

THE INLAND ARCHITECT AND NEWS RECORD

VOL. LI

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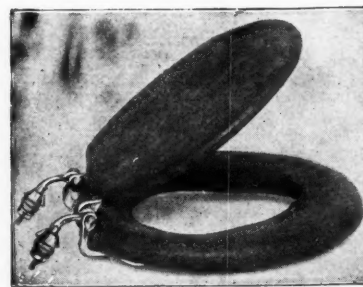
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A Tale of Two Cities.

As there is no end to the commercial rivalry that inspired the height of the Metropolitan and the Singer buildings, it is probable that unless there is a peremptory restriction, higher and still higher buildings will be erected. It was inevitable that the extreme heights of these two buildings should awaken discussion and apprehension as to the future. It is significant that Ernest Flagg, architect of one of them should take the lead in a movement for the restriction of the heights of buildings, and that he has the support of a large number of the New York architects. The plans and suggestions for the proposed restriction are numerous. The plan presented by Mr. Flagg is apparently the most practical and has many advantages in its favor. He starts with the assumption that at present, limiting of buildings to a low height is impractical and would not be tolerated. It would discriminate against those who have not built and would favor owners of high buildings. He therefore proposes a limitation based upon area. He would limit three-quarters of the area of the building plot to a building not higher than one and a half times the width of the street on which it fronts and a maximum height of one hundred feet. The remaining one-quarter of the area is to be allowed an unlimited height of building, provided none of this unrestricted part be nearer the street front than a distance equal to that of the building line from the curb. An additional specification is that all sides of a building carried to an unlimited height be treated architecturally. Mr. Flagg's recommendations are comprehensive and would overcome all practical objections to the highest buildings, except street congestion. This discussion is reminiscent of that which occurred in Chicago many years ago when each succeeding high building was a little higher than the one before. This rivalry culminated in the design by Adler & Sullivan, for a prominent corner, of a building of thirty stories in height. To reconcile the public to a height that was thought excessive, the architects planned a building of receding fronts at certain heights, in principal similar to the plan of Mr. Flagg. The building was not built, but from that time the architects have held the situation well in hand by demonstrating to owners that buildings of excessive height do not give proportionate returns on the investment.

A Great Architect—A Great Mistake.

Thirty-seven years ago Henry Roe, Jr., a wealthy resident of Dublin, wishing to create a lasting monument, as a thank-offering for the great prosperity that he enjoyed, decided upon the restoration of Christ Church Cathedral of that city. It was a costly undertaking as the building was sadly delapidated. The restoration was entrusted to the eminent architect, George Edmund Street, R. A. It was

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NEXT CONVENTION AT DETROIT, MICH.

a restoration in fact, rather than a rebuilding, as the architect regarded the antiquarian interest of the building scarcely second to the artistic character. Every portion of the old work that was serviceable was used, new stone was inserted to replace defective blocks, in many cases at a greater cost than would have been that of rebuilding. All new work was strictly in harmony with the old. The restored cathedral was re-opened in 1878, thirty years ago. In commemoration of its completion a sumptuous book was published, the edition limited to two hundred copies. This book is of unique interest to architects from the fact that it was evidently prepared under the supervision of Architect Street, and contains a dissertation by him upon Restorations in general. He also describes at length the problems involved in the restoration of Christ Church Cathedral. This discription was finished but a few days before his death. Here was one of the best-known architects of his day, in charge of a work of great interest and

importance, with a client desirous of the use of none but the best and most enduring materials, and bountifully providing the cost. Today there is great need of a restoration of the restoration of thirty years ago. This is due to the rapid decay of the Caen stone used. The reason that this stone was used in the restoration was that Mr. Street was led to believe that the cathedral was originally built of this material, much of which had endured in the building for nearly seven hundred years. There is little doubt that the architect was in error with regard to the stone in the old building, and his great mistake was in not having thorough comparisons and tests made by geological experts before deciding upon a stone foreign to the country in which it was to be used. Christ Church Cathedral stands as a warning to architects to use no material for important work that of their own knowledge, based upon careful tests, does not meet fully the requirements of the place in which it is to be used.

NEW PARISH HOUSES, BUFFALO

DESCRIPTION BY CHARLES E. ILLSLEY, ARCHITECT



HE modern idea for church buildings is a temple for Sunday prayers and preaching and beside it a parish house with parlor, library, reception rooms, amusement hall, etc., freely open all the week, where the people may read, play, sing or even dance amid the best surroundings.

Such a building is the recently completed parish house of Trinity Episcopal church on Delaware avenue, Buffalo, illustrated herewith. The main edifice is three stories high and about sixty feet front by thirty feet deep; back of it extends an L some thirty feet by eighty. The material is brick faced with brown stone, broken coursed ashlar in brown mortar on front and both sides.

The exterior displays two infallible marks of good design, viz., simplicity and self-restraint. The tyro, nervously eager to display his skill, breaks up the outlines needlessly and is prodigal of decoration; the true "master-builder" prefers unbroken surfaces and relies more on form, proportion and deep reveals for effect, than on ornament. So, excepting a bit of detail at the entrance, there is no applied "beauty" anywhere—neither gargoyle, griffin, mask nor carving, to arrest the eye and compel admiration. The ashlar is quarry faced and the jambs mullions, belt courses, coping, etc., are of sawn brown stone.

The basement and three stories above are all floored and finished for various uses, such as gymnasium, bowling alley, kitchen and serving room, lockers, shower baths and the steam heating and ventilating apparatus. Above are reading rooms, an attractive library, and a practice room for the choir connecting directly through the old chapel with the main church adjacent.

On the second floor is a large unseated entertainment and lecture hall adapted for dances or calisthenics, also a special room for the church missionary societies, etc. In the third story are the curate's study and offices, besides four furnished bedrooms for the entertainment of visiting guests and delegates. The interior trim is antique oak, so-called; gas and electric lighting are provided throughout.

An electric fan in the basement forces warmed fresh

air into the large lecture hall through wall registers about eight feet above the floor; vitiated air escapes at ceiling line into an aspirating duct. In addition direct heat is supplied by steam radiators in the room itself.

Over the whole is a low pitch standing seam tin roof coated with graphite paint, which, graphite being a favorite lubricant, makes a dangerously slippery surface even at a slope of, perhaps, one in eight.

The total cost of this parish house was nearly \$85,000; the architects were Messrs. Cram, Goodhue & Ferguson, of Boston, Mass.

This description should not omit a decidedly ironical fire-escape of the usual iron ladder style from a third story side window. It ends abruptly some ten feet high or more so exactly over a wooden picket fence that, in case of fire, a person resorting to this safety (!) appliance must choose between being burned alive, if he hangs on to the ladder, or being impaled alive if he lets go.

Our other illustration pictures the new parish house of the German Lutheran "Christus Kirche," on East Broadway, Buffalo, Thomas Harris, architect. This is based on quite a different scale of expense from the other, so that, while it covers an equal if not greater ground area, and is hardly less substantial in construction, its cost was less than one-half that of the other. The general dimensions are about fifty feet front by two hundred feet depth. The material is chiefly common pressed red brick in red mortar, sunk joints, with white limestone trim. The roof is slate.

The basement, partly finished, has a large assembly and dining room, with complete kitchen at one end and a steam heating plant at the other end. An admirably lighted Sunday school occupies most of the main floor, with a nominal seating capacity of eight hundred. Around three sides is a broad gallery with fixed pews, but on the main floor none but movable seats are placed, so that the whole surface can be cleared when necessary. Various good sized, low ceilinged committee rooms occupy the rest of this story.

Above the committee rooms is a very attractive "verein" room, as its German owners call it. This is for the various "vereins" or societies, as the men's "verein,"

the women's "verein," the girls' "verein," the choir, etc. This room has a high pitched ceiling with a bit of open timber work, is well lighted and cosy, and is said to be in use practically every evening in the week, beside afternoons. There is gas light and steam heat throughout the building.

The exterior speaks for itself as a well proportioned and bright specimen of simple, unaffected, appropriate church design, where the outside corresponds with the inside and is suited to its uses, without any attempt to mask or hide a single feature nor make it appear to be what it is not.

Here, as in Trinity's more costly edifice, an excellent effect is obtained mainly by grace of line and proportion, without resort to decoration. The trim is mainly

sawn or droved white limestone and there is not a square inch of carving anywhere, not a molded brick nor a particle of terra cotta, so extravagantly profuse in some street fronts. The eye soon tires of decoration, but grace of line and dharmony of proportion never lose their charm.

Over the windows is a molded limestone label; the belt courses and other stone trim are flush. The splayed brick jambs to the openings are unusually effective; those of the windows project one-half brick from the wall and are two bricks wide; at the entrance the projection is a whole brick with a reveal of nearly thirty inches, all at an angle of forty-five degrees. The whole effect is enhanced by the division of the side windows into three lancet head lights and the suggestion of perpendicular tracery in the large front window.

THOUGHTS ON ARCHITECTURE

BY FREDERICK P. DINKELBERG, ARCHITECT



O attain dignity, impressiveness, sublimity, in architecture, mass is an absolute essential. Mass (or size and weight) is a fundamental element in every great building. If the Parthenon were half its size, though pervaded by all the subtleties and refinements of the present building, it would certainly lose more than half its effect. The same may be said of any great building, of a Gothic Cathedral or an Egyptian Temple. Size alone however, while essential, to a great design, does not make it a work of Art. There must be added the human element, thought or mind.

Size (bulk and weight) affects us all. It is a matter of relativity and affects alike the learned and the ignorant, though in different degree.

We see a huge mountain and instinctively, involuntarily compare its bulk with that of our own body and are impressed accordingly. The sensation produced is a primitive, elementary one.

Weight in an object is synonymous with latent power. Great size and weight produce in us the sensation of grandeur and sublimity.

A stone wall, let us say, 200 feet long, 100 feet high, is impressive by its sheer mass or bulk. But this is not architecture; such a mass might be a constituent element in an architectural composition and as such take its place in the design.

With increased size should go increase of thought.

The architect who treats a column 75 feet high precisely as he would one 25 feet high, by simply enlarging its detail, has mistaken his profession.

Yet how often we find in popular descriptions of new buildings that the greatest importance is attached to the unusual size of its features. Nothing is said about whether it is organic in its composition, noble in its proportions, or whether its detail fully expresses and sustains the main thought in the design, in a refined and consistent manner.

The creation of a work of Art is made possible by emotion plus intellect. Human emotion is a condition of the mind brought about by causes acting from without (sensuous) and by the operations of the mind from within (intellectual). To produce a work of Art the union of these two causes is necessary. There can be no such thing as a work of Art without a material basis. Even

in poetry which in its highest manifestation is perhaps the greatest of all Arts, there is a material side, for the ideas and thoughts expressed must necessarily refer to something tangible. The difference between the formative or plastic artist and the poet lies chiefly in the fact that one uses material, stone, marble, bronze, etc., with which to express himself, while the other uses words. Now, words as material with which to express a thought or sentiment are just as refractory, just as concrete as, marble, stone or iron. The ultimate aim of both artists is beauty. The success of each depends on his individual capacity or genius.

In the design of a building, mind should outweigh mass or matter. The architect who relies chiefly on mass (or brute force) for effect, appeals to a very low order of intellect.

On Scale and Proportion.—Scale in Architecture might be defined as the relation or proportion of the various parts of a building to each other and to the human figure.

Houses are built for human beings whose average height is, let us say, 5½ feet. If the average height of man were 50 feet it is quite evident that our present buildings would be out of scale.

Proportion is sometimes confounded with or considered as synonymous with scale. Proportion is the relation parts bear to each other or to the whole.

The various parts of a building might be perfectly proportioned or properly related to each other and still be out of scale. A plaster model of a building illustrates this.

Proportion and scale determine the organism of a building in a general way. This organism may be very varied, between certain boundary lines, beyond which the designer cannot go. Every true artist knows when he has overstepped the limits. Feeling, reason and training are his guides.

Usually the type or character of a building, as well as the temperament and capacity of the designer determine the choice of organic treatment.

It is the great glory of the ancient Greeks that in all their work they seem to have struck the most just and satisfactory key in organic scale.

The scale or organism of an object necessarily becomes finer as it becomes smaller. The scale of the detail

of furniture should be more delicate than that of the interior finish of a building.

Again the detail of jewelry, knives, forks, etc., should be finer still than that of furniture.

In a broad way it might be said that the more intimate our relation or connection with an object the finer the scale should be. Another point in the scale of detail in an object is the nature of the material used. Iron cannot or should not be treated like stone, or wood like iron, etc. The nature of the material used should be respected.

The proportions of the Classic orders as formulated by Vignola are very useful and worthy of the most careful study. Yet every designer knows that they are proportions which do not apply in all cases. Conditions modify them. The relation of the order to the whole composition, or a variation in the spacing of columns, or any variation from the conditions assumed by Vignola instantly call for a change in the proportions. And even assuming the conditions of Vignola it does not follow that the rules formulated by him are final or the only solution possible. But the proportions fixed by Vignola are good and have stood the test of time.

The ancient Greeks had undoubtedly a highly developed system of proportion. Penrose in his "Principles of Athenian Architecture," gives interesting data on this point.

Simplicity.—This is a subject concerning which much is said and written.

Barrenness of ideas and lack of imagination often masquerade behind the term "simplicity."

No work of Art is simple—it is very complex. The effect produced by the perfect harmony of a work of Art may be simple, the thing itself is not.

A building may be very ornate in treatment, yet the detail may be so perfectly massed, so justly proportioned and modeled, and the various parts so properly co-ordi-

nated that the effect of the whole will be simple, like the accord of a great orchestra.

The merging of the various parts to produce what the ancients call "flow" is the thing to be aimed at.

A Greek Doric Temple is, apparently, a simple building. Yet the student of Greek architecture soon discovers the wonderful subtleties and refinements of mass, proportion and line.

On Style.—Style in a literary sense might be defined as the manner or mode of expression of the individual writer.

In architecture it has a broader significance. It may be called a developed manner of artistic expression of fundamental forms of construction, of which so far there are only two, the lintel and the arch,—all other subsidiary forms being derivatives. The lintel system implies cross-strain—the arch, push or compression.

The third possible system, tensile, has so far not been developed architecturally, and is more a matter of engineering.

But no doubt the architecture of the future will deal with this property of matter, more than any other. Instead of aiming at grandeur and sublimity by mass and weight, architects of the future will perhaps strive to create structures whose beauty will lie in their gossamer or web-like quality, in the lightness and elegance of their forms. This is especially likely in structures such as office buildings, where light and space are the first requirements.

In regard to the development of a so-called new American style of Architecture, it is most probable that the law of gradual evolution which has obtained so far will continue. It is very doubtful, to my mind, whether we can create a new style by an abrupt breaking off or ignoring of traditional, developed architectural forms. The history of architecture shows clearly that all architectural styles were a matter of evolution.

GARAGES AND MOTOR HOUSES

BY C. HARRISON TOWNSEND—Concluded



N small and inexpensive buildings this is not always possible, but even then it is very desirable either to cover all exposed timbers with some fire-resistant material.

Exterior to the motor house proper a covered washing space should be provided, to allow of thorough washing down, whatever the weather may be. If the open sides of this are high enough the glass roof—not a very satisfactory feature in design—is not a necessity. Indeed, in bright sunny weather it is found objectionable, and in any case should be, and any skylight also, of wired rough plateglass. In the floor of this covered space is sometimes placed the pit, but this position is open to the objection that, exposed as the car would be, the cold on a hard winter's day would expose the water-jacket of the engine to the danger of freezing, and would be rather hard on the chauffeur engaged for two or three hours working on it.

The petrol store is a highly important feature of the garage. Petrol spirit, or petrol, is an extremely volatile spirit, with a specific gravity of 680 degrees, and though its

vapor when mixed with eight or ten times its volume of air, forms simply a rich gas, which will burn without exploding, a large proportion of air, about 17 or 20 to 1, forms a most explosive mixture. A naked light brought in contact with this gas has disastrous results, and the main object in arranging the place where the petrol is kept should be to avoid the chance of such a risk. The subject is considered of so much importance in the city of New York, for instance, that very stringent and carefully considered conditions are prescribed in the garage regulations of the admirably administered fire department of that city. There every automobile as well as garage, small or large, is under the supervision of that authority, subject to a yearly license.

In case of a small garage the spirit would be kept in 2-gallon cans, the store for which should, wherever possible, be at least 20 feet away from any other building, and should be of fireproof materials, with iron door and its walls provided with ventilators having gauze protection. The floor of concrete, floated with cement, should be sunk below the ground level, and the door should have a raised sill,

and the sunk space filled with sand. The cans should be close to the doors in order that they may be easily accessible, and that the chauffeur need never stand inside.

When spirit is kept in bulk to a moderate amount an ordinary galvanized iron tank sunk in the ground may be used, built in with either bricks or concrete, a layer of the latter being laid beneath it. It should have no drain on account of the danger of leakage. A pump in connection with it draws off the spirit. The storage of the larger amount necessary for public garages is usually in large cylinder tanks, which should be buried at least 2 feet under ground, and be imbedded in Portland cement concrete, say 12 inches thick, and have a vent pipe of iron (with a fine wire screen near the tank connection) carried some feet above the roof of the garage. It should have a depth-gauge calibrated to read off the amount of petrol in the tank according to the level, and will be connected with a smaller tank by a semi-rotary pump. This, also provided with a gauge, holds about 40 or 50 gallons, and its height is such that it supplies the car by gravitation. The pump house, in which it is usually placed, should have a cement floor 6 inches lower than the door sill, and should be ventilated by an upcast flue of iron or brick carried above the roof and with an opening near the floor, but otherwise should have no opening except a fire-resisting door, unless its position is at a considerable distance from any other building.

It is of high importance that there should be no risk of the temperature of the motor house falling to freezing point, and allowing the circulating water of the motor engine to freeze. As regards, however, the heating and consequent drying of the atmosphere, it should be remembered that there are two conflicting claims to be satisfied. Expert carriage builders plead on behalf of the painted body and wheels for a house "which cannot be too dry," while Dr. C. O. Weber, the authority as far as rubber is concerned, states that tires are likely to "keep distinctly better in a damp than a dry room." Keeping a balance between these two claims we find that the motor house is best when dry, but not unduly so. Its temperature should be about 60 degrees F. The heating apparatus, of course, should have no opening from the motor house, but be arranged with external access, and a low-pressure system with radiators will be found the best. These may be placed as found advisable, but in a garage of any size there will be a considerable advantage if a cupboard be provided containing a small radiator, to be made use of when drying rugs or cushions, and with ventilation to allow of the escape of the resultant steam.

Provision against fire should be attained by means of hydrants, chemical extinguishers—of which there are so many varieties—and by bins containing sand, which is most useful in extinguishing low running fires, since water thrown on burning spirit is of little use; indeed, would increase the danger. In large garages sprinklers should be inserted in the ceiling or roof.

The day-time lighting should be effected by windows which do not admit south sun, and if by skylights these should have the usual studio northern aspect. The Dunlop firm, by the way, recommend as the best light for the tire store the same yellow light as photographers prefer.

For artificial light there is none obviously that can compare with an electric system. This, however, is not always available, and in that case when either gas or oil is employed the lamps should be on the outside of the win-

dows, through which their light plays into the inside of the house. When electric light is used the plugs should be preferably 4 feet above the floor, on account of the danger of explosion from a plug-spark. For the same reason there should be no plug in the pit.

Some of the rainwater may well be gathered either into a butt or tank, and will be found valuable for washing purposes. A standpipe should be placed against one or more of the walls, with a screw connection for hose and rose, or for the very useful washing brush, the handle of which carries down to the head a supply of water.

The storage place for tires, testing apparatus, pumps, and spares should be distinct from that in which cloths, cleaning oil, brushes, waste, etc., are kept on metal-covered shelves, and with proper ventilation. There should be rack or shelf accommodation for rugs, extra cushions, and the like.

The workshop is a feature as to which the owner of the car always has his own views. He may merely wish to have the most simple repairs carried out there, or he may be himself, or else employ as chauffeur, a skillful engineer whose pride is that the car need never go back to its maker in case of mishap and consequent repair. In the latter instance, a lathe, a drilling machine, a forge—perhaps an anvil—would be asked for, and if heavy parts have to be dealt with a portable crane, or a differential hoist would be found of much use. Of course, when forge or blow-pipe work is done, it should not be in any part of the building directly accessible from the motor house itself. In any case, a full-size work bench will be needed, so placed in front of a window as to be well lighted, and provided with a good vise, preferably of the swivel type. Proper drawers, shelves, and tool racks must be arranged for.

A garage may be built for one of two purposes. It may be meant for some special use, such as housing a number of motor cabs, or omnibuses belonging to one particular company or proprietor, or it may be meant to receive and house cars of various descriptions and sizes placed there for a longer or shorter time by their owners. In the former case what has to be kept in view—and with motor omnibuses especially—is the fact that the vehicles come in and go out in some special rotation or order, and that the earliest to leave in the morning should have facilities for being so stabled that in order to do so they disturb as few as possible of those placed in front of them.

The plan of the garage of the Metropolitan Motor Omnibus Company shows that, here again, only one vehicle need be moved to allow of that behind it leaving the shed. A series of stanchions on either side of the open yard carries a traveling crane which serves to lift the body of any car, as required, from its chassis.

It is of course highly desirable that there should be few piers, columns or stanchions to cut up the floor space and interfere with the free disposal of the cars. A roof of steel cantilever principle best serves this purpose.

