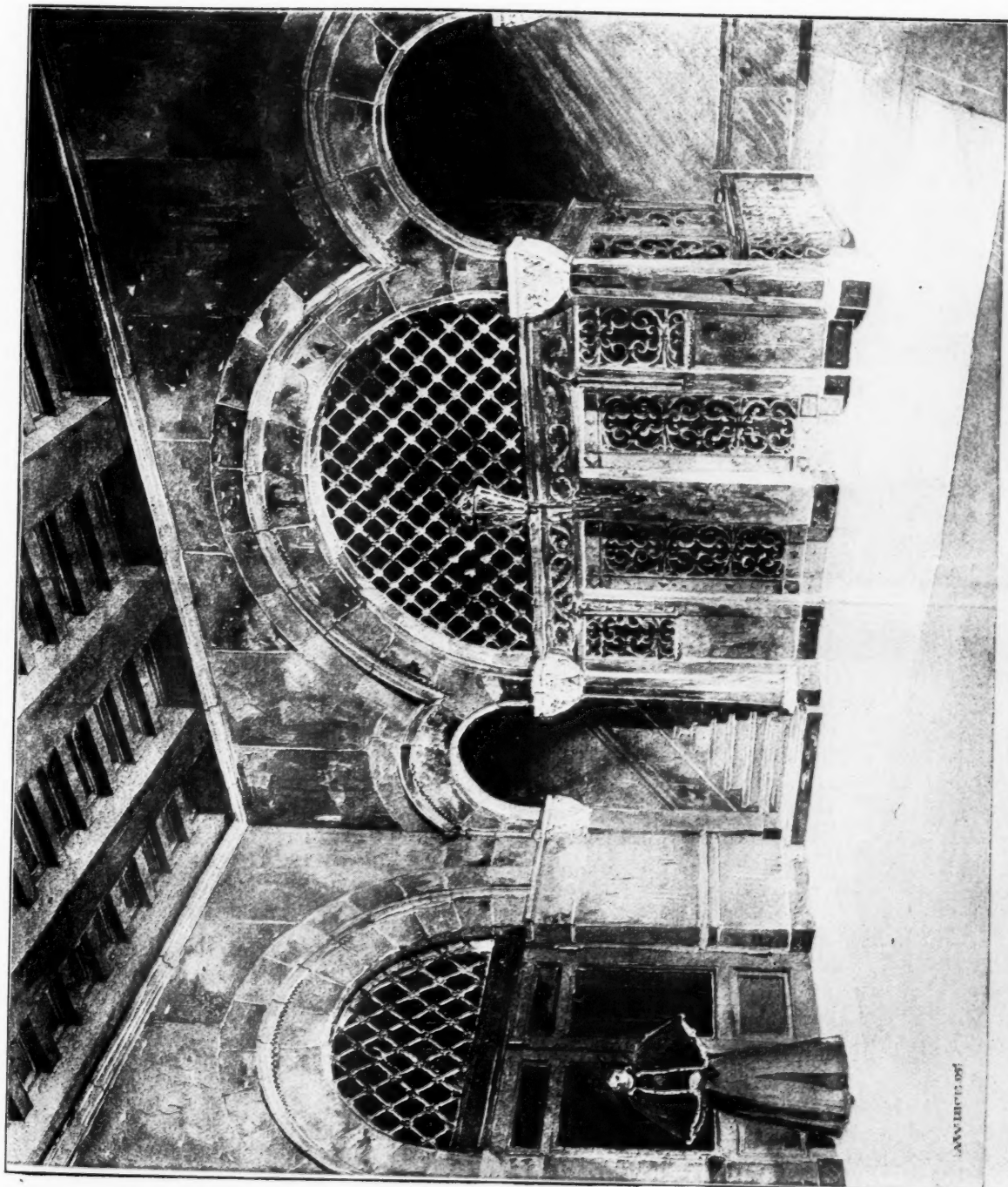
RESIDENCE OF JOHN U. MAY.

FRANKLIN B. MEADE, ARCHITECT.





