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Support Asked for the Aldrich Bill.

That most important movement to the architects as well as the people of the United States, the reforms outlined by the Aldrich bill now before Congress, seems to be progressing favorably, but it has become a labor which taxes the energies of the splendid committee in charge to its utmost, and their success now depends upon the degree of moral and financial support they receive from the public. To promote the bill and obtain its passage requires constant representation at Washington. This was commenced a year ago, and at the adjournment of Congress in August the work was all but accomplished; its failure to pass through the obstructionist action of that Congress, which was general in regard to all bills, has made it necessary to commence and prosecute the work again. This labor is more than can be expected of any architect or committee of architects, as, besides the regular routine, the members of the committee in charge will have to appear frequently at Washington to speak for the bill and otherwise give it the necessary support. During the last session of Congress this work, which devolved upon two or three energetic spirits who alone were really active in the matter, was so great and the expenses so much more than even the handsome fund contributed by the profession could cover that it has been decided by the committee to raise a larger fund so that the committee may not be unnecessarily hampered in the work of securing the passage of the bill at this session of Congress, and if it should chance to fail in this, to enable the committee to reintroduce it at the next, and so keep up the fight until the present objectionable methods of erecting government buildings have been obliterated and a new plan in the interest of art and culture be inaugurated. In raising this fund the committee have decided to ask for contributions, not from the members of the profession who have already contributed liberally, but through them from private citizens who are interested directly or indirectly in the proposed reform. When it is realized that a committee composed of leading members of the profession are giving almost their entire time to the work of procuring the passage of this measure, which will at once place our government architecture upon the plane of art and obliterate a custom that holds it beneath mediocrity, it should not be a difficult task to secure the contribution of the necessary money to carry on the work without embarrassment. On another page is given the committee's circular letter in detail, and, of course, it is needless to state that the contributions asked are for the legitimate expenses involved and that such use in the hands of the committee is guaranteed. While we can speak to the profession alone upon this matter, it is to the public who have the future grandeur of our country at heart that the reform that will be accomplished by the Aldrich bill most appeals. The appointment of Henry Ives Cobb, of Chicago, as architect of the Chicago Post Office is creditable to the government, and will insure a successful public building, but it establishes a precedent that has too many dangers of abuse to make its continuance advisable. The general lines of the Aldrich bill will alone solve the problem, and it should be supported most by those who desire special legislation similar to the Chicago bill.



NINTH ANNUAL EXHIBITION OF THE CHICAGO ARCHITECTURAL CLUB.

BY PETER B. WIGHT.

THE ninth annual exhibition of the club opened at the Art Institute March 31 and closed on the 11th inst. It occupied the three northeastern galleries. If the interest of the club members can be any guide to the excellence of the exhibits, first in importance will rank the cover of the annual catalogue. This year it is the work of R. C. Spencer, Jr. The reproduction that we give herewith is a facsimile except for the fact that we are obliged to omit the red background of the panel in which the lettering occurs. It needs no further description.

It is not exaggerating to say that this is the best exhibition the club has held. It is the best because it is most valuable to the club and the public in a way not heretofore suggested by these annual collections of the works of the students and professionals. It has very few contributions from leading practicing architects, contains but few of the great projects recently called out by the demand for improvements, and, therefore, is not an illustration of the progress or present condition of the art. But its distinctive characteristic is found in its illustration of the present condition of architectural education in America, as exemplified by the professional schools and the voluntary associations of students and draftsmen. The Chicago Architectural Club is one of the latter. Originally organized as a "sketch" club, the word "sketch" was, two years ago, obliterated from its name when it made its regular membership open to all practicing architects.

It has been repeatedly stated in these pages that little or nothing can be accomplished for the cause of good architecture by the attempt to exhibit it on the walls of a picture gallery. The public is not prone to draw the distinction between architectural drawings and architectural pictures. Such an exhibition to be comprehensible should be so divided into sections that plans and elevations could be in one room, photographs in another—like the collective exhibit of the Boston Publishing Library—and colored perspectives in still another; or else that all three of these should be grouped together to illustrate each building from the design to the accomplished fact as in the case of Carrere & Hastings in this exhibition. Either of these methods would be almost an impossibility in practice. But the work of the schools and clubs is all on paper. The illustrative drawing is the result in every case, and an exhibition of them is practicable and comprehensible.

The present having demonstrated that the educational part of the exhibit may be not only its useful but its most attractive

feature, the suggestion is arrived at that perhaps it would be most wise in the future to omit all executed work and the designs of professional architects of more than two years' practice not members of the clubs. The experiment is at least worth trying. The club has already demonstrated its ability to do it, and the prestige it would obtain through its success would be worthy of the progressive city which it represents. If this should be attempted very early notice should be given so that the various schools of architecture could prepare in time to put forth their best efforts to show good results of a year's work. Let the public know that the schools and clubs stand in competition as bodies and the interest taken would be far greater than even before seen.

It needs no argument to show that a mixed exhibition of the designs of professionals and students is unfair to both classes. In this one those of the latter predominate so largely that they do not suffer by comparison. There are very few contributions from Chicago architects, and most of those are exhibited under the names of the draftsmen who are members of the club, as specimens of their handiwork, due credit being given to the architects in the catalogue.

The following schools of architecture make collective exhibits: Columbia College Department of Architecture, New York, thirty-six drawings by twelve students, and University of Pennsylvania School of Architecture, fifty-nine drawings by twenty-one students. The clubs making collective exhibits are as follows: The Sketch Club, of New York, four drawings by three members; the Cleveland Architectural Club, ten drawings by nine members; Detroit Architectural Club, five time-limit sketches executed by members at the clubroom; P. D. Club, Boston, three drawings by one member; St. Louis Architectural Club, six drawings by three members; the T-Square Club, of Philadelphia, thirty-seven drawings by fifteen members, and the Chicago Architectural Club, nine drawings specially prepared and fathered by the club as a body, being designs for the improvement of the new Lake Front park.

The club and school drawings are hung in groups. Those of the Columbia College and University of Pennsylvania schools nearly fill a room each. The individual contributions of the members of the Chicago Architectural Club are all hung in the east room, grouped around the official club drawings.

First in interest, if not in merit, are the designs made to express the views of the Chicago club upon the best method to improve the new Lake Front park. They came to be made in this manner: When there was a prospect, about a year ago, that the city would acquire this desirable ground as an addition to the narrow strip extending along Michigan avenue from Randolph street to Park Row, the Chicago Municipal Improvement League, which had been organized a year previous, undertook to advise the corporate authorities of the city as to the possibilities of improving the ground in the best manner. The league had some hope that its suggestions might have influence in shaping the agreement then proposed to be made between the city of Chicago and the Illinois Central Railroad Company, so that the city might get the best results whenever a park might be laid out. To that end its sub-committee of architects prepared a series of drawings showing how the ground could be treated. As they thought the leading features of a plan might be adopted, they prepared plans, subject to modification in details, to ascertain if the proposed contract would be best for the city's interests. The committee found that there were a few particulars in which it could be changed greatly to the city's interests and not in any respect conflicting with those of the railroad company, which would result in future economy in carrying out the improvements. But the city authorities treated these voluntary and disinterested offers of the league with coolness and indifference. The plans, however, were given to the public through the daily press, and never met with harsh criticism. After the park became an assured fact, the committee of architects decided to take advantage of the occasion to enlist the interests of the younger architects in the club, and demonstrate to the public that they had no personal ambition to satisfy. They handed all their studies over to the club, invited criticism, and asked the club to improve their latest plan. At the same time the Illinois Chapter of the American Institute of Architects made the designing of the proposed music pavilion the subject for the competition by members of the club for the chapter gold medal for 1896.

The club, after discussing the designs of the league as a body, concluded to adhere to their main features, and appointed a committee consisting of George R. Dean, president of the club, and Hugh M. G. Garden to embody their suggestions and modifications

in a new set of drawings. The result is seen in the two magnificent drawings here exhibited, one a ground plan and the other a colored bird's-eye view as seen from an elevated point over Lake Michigan. These drawings are supplemented by a sketch for the front of a proposed building for the Field Columbian Museum, by Mr. Dean, two designs for monuments made by other members for the committee, a design for a park shelter by Mr. Garden, and as supplemental, but showing an artistic treatment of viaducts over the railroad tracks, the design by Howard Shaw, which he had made for the Lake Avenue Improvement Associations. The principal modification made by the club was the reduction of the length of the grand basin, and thereby bringing the two entrances from the lake closer together. There have also been introduced two splendid monument sites. The island is retained, but the music pavilion faces the lake. This is a great improvement so far as avoiding the afternoon sun is concerned, but it will prevent the sound of music reaching the waters of the lagoon, where it would be most effective. The proposed municipal buildings at the north end are shown as on the league plan. This assumes that all that part of the old and new park north and east of the Art Institute is of no utility as open ground, and the lake view over it is either permanently obstructed now or extremely undesirable, in which case its use for municipal buildings will not be a detriment, but a decided advantage to the property west of Michigan avenue and north of Adams street. The buildings suggested are all strictly municipal buildings, except the Art Institute, already erected, and such as should be owned by the city whenever erected. It is different, however, with those at the south end, the proposed museum and library, which, although of a semi-public character, would be controlled by private corporations, would directly obstruct the lake view from the street and opposite buildings. It would be very easy to cut off the view of the car yards by other constructions without obstructing the lake view, and a large field might be reserved for public sports if these buildings were omitted. It is doubtful also if the suggested library site is desirable, owing to its propinquity to the Chicago City Library. These drawings are admirably rendered, notwithstanding the very short time allowed for making them, and in Mr. Garden's bird's-eye view the people of Chicago can for the first time get an adequate idea of the extent and value of their new acquisition.

The possible rivalry between long-established and well-endowed professional schools of architecture is well illustrated in the exhibits from Columbia College, New York, and the University of Pennsylvania. Of the former, under Prof. William R. Ware, it would be remarkable if it did not take precedence. He is the organizer of professional architectural teaching in American colleges, and was himself a student of the late Richard M. Hunt, the first American architect to establish a studio of architecture after French models. It is not to be wondered at, therefore, that Mr. Ware's teaching should be in line with French methods, or that the other schools should be influenced by Mr. Ware's example. It would not require much stretch of imagination to suppose that these drawings were all from one school. The influence of the French academy is now stronger in America than in Hunt's time, but it is strong outside of France *only* in America. To say nothing of style, the method of rendering is still thoroughly French, and suggests an affectation that has nothing to do with the study of architecture. Why cannot our able professors of architecture exert a little American independence in this matter of rendering, and avoid much waste of time devoted to unessential accessories, elaborations of plans, as well as the destruction of good paper? No practicing architect can afford to use these elaborate expedients. When the student escapes from the school he runs wild on impressionist rough sketches, as if to express his emancipation from the discipline which he has endured. This is fully illustrated on the walls of the large room. Then when he comes down to the hard work of life, he drops both and finds that he has little enough time to express his ideas in firm lines of clearly defined detail emphasized by strong and simple shadows. This is shown in the exhibits of some of the more advanced professionals, as in those of Ernst Flagg, for instance. We mention him because he is still a strict adherent to the French traditions of style.