Most often, however, the site built on is one which to utilize to its utmost it is necessary to design a building of several floors, and a good example of this treatment is the Winton garage, New York, of which Mr. Charles A. Rich is the architect. This averages 130 feet by 100 feet, and has four floors each with washing spaces, and with car access obtained by a lift 18 feet long by 13 feet wide. Mr. Rich writes to me about it as follows:

"In regard to planning there are one or two things

important to the minds of all automobilists. From the entrance of the building to the turntables should be a direct straight line, as shown on the first floor, and the washstands should be well out of the way in the rear. In this particular garage you will note that there are incoming and outgoing turntables near the elevator. The first floor, possibly better than any other floor, shows the large space unbroken by columns.

"The roof of this building is interesting, as it consists of an open tile floor, flat skylights in the tiles, and a covered piazza around two sides formed by the Italian tiled sloping roof, and it will be noted that the elevator runs up to it. A trying out-run of a circle around the elevator of about 100 feet is obtained; and under the piazza the men work on the machines in summer in the outdoor air, and protected from the rain. The scheme makes a delightful working place, to say the least."

Mr. Calvin Kiessling's Boston garage is not very dissimilar to the Winton. It is a parallelogram divided into large bays 25 feet by 20 feet and contains three floors in addition to a basement. The lift is of unusual length (20 feet by 10 feet), and is served by two turntables of 15 feet

diameter. On the top floor is provided a day room, or lounging room, for the chauffeurs in their "off time."

The turntable which I have just mentioned is so extremely useful a feature that it is surprising it is not more adopted, even in quite small garages. One important gain it effects is making it possible for the car to go into its house head forward and to come out from it in the same way. This economy of revolution space causes its extra expense to be well worth while.

Another arrangement to this end is that adopted by Messrs. Meyer & Rademaker architects, in their garage at The Hague. Here the car on entering is run on to a low frame carried by small roller wheels on a pair of lines and conducting it to the garage or the workshop. This whole plan is simple and ingenious.

The design of M. Genuys, of Paris, which was exhibited in last year's Salon, shows that he has made full use of the basement, which he lights with large expanses of floor lights. This and the gallery on the first floor are reached by two car lifts. The construction throughout is reinforced concrete, and the building is 225 feet long with a central span of about 30 feet.

COOK COUNTY COURT HOUSE, CHICAGO

HOLABIRD & ROCHE, ARCHITECTS



HE new Cook County Court House was designed and planned to afford the occupants all the light, ventilation, conveniences and facilities of the modern office building. Combined with provision for the practical requirements, the design is eminently monumental, founded upon the Corinthian order. The great granite colonnades the columns of which are nine feet in diameter and ninety-four feet long, are the dominating feature of the exterior; the scale is gigantic.

In the competition for the selection of architects, the award to Holabird & Roche was due largely to the superiority of their plans. The plans and principal section were published in the September, 1905, number of this journal. The planning was studied in the light of the defects in the old building and the experience of the chiefs of departments handling the county business.

An unusual feature in the planning is the concentration of the vaults for records in a special story between the third and fourth floors.

The building has a frontage of 374 feet on Clark street and of 157 feet on both Washington and Randolph streets. It contains 12,000,000 cubic feet of space and cost \$5,000,000. The size of the building is shown by some interesting comparisons. It is larger than the First National Bank building, twice as large as the Railway Exchange building and two and one-half times the size of the old County Court House. The lowest floor is thirty-eight feet below the street grade and the highest point of the roof is 218 feet above grade. The building rests upon 130 concrete caissons, varying in diameter from four feet to over ten feet. These caissons are carried down to solid rock about 115 feet below street grade.

Concrete retaining walls surround the building, and at the curb line reinforced concrete walls, three feet four inches thick, enclose the sub-basement.

For architectural reasons, one column spacing was

necessary in the lower stories. In the upper stories the arrangement and size of the court rooms in the wings have made another column spacing necessary. These different column spacings change at the vault story, where the columns of the upper eight stories are carried on deep trusses between the columns of the lower four stories.

The support of the granite, of the granite fronts has also called for novel designs. In all cases, however, the spandrel girders are located more than four inches away from the granite facing and the space between the granite and the steel girders has been fireproofed solid with Portland cement grouted in place so as to bond together with the granite facing.

Another interesting feature is the manner in which the tenth and eleventh story street walls above the granite column colonnade have been supported. These walls are carried on heavy 36-inch deep double cantilever plate girders, projecting out over the steel columns back of the granite columns. Thus the granite columns are relieved of any weight coming from above.

While the street fronts are principally of Woodbury gray granite, large use was made of architectural terra cotta in the exterior of the building. All the trimmings on the fronts between the large granite columns, and also window trimmings below them, are terra cotta of dark bronze color. Above these large columns the frieze, the main cornice and the parapet on the fronts are terra cotta which in color and texture matches perfectly the natural granite. All the trimmings in the courts are enameled terra cotta, matching in color the enameled brick. The trimmings on the west side of the building are also terra cotta of the same color as the brick used in these walls.

It will be seen that the work required a large variety of shapes and some clever matching of colors. Time was also a vital consideration. The entire terra cotta work was entrusted to the Northwestern Terra Cotta Company, Chicago, who were enabled by their great plant and facil-

1040



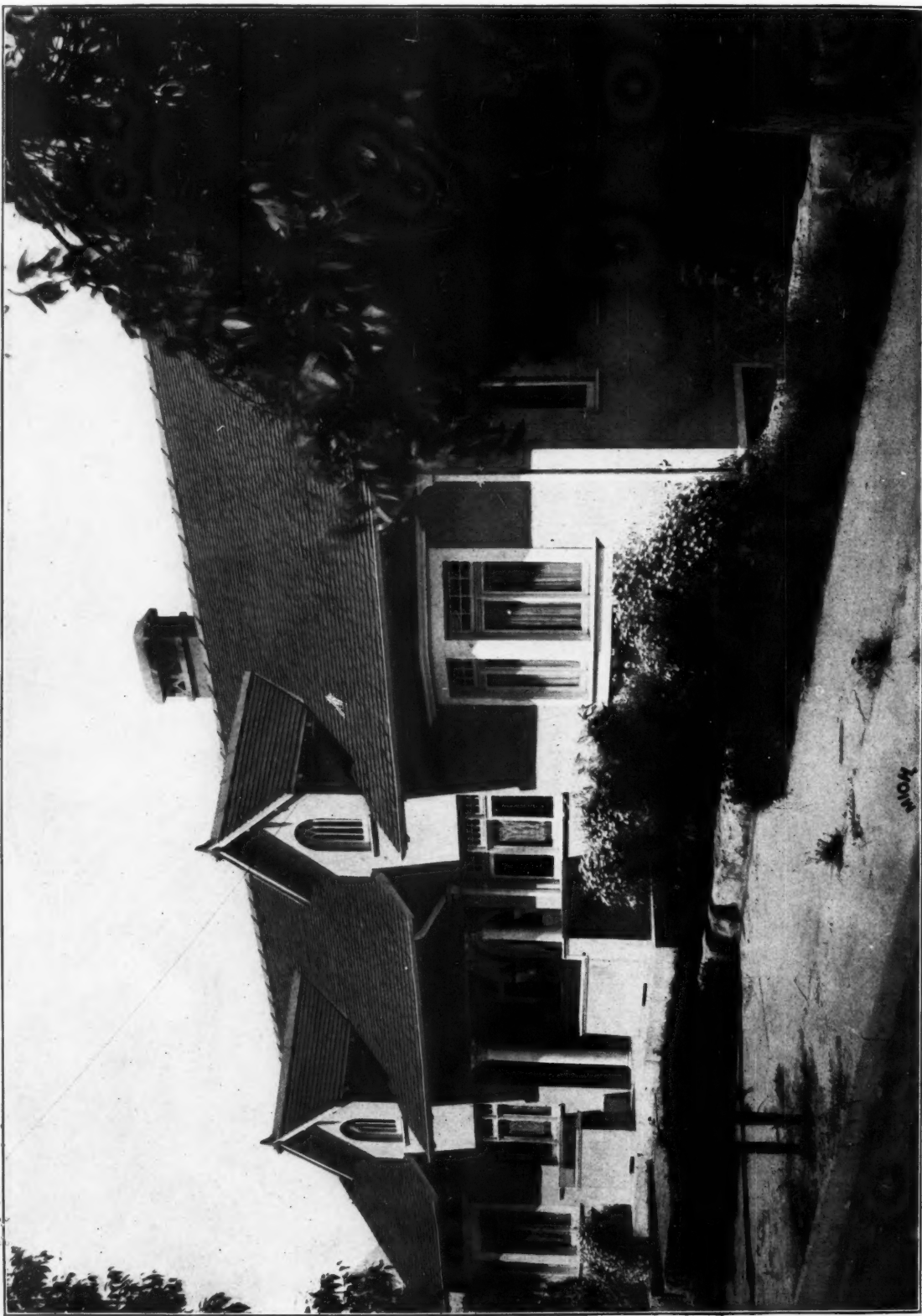
West End of Gallery



ARTISTS' GUILD BUILDING, ST. LOUIS
Louis C. Spiering, Architect

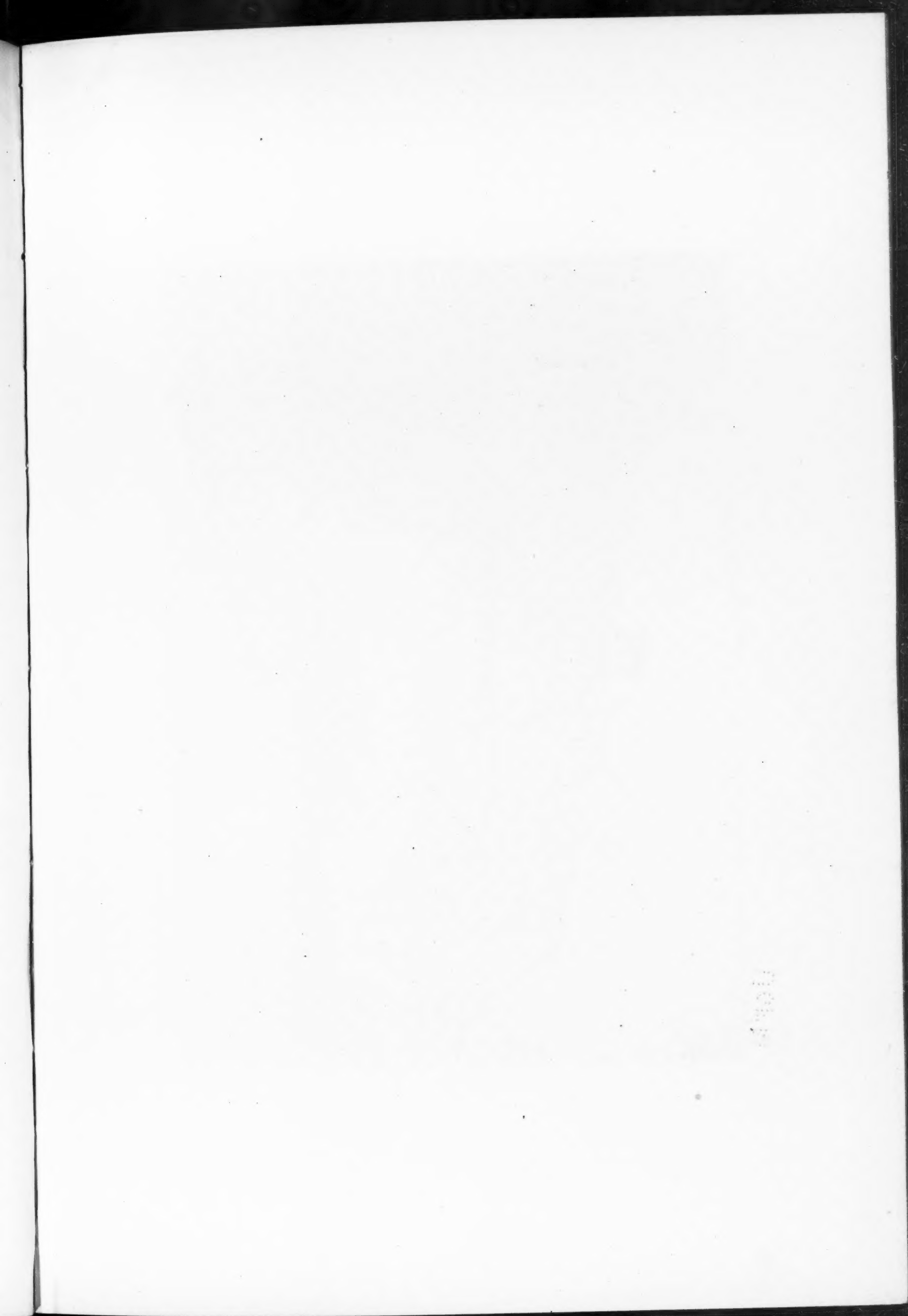
THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908

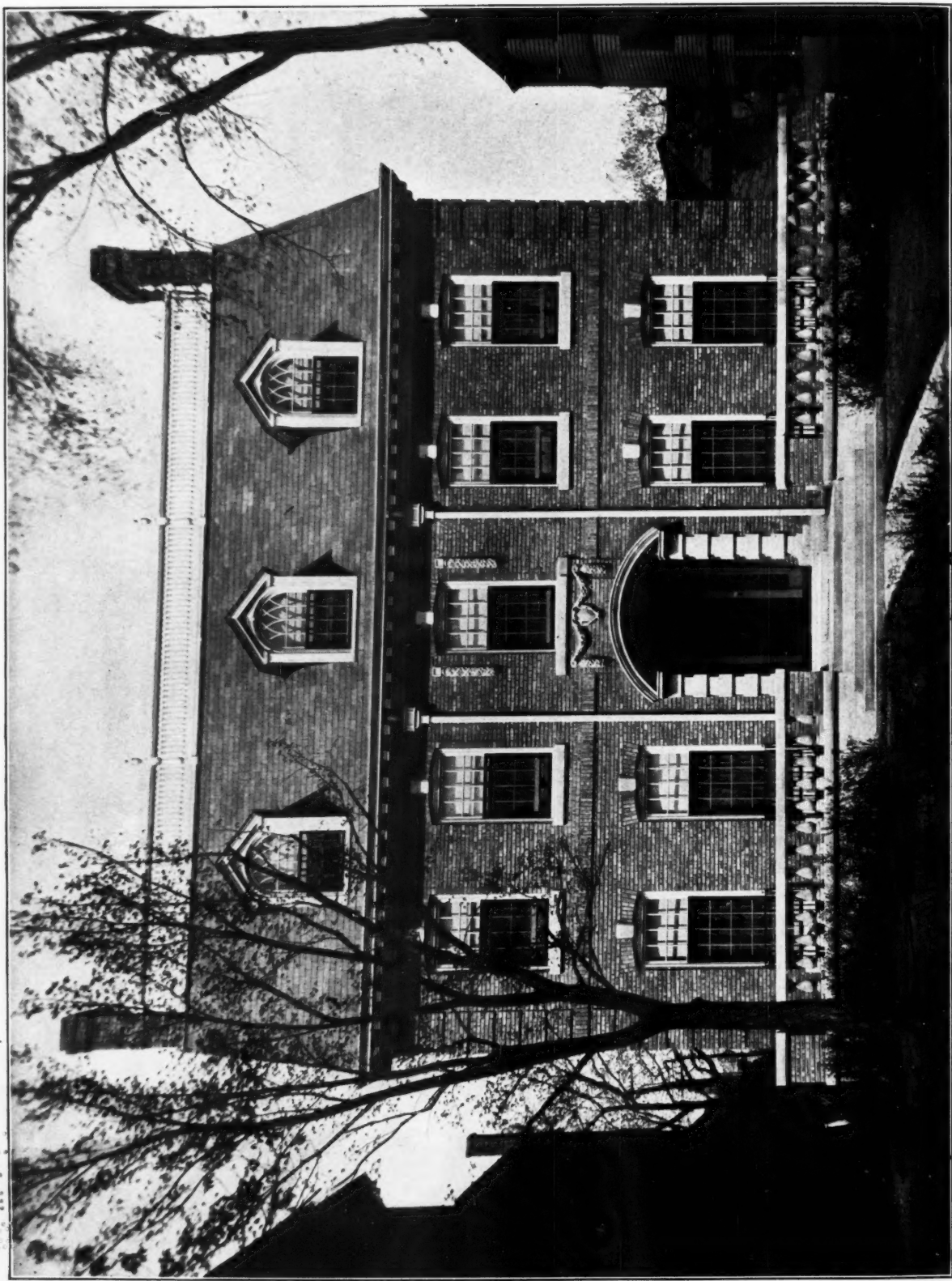
1906



BUNGALOW, SANTA BARBARA, CAL.

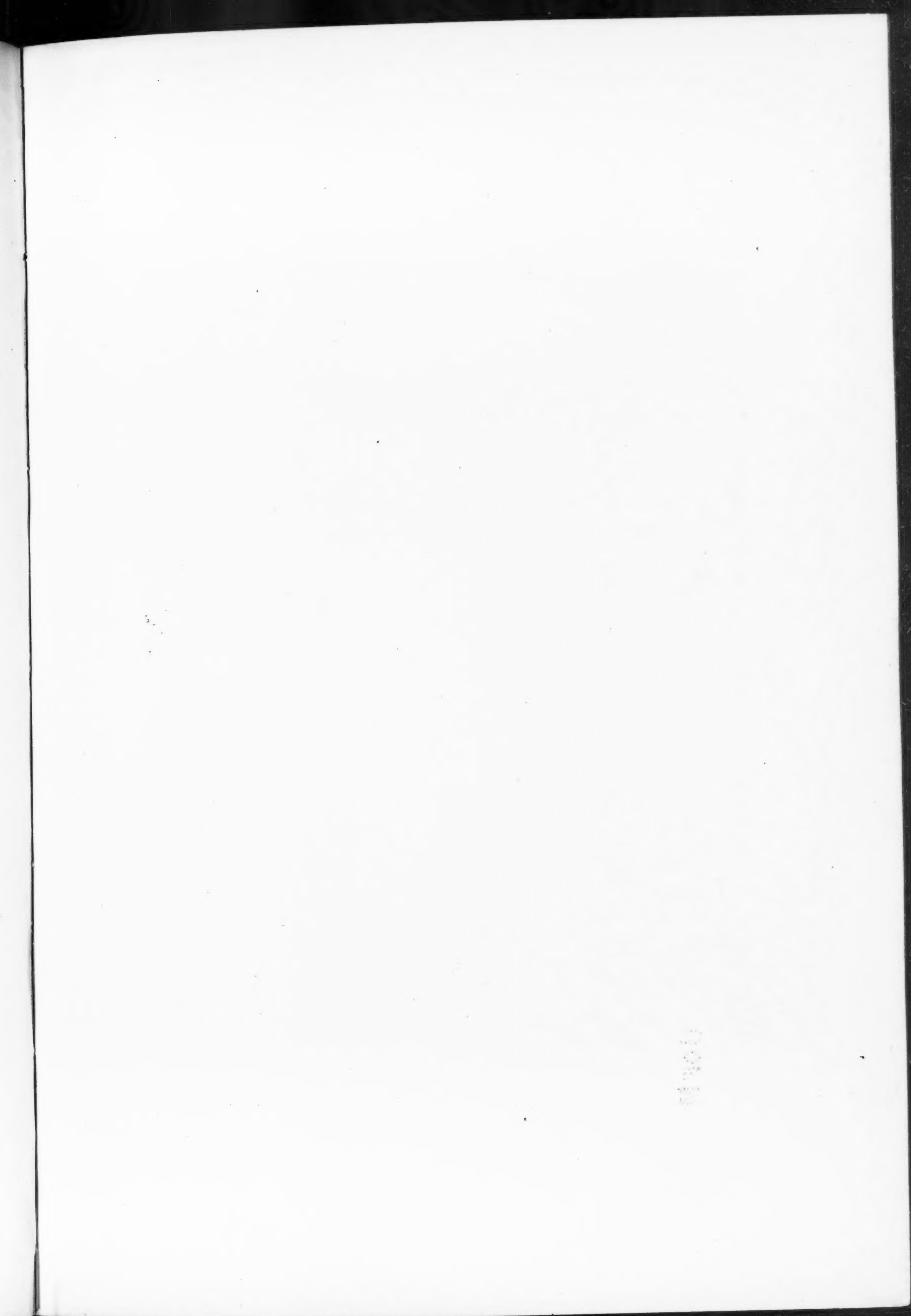
THE INLAND ARCHITECT
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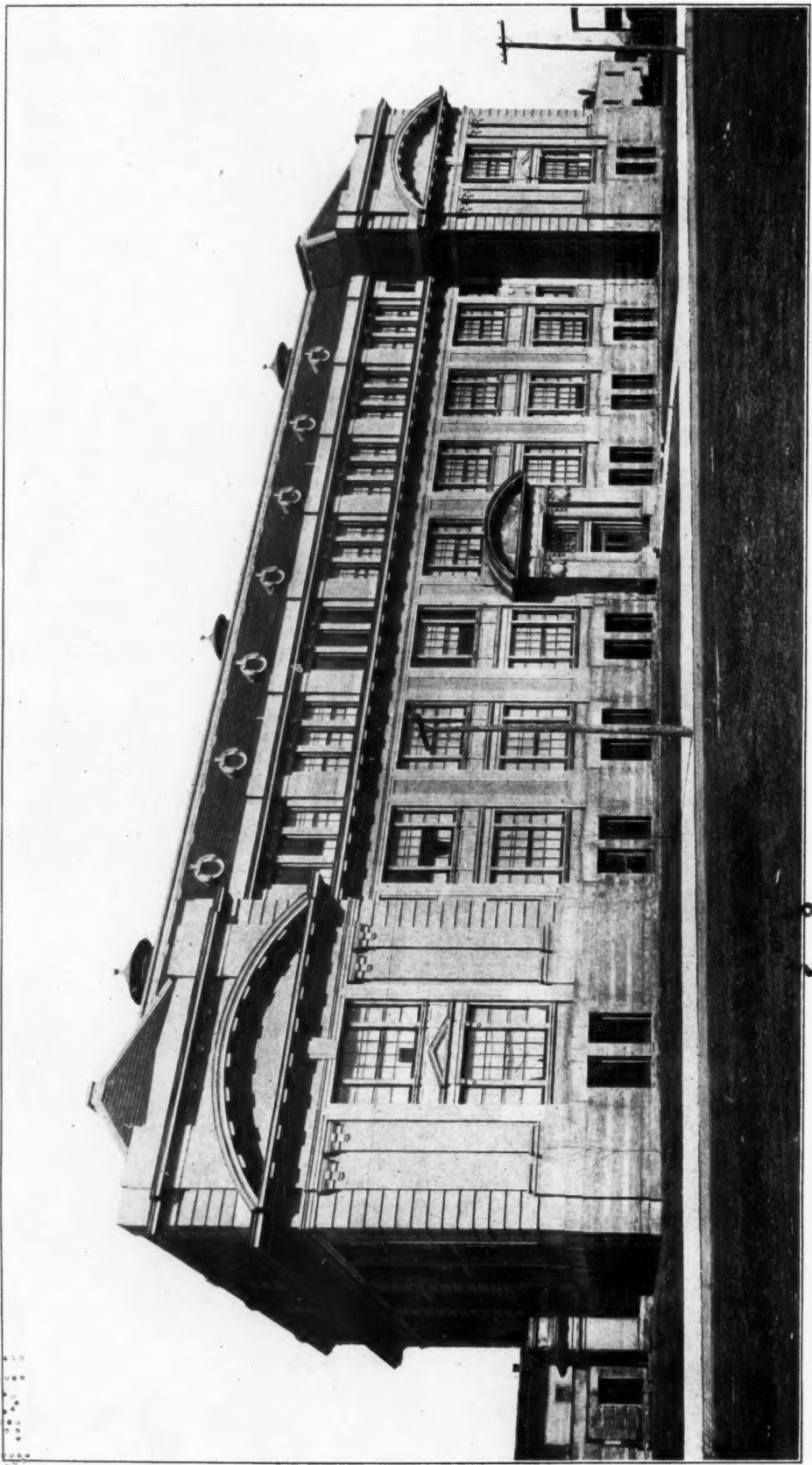