THE PROPOSED NEW MARKET BUILDING - ST. LOUIS - MISSOURI - ARCHITECT H. MULLGARDT

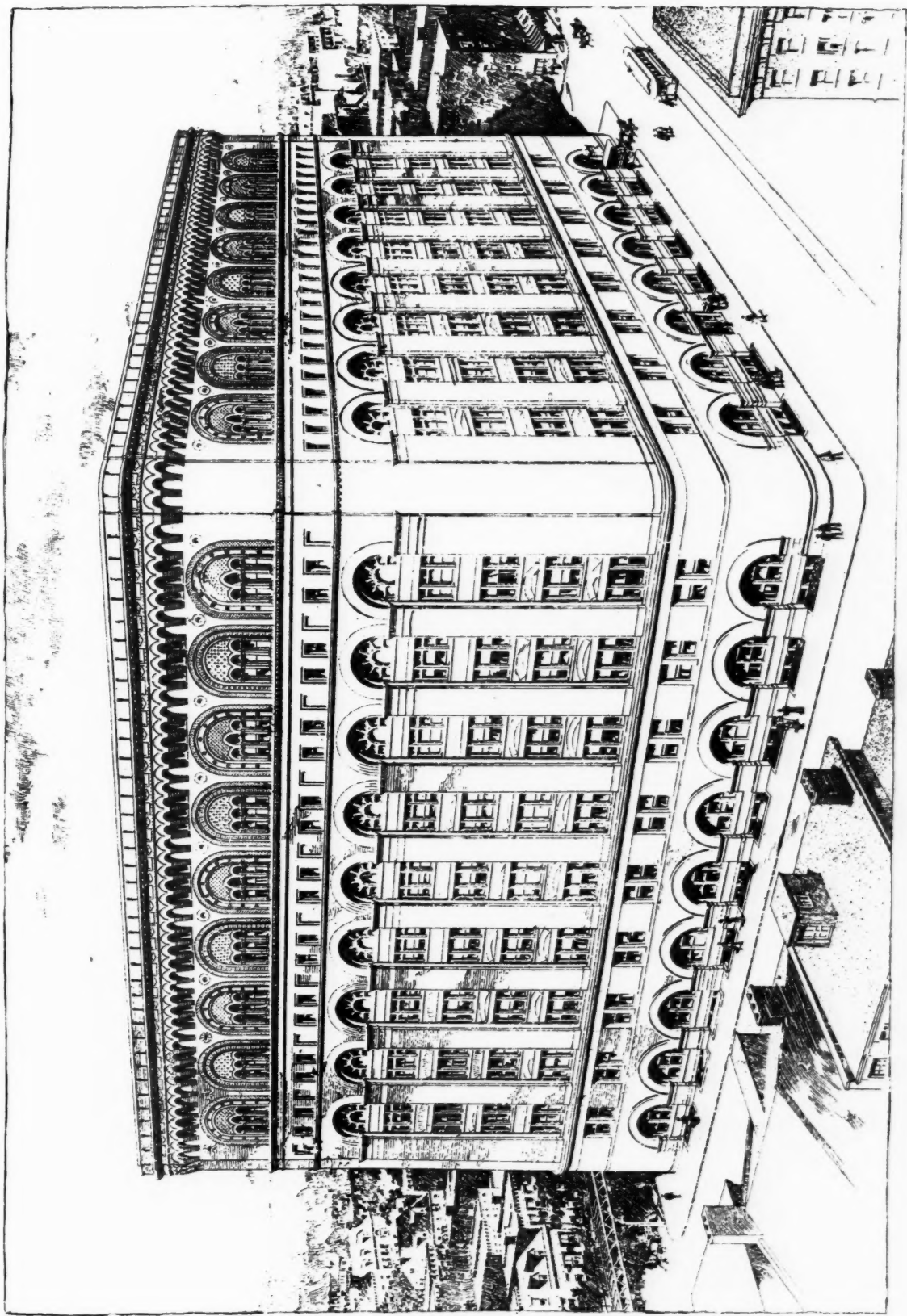


JANUARY 1907