Before this appears this interesting collection of drawings, photographs and models will be scattered; but the exhibition will have served as a text for the above observations which might be extended *ad libitum*. The club is on the right track and doing excellent work. It is not unworthy of the great city of which it is one, and not the least, factor in its intellectual growth.

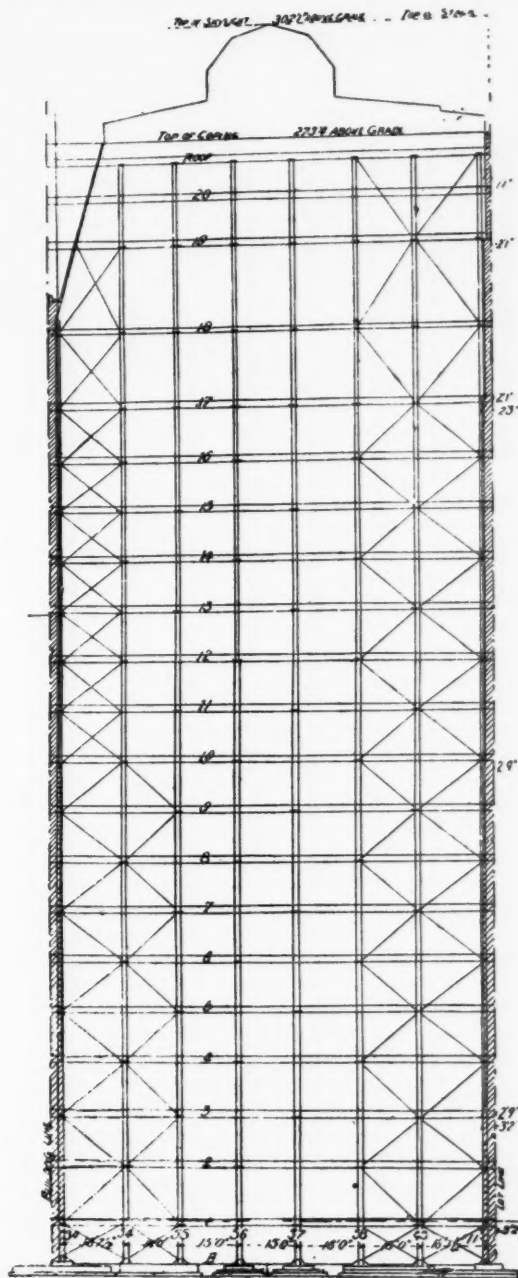
THE MODERN OFFICE BUILDING.*

BY BARR FERREE.

PART II—Continued.

THE utmost diversity exists as to the structure and the detail of the supporting frame in the skeleton construction. This variety is dependent, in a measure, upon the special conditions arising in each building; but it is largely due to the individual preferences of the designing engineer. No extended series of tests have ever been made as to the relative merits of the various columns, girders and beams employed in modern work, though special tests have been made in some particular instances. Nothing in the way of comparative tests has, however, been made. As a matter of fact, therefore, the use of certain forms depends more on the preference of the engineer and the adaptability of special shapes than upon an absolute knowledge of their intrinsic merits.

Although the details of the construction frequently differ widely in buildings employing the same structural methods, certain general principles underlie the selection of the section of the



Vertical cross-section, Masonic Temple, Chicago.

columns. These principles have been well elucidated by Mr. C. T. Purdy, who has designed the steel frames of many of the notable buildings of Chicago. According to this authority, the advantages to be considered in a building column are: (1) cost and availability; (2) shopwork and workmanship of column; (3) ability to transfer loads to center of column; eccentric loading; (4) convenient connections of floor systems; (5) relation of size of section to small columns; (6) fireproofing capabilities of the section.

Many sorts of structural columns are upon the market, each having its supporters and its particular advantages. The conditions under which these columns are used are so exacting and so

*A lecture delivered before the Franklin Institute, November 15, 1895.

varied, that of none of them can it be said that is the column to use in all circumstances. Local conditions and cost and availability are more likely to determine the selection of a particular column, especially of a type that has long been in use, rather than some of the newer types, whose advantages may be offset by an increased cost, or, if it is a patented column, by the difficulty of securing it when wanted. In the following table the commoner sorts of columns are named and classified by the number of rows of rivets each requires.

One row: Larimer column.

Two rows: Z-bar column without covers.

Four rows: Channel column without plates or latticed; 4-section Phoenix column; Gray column; Keystone octagonal column.

Six rows: Z-bar column with single covers.

Eight rows: Box column of plates and angles; latticed angle column; 8-section Phoenix column.

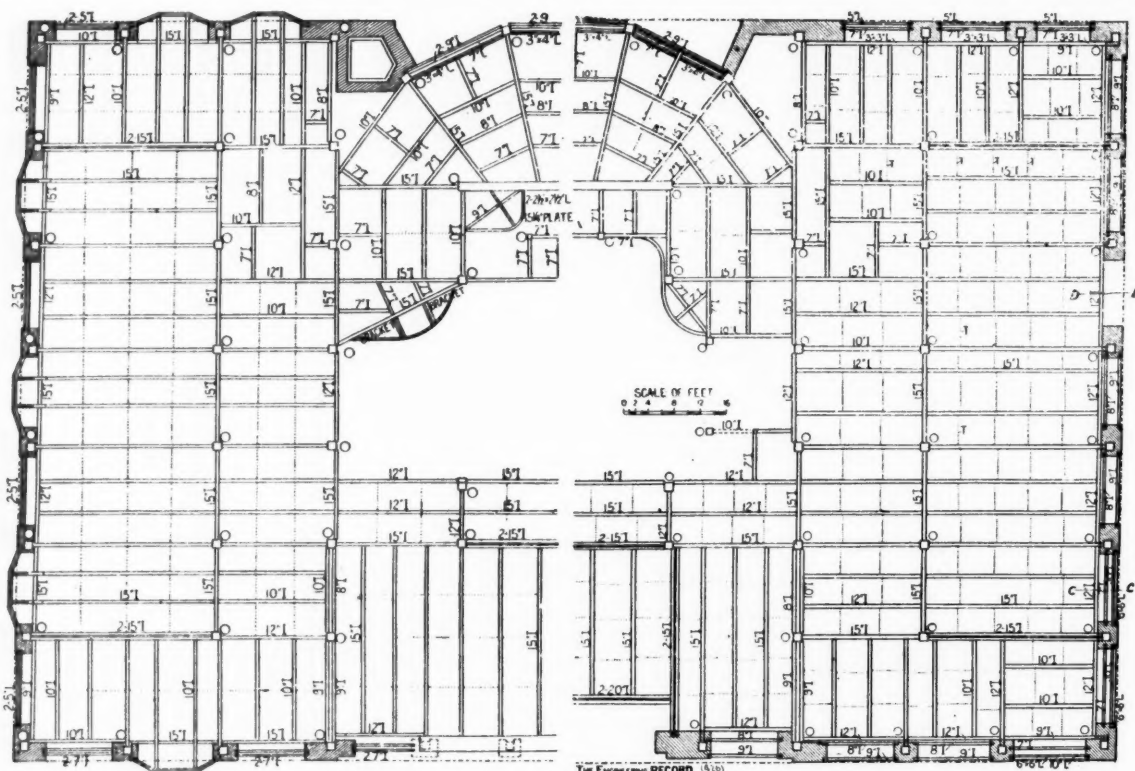
Ten rows: Z-bar column with double covers.

In addition to these shapes, compound or complex columns are used under special circumstances. Special forms of the standard types have also been introduced to meet special requirements.

All these columns are now made in wrought-steel. Prior to the introduction of this material into building operations, columns of cast iron were employed. These are still frequently used, but modern engineering practice does not encourage it. While this

lateral dimensions, it is frequently omitted. The Masonic Temple, Chicago, of twenty-one stories, 273 feet high, and 19,224 square feet area, is provided with a system of rod-bracing inserted at each side of the elevators. The Stock Exchange, of the same city, on the other hand, of thirteen stories, 173 feet high, and with a floor area of 18,000 square feet, has no wind bracing whatever. As in every department of the mechanics of high building, engineering practice differs greatly on this point, and much difference exists, not only as to the methods of resisting the wind forces, but even as to their amount and application.

Four general methods are in ordinary use, though the details of application frequently differ. These are: (1) sway-rods, or diagonal braces, connecting the columns diagonally between single floors; (2) the same, running through two stories, cutting the intermediate girder at the center of the diagonals (both systems are used in the Masonic Temple, Chicago, the sway-rods being connected with I-beams between the columns and below the floor system); (3) portal arches (Old Colony Building, Chicago); and (4) knee-braces, not an advantageous form (Isabella Building, Chicago; also, in a modified form, in the Fort Dearborn Building). The steel frame is sometimes braced by making the joints of the columns, usually in two-story sections, break at alternate stories (new Havemeyer Building, New York). The value of this method is, however, problematical. The selection of the type of wind



Beam plans and details of framing, Masonic Temple, Chicago. Half plan of second floor to left; half plan of fourth floor to right.

material has some advantages, it is very uncertain, and its liability to fracture renders it dangerous to use.

Although the particular section of the column in high buildings is without influence upon the design, some representative buildings are grouped below as illustrative of recent methods.

Cast Columns.—Chicago: Manhattan, Leiter, Tacoma, Auditorium, the Rookery, Phenix, Owings, Unity—all relatively early high office buildings.

Z-Bar Columns.—Chicago: The Fair, Y. M. C. A., Isabella, Pontiac, Caxton, Venetian, new Monadnock (skeleton part), Champlain, Marquette, Stock Exchange, old Monadnock, Great Northern Hotel, Woman's Temple, Ashland Block, Marshall Field, Rand-McNally, Boyce, Hartford, Columbus Memorial, Atwood; Pittsburg: Carnegie.

Z-Bar and Phoenix Columns.—Chicago: Old Colony (special shapes), Schiller Theater.

Box Column of Plates and Angles.—Chicago: New York Life.

Channels and Plates.—Chicago: Fort Dearborn (lower floors of plate and angles, then channels and plates; upper stories of latticed channels).

Plates and Angles.—Chicago: Masonic Temple, Teutonic.

Gray Columns.—Chicago: Reliance, Fisher, Steinway Hall; Columbus, Ohio: Wyandotte.