RESIDENCE, CHICAGO
Howard V Shaw, Architect

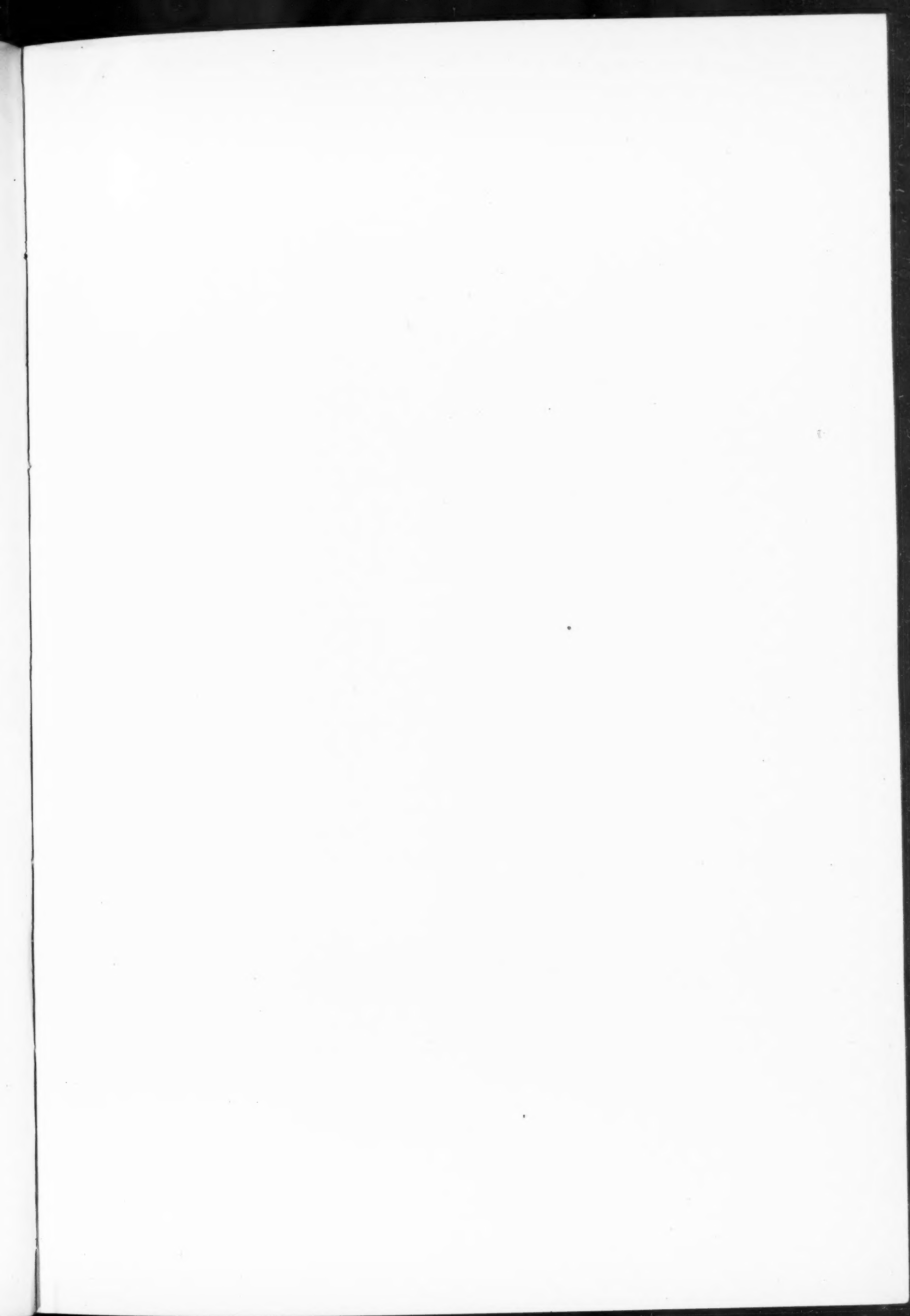
THE INLAND ARCHITECT
AND NEWS RECORD
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PUBLIC SCHOOL BUILDING, CHICAGO

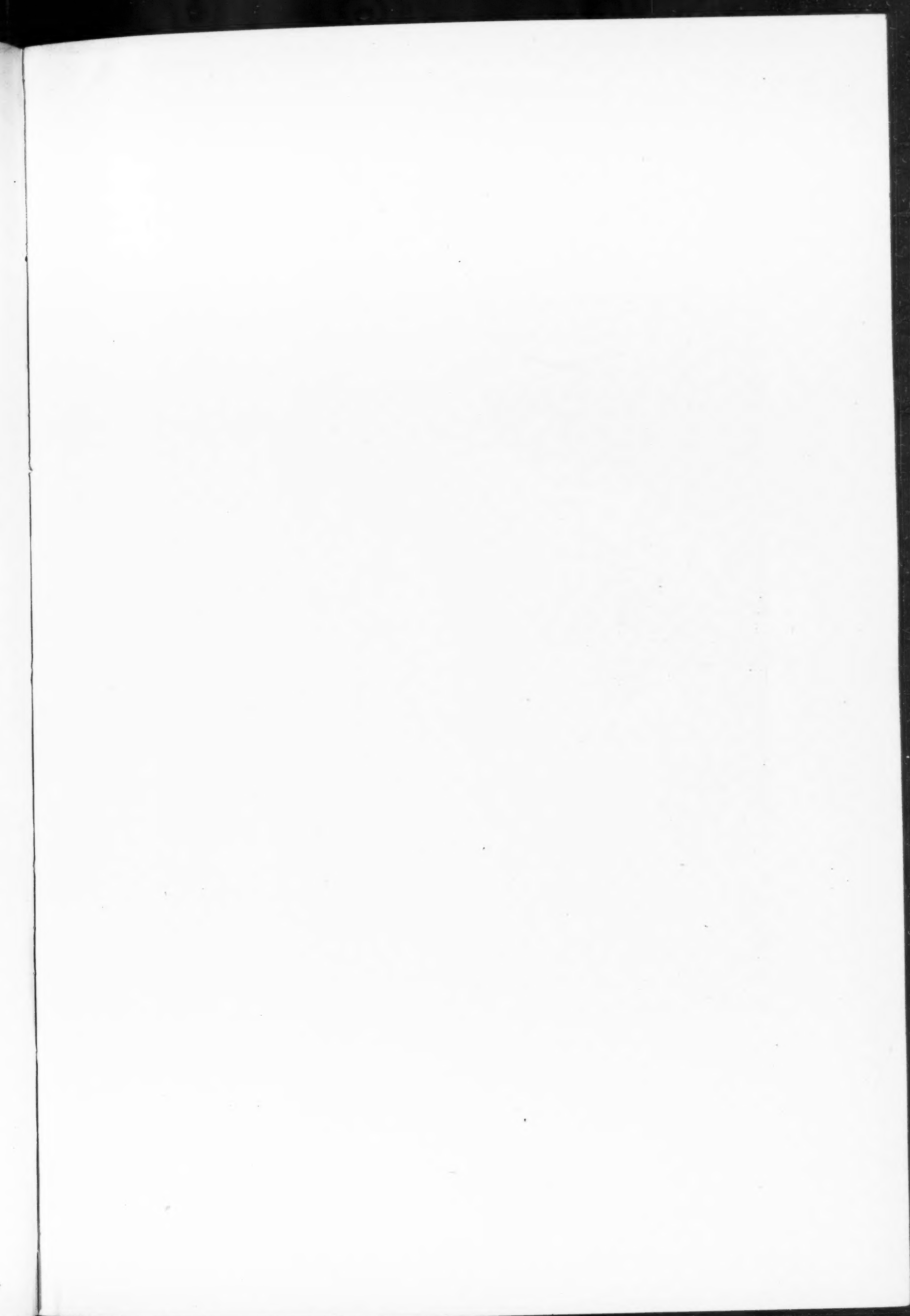
THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908

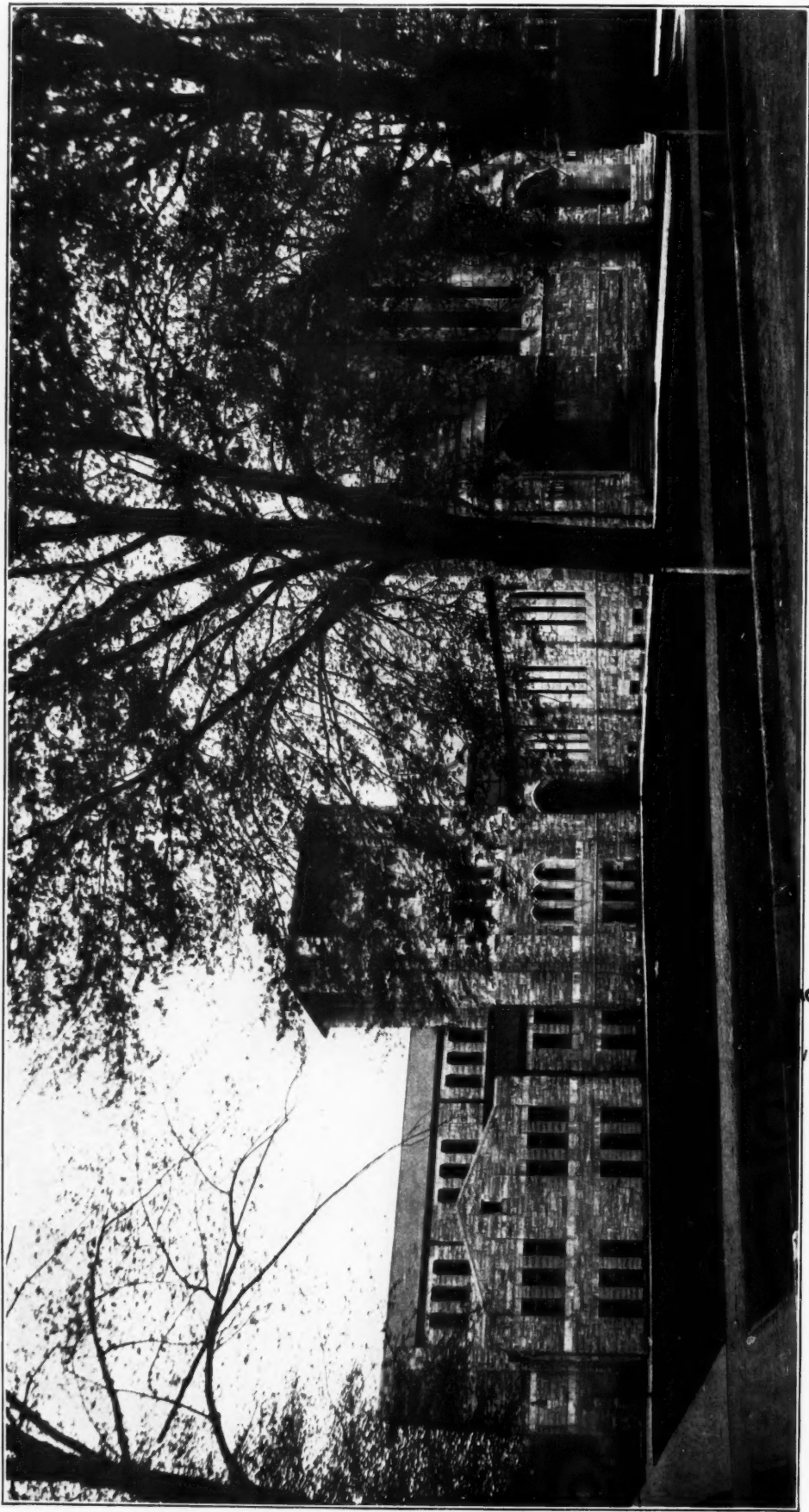




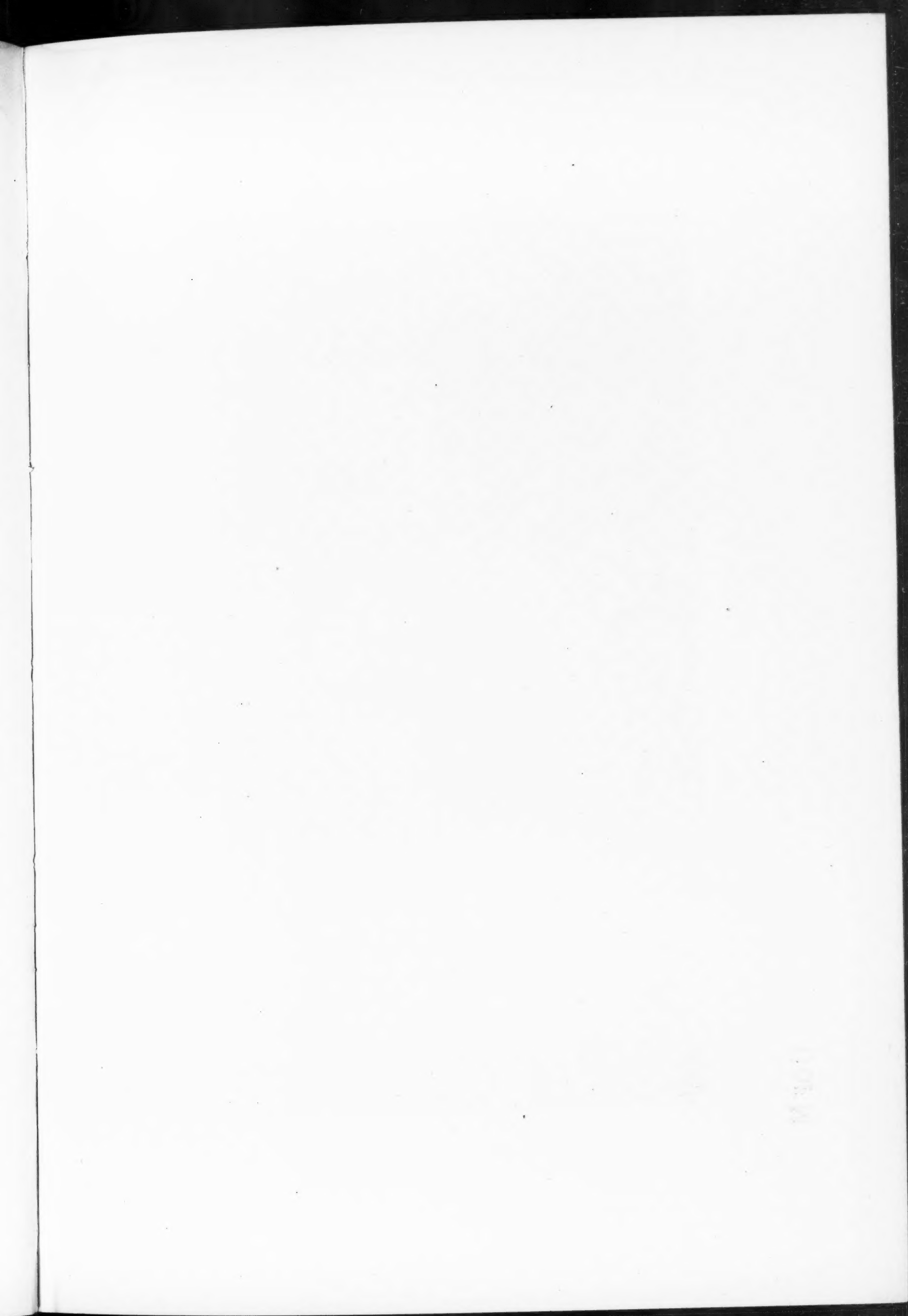
GROUP, COMMERCE, FOR FEDERAL BUILDING, CLEVELAND
Daniel Chester French, Sculptor

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908





SECOND PRESBYTERIAN CHURCH, SPRINGFIELD, ILL.
Cram, Goodhue & Ferguson, Architects
Herman V. Von Holst, Associate Architect