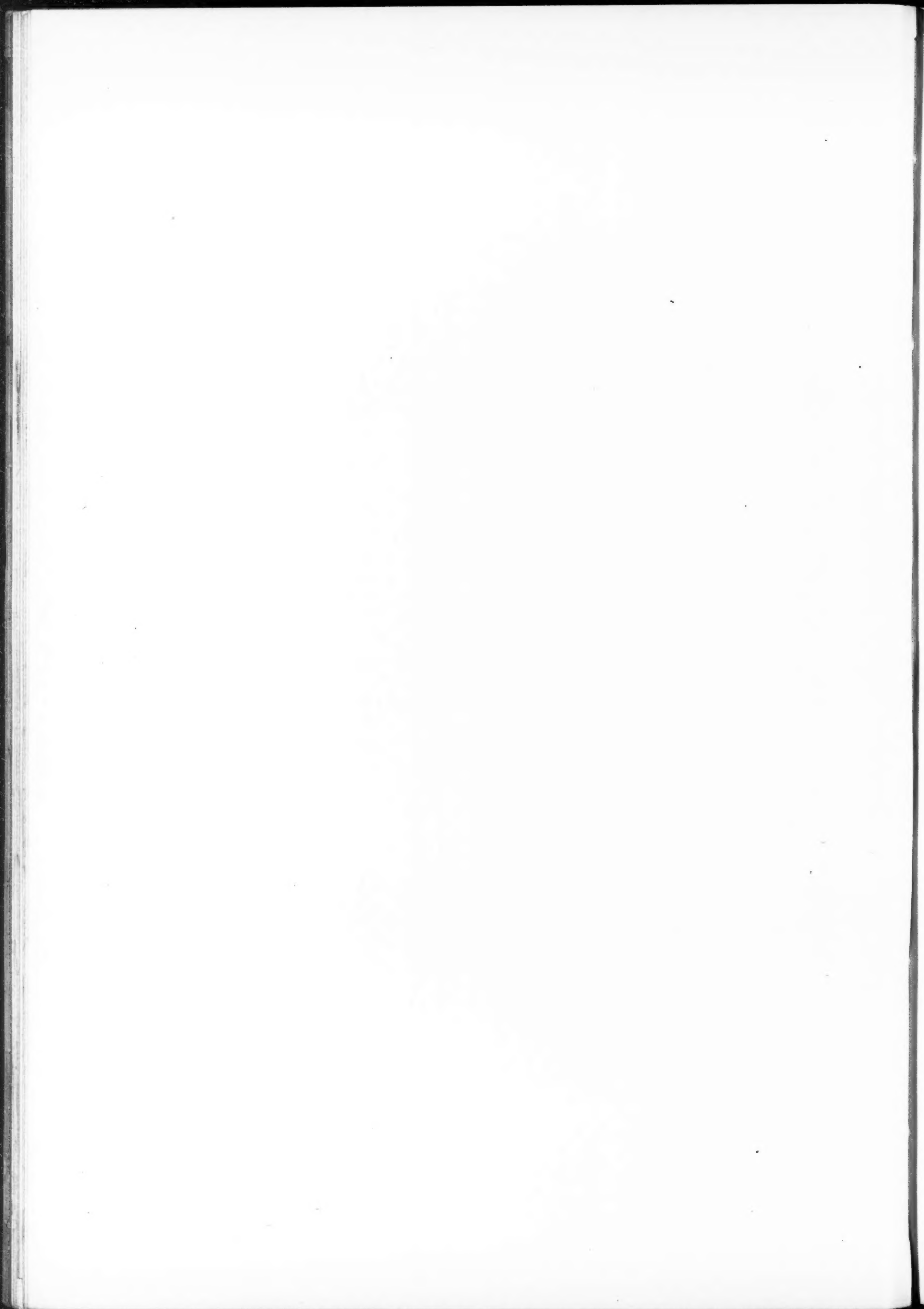
FINISH
FLOOR MARBLE
WALLS, CEILING & VERMONT MARBLE
ELEVATOR CASES
MILLS & CO. MILWAUKEE, WIS.