Larimer Columns.—Chicago: Newberry Library (not an office building).

Cast Iron and Riveted Columns.—New York: Manhattan (cast columns to sixth floor).

In buildings of great height and relatively small area, the steel frame of columns and girders is not usually considered sufficient to resist the force of wind pressure. The frame is, therefore, often braced, though in low buildings, and in high ones of large

bracing will depend, to a very considerable extent, upon the openings of the building, the location of the doors, partitions, and the like.

The skeleton frame is, by its construction, a well-braced structure. It is not remarkable, therefore, that only the slightest vibration and deviation from the perpendicular have been noted in the best-built office buildings, even the highest. Some very careful observations made in the Monadnock Block, Chicago, showed a very slight vibration in heavy windstorms.

The construction of the floors of office buildings, including the size and dimensions of the girders, their connection with the columns, the filling-in of the spaces between the girders and beams, and the laying of the floors, require as much care and forethought as the erection of the columns. In designing floors, the engineer has to consider the dead loads, or permanent weights of the building, and the live loads, or movable weights. These factors are treated in the building laws of our leading cities, and the scientific phases of the loading of the beams have been carefully studied, and the results tabulated in many engineering publications.

The stability of the frame, as well as of the floor itself, depends largely upon the advantages for good connections provided by the section of the column; and this, as before remarked, is one of the important considerations that must be taken into account in determining the class of column to be used.

Although the utmost diversity exists in the manner of filling in the spaces between the beams of the floor, arches of fire-clay are now almost universally used. They are fireproof, waterproof, have a flat upper and lower surface, are lighter than the solid brick arch, are free from shrinkage, can be made of any depth, and may be used for large and short spans. Soft tile or porous terra cotta, a mixture of clay, sawdust or other combustible

material, is much used for floor arches. Concrete is also employed, but brick is now seldom used. Combination floors, of iron troughs and concrete, known as the Pencoyd corrugated flooring; or of iron or steel arches and concrete, in the system invented by Mr. Poulson; or wire and concrete, in the Roebing system; or wire and composition, in the Metropolitan system; or corrugated iron and beams are also used, as well as a Spanish method known in this country as the Guastavino tile arch, in which the floor arches are made of thin tile cemented together in a solid mass. In all these systems, except the last, which is patented, a variety of forms and devices in making the arch have been introduced.

Without entering into a discussion of the various sorts of floor arches now used in the office buildings, it is sufficient to remark that a typical floor consists of flat arches between the beams, covered on top with a layer of concrete, upon which wooden sleepers are embedded, which, in turn, are covered by a hardwood floor. In the hollow space underneath the floor-boards the gas and water pipes are placed.

In designing the steel frame, an essential point the engineer must keep in view is its inclosure within a fireproofing material. Properly braced, and often without additional bracing, the steel frame offers every requirement of stability; yet, unless it is incased within fireproofing, sufficiently thick to prevent injury to the metal by fire, or by the introduction of water, it fails in the first element of availability. This, indeed, is the crucial test of the stability of the modern office building. Structurally, though the problems are frequently complicated, there is nothing in any part of the work that modern engineering practice is not thoroughly competent to handle. It has not, however, yet been demonstrated how long these buildings will endure. It is true the skeleton system has been used too short a time to enable any practical experience to throw any light on this point; but it is strange that no attempt has been made to examine the state of the metal in the older buildings of this type.

The question is of more moment since the modern office building is a structure whose period of existence is intended to far outlast that of the buildings it replaces. The amounts now invested in them are so large that nothing short of an almost permanent duration can render them profitable.

So far as present experience goes, the modern office building has amply satisfied all the claims made for it, when the construction has been good and thorough, and of the most approved type. It has been demonstrated several times (fires in Temple Court, Edison and World Buildings, New York; Athletic Club, Schiller Theater, Chicago) that fires originating in one place can be confined to the room in which they occur, or, at the farthest, to the adjacent apartments. It has been shown, also, that, even where the fire has been a severe one, as in the Chicago Athletic Club, the structure of the building can escape without serious damage. On the other hand, early and imperfect methods of fireproofing, as in the Manhattan Savings Bank, New York, are almost as unsatisfactory and as useless as no fireproofing at all.

The most zealous opponents to the high buildings are the fire departments. It is doubtless true that the fire departments of all our great cities would be unable to cope with a destructive fire in a very high building, owing to the lack of water-pressure and the absence of special apparatus designed for use in such emergencies. On the other hand, the necessity of protecting these buildings against such dangers has certainly resulted in very considerable improvements in their erection, which have been manifested, not only in high buildings themselves, but in less costly structures. There can be no question at all but that the average of fire-resisting qualities in our modern cities has been greatly increased since the introduction of the skeleton system of construction, just as it is equally certain that these buildings are the safest structures we have, in any sense. This fact is generally overlooked by the fire chiefs in their criticisms on these buildings, and by popular critics who are not always disposed to accept them at their true worth.

The danger the office building is most subject to is not from within, but from without; that is to say, from the older and smaller buildings immediately surrounding it, or what is called the "exposure risks." There can be no question at all but that the safety of our cities is greatly increased by the continued erection of modern office buildings.

(To be continued.)

THE SUPERVISING ARCHITECT'S OFFICE BILL.

THE following circular letter is issued to the public by the committee in charge of the Aldrich bill now before Congress, and gives a clear statement of the importance of the bill to the general public and individuals as well, asking general cooperation in securing its passage:

DEAR SIR.—It is well known to every public-spirited citizen, and especially to those interested in matters of art, that the present system of designing and erecting the federal buildings of the United States through the agency of the Supervising Architect's office at Washington is the outgrowth of an antiquated and inadequate method, which should have been changed long ago.

The absolutely unsatisfactory results of the present system are apparent to us in the lack of originality and artistic merit of our public buildings, which are constructed after a set pattern, at an expense greatly exceeding the cost of the same class of work and demanding at least three times as long to construct as when built by private enterprise.

Various attempts have been made by the profession, by legislation and otherwise, to remedy these evils. The last attempt was the introduction in the fifty-third Congress of the "McKaig" bill, entitled "A bill to provide for the securing of plans and for the erection of the public buildings of the United States."

This bill provides for the creation of an expert commission, appointed by the President, with the approval of the Senate, to have charge of the architec-

tural work of the government; to select designs, in competitions to be conducted by this commission, for each new building, and to appoint the architect of the building, as in private practice, leaving the Supervising Architect as the representative of the government in all matters connected with the erection and completion of the buildings, and the payment therefor.

In other words, this bill proposes, by a system of competitions, conducted under proper authority, to obtain for our federal buildings the very best designs and the very best architectural skill now available, relieving the Supervising Architect's office entirely of the duty of designing, but leaving the supervising architect in charge of the work as the representative of the government in all matters of business or general supervision.

The federal buildings would then be under the charge of leading architects in the different sections of the country where they are to be erected. They would become individual to the locality and the outgrowth of the same, not only in design, but in construction and materials. They would also receive constant supervision, and would be built as promptly and as economically as buildings for private individuals.

The Supervising Architect would become the supervisor of the architects commissioned by the government; his duties would be simplified in one direction, and thus give him more time to attend to his important duties in other directions. He would also be able to devote much of his time to collecting and diffusing valuable statistics and information concerning materials and many other matters pertaining to building, so that the profession at large would be able to draw upon Washington for general information, as is now the case with engineers, agriculturalists and other important bodies.

Such a bill must result in better and more prompt and economical methods for the government, in better and more beautiful buildings for the public, and also in raising the standard of architecture, both artistically and otherwise, in the United States.

The "McKaig bill," though drawn at the suggestion of the Secretary of the Treasury and revised by him, was defeated for political reasons. It has been reintroduced in the present Congress and the outlook for its passage is very favorable.

The architects of the country have devoted much time to this work, and have so far subscribed all the necessary funds for legitimate purposes in introducing and promoting the bill. They find, however, that the work of promoting the bill in a perfectly legitimate way requires ample funds, which they are not in a position to furnish entirely, and they have further found that they are taxed with selfish motives in promoting the bill.

As it is a matter which should interest every public-spirited citizen, as stated above, and which from a business point of view will benefit every individual community where federal work is contemplated, by affording each community the opportunity of erecting its own buildings with local materials supplied by local people, the whole building being under local influence, instead of the present system, where everything is centralized in Washington, to the benefit of a few large contractors who control to a great extent the work and the supplies, not only ignoring local requirements, but in most instances thrusting aside excellent opportunities for local development, it has been decided by the committee in charge of the bill to appeal, through the architects of the country, to the public at large for subscriptions for the purpose of furthering the interests of this bill. Such subscriptions will be not only of material aid, but they will give the bill a very strong moral support, by proving that the public at large is interested in its passage.

Yours respectfully,

GEORGE B. POST, Chairman.
BRUCE PRICE.
ALFRED STONE.
ROBERT STEAD.
JAMES G. HILL.

JOHN M. CARRERE, Secretary,
44 Broadway, New York.

NOTE.—As prompt action in this matter is of the greatest importance, I appeal to you for immediate support, and request that you send your contribution to me at your earliest convenience, should you care to help this cause.

Name.....
Address.....
To Mr.....

NEW PUBLICATIONS.

WE have received the "Proceedings of the Fifth Annual Convention of the Association of Railway Superintendents of Bridges and Buildings." It is full of information, most of which would not interest an architect, but there is one article that might, "The Report of the Committee on Strength of Bridge and Trestle Timbers," which gives the most recent information with regard to the strength of timbers in common use. This paper will interest architects, as well as others who need to know the strength of timbers.

MODERN STONECUTTING AND MASONRY. By Siebert & Biggin. New York: John Wiley & Sons, 1896.

This is a little book on stonecutting which includes only such work as is in common use, and it so states in the preface. It gives the nomenclature of the American Society of Civil Engineers, and a brief description of the different kinds of masonry. In the main the work consists of fourteen plates (with descriptive letterpress) commencing with a "Gothic Buttress" and ending with "Entrance and Porte Cochère." It might be termed "An Elementary Treatise on the Stonecutting in Ordinary Practice," and is evidently intended for schools and colleges. It has the merit of being simple and direct. While embracing but a small portion of the science, it embraces the largest portion of the practice. Its very brevity is a great merit. It is much better that a student thoroughly understands what he learns, even though what he learns may not be of large extent, than that he shall roam over a wide field without thoroughly comprehending the ground he goes over. One of the vices of school-teaching of the present day is the attempt to have a general and extensive instruction, when there is scarcely time for a student to thoroughly obtain even an elementary one. From a cursory examination, we should say it is well adapted to its purpose. It very properly refers those who wish to make a specialty of the science to other and much larger works. We hope it will not pattern after many other books that in successive editions it will not keep on growing until it loses the merit it now possesses. It is an excellent work, and we can sincerely recommend it.