Portland City Library. Whidden & Lewis, Architects



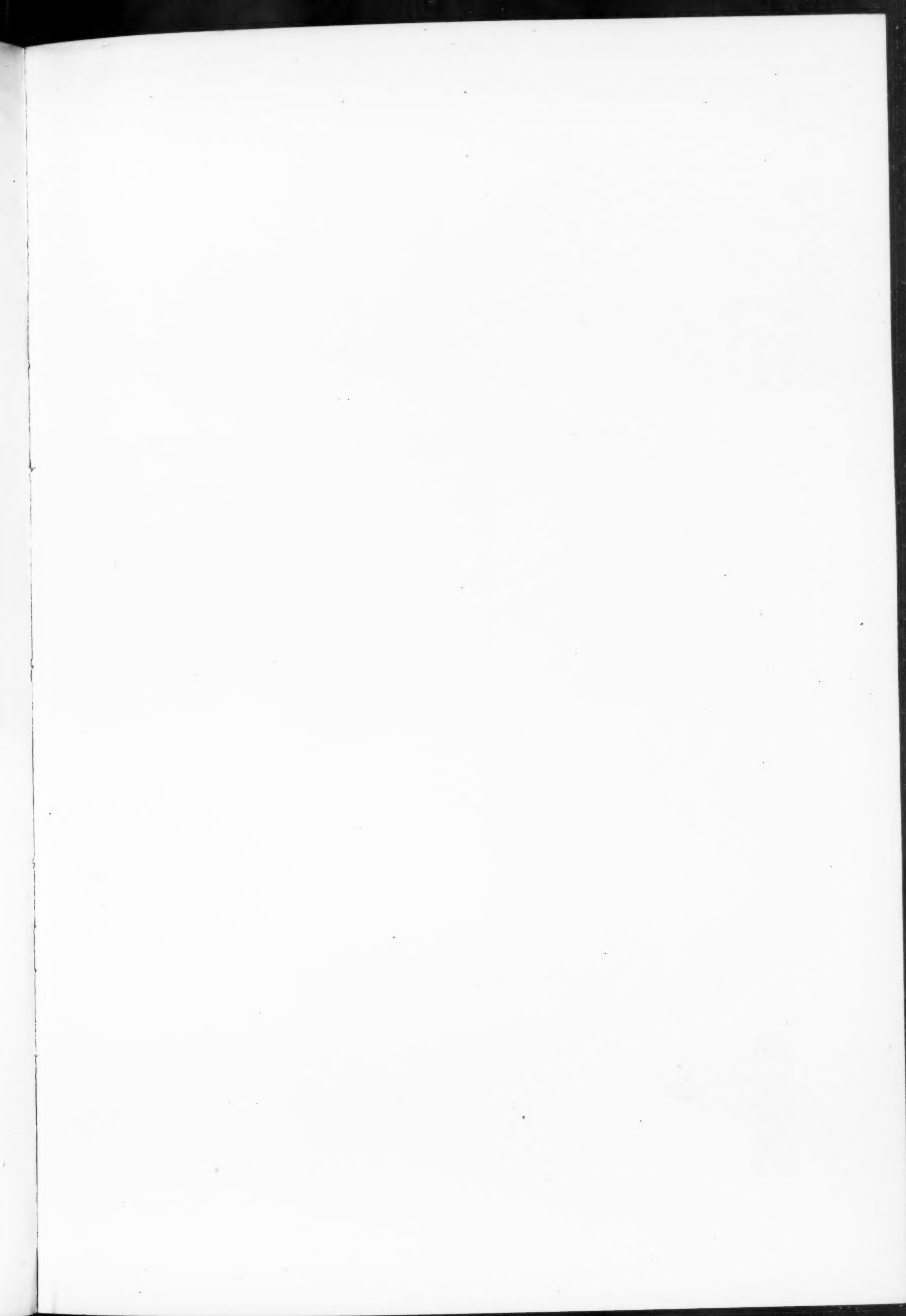
Interior View, Portland City Hall



Portland City Hall, Whidden & Lewis, Architects

SELECTIONS FROM EXHIBITION OF PORTLAND ARCHITECTURAL CLUB

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908



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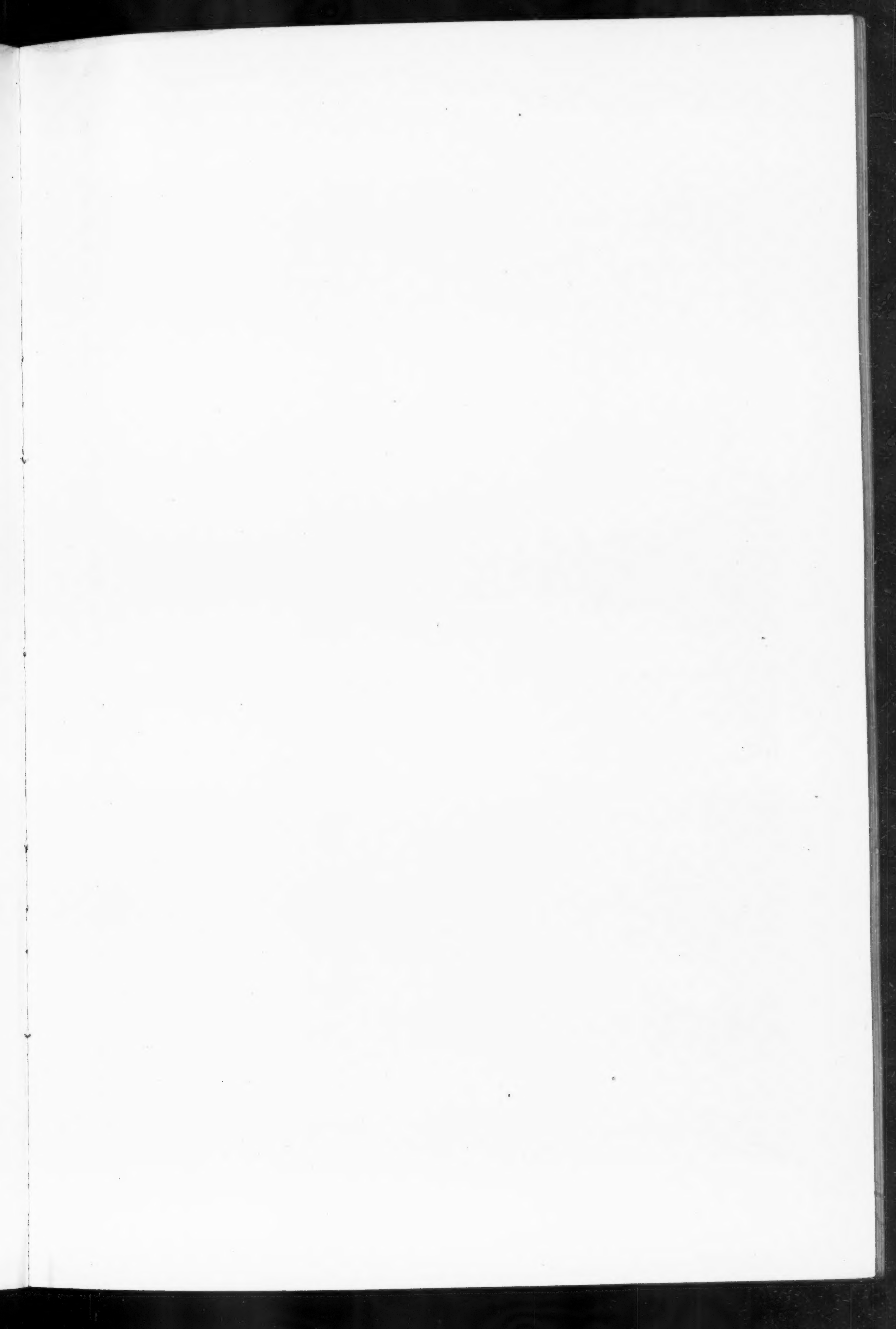


Enclosed Porch of Gate Lodge



GATE LODGE AND STABLE
Marshall & Fox, Architects

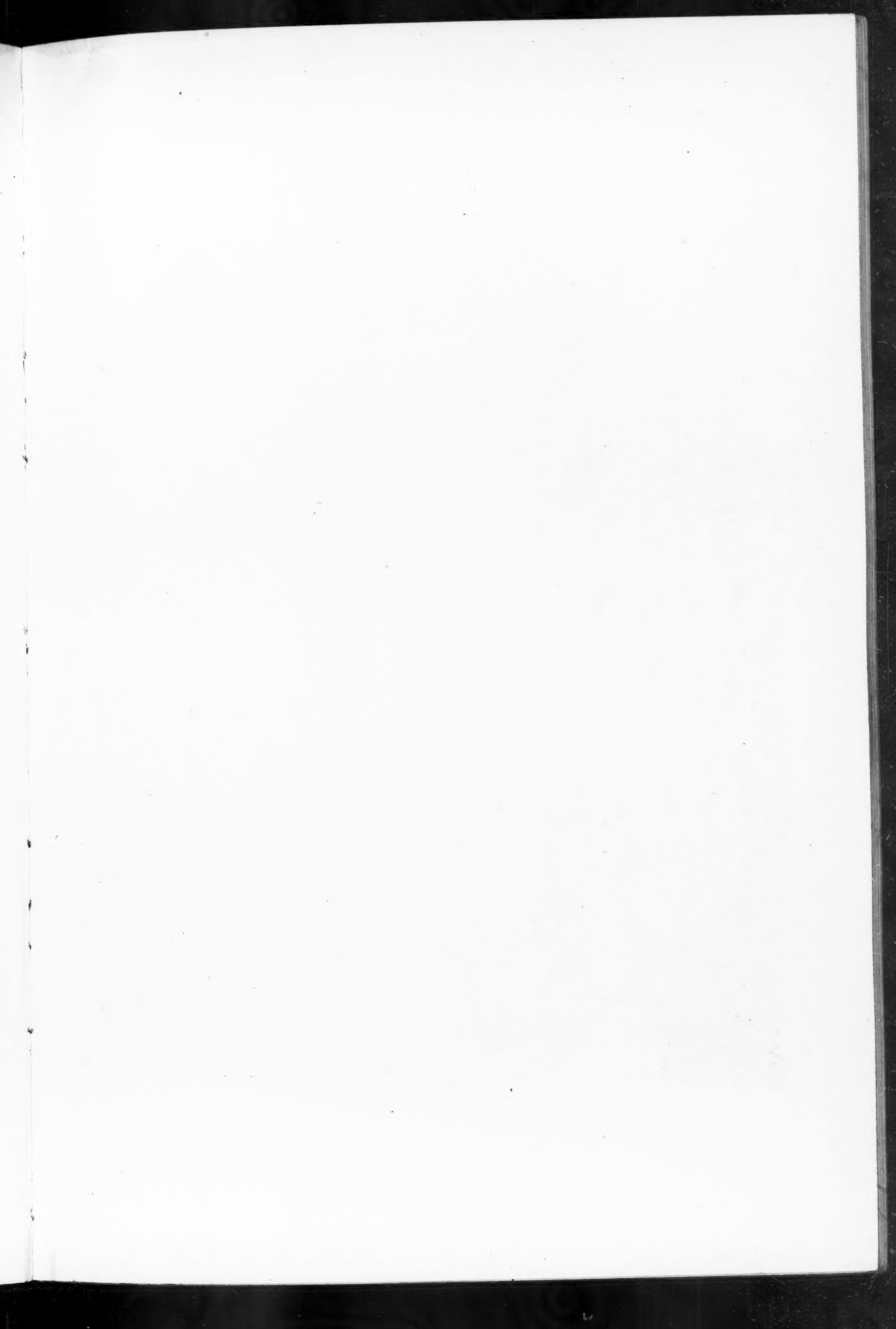
THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908

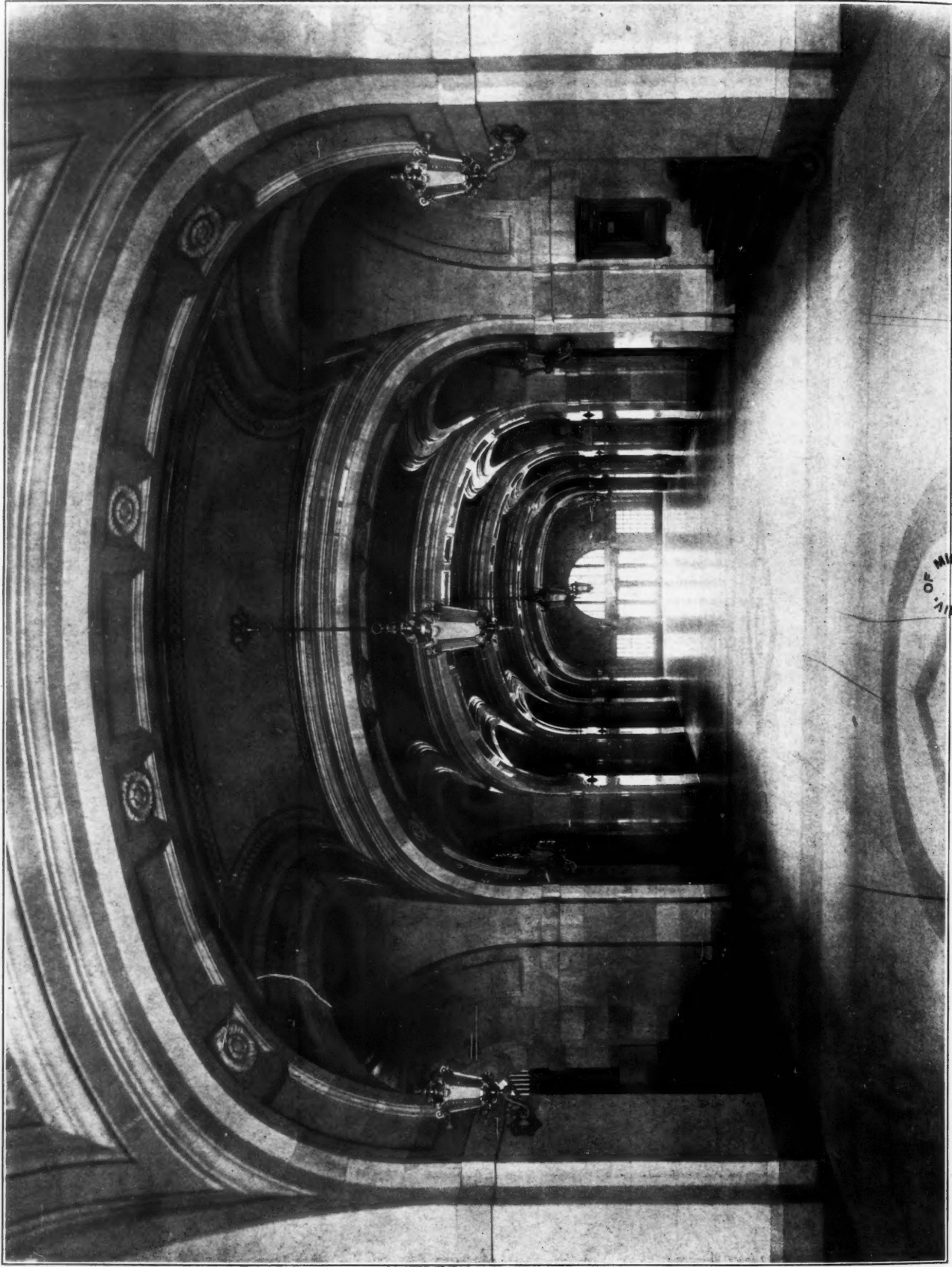




THE COOK COUNTY COURT HOUSE, CHICAGO
 Holabird & Roche, Architects
 All Terra-Cotta was furnished and set by the Northwestern Terra-Cotta Co., Chicago
 Clock System, Pneumatic, by the Hahl Automatic Clock Co., Chicago

THE INLAND ARCHITECT
 AND NEWS RECORD
 MAY, 1908





VIEW IN MAIN CORRIDOR, COOK COUNTY COURT HOUSE, CHICAGO
 Holabird & Roche, Architects

Main Corridor finished entirely in Botticino Marble and Mosaic, John Peirce Company, General Contractors

UNIV. OF MICH.

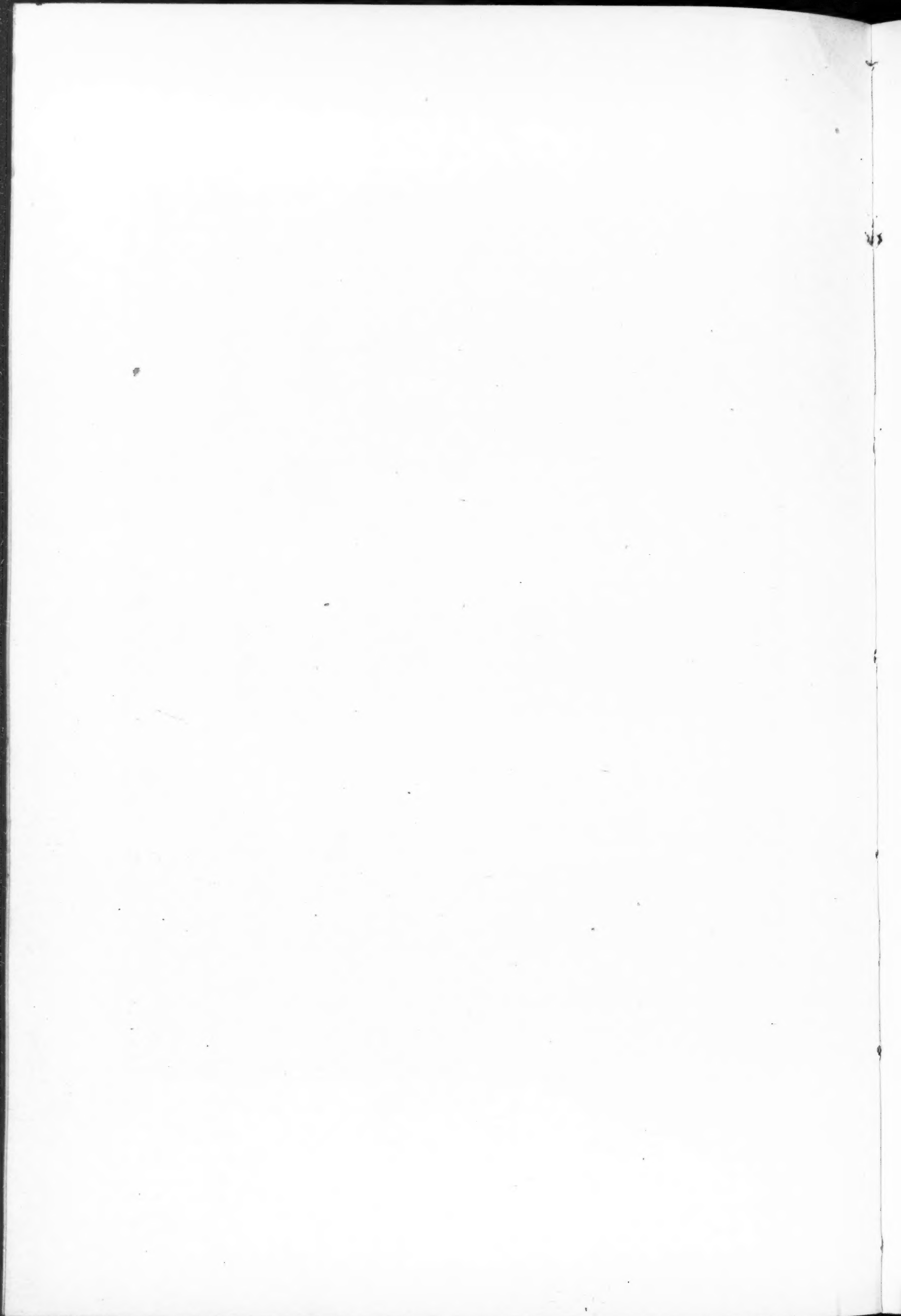


VIEW OF STAIRWAY, COOK COUNTY COURT HOUSE, CHICAGO
Holabird & Roche, Architects

Lobbies of Main Corridor finished entirely in Botticino Marble and Mosaic, John Peirce Company, General Contractors

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908

UNIVERSITY OF MICHIGAN

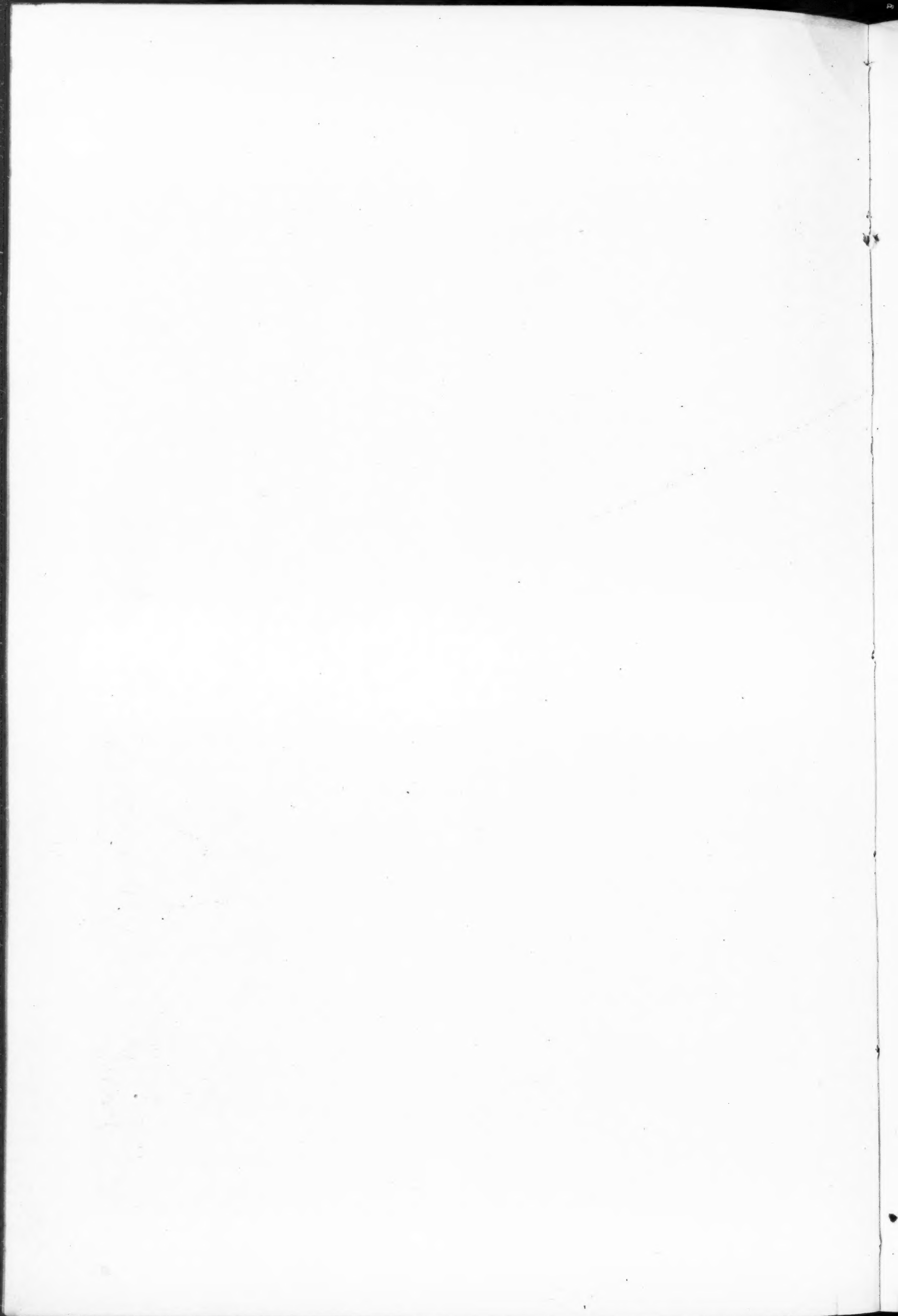




DETAIL OF MAIN ENTRANCE, COOK COUNTY COURT HOUSE, CHICAGO
Hobbs & Roche, Architects

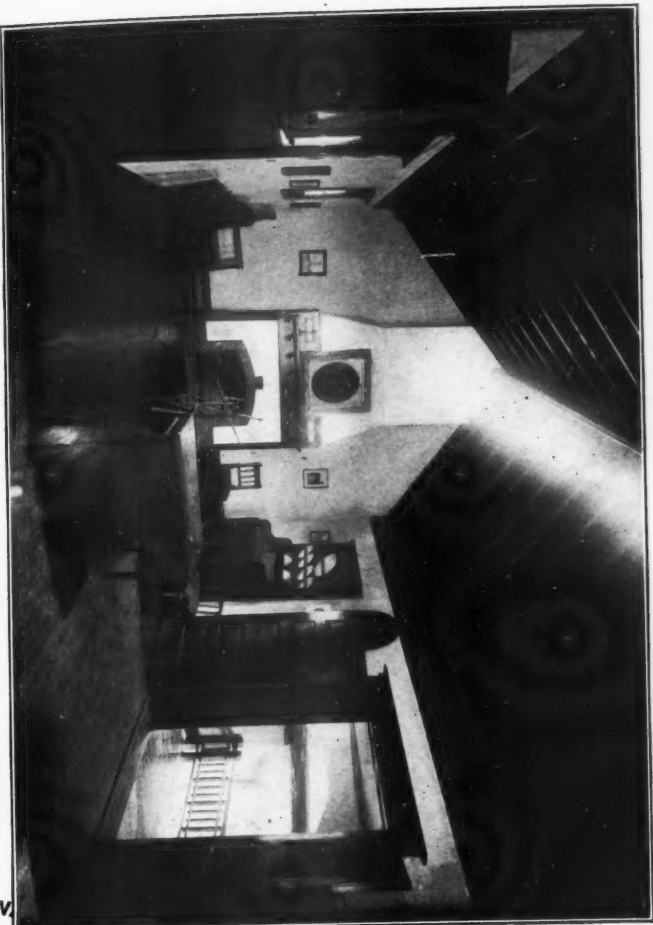
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THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908