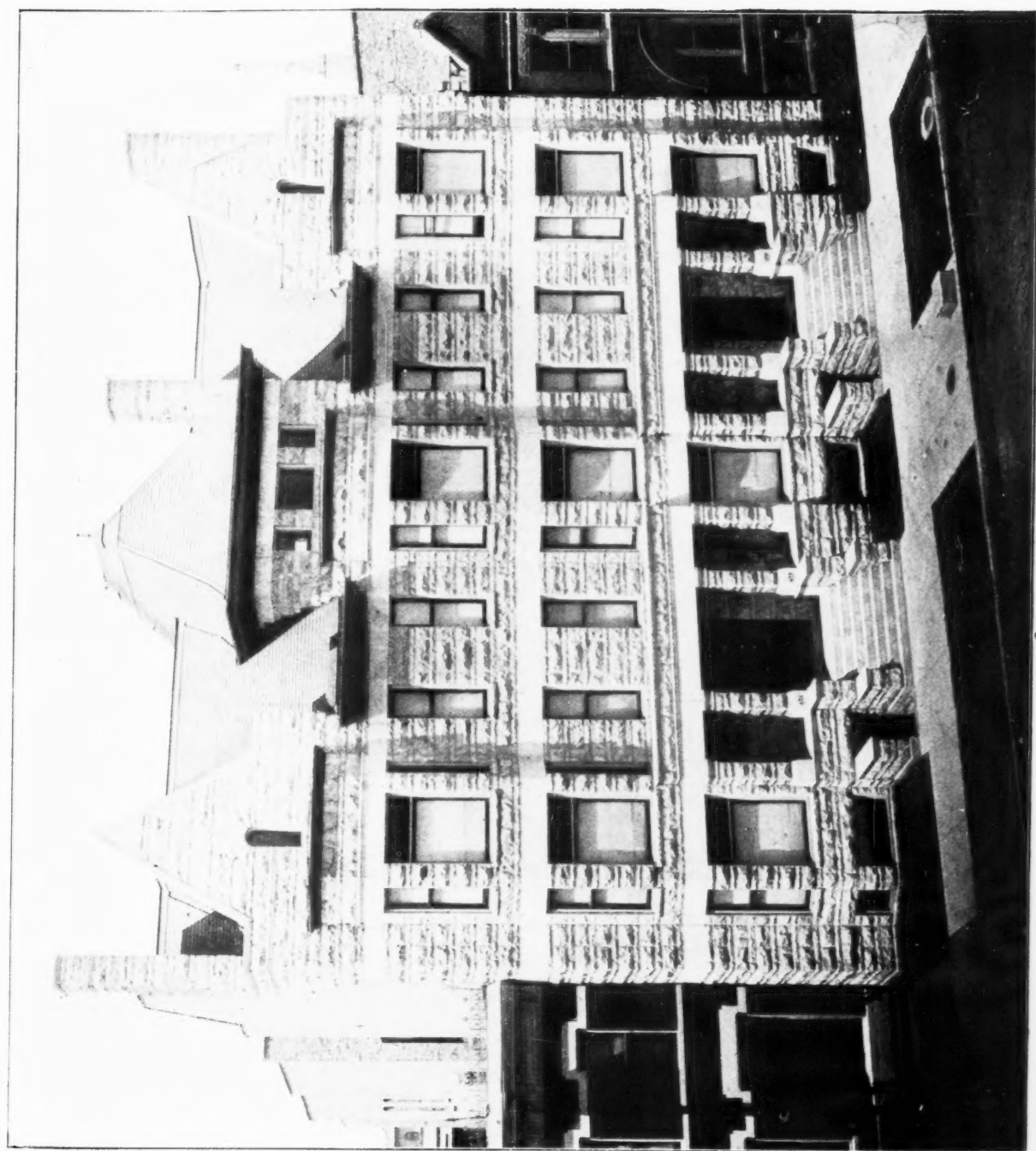
STAIR AND ELEVATOR HALL
MILWAUKEE, WIS.