THE growth and enterprise of the Baltimore & Ohio Railroad, which has been constant since the first steam locomotive was built and operated upon it, has been crowned by the enormous engineering feat just accomplished at Baltimore in the construction of a double track tunnel two miles long under the city and thus securing a terminal in the heart of the business section.

THIRTIETH ANNUAL CONVENTION A. I. A.

CIRCULAR OF INFORMATION No. 1.

The thirtieth annual convention of the American Institute of Architects will be held at Nashville, Tennessee, on Tuesday, Wednesday and Thursday, October 20, 21 and 22, 1896, at which time the buildings for the Centennial Exposition will be completed and the Institute will, as guests of the state, of the city, of the Chamber of Commerce and of the Tennessee Centennial, be afforded unusual and favorable opportunities to visit objects of interest in the city and to visit and inspect the centennial grounds and buildings, without the disadvantage of their being filled with exhibits, as the opening of the exposition has been postponed to May, 1897, and without the presence of the crowds of sightseers to interfere with the deliberate and professional examination which will thus be afforded to visiting members.

The full details of the programme will be announced in future circulars, but I am at this time requested by the Committee on Education to make the following announcement:

The report of the Committee on Education, submitted at the last convention of the American Institute of Architects, held in St. Louis, sets forth a proposition to invite a general discussion on some subject involving the higher interests of the profession; this discussion to be made a part of the business of the next convention, and, if successful, to be continued as a regular feature of the succeeding conventions.

This proposition met with such acceptance that the Committee on Education is encouraged to propose to the members of the Institute, as the subject to be discussed at the next meeting in Nashville, the following:

THE INFLUENCE OF IRON AND STEEL CONSTRUCTION AND OF PLATE GLASS ON THE DEVELOPMENT OF MODERN STYLE.

It is the purpose of the committee to request a limited number of members to prepare brief essays on this theme, the reading of which would open a discussion, which the committee hopes may then become general, every member, by this timely notice, having ample time to set his ideas in order for the debate.

It is expected that especially favorable arrangements will be made to secure reduce rates, and that a large number will thus be enabled to attend the convention, and it is hoped that this early notice will induce the Fellows of the Institute, in planning their yearly outing, to arrange to attend the convention and that they will go prepared to take part in the discussions and to contribute from their own experience and practice some thoughts on the practical or aesthetic side of a question which is of necessity to play such a prominent part in the future development of architecture in this country.

Mr. Henry Van Brunt, of Kansas City, is chairman of the Committee on Education, to whom all communications relating to the discussion of the subject should be addressed.

The president has appointed Mr. William C. Smith, George C. Mason and the secretary a Committee of Arrangements for the coming convention.
PROVIDENCE, March 30, 1896. ALFRED STONE, Secretary.

OUR ILLUSTRATIONS.

A Chicago Residence.

Business Building, Detroit, Mich. Mason & Rice, architects.
Business Building, St. Louis, Mo. Eames & Young, architects.
Residence of R. M. Wells, Chicago. Beers, Clay & Dutton, architects.

Iron Gate for Mrs. Vogel Hotz, Rechberg, Zurich, from drawing of Louis Lott.

Courthouse for Crawford County, Indiana. Oliver W. Marble, architect, Chicago.

House for A. L. Levy, New Orleans, Louisiana. Charlton & Pruitt, architects.

Residence of Dr. E. Fletcher Ingalls, Chicago. Holabird & Roche, architects.

St. Boniface Parish School and Hall, Chicago. Rev. A. Evers, pastor. Schlacks & Ottenheimer, architects.

Adopted Design for Library and Museum Building for the State Historical Society of Wisconsin, Madison, Wisconsin. Ferry & Clas, architects, Milwaukee, Wisconsin.

House at Fredericton, New Brunswick, Canada, for T. Carleton Allen. R. Brown, Jr., architect, Boston. Some eighty odd miles from the mouth of St. John River lies Fredericton, the capital of New Brunswick. The town is pleasantly situated on a bend of the river, and, although somewhat regularly laid out, the fine avenues of old trees of luxuriant growth dispel all feeling of monotony in the thoroughfares. The house illustrated is built on a site overlooking the cathedral grounds. The cathedral, by the way, is a fine piece of Gothic architecture, built many years ago from the design of Butterfield, the English architect. In course of time the stonework has become gray, and with the tall and graceful form of the elms in the cathedral close, the building forms a picture which recalls similar scenes in old England. In the town itself, one finds a few interesting houses here and there, mostly of what we should call a simple "Colonial" type. So this, as far as any style went, was all that was aimed at in the new house—to make it simple enough to fall in with the surroundings. The house measures 56 feet 6 inches long by 30 feet six inches wide. The height of the lower story is 9 feet in the clear, and the upper story is 8 feet 6 inches in height. The inside of the framework is lathed and plastered twice in two distinct thicknesses, separated by furring. The heating is a direct-heating hot-water system. The interior finish of the several rooms is chiefly painted, except in the halls, staircase and dining room, where the wood is stained and polished. Some of the windows are glazed in parts with stained and colored glass.

Photogravure Plate: View in Residence of Mrs. Babcock, Kenilworth, Illinois. George W. Maher, architect, Chicago.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure Edition.

View in a Chicago Residence.

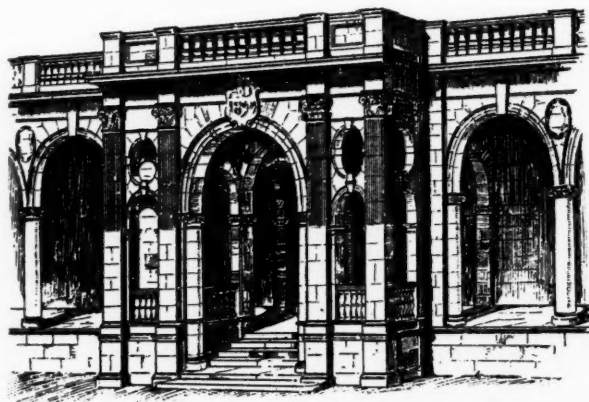
View in a Chicago Residence.

Assembly Room, Chamber of Commerce, Rochester, New York. Nolan, Nolan & Stern, architects.

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

Building for Drivers' Safe Deposit Company, Chicago; Charles S. Frost, architect. The following full-page plates are given: Exterior View in Banking Room, View in Lodge Hall.

A STORY OF STONE



NATURE takes her time. It may be a minute or a million years, but she never hurries. When she makes a gnat, which shall beat its little life out in a single day, she acts quickly; when she makes granite, which is to endure for ages, she takes ages for the making. Gnat or granite, the work is all done according to a well-conceived plan, of which time is an essential element. Such has been the process since time began, such is it now and such it will be until time shall cease, for while the history of the universe as revealed to us in the remotest rock pages of old earth herself shows that the creation of animal, vegetable and mineral growth has always been the result of certain forces in conjunction with unvarying methods, present investigations as clearly demonstrate that the same forces are now at work and the same methods are still being employed to the same ends.

Geologists tell us that nature works her marvels in stone through the medium of chemical laws which are as unalterable as the universe itself. These laws must have been formulated before the earth came into existence; they have continued to operate ever since and may be observed in actual work at present. We may not know why it is that certain solids or gases have a strong chemical affinity for certain other substances. We merely know the facts from observation, and must be content without asking the whys and the wherefores. But we can turn back the pages of geological history to the earliest ages and there read records which conclusively prove that the common everyday chemical changes of the present were at work long before the rocks and the mountains had been conceived or brought forth.

The calcareous rocks are very excellent example. In this class is included every kind of rock composed of carbonate of lime and also chalk. It is a curious fact that chalk differs from limestone only in texture, both being formed by the same chemical combination. The same may be said of all the other rocks of the calcareous group—oolite, limestone, marble and calc-spar. The basic principle is carbonate of lime in combination with the decayed shells at the bottom of the ocean. All are formed by similar chemical action, varying only in the materials employed and the circumstances of location, pressure, etc. It can scarcely be believed that the beautiful Carrara marble, which from its uniform texture and enduring polish is selected as the material par excellence for statuary, is of the same chemical formation as chalk, yet this is true; and the most intimate relationship exists between Carrara marble and the celebrated oolitic limestone, so that the qualities of both are largely identical. Thus, without violating any chemical law and by the employment of a single simple method, does Nature produce, with a slight change of materials and environments, the chalk cliffs of England on the one hand and the magnificent marbles of Carrara and the famous oolitic limestones of Indiana on the other.

Limestone is of such varying texture and quality as to be practically limitless in its uses. The common variety is fit only for common work, such as macadamizing, curbing, sidewalk and foundation building. For these purposes there is a great abundance of this useful stone. In fact, so common is it that a really excellent limestone is the great exception rather than the rule. The quality of each rock depends on two circumstances, namely, the nature of the organisms from which it is formed and the chemical conditions of the water in which they were deposited. But this is anticipating. It will be necessary first to consider the exact process by which our present beds of limestone were deposited in the ocean depths of ages past.

It is a peculiar quality of corals, shells and marine shellfish of all sizes that they extract the carbonate of lime from the sea-water which they inhabit. The bottom of the sea is thickly strewn with shells and corals; these in time become more or less perfectly pulverized, and the chemical action of the carbonate of lime which leaves the water to join the shells, glues them together, as it were, into a more or less homogeneous and solid mass. This, after ages of accumulation on the bottom of the ocean, is upheaved by volcanic action, and at the close of the nineteenth century of the Christian era, is quarried at the command of the architect or engineer, to be devoted to decorative or practical purposes.

Common limestone is of poor or ordinary texture, according to the nature of the shells of which it is composed. Where there are large shells which are but imperfectly pulverized, the rock contains fissures or pockets, and frequently the shells themselves, or, rather, their fossilized remains, are found completely embedded. While these may be of great interest from a geological standpoint, they totally destroy the value of the stone for the most highly useful or ornamental purpose. It is to the finer and more even textures among the limestones that we must look for substantial excellence.