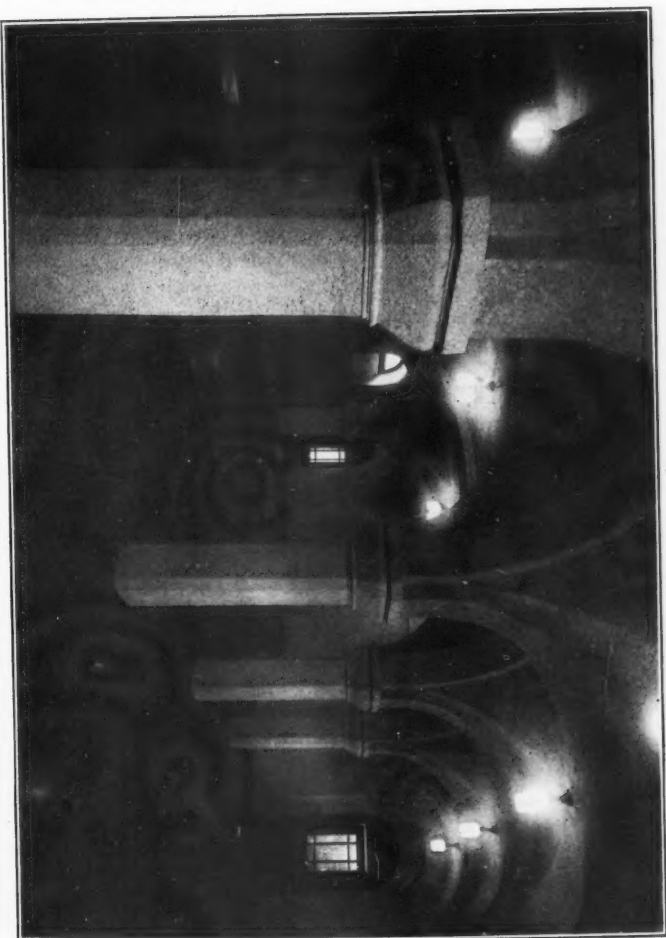
In the Gallery



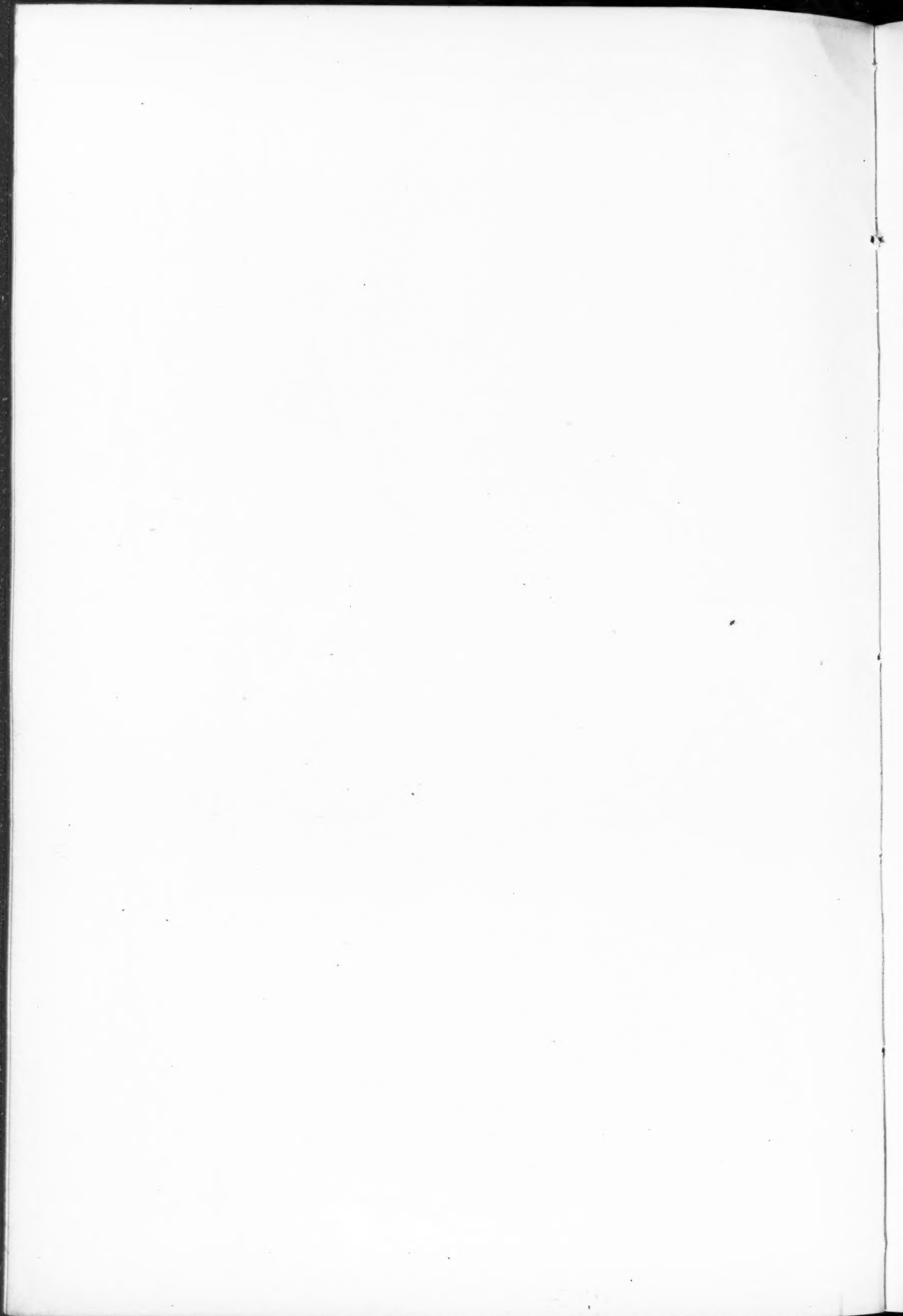
Robert Burns Room
 Views in the Artists Guild Building, St. Louis
 Louis C. Spiering, Architect



Reception Room and Library

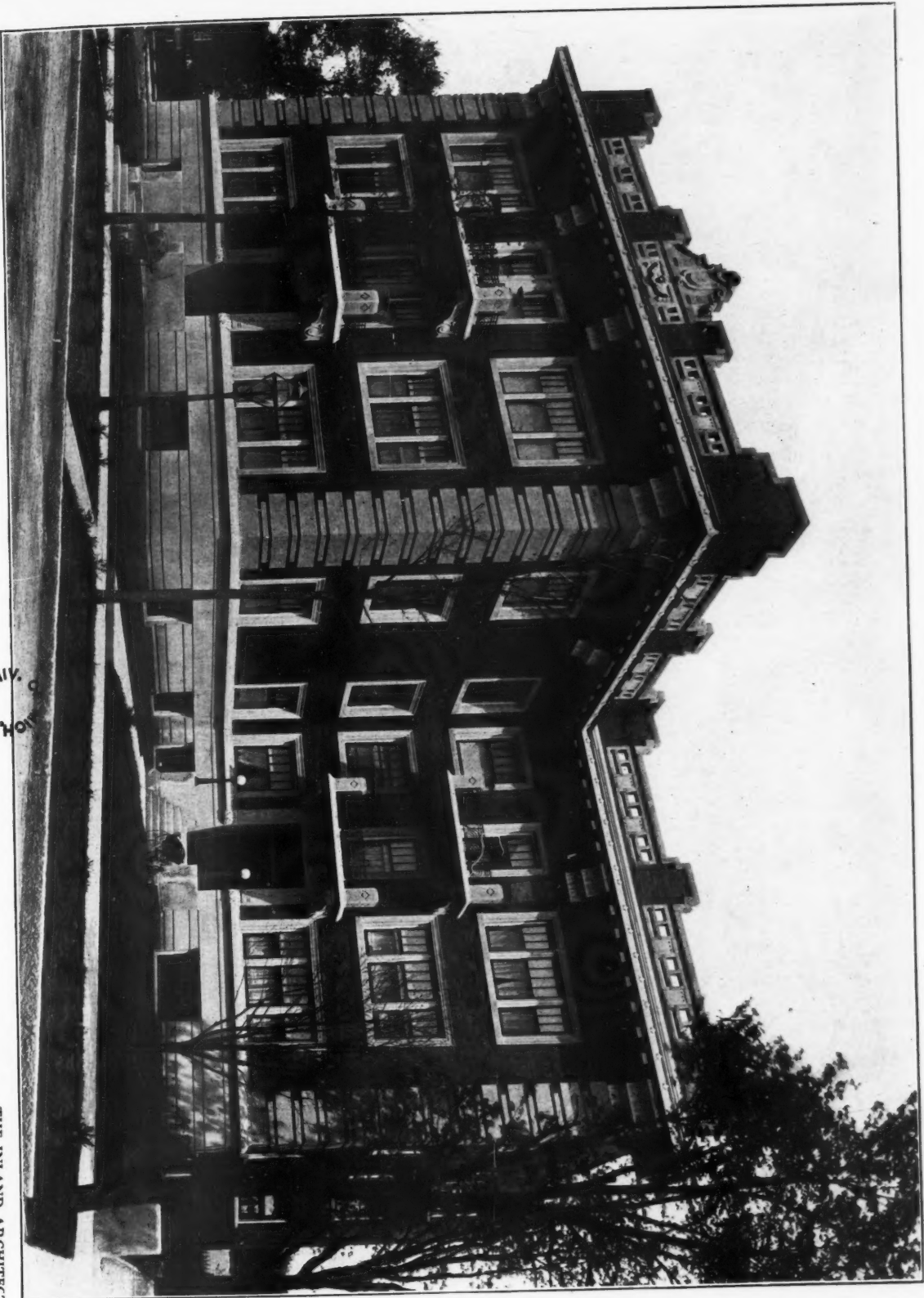


The Rotunda
 The Inland Architect
 and News Record
 May, 1908



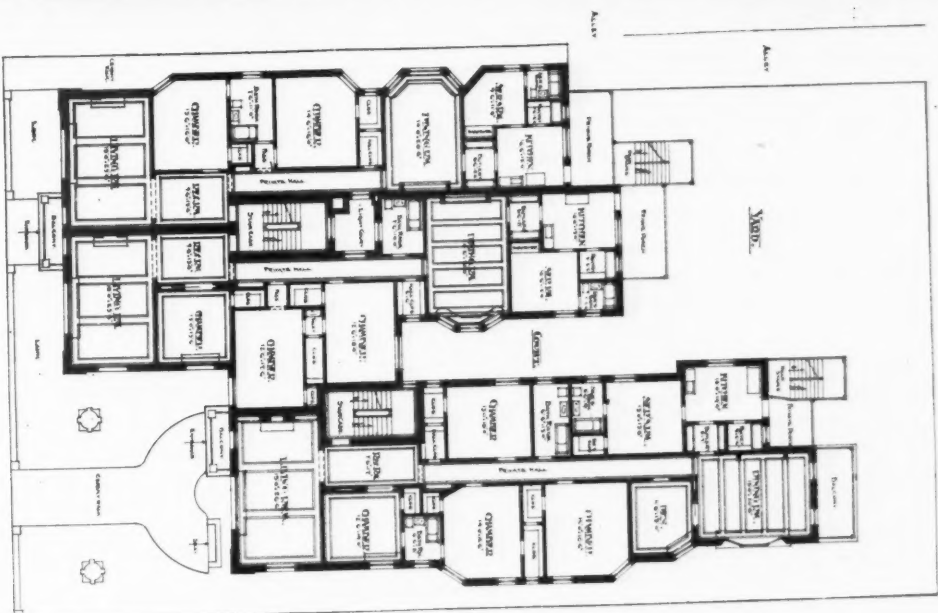
APARTMENT BUILDING, CHICAGO
Andrew Sandgren, Architect

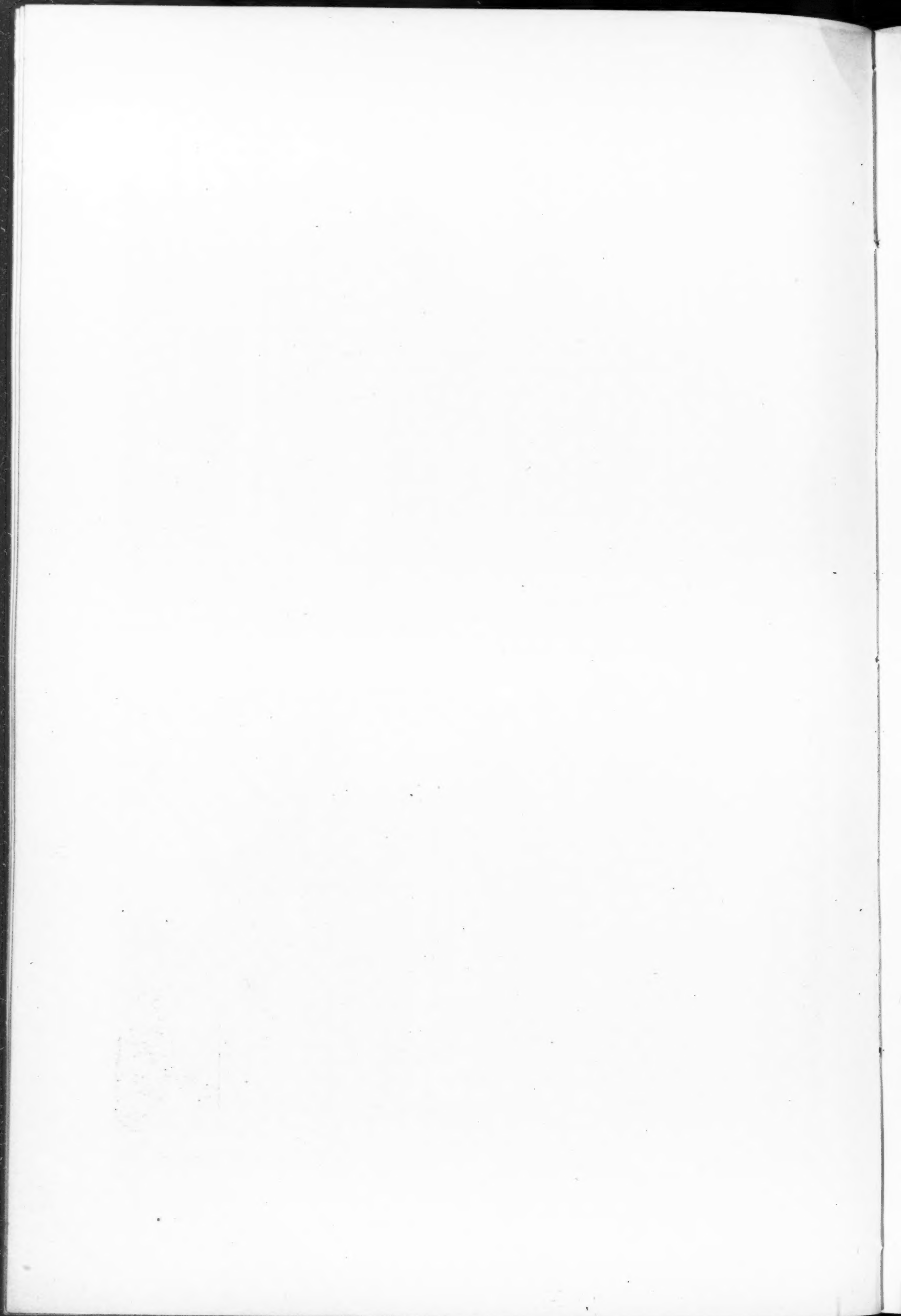
UNIV. OF
CHICAGO



THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908

TYPICAL FLOOR PLAN.





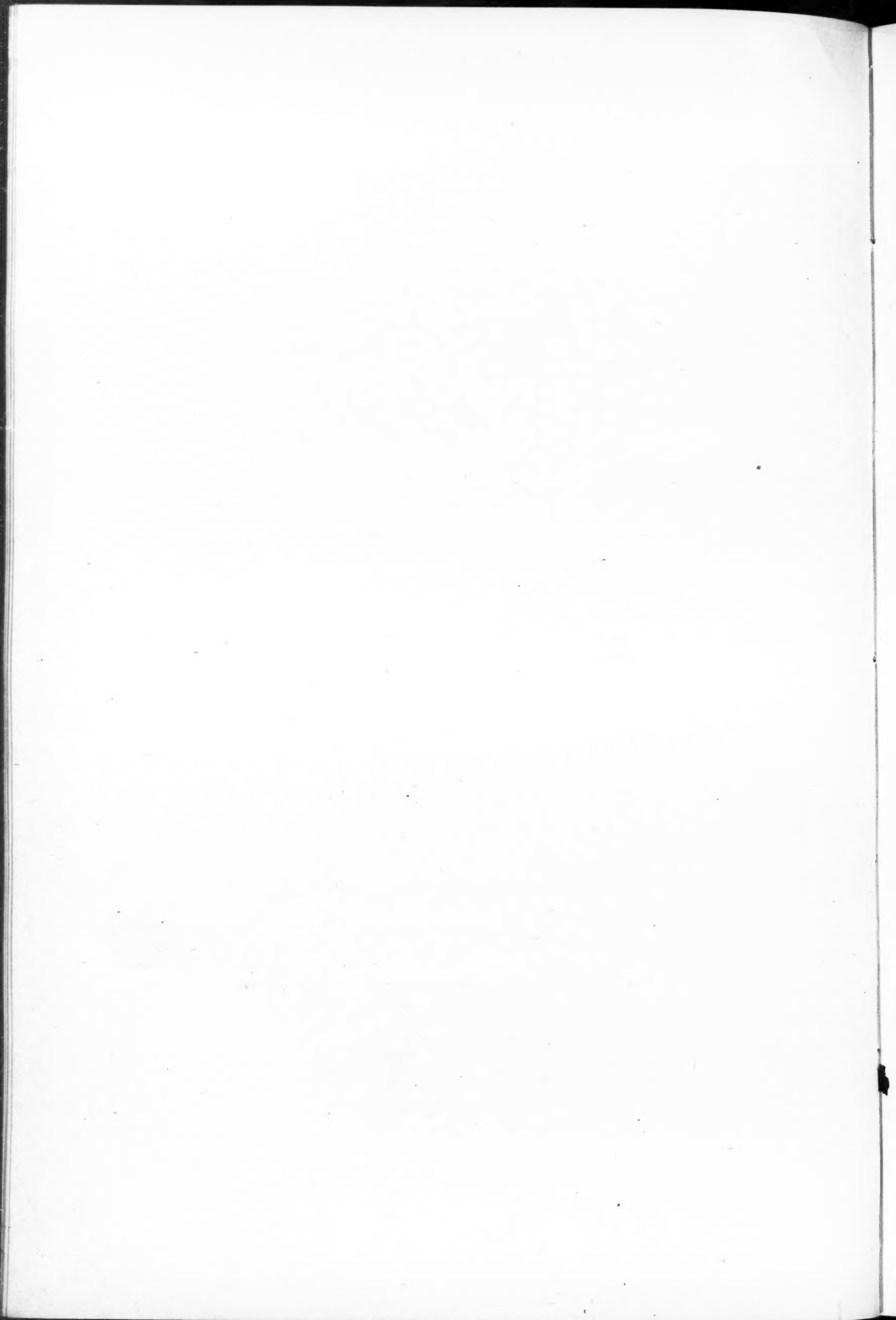


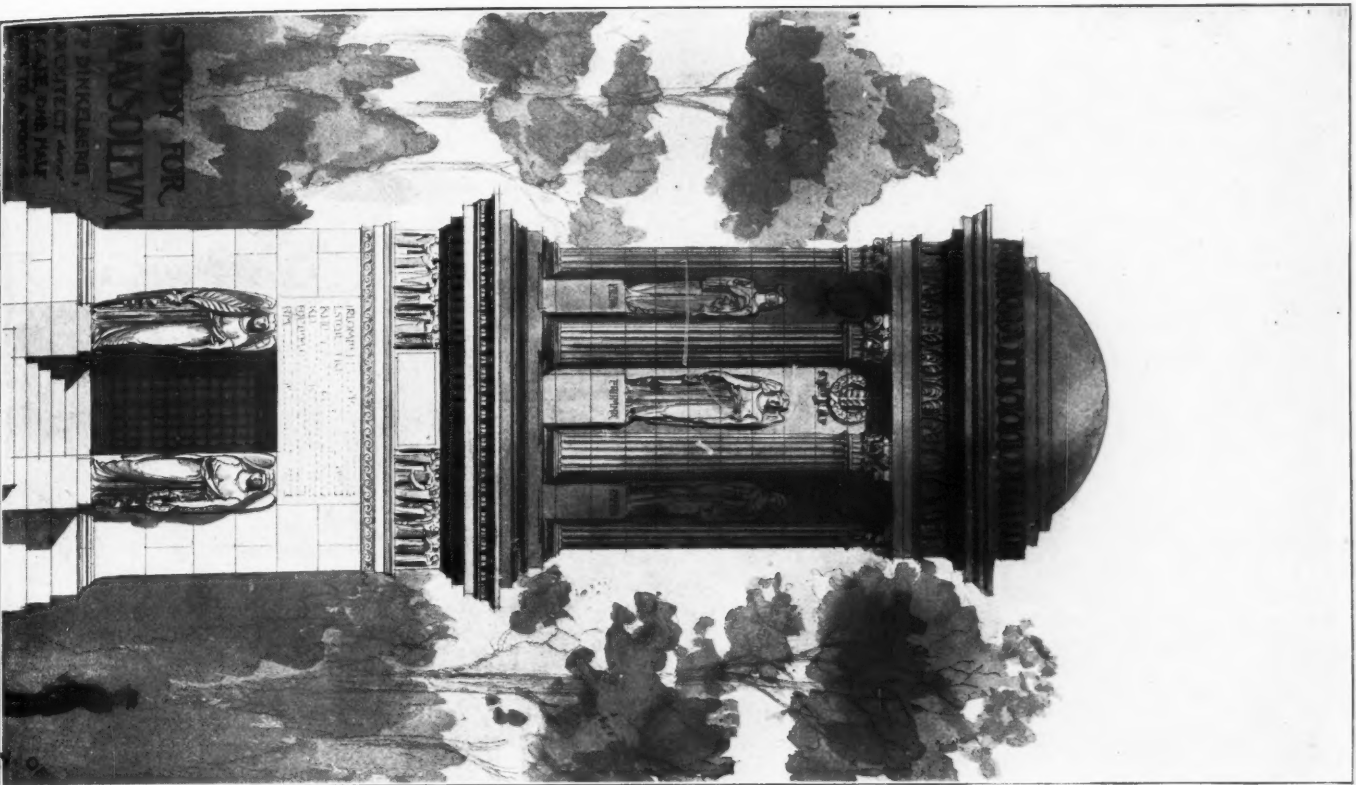
PARISH HOUSE OF GERMAN LUTHERAN CHURCH. BUFFALO, N. Y.
Thomas Harris, Architect