W. M. Martin, Architect
Superior Building
Milwaukee, Wis.



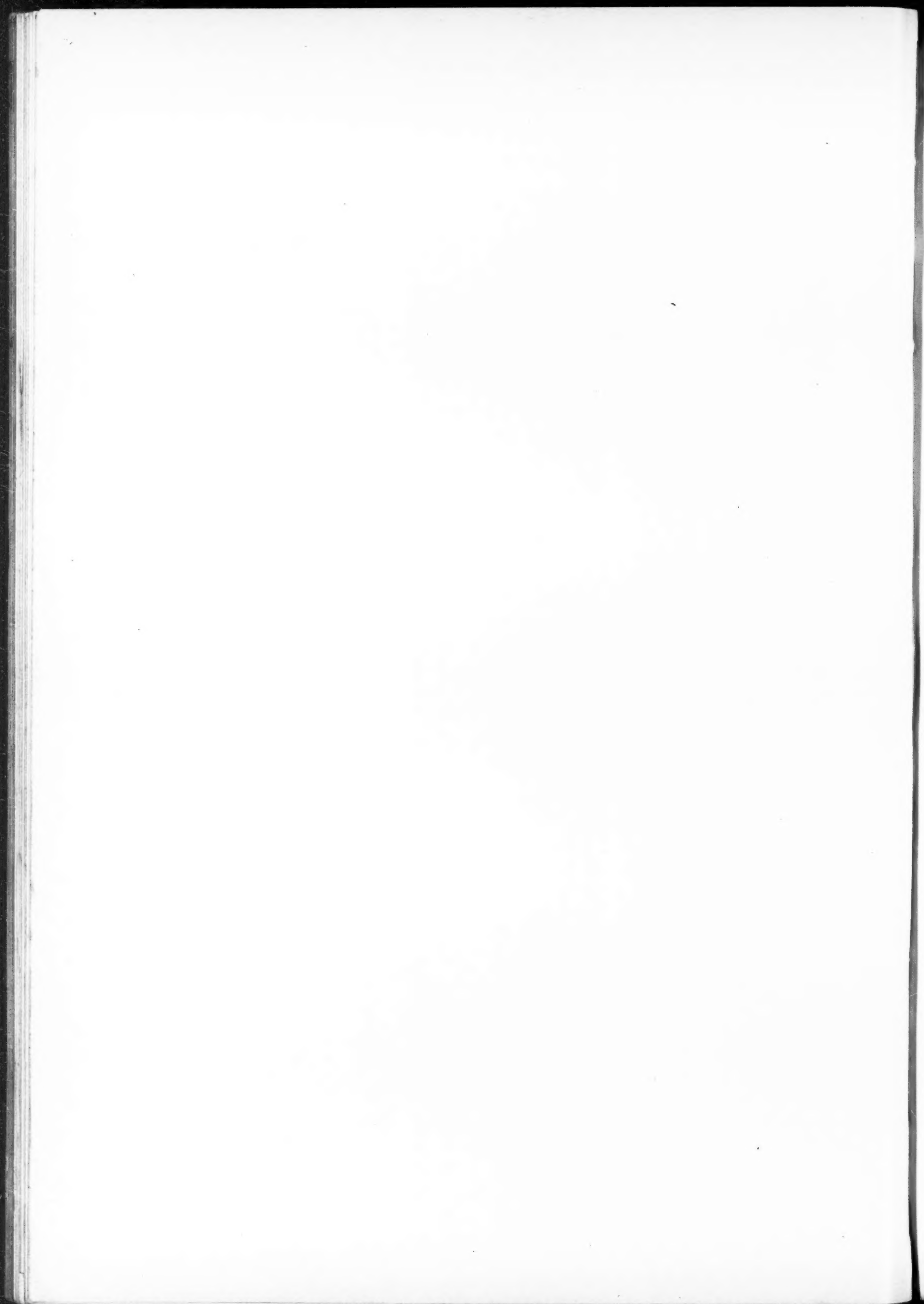
APPRAISER'S WAREHOUSE, NEW YORK.
WM. MARTIN AIKEN, SUPERVISING ARCHITECT, WASHINGTON, D. C.