The oolite, or roe-stone, is so called on account of its resemblance to the roe, or spawn, of a fish. Geologically, it is a product of the secondary period. Oolites are supposed to have been formed from a deposit of calcareous sand, the product of disintegrated corals, which, having been raised above the surface of the sea, either by an upheaval or by subsidence of the waters, was then subjected to rain. Now, rain water, during its fall through the atmosphere, becomes charged with carbonic acid, and this acid in solution, penetrating the calcareous sand, dissolved the carbonate of lime of the surface layer and deposited it on the deeper layers, cementing them in an almost indissoluble union. At the same time all foraminifera remaining were dissolved out by the acid before the entire mass hardened. So in this beautiful shore forma-

loosely cemented together. Upon careful examination with the glass, however, this grain proves to be infinitesimal shells and shell fragments all bound together by a firm and even setting of lime carbonate. No art of man could construct a mass at once so firm, even and workable and at the same time so elastic and strong. The stone comes from the quarry soft, tough and easily cut. In a short time it hardens so that it rings with a musical note (like that from a steel bar) when struck with a hammer. A bar of four feet in length and two inches square may be bent so as to deflect greatly, and when released will spring back to a right line with the promptness and energy of highly tempered steel. Upon being broken the stone parts with a smooth, direct fracture, showing a surprising evenness and continuity of texture, with no trace whatever of laminations, seams or changes of structure."

The quarries of the Bedford Quarries Company are situated upon the very crest of Buff Ridge, where the necessary stripping, which consists of from two to eight feet of soft earth, is easily removed, exposing to view incalculable millions of feet of the identical stone which has achieved a reputation coexistent with the continent. Their first quarry, the "Old Hoosier," was opened in 1879, and has since produced such immense quantities of stone that its reputation has gone wherever Bedford stone is known. The company believes, and they are not alone in the opinion,



ONE CORNER OF THE HOOSIER QUARRY—FORTY TO SIXTY FEET DEEP.

This picture of the Old Hoosier has been selected as one of the best representatives of the Bedford quarries, having been worked to a depth of sixty feet.

tion, thousands of years before man's footstep first trod the earth, Nature prepared the oolitic limestone, of even and close texture, strong, beautiful and in every way fitted for the most enduring and artistic service of the latest generations of the human race.

The largest and finest bed of oolitic limestone in the world is at Bedford, Indiana. Here are the quarries of the Bedford Quarries Company, from which great quantities of stone have been taken for use in the construction of notable buildings all over the United States. The quarry district of Bedford is located about four miles northwest from the city, in what is known as Buff Ridge, a district about one mile wide and three miles long. Exactly in the geographical center of this ridge, and at a point where the deposit of stone shows an unbroken depth of from forty to sixty feet, are located the Bedford Quarries Company's lands. Here the stone is of a fineness and uniformity of texture which is unsurpassed, if, indeed, equaled by any similar formation in the world. It is remarkably free from defects, pure and even in its make-up, bright and beautiful in color, sufficiently elastic to prevent brittleness, and possessed of a cohesive power which renders it absolutely safe for any use to which stone can be put.

Prof. Maurice Thompson, in his annual report for 1888, writes regarding this stone in part as follows: "The rock is an element of the St. Louis group, showing itself in a massive, evenly bedded stratum of homogeneous limestone, of a whitish gray color, whose grain, viewed casually, has the appearance of a rather coarse sand

that the "Old Hoosier" is the best oolitic limestone quarry in the world.

Actual tests, as well as observations, show that the Bedford stone absorbs little if any moisture. F. W. Clarke, chief chemist of the United States Geological Survey, immersed a two-inch cube of Bedford stone, weight 301.73 grams, one-eighth of the depth in water for twenty-four hours. After being air-dried for twenty-four hours it weighed 303.92 grams. The gain in absorbed water was 0.72 per cent. Moss does not grow upon the outcropping boulders of Bedford stone, which can be taken as a sure indication that the stone does not absorb enough moisture from the atmosphere to sustain plant life. On pure oolitic limestone no growth of moss whatever can be found.

The density of Bedford stone, as shown by a number of reports, exceeds that of the celebrated Portland oolitic, quarried in the south of England, to which Bedford oolitic is often compared. The ratio of absorption of the English stone is one to twenty, while that in the Bedford stone is one to forty-two. That Bedford stone is the stronger of the two is shown in the fact that the reliable sustaining weight of a square foot of Portland stone is 82,000 pounds, while that of Bedford is not less than 135,000 pounds to the square foot. This is more than three times the weight on the piers of St. Paul's, London, and more than four times that on the piers of St. Peter's, Rome.

Among the many noteworthy buildings in this country which

have been built of stone from the quarries of the Bedford Quarries Company are the following: The American Fine Arts Society building, the Deever mansions, the Constable building, the Mutual Reserve building, the Postal Telegraph building, the Hotel Majestic and the Presbyterian building in New York; the Manufactures Clubhouse, Philadelphia; the International Trust Company's building and the Algonquin Clubhouse, Boston; St. Martin's church and the Stensland building, Chicago; the beautiful residence of James F. Sinnott, Bryn Mawr, Pennsylvania, and St. Mary's Cathedral in Covington, Kentucky. These are but a few of the many important structures which herald the recognized beauty, durability and adaptability of Bedford stone.

A leading architect, in comparing the relative merits of different building materials, recently remarked: "As men separate the chaff from the wheat, in order to gain the purest flour and from it the finest bread, so the architect must eliminate from the materials selected for building construction those known to be defective or inferior, and keep only the best. Bedford stone is the wheat of the architect."

In concluding this brief and necessarily imperfect sketch of the Bedford quarries, we will only add that all whose business or pleasure brings them to the locality will find that a visit to the quarries will prove both interesting and instructive and well repay the traveler for the time and attention thus employed.

NOTE.—This is one of a series of articles intended to bring before our readers the many interesting facts regarding stone, reviewed from a scientific standpoint, and with reference to its practical value in construction, various purposes for which different classes of stone are adapted, and the best representatives of each class.

OBITUARY.

N. W. PRATT.

The untimely death of Nathaniel W. Pratt, president of the Babcock & Wilcox Company, which occurred in Brooklyn, New York, on Tuesday, March 10, 1896, is a cause for profoundest regret to the thousands of friends and acquaintances made by Mr. Pratt during an exceedingly active business career. Mr. Pratt was but forty-four years of age, but for twenty-five years he had been connected with the Babcock & Wilcox Company, and to his mechanical skill and great business sagacity is due the wonderful success of that company in all parts of the civilized world. It may be truly said that the best monument he leaves behind him is the world-wide fame of the Babcock & Wilcox boiler.

Nathaniel W. Pratt was born in Baltimore in 1852. His ancestors on both sides settled in Massachusetts in 1630. From his father he inherited mechanical tastes and abilities, as the elder Pratt, during the war, was superintendent of the Burnside Armories, in Providence, Rhode Island. Young Pratt entered the employ of Babcock & Wilcox in 1870, before attaining his majority, and was steadily promoted. In 1881 the Babcock & Wilcox Company was organized as a corporation. Mr. Pratt became treasurer and manager of the new company, which positions he held until the death of Mr. George H. Babcock, in 1893, when he was elected president of the company. His success was due to a rare combination of engineering knowledge and inventive genius with extraordinary business qualifications. While the business world at large knew him chiefly as an aggressive man of affairs he was also known to a large circle of friends as a gentleman of singular generosity and kindness of heart.

A single incident will illustrate Mr. Pratt's versatility. In 1884 he became consulting engineer to the Dynamite Gun Company. Under his designs and patents the first successful dynamite gun was built. It was with this gun, eight-inch caliber and sixty feet long, that the experiments in throwing aerial torpedoes were conducted at Fort Lafayette, New York.

WILLOUGHBY J. EDBROOKE.

Willoughby J. Edbrooke, who was Supervising Architect under the Harrison administration, died at Chicago on March 25, and was buried at Oakwoods cemetery, with the services of the Masonic Oriental Consistory.

Mr. Edbrooke left many monuments of his ability and his death will be sincerely mourned at Washington, where he made many friends during his official career. He was a native of Illinois, and was born September 3, 1843, at Deerfield, Lake county, where his father, a contractor and builder, had settled seven years before. The deceased descended from English ancestors who were among the provincial settlers of New England. His early education was obtained in the common schools. When he became of age he left the parental home and came to Chicago to complete his professional training, begun under his father's personal direction. He studied architecture under a number of prominent Chicago architects, and in 1868 went into business on his own account.

A few years later he formed a partnership with his brothers. Subsequently his brothers withdrew from the firm and Mr. Edbrooke continued in business alone. His first public position was that of commissioner of buildings under Mayor Roche.

In April, 1891, Mr. Edbrooke was appointed Supervising Architect by President Harrison. He designed the government building at the Columbian Exposition and the State Capitol building of Georgia at Atlanta. Probably his most notable works are the Notre Dame University structures at South Bend, Indiana, the courthouse of Geneva, Kane county, Illinois, and the Tabor Grand Opera House at Denver. His professional career covered a period of twenty-eight years.

Mr. Edbrooke was an inveterate hunter and he spent several months annually in the wilds of the northern states. He was

vice-president of the Illinois State Sportmen's Association and a director at the time of his death. He was also president of the Lake County Club, an association which owes its existence largely to Mr. Edbrooke's efforts. The Masonic fraternity claimed him as a past master. He belonged to no social clubs and was domestic in his habits.

ASSOCIATION NOTES.

SOCIETY OF BEAUX ARTS ARCHITECTS.

COMPETITION NO. 1.

The Committee on Education proposes as a subject for competition for the year 1896, a ferry house in New York city.

The ferry house is to contain: First, a large entrance vestibule; second, offices for the sale of tickets, bureau of information and newspaper booths; third, a large waiting room; fourth, waiting rooms and toilet rooms for both sexes; fifth, baggage rooms; there should also be two entrances for vehicles, and three ferryboat slips shown; sixth, a large clock for the use of the public, on the façade.

The elevation on the street shall not exceed 200 feet in length. The depth from street front to end of slips shall not exceed 500 feet, but is left to the option of the competitor. The second story may be devoted to offices. In contrast to existing examples, it is required that this building have an architectural character appropriate to its use and which will make it an ornament to the city.

A sketch on tracing paper of the plan of the first floor and of the main elevation, and a section at a scale of $\frac{1}{32}$ inch to the foot will be required of all students intending to compete, and should be addressed on or before April 30, to Mr. Albert L. Brockway, chairman, 55 Broadway, New York city. For the finished drawings there will be required a plan of the first floor and the principal section of the building, at a scale of $\frac{1}{16}$ inch to the foot, and the façade at a scale of $\frac{1}{8}$ inch to the foot. The drawings are to be rendered in water color, mounted on stretchers, and forwarded on or before July 1, 1896, to W. S. Budworth & Son, 424 West Fifty-second street, New York city.

(Signed) ALBERT L. BROCKWAY, Chairman,
JOHN M. CARRÈRE,
JOHN G. HOWARD,
WHITNEY WARREN,
E. L. MASQUERAY,

NEW YORK, April 11, 1896. *Committee on Education.*

NOTE.—This competition is restricted to students having obtained a medal or first, second or third mention in the competitions held during the year 1894-95, and to college students.