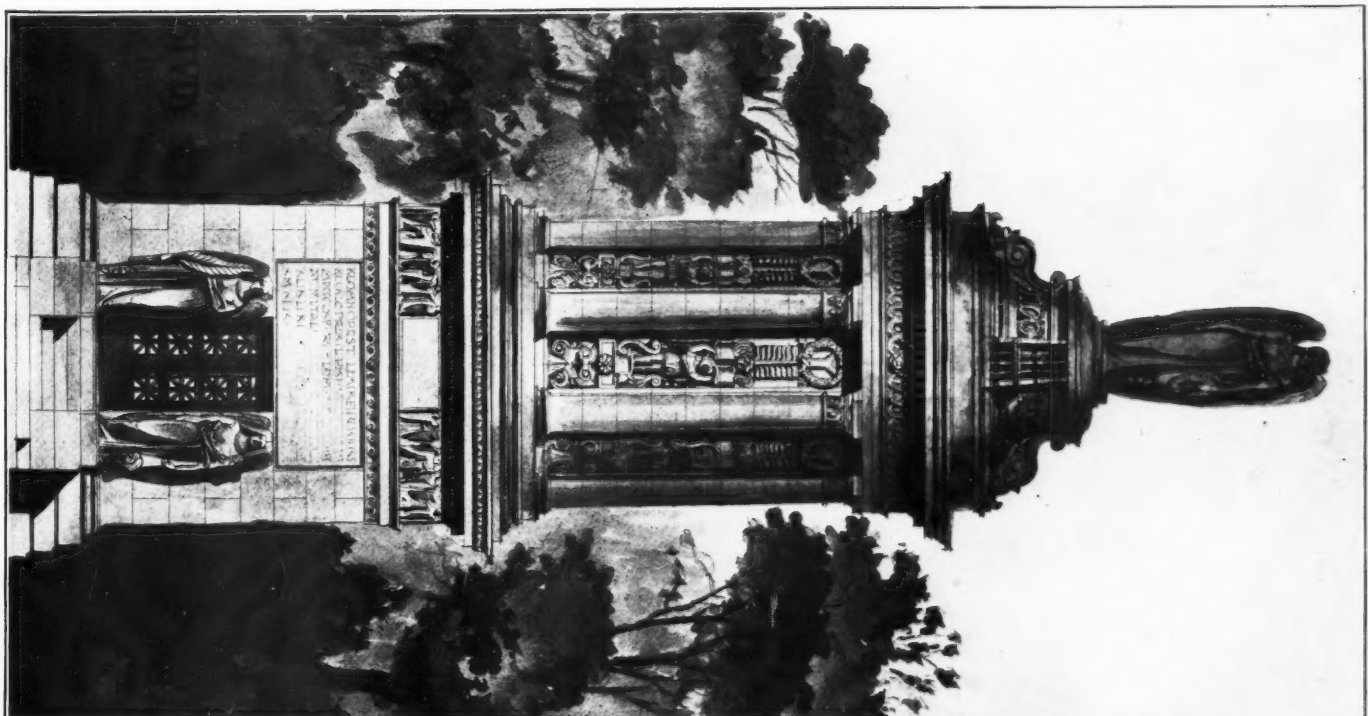
PARISH HOUSE OF TRINITY EPISCOPAL CHURCH. BUFFALO, N. Y.
(Cram, Goodhue & Ferguson, Architects
In Illustration of Article in this Number)

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908

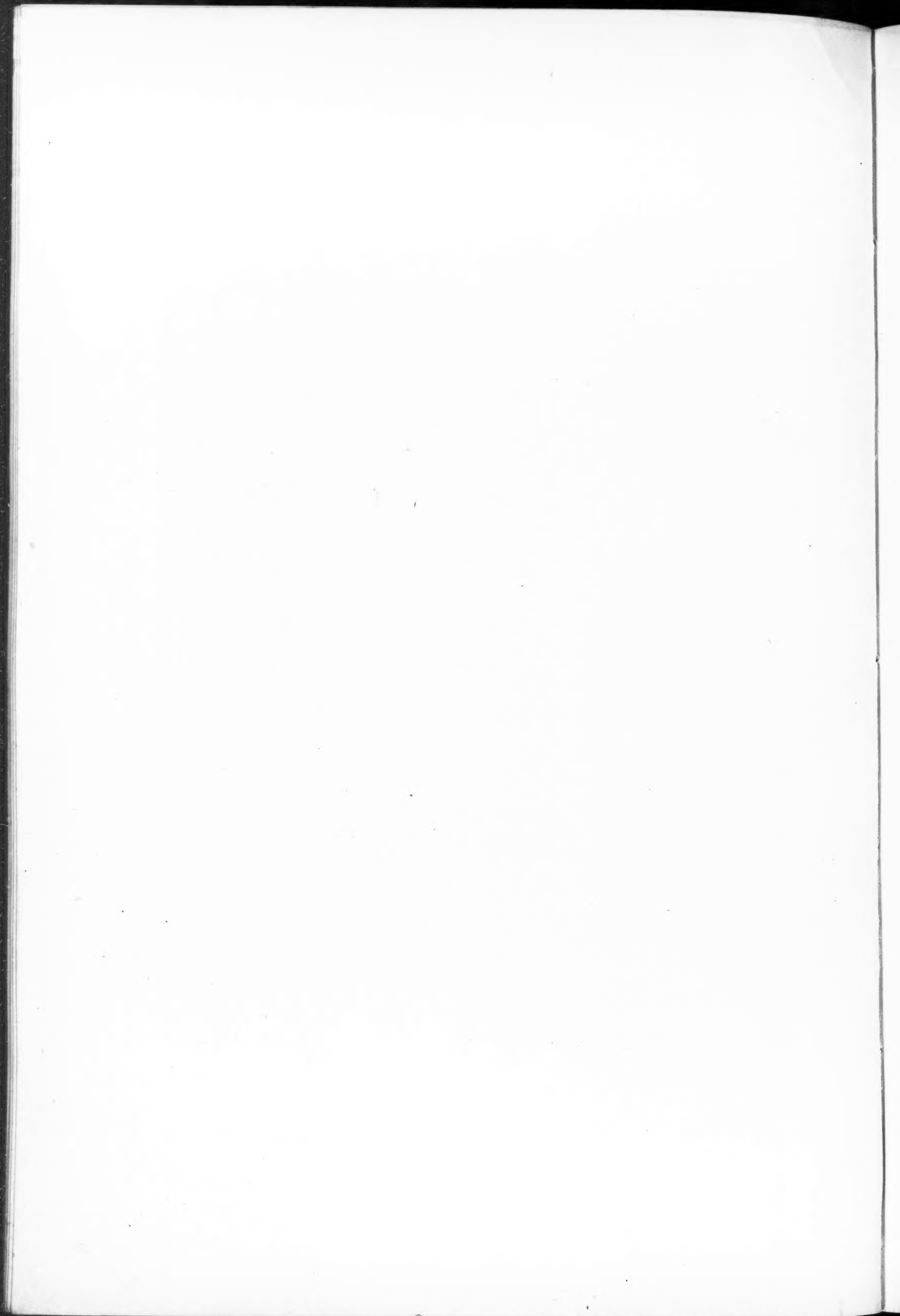




STUDIES FOR A MAUSOLEUM
 Frederick P. Dinkelberg, Architect, Chicago



THE INLAND ARCHITECT
 AND NEWS RECORD
 MAY, 1908

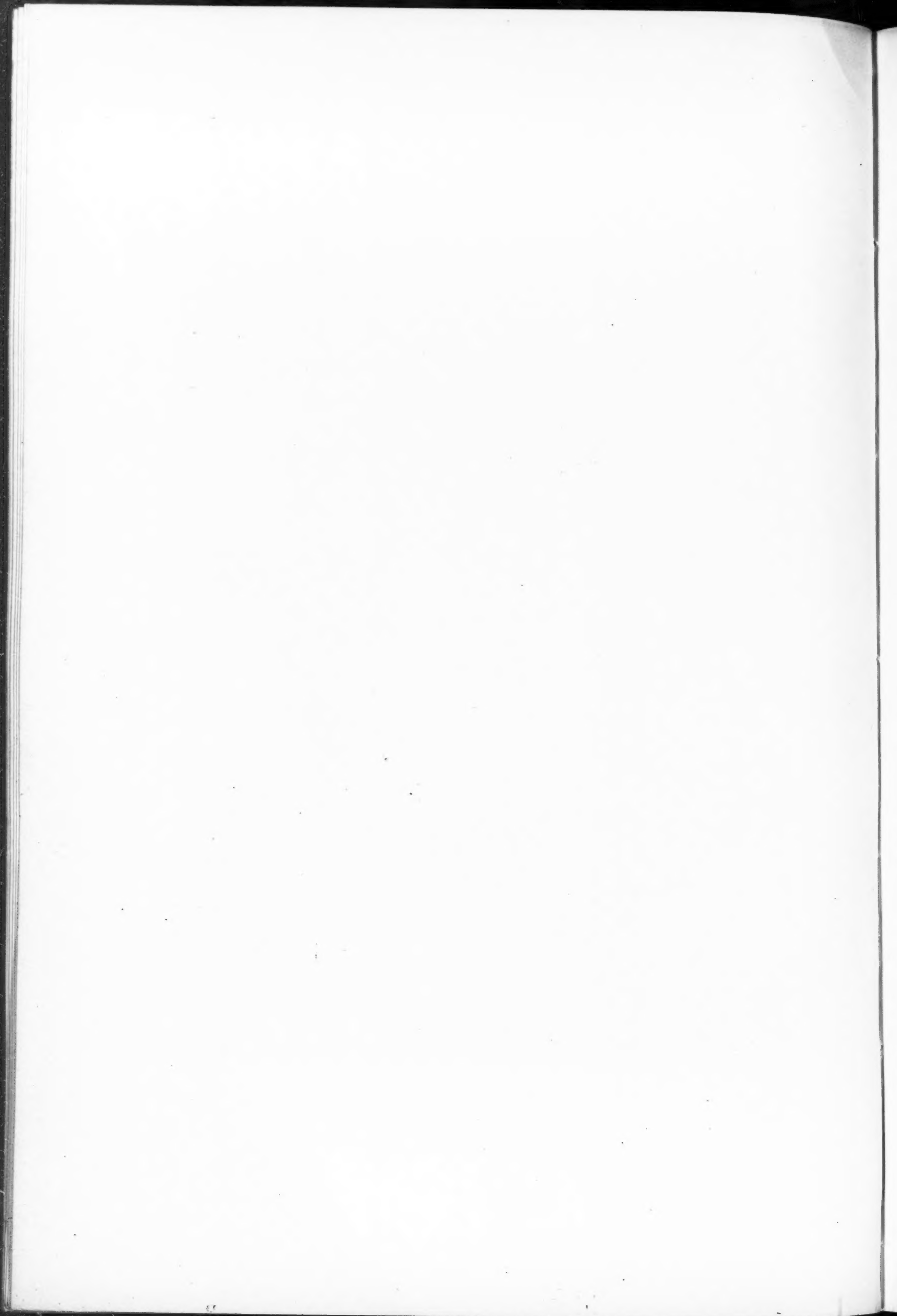


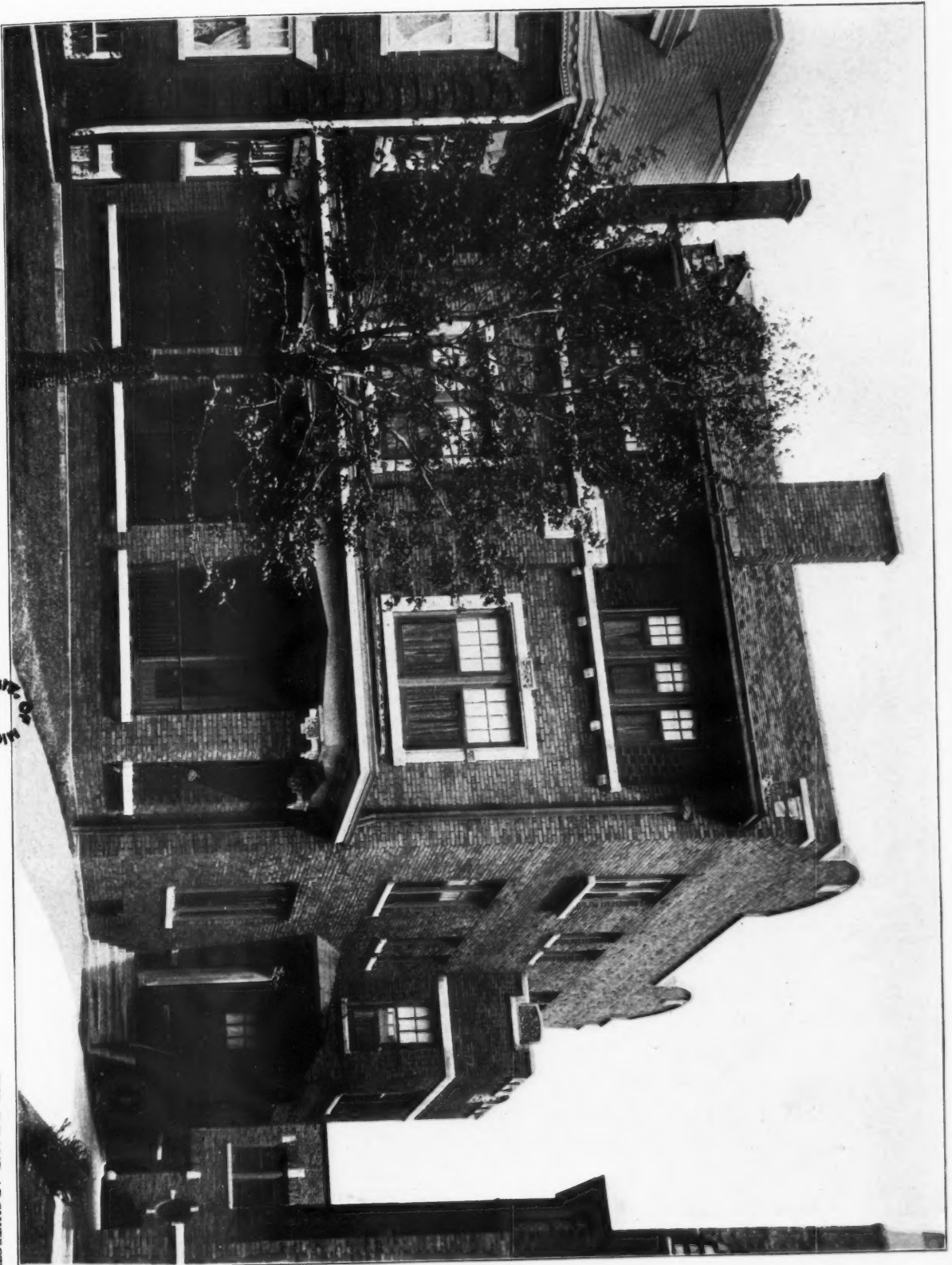


Y. M. C. A. BUILDING (White) COLUMBUS, GA

UNIV. OF N.C.