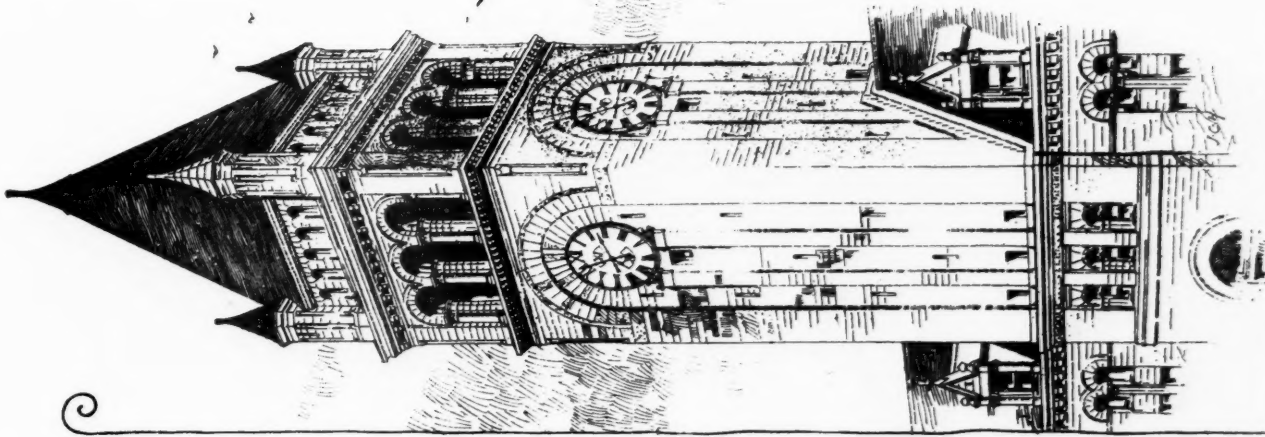




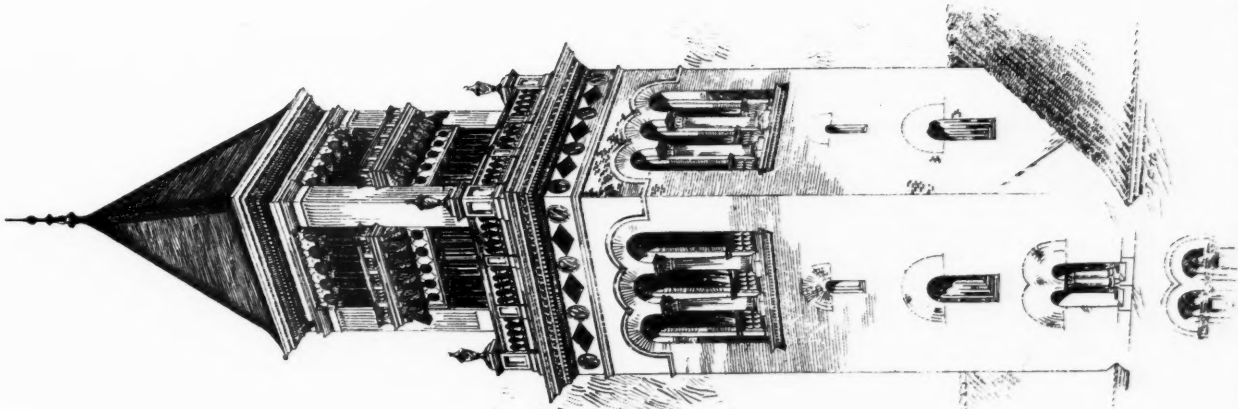
APARTMENT BUILDING FOR L. G. WELLS, CHICAGO.

J. H. DINWIDDIE AND ROBERT T. NEWBERRY, ARCHITECTS.

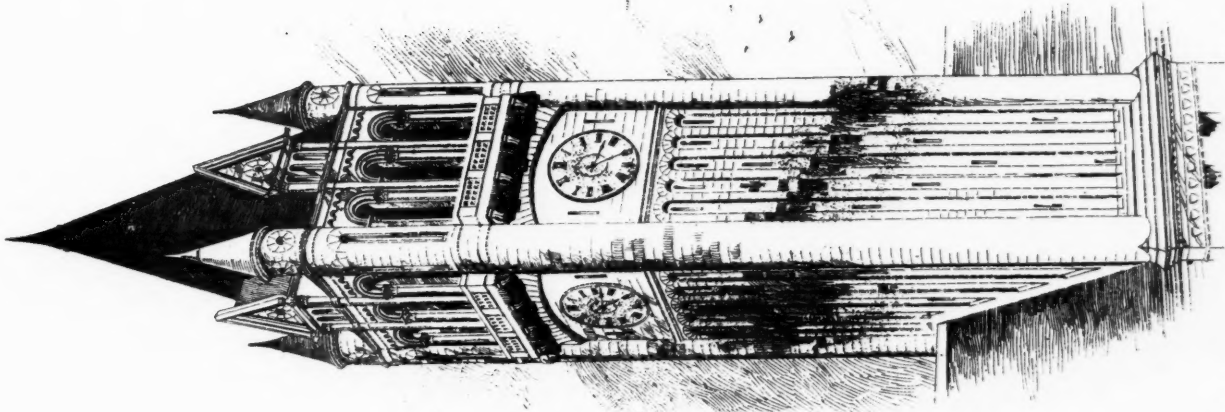




TOWER, POST OFFICE, WASHINGTON, D. C.



TOWER, COURTHOUSE AND POST OFFICE,
SAVANNAH, GEORGIA.



TOWER, POST OFFICE, CUSTOMHOUSE AND
COURTHOUSE, MILWAUKEE, WISCONSIN.

WM. MARTIN AIKEN, SUPERVISING ARCHITECT, TREASURY DEPARTMENT, WASHINGTON, D. C.