COMPETITION NO. 2.

The Committee on Education proposes as a subject for competition, A Public Mortuary Chapel in a Large Cemetery.

The chapel is to be situated not far from the main entrance to the cemetery, and on the crest of a slight eminence. The building must contain a vestibule, a chapel in which services are held, a sacristy, waiting rooms for attending family and clergy, and a crypt below chapel. The building must not cover more than 3,500 square feet. A scale drawing on tracing paper of the plan and elevation at a scale of $\frac{1}{16}$ inch to the foot will be required of all students intending to compete, and should be addressed on or before April 30, to Mr. Albert L. Brockway, chairman, 55 Broadway, New York city. For the finished drawings there will be required a plan of the building and immediate surroundings, and a section at a scale of $\frac{1}{8}$ inch to the foot, and an elevation of $\frac{1}{4}$ inch to the foot; also an interesting detail at one-quarter full size. These drawings are to be rendered in water color, mounted on stretchers, and forwarded on or before July 1, 1896, to W. S. Budworth & Son, 424 West Fifty-second street, New York city.

(Signed) ALBERT L. BROCKWAY, Chairman,
JOHN M. CARRÈRE,
JOHN G. HOWARD,
WHITNEY WARREN,
E. L. MASQUERAY,

NEW YORK, April 11, 1896. *Committee on Education.*

NOTE.—This competition is open to all students of architecture, conditions of judgment and jury to be arranged by the committee.

MOSAICS.

THE Powers Regulator Company have been awarded the contract for heat regulation in the Lewis Institute at Chicago. The Waters system of hot-blast heating will be used, and it is to be installed under the supervision of Mr. T. J. Waters, chief engineer Chicago Board of Education. The awarding of the regulation contract to the Powers company was based mainly on the excellent work which has been done by their apparatus in Chicago public schools. This company has also recently installed their system of temperature regulation in the Southern Hotel at St. Louis. Here three hundred and fifty rooms are individually controlled, and the guests enjoy the comforts of an agreeable and uniform temperature in their rooms. The Powers Regulator Company manufacture a full line of temperature-controlling apparatus, applicable to all systems of heating. And they will be pleased to correspond with interested parties.

AN interesting test of fireproof materials was made on the lake front in Chicago on the afternoon of April 7. Invitations were sent out by the Fireproof Door Company and the American Fireproofing Company, both of which concerns are represented in Chicago by Anson S. Hopkins. The Fireproof Door Company are manufacturers of the Richardson fireproof doors and shutters,

and for the purpose of exhibiting these a building was erected of tile, on one side of which was placed a double door and on the other a single shutter. The inside of the building was filled with wood and other combustible material, and soon after the match was applied it became a roaring furnace. The doors were not visibly affected. Their construction is such that heat cannot warp them, and even when very hot their thin outer shell of iron would not be likely to be seriously damaged by water suddenly thrown on them. To the spectators it seemed that the doors were the best part of the building. The heat was so intense that the tile work was somewhat displaced. At the same time a test was made of "Salamander" fireproof building-paper by the American Fireproofing Company. Three square wooden boxes were provided with smoke-funnels and filled with wood saturated with kerosene. One box was lined with the "Salamander," another with asbestos, and the third was unlined. The unlined and the asbestos boxes were quickly consumed while the "Salamander" box stubbornly resisted all attempts of the flames to destroy it for more than an hour after the others had succumbed. The test was quite satisfactory as demonstrating the desirability of "Salamander" paper for fireproofing purposes. This material is used extensively in the East as a lining for elevator shafts, etc., and is accepted as such by the building department and underwriters.

BUILDING OUTLOOK.

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

The general conviction in commercial, manufacturing and financial circles is that business will be considerably better than last year, but that until certain questions affecting finance and trade are permanently disposed of no radical improvement is in sight. The fact stands out that the restricted volume of currency is affecting business; that silver is in increasing demand abroad; that the agitation concerning its international relation to gold is occupying the attention of the foremost thinkers on economic and fiscal policies on both sides of the water. The people on this side seem to be unsettled. Recent political strains show it. There is a cry for a change, a movement in the direction of reciprocity, a disposition to tie to those who represent vigorous protective sentiment. The people are aroused as never before. An enormous volume of idle money is awaiting employment. Investors are impatient, capitalists are weary of irregularity of employment of money. Promoters are weary of planning and waiting for the start to be made. Farmers hold on to two or three hundred million dollars' worth of crops. Railroad managers let their roads wear and tear out rather than lay out a needed hundred million or more to make their systems right. Iron and steel makers are crowding up prices before there is a demand to warrant. Smaller manufacturing interests are afraid to pile up stocks and yet are apprehensive of higher prices. Banks scrutinize paper closely and restrict loans. A sense of insecurity prevails without really good cause. Housebuilders have a brighter outlook than for years. Building operations this year will greatly exceed last year. Nearly all building material is a shade higher. Industrial combinations are being attempted, but they rather fail of their object. Lumber, brick, cement, shingles, lath, stone, are all held at firmer prices, though in some there is no actual advance. While things are not as good as they are desired, the influences are all working towards permanent activity and more remunerative prices. The trend of events is in the right direction. A healthy growth is apparent in all the minor industries. Speculators complain of lack of speculative opportunities and business men complain of restricted circulation of currency and narrow margins. The mistakes of the past will be corrected. There are thousands of enterprises projected; over twenty thousand miles of railroad building has been projected within a few months. Agricultural interests cry for better returns, but those who till the soil are, at least, holding their own. Taking all things into account, we see much to encourage, and but little to discourage us in the coming season.

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.

Burlington, Iowa.—The Free Public Library invites plans for a library building, constructed of stone and cost not to exceed \$40,000. For description of lot apply to Carl Vogt, Secretary, Burlington, Iowa.

Buffalo, N. Y.—Architect C. H. Kelley: For Robert C. Hughes, a three-story store and flat building, to be built at the corner of Rhode Island and Utica streets; to be of brick with stone trimmings, have gas fixtures, mantels, plumbing, speaking tubes, hardwood finish, etc.; cost about \$60,000. For Dr. G. W. Gillette, a two-story, 47 by 83 feet flat building, to be erected at Tonawanda, New York; will be of frame, costing about \$16,000; the interior will be arranged for ten families in five-room flats; to be finished in hardwood, have electric bells, speaking tubes, bathroom outfit, refrigerators, steam heat, gas fixtures, and other improvements. For Lakeside Cemetery Association, of Erie, Pennsylvania, a frame mortuary chapel, to be built at Erie; to be 28 by 54 feet in dimensions, built in the Gothic style, with hardwood finish, stained glass, carved altar, etc.

Architects Loverin & Whelan: For Mrs. A. P. Wright, a two-story residence, to be erected on Oakland place; it will be built of pressed brick and frame, with bay windows, beveled glass doors, stained glass transoms, and dormer windows; the interior will have hardwood finish, fireplaces and mantels, grillework, speaking tubes, hot-water heat, gas fixtures, specially designed bookcase and sideboard, and electric bells; cost about \$10,000.

Architect August Eissenwein: For Masheeco, Kolb & Co., a two-story warehouse and fish-packing building, to be erected on Eaton street near Jefferson; it will be of brick, the dimensions 40 by 100 feet; will have iron beams and columns, hollow tile, fireproof lath and tile floor; cost about \$10,000.

Architect W. W. Johnson: For the Harrisburg Club, a clubhouse, to be built at Harrisburg, Pennsylvania; to be of pressed brick and stone, three stories high, with a large roof garden; to have oak finish, hardwood floors, steam heat, dancing, billiard and card rooms, lavatories, etc., and will cost \$20,000.

Architects Phillips & Pentecost: For Frederick B. Robins, a five-story apartment house, designed in the Elizabethan English style; to have brown-

stone foundations, red pressed brick walls and ivory-white terra cotta trimmings; it will have forty suites of apartments, and a café to seat 120 people; the halls and corridors will be finished in oak; and electric elevator, rolling fire-doors, ventilators, ash hoist, skylight, steam heat, mantels, etc., will be used; it is to cost \$50,000.

Architect Robert A. Wallace: For Ambrose Bixby, an apartment house, to be erected on Niagara street near Hudson; to be four stories high, built of Vermont marble for the first story and the remainder of buff molded brick, with wrought-iron balconies and copper bays; the interior will have red oak, cypress and pine finish, beveled glass mirrors, oak mantels, fireplaces and furnace heat; cost \$30,000. For George Gunther, a \$12,000 residence, to be built on Virginia street near Edward; to be two and one-half stories high, of pressed brick and blue stone; the interior finish will be oak, maple and cypress; the structure will have electric bells, speaking tubes, stationary tubs, ranges and refrigerators, billiard room, etc.

Architect Walter W. Wade: For Hudson Brothers, a two-story double house; to be built on Niagara street; to be of frame, with hardwood finish, electric bells, furnace, gas fixtures, plumbing and stained glass; to cost \$9,000.

Architect C. R. Percival: For the Bethel Baptist congregation, a church, to be built at 172 Johnson street; to be of frame, Gothic style, with stained glass windows, hardwood pews, carved altar, pipe organ, bells and hardwood flooring; cost \$5,000.

Architect Carl Schmill: For the Church of the Transfiguration, a church, 75 feet high with steeple 176 feet high; to be of pressed brick with trimmings of cut Medina stone, constructed with iron beams and columns, hollow tile, fireproof lath, patent plaster, etc.; interior to have marble and tile flooring, stained glass windows, oak altars and pews, decorative paneling, pipe organ, etc.; cost \$70,000.

Architect W. H. Archer: For the Mulholland Spring Company, of Dunkirk, New York, a three-story brick factory, to be 116 by 172 feet in dimensions, of brick and stone, with gravel and corrugated iron roof; to have automatic sprinklers, dumb-waiter, latest machinery, etc.; cost \$20,000.

Chicago, Ill.—Architect John P. Hettinger: Making plans for a five-story and basement apartment house, 106 by 50 feet in size; to be erected at the North Side; it will have a buff Bedford stone front, quartered-oak finish, mantels and sideboards, all open modern plumbing, marble wainscoting, mosaic floors, electric light, freight elevators, steam heating, etc.; the cost will be about \$40,000. Same architect is making plans for remodeling three-story building at Hudson avenue, into modern apartment house; will put in new sanitary improvements, gas fixtures, mantels, sideboards, hardwood finish, steam heating, etc.

Architect F. F. Townsend: For W. H. Ebberth, a three-story and basement residence, 26 by 77 feet in size; to be erected at Michigan avenue near Fifty-first street; it will be of buff Bedford stone front, have interior finished in oak, gas and electric fixtures, gas ranges and fireplaces, electric light, etc.