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908

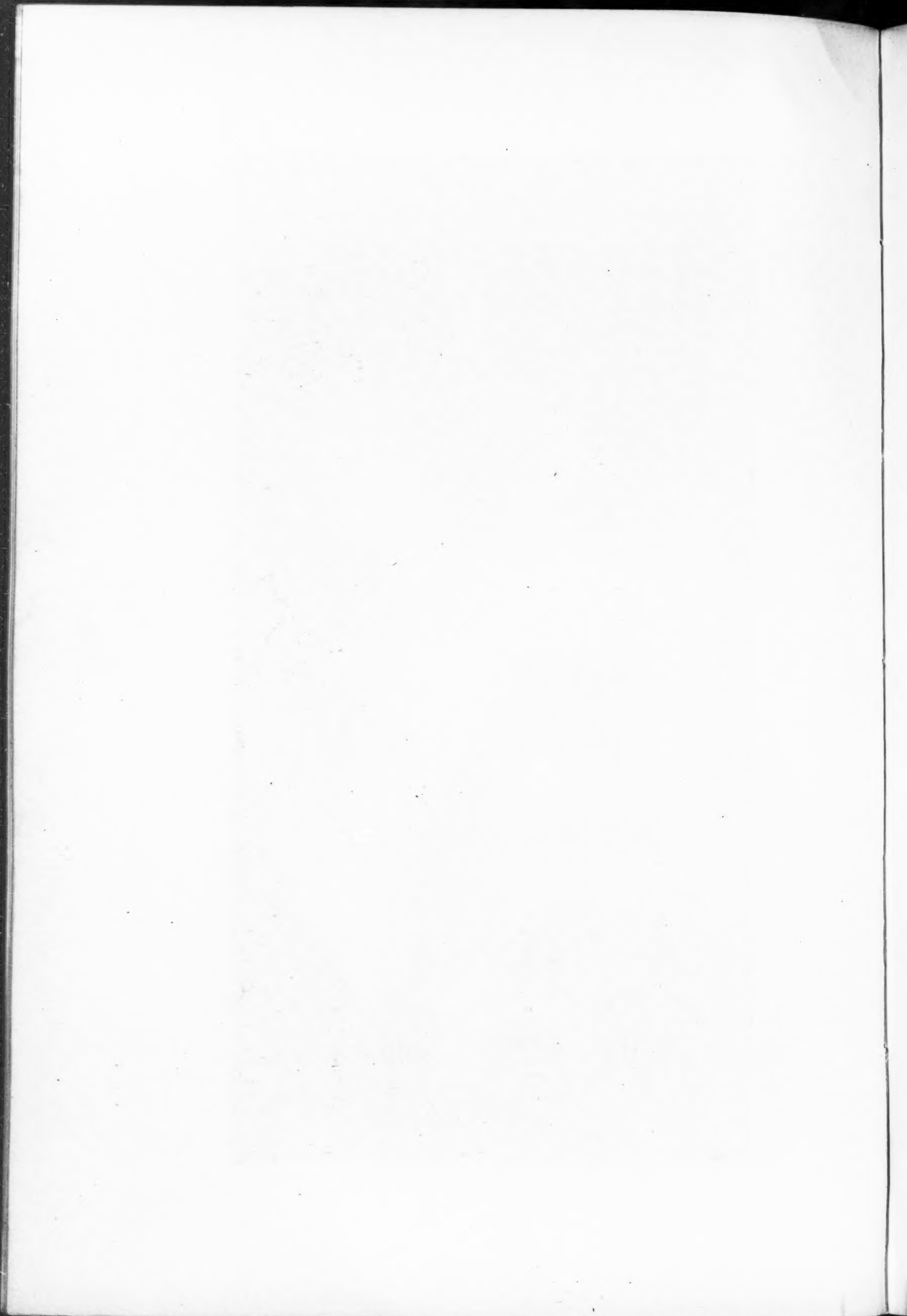


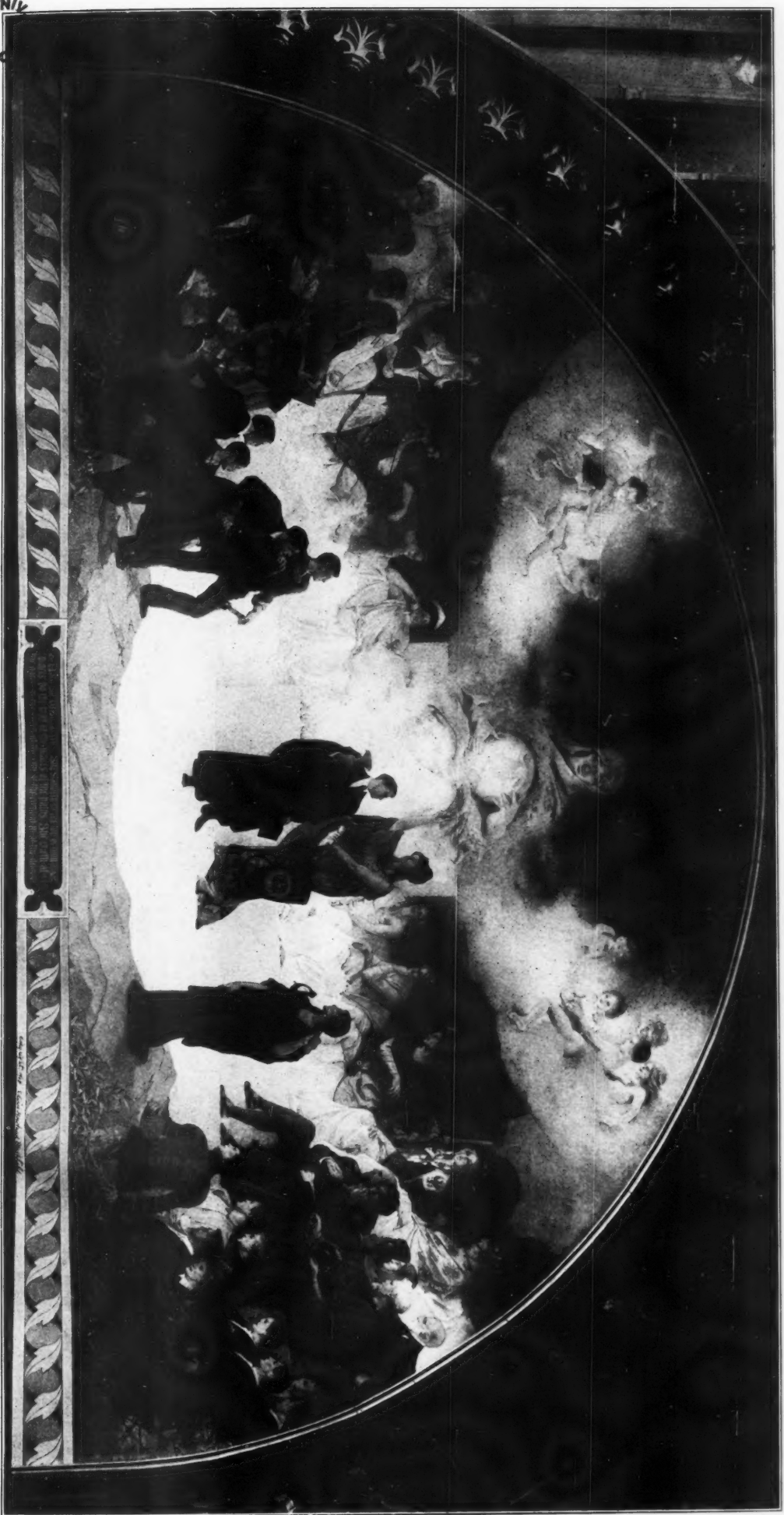


W. H. WILSON

RESIDENCE OF B. H. CONKLING, CHICAGO
Horatio R. Wilson, Architect

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908





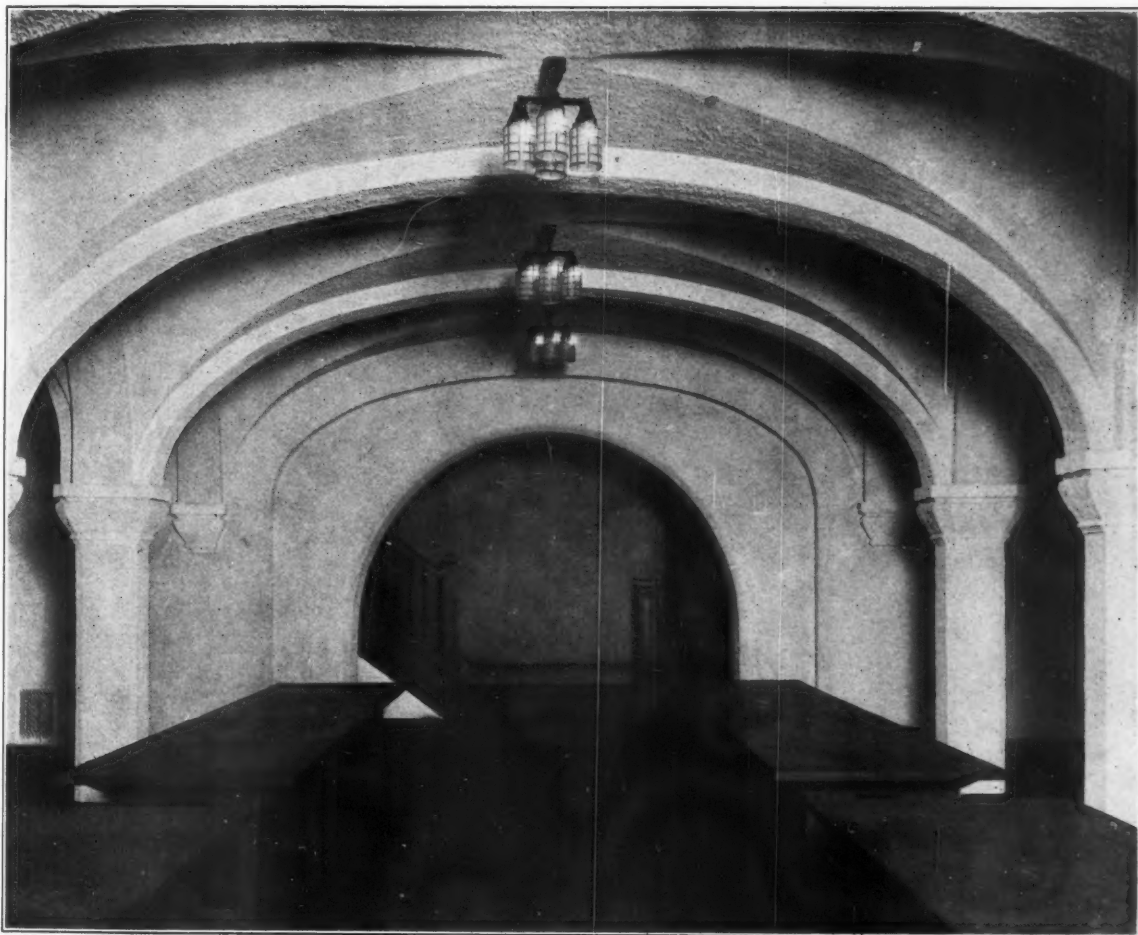
DECORATION, GREAT HALL, COLLEGE OF THE CITY OF NEW YORK
Edwin Howland Blasfield, Artist

Copyrighted 1908, by Edwin Howland Blasfield

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1908



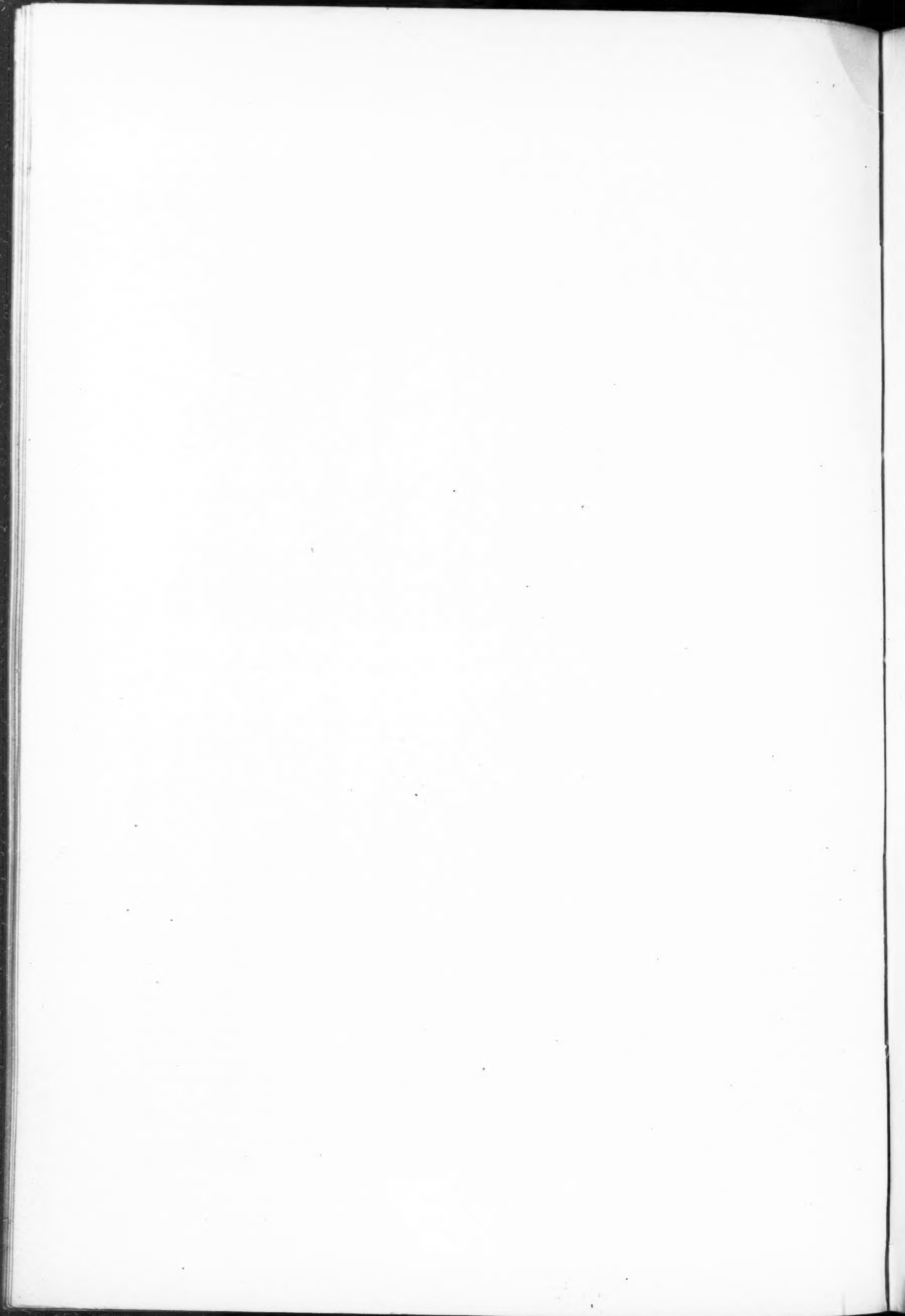
In the Reception Room and Library



In the Rathskeller

VIEWS IN ARTISTS' GUILD BUILDING, ST. LOUIS
Louis C. Spiering, Architect

THE INLAND ARCHITECT
AND NEWS RECORD
MAY, 1906



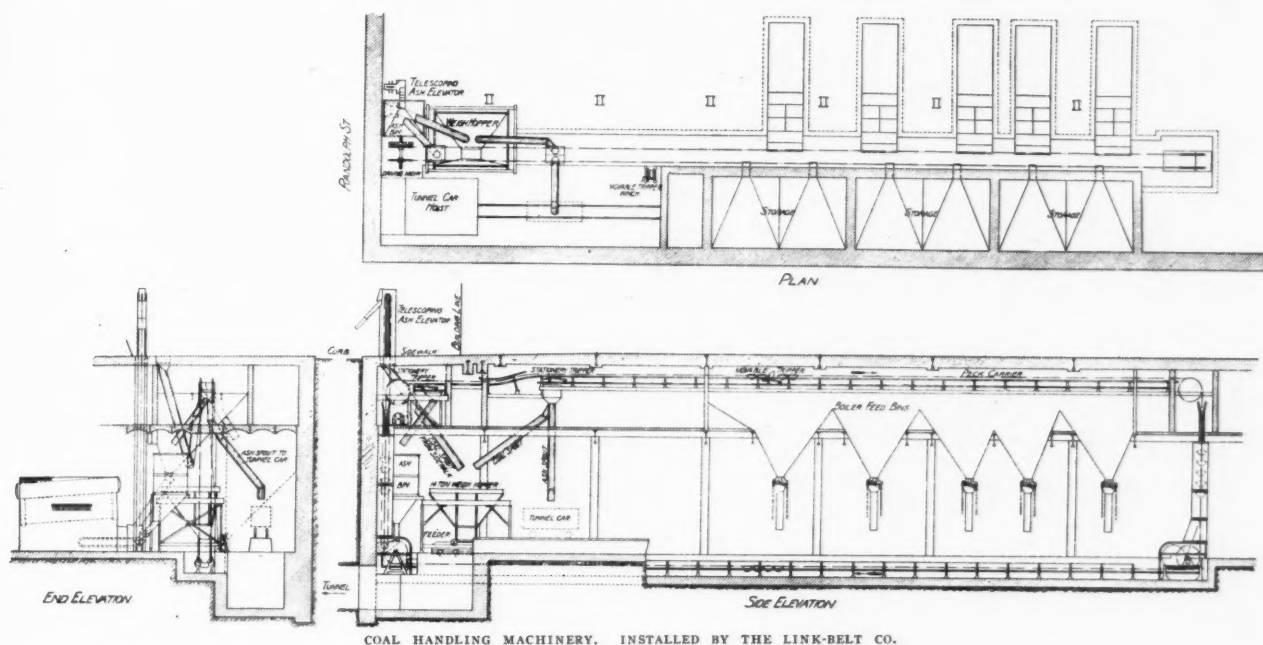
ities to manufacture and set the material with unusual speed, thus favoring the work of other contractors.

The beautiful mosaic work on the groined ceiling of the west corridor conceals one of the most interesting specimens of the builders' art. The great arches of which this ceiling is composed consist of monolithic reinforced concrete, built according to the Roebling system. Heavy steel ribs spring from the four corners of each panel, and rising along the diagonals intersect at the crown of each arch. Lighter steel ribs spring from these main ribs and form the barrels of the arches. Laced to these ribs is a layer of stiffened woven wire cloth, which forms the permanent centering upon which the concrete is laid, and acts as a reinforcing material to bind the whole mass

moldings of the arched ceilings while somewhat severe, are free from heaviness and fully adapted to produce a pleasing effect. There is just enough variety in the color tone of the material to fill the whole work with life and beauty.

The John Peirce Company, New York and Chicago, were the contractors for this work (which was the largest contract for interior marble work ever let in this city), furnishing all the material, and manufacturing and installing nearly all of the work in this main corridor. This work was under the supervision and direction of George F. Bodwell.

The marble work of the corridors above the first story, the stair wells and the toilet rooms was executed by the Chester N. Marthens Co. of Chicago.



of concrete into a unit. The final operation in the preparation of the arches for the mosaic work was the application to the under side of the construction of a thin surface coat of cement and sand.

This work stands a silent but forceful witness of the technical skill of those who planned and executed it.

Nearly all the marble for this building was imported from the north of Italy and is known as Botticino. It is of this same material that the Victor Emanuel Memorial of Rome, Italy, is now being built. That which is used in the County building was the first of any account to be imported into the United States. It has a soft buff tint beautifully mottled and takes a very high polish. While all the corridors and stairways are wainscoted with this material, the major part of it was used in the first floor main corridors and lobbies.

The architects' design for these corridors calls for piers, wall work, and groined arch ceilings in both marble and mosaic. The illustrations published in this number show the main corridor running from the Clark street entrance to the rear of the building. These illustrations give a very good idea of the beauty of the design, and also show the difficulty of the problem in the manufacture of the marble and the installation of the same in the building. While there is no highly ornamental feature in either the pier or the ceiling work, all of the lines of the piers are significant of strength, while the curved lines of the arches are exceedingly refined and graceful. The

The tutti colori tile floors in all elevator lobbies and in the public corridors above the first story were furnished and set by the Art Marble Company, Chicago, the only company manufacturing this material.

The doors leading from the main corridors to the various rooms are mostly double with full length glass panels to aid in the lighting. The doors between the rooms are built solid with large finely figured panels and straight rails and were the product of the Compound Door Company of St. Joseph, Mich.

The floors in practically all the rooms and offices, except the court rooms and the vault story, are of maple. The contract for the maple flooring called for rapid delivery of an enormous quantity and could not have been executed by a concern with less ample facilities than the Rittenhouse & Embree Company, Chicago, who supplied this flooring and much other lumber used in this building.

An important problem in so vast a building is the efficient and economical handling of the coal supply. The coal is brought into the boiler room in the cars of the Illinois Tunnel Company. These cars are run onto a platform elevator and raised to a point near the ceiling and dumped into a 14-ton steel scale hopper, where it is weighed. It is then discharged through a gate in the bottom of the hopper to an automatic reciprocating feeder which delivers it to the lower run of the Peck overlapping pivoted bucket carrier, which carries it up at the Randolph street end of the boiler room and thence south along the

ceiling. There are located under this upper run of the carrier, and above and in front of the five boilers, five steel hoppers of 25 tons' capacity each, into which the coal is dumped as the buckets pass over them. The empty buckets then pass on to the south end of the boiler room down through a steel casing into a subway just below the boiler room floor, through which they travel north to be again filled with coal. The coal in the steel hoppers overhead is discharged through undercut bin bottom gates and spouts to the chain grate stokers where it is burned. The ashes are allowed to accumulate in pits under the stokers, from which they are raked to the lower run of the Peck carrier twice daily. The carrier buckets convey them through the subway to the north end of the boiler house, elevate them to the upper run where they are discharged through a spout to a tunnel car standing on the siding.

An alternate arrangement is provided so that coal may be received and ashes taken away by teams. A coal hole is provided in the Randolph street sidewalk, through which coal may be shoveled directly to the weigh hopper, from which it is handled as mentioned above. There is a steel ashes storage bin in the boiler room, to which the ashes may be spouted instead of to the tunnel cars. From this bin, which has a capacity of about five wagonloads, the ashes are discharged to the boot of an ashes elevator which is mounted upon a telescoping frame that may be extended up through an opening in the sidewalk near the curb

high enough to spout directly to wagons. When the wagons are loaded, the elevator is lowered through the walk and the opening covered with a cast iron cover plate.

Provision is also made for storing a quantity of coal in concrete bins extending from the floor to the ceiling of the boiler room, which have a capacity of 300 tons. The coal is delivered to these bins from the upper run of the carrier, and is discharged to the carrier through slide gates located in the front wall of the bin just over the lower run. These bins, together with the five steel bins, will store enough coal to run the plant about fifteen days.

The illustrations of the main corridor show the equipment of the building with the Cutler mail chute.

Since the completion of the county building the city of Chicago has decided upon the erection of a building, from the plans of Architects Holabird & Roche, to occupy the site adjoining the county building on the west. The building in exterior design is to be a counterpart of that for the county and be joined to it to form a unified building of twice the size of the new county building.

The county safeguarded its interests by contracting with John M. Ewen for supervision of the construction of the court house, and so satisfactory was this arrangement that Mr. Ewen will act for the city in a similar service.

In the combined court house and city hall, Chicago will possess a public building of the highest modern type.

THE ORGAN ARCHITECTURALLY CONSIDERED

BY GEORGE ASHDOWN AUDSLEY, LL. D., ARCHITECT



PERFECTLY smooth and unbroken the ceiling should be, and in case of a lofty chamber we strongly recommend the adoption of a ceiling sloping upward toward the top of opening, or, what would be better, having a parabolic curve, which would act like the old-fashioned "sounding-board," and reflect sound toward the opening. A slight application of scientific knowledge will help the architect greatly in a matter of this kind. If there is another opening to the chamber, which there probably will be if the chamber occupies a lateral or corner position, it should be made as large as practicable.

Fourthly, every precaution must be taken to prevent damp, and to secure an equable temperature within the chamber. Any external walls should be built double, with an air cavity between. All the inclosing walls and the ceiling should be completely lined with narrow grooved and tongued pine boards, smoothly dressed, tightly jointed, securely nailed, and well varnished; or they may be battened, metal-lathed and well plastered, and subsequently oil painted and varnished.

When the architect has attended to all these matters, and has seen the chamber properly constructed, it should be his duty, as well as the duty of those who have the providing of the organ, to see that an instrument of suitable size and proper arrangement is placed therein. The architect should design the ornamental fronts or screens, and arrange the displayed pipe-work, so that they do not interfere to any undesirable extent with the free egress of the sound from the inclosed stops. He should in all cases strive to impart a refined and delicate character to the fronts, consistent with the nature of the instrument and the style of the architecture of the building.

While it is true that the generality of organ-chambers are badly constructed affairs, and unsuitable for the reception of properly appointed organs, it is equally true that when organ-chambers are of fair dimensions, their efficiency is very frequently destroyed through having instruments of extravagant size literally crammed into them, until there is hardly room for a pipe to speak its proper note, or sound, to find its way into the church.

In churches planned on certain lines, in which the organ-chamber becomes more or less a necessary feature, and notably in those in which a ritual chancel is an important portion of the building, it is usual, and generally desirable, to provide two arched openings to the chamber, one toward the chancel, or that portion of it occupied by the choir, and the other toward the nave or nave aisle, as the case may be. While these openings are valuable as giving free egress for the sounds of the inclosed pipe-work, that toward the nave is not without an objection unless care is taken to counteract it. It is usual and desirable to dispose speaking pipes in both the openings; and too frequently the stop or stops which furnish the pipes for the nave arch are of a loud and very assertive tonality. This arrangement may seem satisfactory to those occupying the choir stalls; but to the congregation seated in the neighborhood of the nave arch, the effect produced when the exposed pipes are speaking is not quite agreeable, going far to destroy the balance of the sounds of other combined stops and the voices of the choir. Unless some softly toned pipes are available for this arch, the architect should instruct the organ builder to use dumb pipes only.