Architect H. B. Wheelock: For L. W. Johnston, a two-story, basement and attic frame residence, 28 by 40 feet in size; to have stone basement, hardwood finish, mantels, sideboards, gas fixtures, heating, etc. For W. E. Peck, a two-story and basement residence, 30 by 40 feet in size; to be erected at Evanston; to be of frame construction with stone basement, have oak interior finish, mantels, sideboards, gas and electric fixtures, laundry fixtures, electric light, etc. Also making drawings for Congregational church, to accommodate an audience of 335; to be erected at Wilmette; it will be constructed of pressed brick with buff Bedford stone trimmings, have slate roof, interior to be finished in oak, have gas fixtures, heating, etc. Same architect is working on drawings for a seven-story warehouse, 40 by 110 feet in size; to be erected at Milwaukee avenue and Canal street near Lake street, for Hunt Brothers; it will be of pressed brick and stone front, mill construction, have steam heating, electric light, elevators, engine, boilers, etc.

Architect Robert S. Smith: For L. J. Eastland, a handsome three-story and basement residence, 25 by 76 feet in size; to be erected at Michigan avenue near Fifty-first street; it will have a brownstone front, tile roof, the interior to be finished in white maple, quarter-sawn oak, cherry and mahogany, have special mantels, sideboards and consoles, electric light, hot-water heating; also two-story brick barn; cost \$20,000.

Architect George S. Kingsley: For A. R. Greifenhagen, a six-story and basement apartment house, 50 by 112 feet in size; to be erected at 551 Dearborn avenue; it will be of pressed brick front with terra cotta trimmings, have hardwood finish, mantels, sideboards, gas and electric fixtures, elevators, electric light, all open nickel-plated plumbing, gas ranges and fireplaces, steam heating. Same architect is completing drawings for a four-story store and flat building, 92 by 40 feet in size; to be erected at the corner of Washburn avenue and Ogden avenue; it will be of pressed brick with buff Bedford stone trimmings, have hardwood interior finish, modern plumbing, gas and electric fixtures, steam heating, etc.

Architect C. E. Brush: Made plans for the Northern Illinois State Normal School, to be erected at DeKalb; it will be a very handsome building in the Norman Gothic style of architecture; the total frontage will be 375 feet and depth 200 feet, three stories high; to be of buff Bedford stone, fireproof construction, to be finished in quarter-sawn red oak, have marble wainscoting, mosaic and tile floors, decorated plaster-work, renaissance style, the modern sanitary improvements, heating and ventilation, electric light, laundries, etc.; the cost will be about \$250,000; there will be a large assembly hall to seat 1,000 persons; this hall will have a 25-foot ceiling and be constructed without any columns; there will also be gymnasium, swimming baths, shower baths, running track, etc.; also in the rear of the building a work shop. Materials are now being got on the ground and work will be commenced at once. Same architect is making plans for interior finish for the First National Bank at Mattoon, Illinois; will put in steel vaults, stained glass, skylight, mosaic floors, electric light, steam heating, mahogany finish, etc.

Architects Stiles & Stone: For Nibel & Mahuke, a three-story flat building, 45 by 65 feet in size; to be erected at Fifty-sixth street and Michigan avenue; it will be of stone, pressed brick and terra cotta, have interior finished in quarter-sawn oak, marble entrance and staircase, all open plumbing, gas and electric fixtures, steam heating, etc. Also two other buildings adjoining above, one 50 by 65 and the other 90 by 50; all three to form one block.

Architects Patton & Fisher: Making plans for the Hackley Manuel Training School, to be located at Muskegon, Michigan; it will be a handsome three-story structure, 208 feet frontage with a depth of 100 feet; it will be constructed of pressed brick with stone trimmings and slate roof, have hardwood finish, the modern sanitary improvements, steam heating, electric light, power, etc.; there will also be a foundry, 50 by 75 feet in size. Also for F. Shumaker & Sons, a two-story and cellar store, 30 by 100 feet in size; to be built at Ortonville, Minnesota; to be of stone and pressed brick, have gravel roof, the necessary plumbing, etc.

Architect L. M. Mitchell: For Isaac Allshouse, a two-story flat, 25 by 57 feet in size; to be built at Argyle; to be of pressed brick and stone front, have the sanitary plumbing, gas and electric fixtures, mantels, steam heating. For J. Cockburn, a three-story flat, 50 by 57 feet in size; to be erected at the South Side; to be of buff Bedford stone front, have the interior finished in oak and Georgia pine, the modern plumbing, gas fixtures, mantels, steam heating. For Myron A. Decker, a three-story residence, 25 by 73 feet in size; to be erected at Douglas boulevard; to have a handsome front of buff Bedford stone, all hardwood finish, gas and electric fixtures, mantels, sideboards, laundry fixtures, steam heating, etc.

Architect L. G. Hallberg: For John Erickson, a three-story flat building, 52 by 70 feet in size; to be erected at Wilson near Ashland avenue; it will be of Bedford stone front, have the modern plumbing, gas fixtures, laundry fixtures, heating, etc. For Ogden, Sheldon & Co., a three-story livery stable, 100 by 100 feet in size; to be erected at Indiana street east of St. Clair; to be of pressed brick front with Bedford stone trimmings, have the necessary plumbing, etc.

Architect H. M. Hansen: For G. Bauer, a two-story basement and attic residence, 30 by 58 feet in size; to be erected at 337 Hampden court; it will be of pressed brick and stone front with slate roof, have interior finished in oak, birch and mahogany, the best of modern open nickel-plated plumbing, mantels, gas and electric fixtures, mosaic vestibules, electric light, etc. For A. W. Popp, a three-story and basement store and flat building, 48 by 77 feet in size; to be erected at the corner of Diversey and Best avenues; it will be of pressed

brick and stone front, have oak finish throughout, all open plumbing, gas fixtures, electric wiring, steam heating, etc.

Architect A. W. Buckley: Making plans for a two-story casino, 100 by 30 feet in size; to be erected at Mackinaw Island for the Highland House; also remodeling residence at Grand Rapids for D. A. Blodgett.

Architects Huehl & Schmid: For F. P. Randall, a four-story apartment house, 58 feet front at Barry avenue west of Evanston avenue; basement and first story to be of Bedford stone and above of pressed brick with terra cotta trimmings, have quarter-sawn oak interior finish, the modern plumbing, gas and electric fixtures, electric light, etc. For A. Mohr, a two-story residence, 30 by 50 feet in size; to be erected at Windsor Park; it will be of pressed brick front with stone trimmings, have modern plumbing, etc. F. B. Wolff, a three-story flat building, 25 by 50 feet in size; to be erected at Seminary avenue near Wellington; it will have a Bedford stone front, sanitary improvements, hardwood finish, gas fixtures, etc. Also two-story flat, to be built at Wilson avenue near Clark street; it will be 25 by 68 feet in size; have Bedford stone front, hardwood interior finish, etc.

Architect Charles J. Furst: For Eliza Seipp, six-story store and warehouse, 54 by 190 feet in size; to be erected at 250 to 252 Madison street, stone front, mill construction, plumbing, elevators, steam heating, etc.

Architect D. L. Pentecost: For Henry Schaeffer, a three-story and basement flat, 20 by 80 feet in size; to be erected at 3337 Dearborn street; to be of pressed brick, stone front; have modern plumbing, gas fixtures, etc.

Architect F. W. Kirkpatrick: For G. A. Foster, a three-story and basement flat building, 50 by 60 feet in size; to be built at Madison street near Albany avenue; to be of pressed brick with terra cotta trimmings, have the modern plumbing, gas fixtures, furnaces, etc.

Architect E. A. Blondin: Making plans for a one-story and attic residence, 20 by 43 feet in size; to be built at Central Park avenue near Twenty-eighth street; it will be of pressed brick and stone, have the modern plumbing, gas fixtures, mantels, furnace. For E. A. Muller, a three-story and basement store and flat building, 25 by 81 feet in size; to be erected at Twenty-second and Wood streets; to have a front of buff Bedford stone, Georgia pine and oak interior finish, sanitary improvements, gas fixtures steam heating, etc. For O. W. Hatch, a two-story and basement flat, 22 by 52 feet in size; to be built at Forty-first and Randolph streets; to be of pressed brick and stone front, have oak finish, mantels, gas fixtures, heating, etc.

Architect H. B. Wheelock: For C. H. Nichols, a four-story and basement apartment house, 66 by 91 feet in size; to be erected at 3547 to 3551 Ellis avenue; to be of pressed brick, stone and terra cotta front, have interior finished in oak and Georgia pine, the best of modern plumbing, gas and electric fixtures, electric light, steam heating, elevators, etc. For L. W. Johnston, a two-story residence, to be built at Edgebrook; frame, stone basement, plumbing, heating, etc.

Architect Frederick Ahlschlager: For Addison, Illinois, two-story addition to Orphan Asylum, 50 by 80 feet in size; to be of brick, have hardwood finish, gas fixtures, modern sanitary plumbing, steam heating, etc. For John Merrill, a two-story and basement flat, to be built at Ninety-first street and Superior avenue, South Chicago; it will have a buff Bedford stone front, oak finish, modern plumbing. Also just began work on the three-story and basement dormitory, 55 by 96 feet in size, at Elmhurst, for the Evangelical Theological Seminary; it will be of pressed brick with stone trimmings, have the interior finished in Georgia pine, hard-oil finish, all the modern sanitary improvements, gas and electric fixtures, electric light, steam heating, etc.

Architect C. A. Strandel: For O. A. Wallin, a two-story and basement store and flat building, 24 by 80 feet in size; to be built at Alido, Illinois; it will be of pressed brick and stone, with galvanized iron, have mansard roof, steel ceilings in the store, modern plumbing, hot-water heating, electric light, etc. Also making drawings for a three-story and basement apartment house, 46 by 85 feet in size; to be erected at Adams street near Douglas Park; to be of pressed brick and stone front, have oak and Georgia pine finish, modern plumbing, slate mansard roof, gas and electric fixtures, laundry fixtures, electric bells and speaking tubes, cement side walls, steam heating, etc. For F. Lindquist, a three-story and basement flat building, 44 by 66 feet in size; to be erected at Roscoe boulevard near Evanston avenue; it will be of buff Bedford stone front, have hardwood interior finish, mantels and sideboards, gas and electric fixtures, laundry fixtures, steam heating, electric light, etc. For John Anderson, a three-story and basement flat building, 25 by 90 feet in size; to be erected at 1546 North Clark street; to be of pressed brick front with buff Bedford stone trimmings, have interior finished in oak, all open modern plumbing, mantels, sideboards, steam heating, etc. For Frank Lindholm, a three-story and basement flat building, 25 by 56 feet in size; to be erected at 1835 Reita street; to be of pressed brick and stone front, have hardwood finish, mantels and sideboards, gas fixtures, heating, etc.