As we have said elsewhere, there is no fixed rule in ecclesiastical architecture for the position of the organ-chamber; but the northern side of the chancel or choir is usually preferred (when the church runs east or west), and, indeed, it is to be recommended on account of the constant shade on that side of the church, which goes far to secure equality of temperature. When the chamber is on the southern side it is subjected to the direct rays of the sun during the hottest hours of the day, and, accordingly, is liable to become heated to a considerable degree. When, however, the chamber is properly constructed with thick and cavitied walls, lined with wood, and has no windows, and is covered with a wooden ceiling, kept some distance below the external roof, there can be little objection to a southern aspect.

The architect must bear in mind that the organ is an instrument exceedingly sensitive to changes of temperature; and that every means should be adopted to prevent the external atmosphere from having any direct action on its pipe-work. Windows in the walls immediately adjoining the sound-producing portions of the instrument are to be avoided, and they can never be absolutely necessary in such a locality. They create local currents of cold air in winter and warm air in summer, which throw the pipe-work out of tune. Should the architect, probably for external appearance, have inserted windows in undesirable

places, they should either be boarded over in the inside or furnished with an inner screen of thick glass. When there is a clear space of two or three feet, unoccupied, between the windows and the organ no precautions, as above mentioned, need be observed.

Respecting the placing of organs outside the boundaries of the chancel, or in comparatively uninclosed situations, little need be said in these brief articles. There can, however, be no question that as a musical instrument, and as an object on which the ecclesiastical architect can display his designing powers, the organ gains immensely when it occupies some open and commanding place in a church. When an organ is considered from a purely acoustical point of view, there can be no question that a more or less elevated position at one end or other of the building is highly favorable: and accomplished organists, who are prone to look upon churches, chapels, and auditoriums as places for containing organs, and for accommodating large audiences to listen to their performances, will naturally favor an open and commanding end position, preferably one facing the audience. But it is for the architect, armed with sufficient knowledge of the nature and requirements of the organ, to decide the position, and provide ample space for the accommodation of the instrument.

[To be Continued.]

ELECTRIC VS. STEAM HOISTS

BY E. W. THOMAS



HAVING become large builders of electric hoisting machines for all kinds of building operations, and owing to long experience in the operation of both steam and electric hoists, we seem to be considered an authority on all its phases, and are frequently asked what are the strong points of electric over steam power. Is it the coming motive power? And why? Is it more reliable? How does it compare in maintenance with the engine as to cost of repairs? How do weights per horse power compare with steam? What have we observed as builders and extensive operators of both kinds of power drive hoists?

In the first place, the early part of this century seems to be very unlike the early part of the last. In 1808 devices that were good enough for the grandfather were good enough for the grandchildren; but in 1908, before the father's patent is issued the son has something out that makes the father's device almost useless. Hoisting machinery, however, has not received the same attention that almost every other mechanical device has; for instance, one would hardly be able to distinguish the difference between an engine of thirty years ago and one of today. The necessity was not so urgent, hence the lack of interest.

No one dreamed then of forty-five story buildings; today even these are not so wonderful. Therefore the necessity for hoisting outfits with greater power per pound of weight, greater speed because of greater heights of buildings, less danger from fire because of the great amount of combustible material used in supporting concrete construction. Less vibration of structure while in the course of erection to avoid disintegration in the concrete, which

perhaps, unobserved by the eye, yet nevertheless is structurally weakened by the millions of hair-line cracks that are surely there if the building was erected by the use of steam hoists and its associated vibration. For proof of this statement, let us refer to a prominent building, recently erected in Chicago, when three steam hoists were closely assembled in the southeast corner of the building and during their operation vibrated that particular portion of the structure to such an extent that the whole section, from the roof to the basement, fell, taking with it the engines and causing a great financial loss to the contractor.

Scientists have truthfully stated that a properly toned whistle, or other continuous air vibrating tones, could wreck the Brooklyn bridge in five minutes by its vibrations, causing first a brace here and there to become in unison, or in step, with the vibrations, they in turn causing others to be likewise affected, until the whole mass becomes maddened with energy and rends itself asunder.

This part of the architect's work until recently has not been sufficiently considered. Builders who have occasion to climb to the top of these lofty steel structures in course of erection have realized the full effect of vibration, when an imperfectly balanced steam engine was pounding away trying to hoist an overload fifteen to twenty stories, and it might be suggested to them that the risk of accident or defective structure was sufficient to warrant many times the expense of an electric equipment for hoisting.

The motor being a perfectly balanced machine, whether operating a large double drum, single drum or double cage hoist, does not jar the building in the least and cannot be felt outside of the room containing it.

The past years have witnessed the great change in the

type of hoisting appliances and if the city were completely wired there would be no call for steam hoists. The reasons for this are manifold. Electric hoists require about one-quarter the space of an engine, and save the necessity of finding room for a coal pile or water barrel, or means of access to replenish them, or the men to do it; neither is there the annoying smoke or escaping steam to contend with. No water dripping through the floor, making it uncomfortable for other branches of the work to progress, and making plastering or finishing any point near the engine, either above or below, simply out of the question.

The electric hoists are much less liable to get out of order and are always ready for business, without the necessity of raising steam. They are speeded to run with the fastest make of steam rigs, and since the current is always thrown on full at each trip, they are always running at their maximum speed. This little saving continuously applied during the day amounts to a great gain in material hoisted. While with an engine it frequently happens to be located in a position where good draught is impossible. In that case the operator must favor his engine and use less steam, thereby losing in speed and material hoisted, and the contractor usually none the wiser.

As to fire loss. Among other well-known buildings, the First National Bank building of Chicago, which was

fired on the third floor by sparks from the engine falling among glass packing-cases, causing a destructive fire, and making the removal of a scorched and cracked stone from the corner of the structure necessary—the stonework being completed to the roof, made it necessary to jack the structure at that point at great expense.

The cost of maintenance of a motor, as compared with an engine, is so disproportionate that in common courtesy to the engine we ought not to speak of it. However, we will say that a motor has one moving part (the armature) that with ordinary care ought to run years without expense other than brush renewals.

The reliability of a motor is almost absolute. The fact that there is but one element to consider, and that furnished by a large central plant, which should never allow its lines to become dead, no matter what the cost, and being always up to the standard voltage, makes it sure that there will always be sufficient power for the motor at any time of day or night, without any previous preparation, as would be necessary with steam. Therefore we fully believe that the time is close at hand when the architects will universally specify electric hoisting machinery in all their future contracts. The public already demands it on account of the absence of smoke and noise. The owners should have it on account of the lessened vibration, and its associated greater building strength.

ARCHITECTURAL STUDENTS VISIT CHICAGO.

THE following letter received from Prof. Emil Lorch, of the University of Michigan, is suggestive to other architectural schools of a course that would afford much of interest and profit to architectural students:

"It has occurred to me that you would perhaps be willing to make a note of a tour of inspection recently made by me with a number of our architectural students.

"This is no new project, since I have done so in the past with groups of students from Philadelphia, but the practice is perhaps not sufficiently widespread among architectural schools and would thus perhaps be suggestive to some of those who have not yet done anything in this direction.

"During our recent Spring vacation we visited Chicago, and since before leaving here very complete arrangements were made, the places visited by us were seen under the very best possible conditions. We visited the following places: The office of D. H. Burnham & Co., where Mr. Burnham, with his assistants, showed us the very beautiful drawings for the development of Chicago's lake front and park system, Mr. Burnham kindly discussing the entire subject. Through the courtesy of Mr. D. H. Perkins, architect for the School Board, two of the most recent school buildings were visited by us under the guidance of Mr. H. G. Brinsley. Mr. Richard E. Schmidt, of Schmidt, Garden & Martin, conducted our party over the great Montgomery Ward warehouse, now in course of construction, which is a most interesting example of reinforced concrete construction, going over the drawings as well as discussing the entire problem. Mr. Schmidt also took the party through the splendidly equipped Michael Reese Hospital and the Chicago Athletic Club. In the Marshall Field wholesale warehouse, designed by H. H. Richardson, we saw the earlier ideal type of warehouse construction and design, the Marshall Field representatives showing us also through their modern warehouse, designed by Burnham & Co., and through the great department store. The entire organization of the business was explained by Mr. Towsley, the constructional problem and the mechanical equipment being explained by Mr. Harvey, who superintended the erection of the building. In a like way we visited several other buildings, banks, office buildings, the University of Chicago and the Art Institute of Chicago, where we were unusually fortunate in finding the architectural exhibition in progress; we also visited the libraries and the new La Salle street depot. A visit was paid to Oak

Park to see the concrete church designed by Mr. Frank Lloyd Wright. At the Winslow Brothers Iron Works and the Northwestern Terra Cotta Company plants the entire processes were studied from the shop drawings through to the shipping of the finished product. Altogether it was a very profitable and inspiring experience of very great value to the students, and it was made particularly so because of the attention given us by the men in charge of the places visited. Yours very truly,

"EMIL LORCH."

ASSOCIATION NOTES.

NATIONAL FIRE PROTECTION ASSOCIATION.

The American Institute of Architects has an active membership in this association. The programs of the annual conventions always contain much of interest to architects. Among the subjects to come before the twelfth annual meeting at Chicago, May 26-28 are the following: Devices and Materials, Coverings for Window and Door Openings, Fireproof Construction, Concrete and Reinforced Concrete for Building Construction, Automobile Garages, Roofs and Roofings, Theater Construction and Equipment.

WASHINGTON ARCHITECTURAL CLUB.

Excelling all previous exhibits of similar character, both in professional merit and popular interest, the annual exhibit of the Washington Architectural Club opened recently with a reception and private view, at the hemicycle of the Corcoran Gallery of Art. The work shown includes not only the best product of distinguished local firms, but also exhibits from the most famous architects all over the country. Interest centers in the public buildings shown. The colored perspective drawing of the new National Museum, designed by Hornblower & Marshall of this city, occupies a place of honor, and has attracted much admiration. One of the most notable collections in the exhibit is that from the office of the supervising architect of the treasury, James Knox Taylor. The design for the Des Moines postoffice is especially attractive. The group of drawings submitted by well known architects in competition for the New York postoffice attracts much attention. The winning design, by McKim, Mead & White, is shown for the first time and excites admiration. The group of renderings of the International Bureau of American Republics Building, by Albert Kelsey and Paul P. Cret, of Philadelphia, are especially interesting to the public.

Our Illustrations

Residence, Santa Barbara, Cal.

Public School Building, Chicago.

Residence, Chicago, Howard V. Shaw, Architect.

Portland, Ore., Library, Whidden & Lewis, Architects.

Apartment Building, Chicago, Andrew Sandegren, Architect.

Residence for Mr. Conkling, Chicago, Horatio R. Wilson, Architect.

Young Men's Christian Association Building (White), Columbus, Ga.

Studies for a Mausoleum, Frederick P. Dinkelberg, Architect, Chicago.

Portland, Ore., City Hall, Whidden & Lewis, Architects. Exterior and interior.

Gate Lodge and Stable, Marshall & Fox, Architects. Exterior and interior views.

vaulted rathskeller. The Burns room, which is to house the effects and properties of the World's Fair Burns Cottage, is simple and harmonious in construction, its open timber ceiling giving the desired nuance of its destination and purport and of its separateness from the other parts of the building. From the Burns room one steps out upon a large inner balcony or platform overlooking the exhibition hall. The ornamentation of the front as well as of the south elevation is something entirely distinctive and novel. Its planning inside and outside shows it to be a good example of the new spirit which seems to be informing all the arts and which in architecture is tending towards interesting individuality. The watchword of this new spirit is: To each epoch its own expression in art, according to its needs and conception of beauty.

Decoration for the Great Hall, College of the City of New York, George B. Post, Architect; Edwin Howland Blashfield, Artist. In the center of the decoration is the Graduate, who has lighted his torch at the altar and is about to start out



SECOND PRESBYTERIAN CHURCH, SPRINGFIELD, ILL.

The New Cook County Court House, Chicago, Holabird & Roche, Architects. Description in detail in another column.

Group, entitled "Commerce," for the new Federal Building, Cleveland, Ohio, Daniel Chester French, Sculptor, New York.

Parish House of the German Lutheran Church, Buffalo, N. Y., Thomas Harris, Architect. In illustration of article in this number.

Parish House of Trinity Episcopal Church, Buffalo, N. Y., Cram, Goodhue & Ferguson, Architects. In illustration of article in this number.

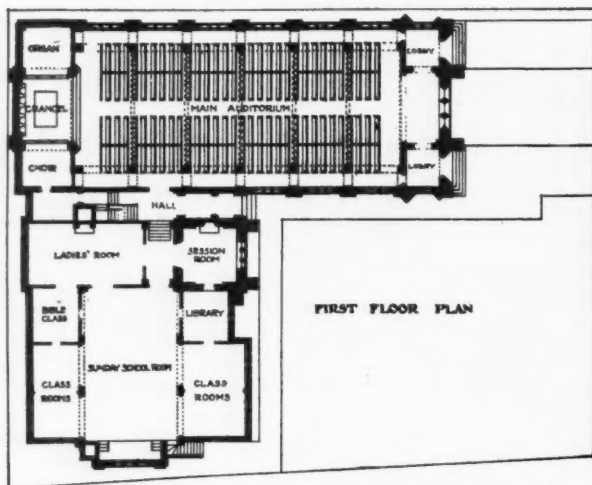
The illustration of four Adoring Angels is a fragment (or rather the study for it) of the decoration of the entire chancel of the Church of the Saviour, Philadelphia (Charles Burns, architect), painted for the Drexel family as a memorial to Mr. A. J. Drexel. In the semi-dome (a fragment of which is suggested in the picture) are thirtyseven angels. They are painted upon canvas cemented to the plaster and in their execution a good deal of leaf gold and color were used on embossed work. Edwin Howland Blashfield, artist.

Artists' Guild House, St. Louis, Mo., Louis C. Spiering, Architect. Exterior and interior views. The reception room with a big open fireplace leads, on ascending a few steps, to the large exhibition hall, the main feature of the building, which, but for the reception room, occupies the entire depth and width of the structure. Through its immense skylight this hall is perfect in the lighting at any time, even on dark days, and at night the system of electric lights gives the paintings proper lighting. Below this room in the basement is the

upon his voyage of life. By his side Alma Mater (wearing a shield with the coat of arms of the College of the City of New York) points upward at the Statue of Wisdom (holding the earth in her hands). At either side of Wisdom the semicircle of women symbolizes the universities of the past. Beginning at the left, these are Alexandria, Rome, Cordova, Bologna, Athens, Upsala, Leyden, Paris, Heidelberg, Oxford. Below, the men seated on either side are intended to suggest various branches of science and art. These men, beginning from the left are Lavoisier (Chemistry), Democritus (Philosophy), Harvey (Medicine), Augustus Caesar (Law), Isaac Newton (Mathematics), Shakespeare (Poetical Literature), Beethoven (Music), Michelangelo (Art), Petrarch (Humane Letters), Galileo (Physics), Lord Kelvin (Modern Discovery). Below again, on the left, are the People, the Aspirants, and on the right the Collegians. The woman in red standing in the foreground symbolizes Discipline, waiting with Sword and Scourge to help the Graduate in his battle of life. At the top of the decoration the groups of children holding at the left an open book, at the right a retort, to suggest the two great divisions of education into education by the printed page and education by experiment. The decoration is forty-four feet long by twenty-two feet high.

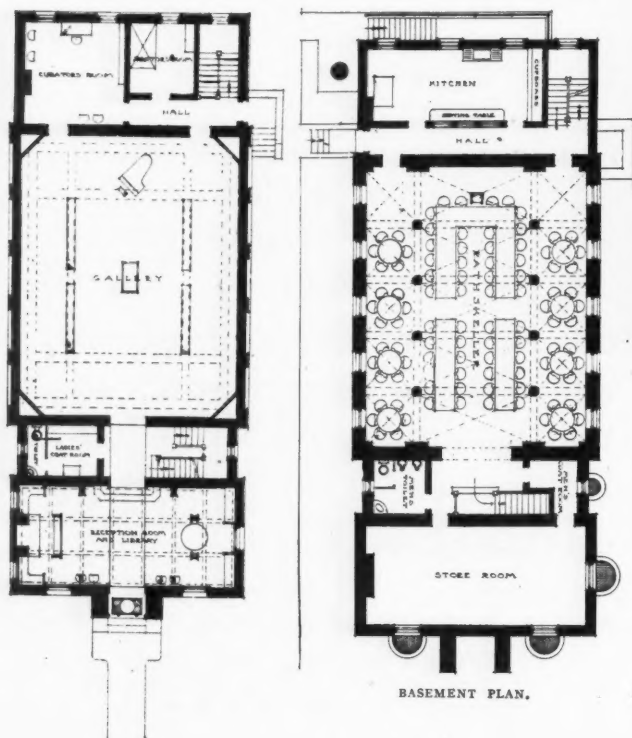
Second Presbyterian Church, Springfield, Ill., Cram, Goodhue & Ferguson, Architects, Boston; H. V. von Holst, Associate Architect, Chicago. The structure consists of two distinct parts at right angles to each other and bound together by a massive tower in the inner angle. The church proper lies on the north side of the lot with its east front forty-eight feet from Walnut street and is one hundred and thirty-seven feet

long by fifty-five feet wide. The parish house is on the west side of the lot with its south front on Edwards street, and is ninety-five feet long by seventy-five feet wide. The tower is twenty-two and one-half feet square and when completed will be ninety-five feet high. The upper part of the tower will be the crowning feature of the architectural composition and will give character to the whole. At the corners are octagonal turrets. Between are large pointed arched windows opening into the belfry. Above these windows is a rich ornamental band of gothic design. It will be for another generation to complete this tower. The exterior of the entire structure is of



FLOOR PLAN, SECOND PRESBYTERIAN CHURCH, SPRINGFIELD, ILL.

Bedford limestone, the body of the walls being rockfaced random ashlar with string courses, buttress caps, copings and trimmings of smooth stone. All exterior walls are backed with brick and reinforced concrete. These and the interior brick walls and columns rest on reinforced concrete sub-structures. The architecture is a modified form of the early English Gothic period of the Thirteenth Century. The general appearance will be plain but massive. The entrances on the east are at the corners on either side of a large central window and are clearly emphasized by the pointed arches decorated by several strong archings. From these corner vestibules are entrances to



FLOOR PLANS, ST. LOUIS ARTISTS' GUILD HOUSE.

the side aisles and to the central lobby or narthex. The church windows are long and narrow and of lancet form. They are arranged in groups of three. No wood is used in their con-

struction. There is no elaborate tracery anywhere. From the central lobby one looks directly into the auditorium or nave, through a wide opening arched above with stone. The nave is divided into six bays by piers and arches along the sides rising to the roof. The roof is carried by large wooden trusses resting on these piers. The extreme height in the center from floor to ceiling is forty-four feet and on the sides eighteen. The roof of timbers and trusses are exposed. Between the piers and the outside walls and beneath small transverse arches are the side aisles. In the center is an aisle of ample width leading from the lobby to the chancel. The center of the stone arch over the chancel is thirty-four feet from the floor with a clear space of nineteen feet between the columns. It has on either side two small flanking pointed arches opening from the



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FRAGMENT OF GROUP, THE ADORING ANGELS.

auditorium into the choir and organ rooms respectively. The organ is to the north of the chancel and to the south will be the place for the choir, each opening into the chancel by a great arch. The choir is reached from the south by way of a passage and small cloak room in the parish house. There is a wide doorway opening from one of the bays in the auditorium into the hall leading to the rooms in the parish house. The main floor of the parish house is four feet above the level of the main auditorium. Upon this floor is the Sunday school room with a platform at the south end and a gallery at the north. On either side are class rooms closed off from the main room by movable partitions.

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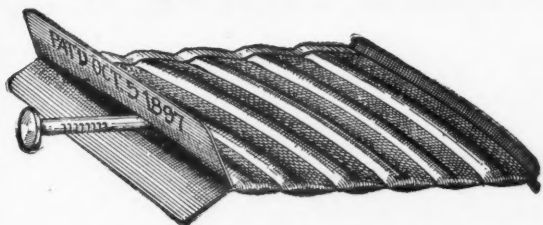
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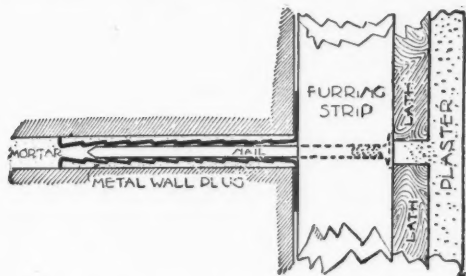
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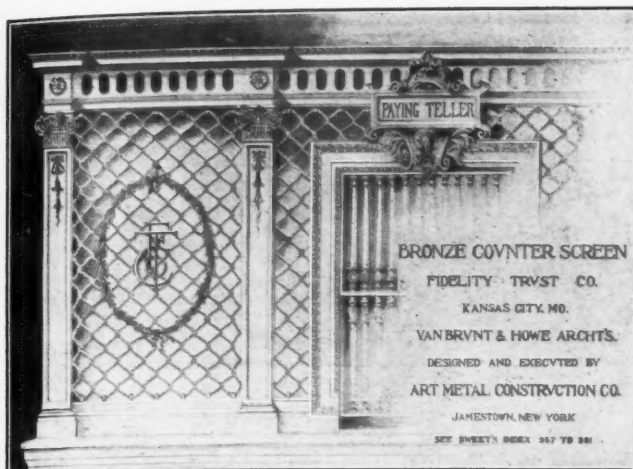
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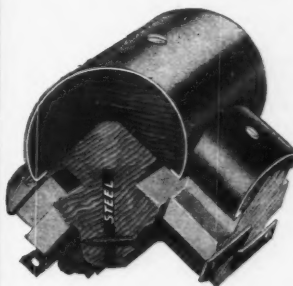
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