Architects D. E. & O. H. Postle: For Miss M. E. Haack a three-story flat building, 32 by 74 feet in size; to be built at 134 Fremont street; to be of Bedford stone front, have oak interior finish, mantels and sideboards, gas and electric fixtures, laundry fixtures, electric bells, speaking tubes, steam heating.

Architects Treat & Foltz: For Dudley and B. M. Winston, a six-story apartment house, 45 by 98 feet in size; to be erected at 135 and 137 Pine street; it will be of pressed brick front with terra cotta trimmings, have mahogany entrance, marble steps, elevator, electric light, steam heating, the best of sanitary improvements.

Architect A. G. Ferree: For M. McKinney, four two-story residences 75 feet frontage by 50 feet deep; to be erected on the South Side; to have a front of pressed brick with stone trimmings, the modern open plumbing, hardwood interior finish, mantels and sideboards, gas and electric fixtures, laundry fixtures, steam heating. Also making plans for a three-story apartment house, 45 by 94 feet in size; to be erected at Fifty-sixth street; the first story and basement will be of buff Bedford stone and the rest of pressed brick and stone, have hardwood finish, modern open plumbing, gas and electric fixtures, steam heating. Also a two-story flat building, 24 by 50 feet in size; to be built at Indiana street; to be of pressed brick and stone front, have the modern plumbing, gas fixtures, mantels, steam heating, etc. For V. F. Terhune, a flat building, at Fifty-seventh and State streets, a two-story store and flat building, 25 by 50 feet in size; to be of pressed brick and stone front, have the modern plumbing, gas fixtures, etc.

Architect H. C. Cregier: For James A. Hart, at Sheridan Park, Ravenswood, a two-story frame residence, 30 by 46 feet in size; to be of brick basement, have hardwood interior finish, gas fixtures, mantels, heating, etc.

Architects Beyer & Rautert: For the Best Brewing Company, a two-story office, to be built on Fletcher street; to be of pressed brick and stone front, have plumbing, etc. For C. A. Koenig Brewing Company, at Auburn, New York, a five-story building, to have electric light, copperwork, steel beams, engine, boiler, pumps, etc.; cost \$35,000. For San Diego (Cal.) Brewing Company, a new plant and ice manufacturing plant, to cost \$100,000; to be of pressed brick and stone, have electric light plant, ice machines, engines, boilers, pumps, dynamos. For the Canton (Ohio) Brewing Company, new brewhouse, boiler house, remodeling stockhouses, new washhouse, etc.; plumbing, ice machines, machinery, engines, boilers, dynamos, also barn to stable twelve horses; cost \$75,000. For M. Winter Brewing Company, at Pittsburg, Pennsylvania, a three-story barn, 80 by 40 feet in size; of brick and steel construction, to cost \$20,000; all floors hanging on steel trusses and to be without columns. For Hamm's Brewing Company, at St. Paul, Minnesota, a 150,000-bushel elevator; to be of stone, wood and iron; have machinery, engine, boilers, pumps, electric light; cost \$75,000. Also stockhouse for same owners; 70 by 90 feet in size. For Du Bois (Pa.) Brewing Company, a new plant, main building to be five stories, 120 by 70 feet in size; to be of brick and steel construction, have machinery, engine, boilers, etc.; cost \$50,000. For Elgin Brewing Company, a new brewhouse, 30 by 25 feet in size, five stories; to be of brick, have copperwork, engine, machinery, etc.; cost \$20,000.

Architects Franklin P. Burnham & Co.: Made drawings for addition to the J. S. Kirk Company's establishment on North Water street; will put in new boiler house; to be of common brick with iron roof, have tunnel running a carrier under the street, etc. For Joseph Sears, a handsome two-story, basement and attic residence, 52 by 46 feet in size; to be erected at Kenilworth; one story will be of brick and the rest of frame; will put in elegant hardwood interior finish, the best of open plumbing, hot-water heating, electric light,

laundry fixtures, etc. Also a two-story residence at same place; to be 31 by 40 feet in size; have brick basement and frame above, hardwood finish, mantels, gas and electric fixtures.

Architects Perkins & Krause: For E. J. Lehman estate, a four-story and basement apartment house, 135 by 184 feet in size; to be erected at the north-west corner of Clark street and Fullerton avenue; it will be of stone, have hardwood finish, gas and electric fixtures, steam heating.

Architects Hallstrom & Ockerlund: For Klein & Saderstrom, a three-story and basement flat building, 46 by 55 feet in size; to be erected at 325 to 327 Cleveland avenue; it will be of buff Bedford stone front, have hardwood finish, mantels, gas fixtures, steam heating, etc.

Architects Brown & Lindquist: A three-story and basement apartment house, 150 by 115 feet in size; at Kedzie avenue and Fifteenth street; Bedford stone first story and basement, oak interior finish, gas fixtures, ranges and fireplaces, marble entrance, tile floors, electric light, steam heating, all open nickel-plated plumbing, special mantels and sideboards, laundry fixtures, etc.; it will contain twenty-four five to seven room apartments.

Denver, Colo.—Architect C. A. Preston: For E. H. Wahl, two-story dwelling, brick; 26 by 48 feet in size; cost \$5,000. For E. H. Wahl, two-story dwelling, brick; 38 by 40 feet in size; cost \$7,000. For Regis Chauvenet, two-and-one-half-story dwelling, brick; 44 by 61 feet in size; cost \$12,000. For C. H. Benedict, two-and-one-half-story dwelling, brick; 28 by 48 feet in size; cost \$6,000. For A. M. Andrews, two-story dwelling, brick; 32 by 62 feet in size; cost \$5,000. For A. W. Reitze, one-story terrace, brick; 40 by 125 feet in size; cost \$6,000. For C. B. Whitehead, two-and-one-half-story dwelling, brick; 26 by 43 feet in size; cost \$5,000. For J. W. Hayes, two-story dwelling, brick; 29 by 48 feet in size; cost \$5,000. For Colorado Ice Company, one-story dwelling, brick; 43 by 87 feet in size; cost \$5,000.

Architect J. J. Humphrey: For F. F. Hurd, two-story dwelling, brick; 36 by 37 feet in size; cost \$5,000. For Caroline Levin, two-story dwelling, brick; 33 by 46 feet in size; cost \$5,000. For E. H. Wahl, two-story dwelling, brick; 28 by 48 feet in size; cost \$5,000.

Architects Core & Walsh: For F. H. Paradise, two-and-one-half-story dwelling, brick; 41 by 58 feet in size; cost \$12,000.

Architect W. H. King: For W. H. Newcomb, two-story dwelling, brick; 36 by 50 feet in size; cost \$5,000. For C. H. Benedict, two-and-one-half-story dwelling, brick; 29 by 48 feet in size; cost \$7,000.

Architect F. E. Edbrooke: For Colorado National Bank, one-story addition to bank, brick; 39 by 40 feet in size; cost \$5,000.

Detroit, Mich.—Architects Nettleton, Kahn & Trowbridge: For Pointe au Barques Association, three-story frame clubhouse with stone foundation; 177 by 40 feet in size; cost \$6,000.

Architect Edward C. Van Lelyen: For J. R. and R. J. McLaughlin, buff brick residence with Ashland brownstone trimmings, heated by a combination system of hot water and hot air; 28 by 50 feet in size; cost \$6,000.

Architects Mason & Rice: For Star Line Storage & Dockage Company, three-story, steel-frame construction storage building, 100 by 100 feet in size; cost \$30,000.

Architect F. J. Grenier: For W. C. D. Lowrie, block of two three-story brick and stone residences, with tile roof; cost \$14,000. Also for J. T. Hornung, two-and-a-half-story brick and stone residence; cost \$9,000. Also for S. Slocum Hance, block of two-story brick stores and residence flats; cost \$5,000.

Architect Joseph G. Kastler: For St. Anthony's Roman Catholic Society, three-story brick and stone parochial schoolhouse; 79 by 82 feet in size; cost \$21,000.

Architects Baxter & Hill: For James Munro, two-story residence, of field granite, and heated by steam; 26 by 50 feet in size; cost \$5,000.

Architect Joseph E. Mills: For A. C. Peoples, two-story brick apartment building; 80 by 110 feet in size; cost \$14,000. Also for A. Stark, Marlette, Michigan, two-story brick business block; cost \$6,000.

Architect T. Van Damme: For Dr. R. Leuschner, two-and-a-half-story frame residence, to be built at Mount Clemens, Michigan; cost \$10,000. Also for George A. Skinner, two-and-a-half-story frame residence, at Mount Clemens, Michigan; cost \$7,000.

Architect Richard E. Raseman: For H. Scherer & Co., six-story office, salesroom and warehouse, of brick; 60 by 100 feet in size; cost \$40,000. Also for H. Scherer & Co., six-story brick manufactory; 60 by 80 feet in size; cost \$25,000.

Duluth, Minn.—Architects Hill & Welbanks: For C. K. Weinman, stores and flats of brownstone; size 50 by 60 feet.

Louisville, Ky.—Architects W. J. Dodd & Arthur Cobb, rooms 901 and 902, Columbia Building, report the following work: Residence for Mr. A. S. Caldwell, Memphis, Tennessee, frame building, veneered with buff brick, slate roof; size 60 by 80 feet; hardwood finish, stone trimmings; cost \$25,000. Residence for Mr. Tribue, brick and stone trimmings; size 44 by 42 feet; slate roof; location St. James Court; cost \$8,000. Store and lodgeroom for Mr. Sapinsky, New Albany, Indiana, buff brick and stone trimmings; size 30 by 160 feet; metal roof; cost \$7,500. Residence for William Thalheimer, Third avenue near Burnett, brick, redstone trimmings; size 38 by 64 feet; slate roof, hardwood finish, etc.; cost \$12,000. Residence for Mr. Eugene Leander, Second street near Hill, brick and terra cotta trimmings; size 33 by 59 feet; slate roof, etc.; cost \$7,000. Equitable Office Building, Bush & Parker, owners, northeast corner Fourth and Jefferson streets; size 83 by 99 feet; six stories in height, buff brick and terra cotta, metal roof, steel construction, fireproofing throughout, electric plant, steam heat, etc.; cost \$125,000. Residence for Shackelford Miller, Fourth avenue near Fountain court, brick and stone trimmings, slate roof; size 36 by 53 feet; hardwood finish; cost \$7,000. Residence for H. C. Turner, location Beechmont, frame, shingle roof; size 48 by 39 feet; cost \$5,500.

Waukegan, Wis.—Architects Marshall & Ryder: For Jonathan Magie, store building; cost \$20,000.

Minneapolis, Minn.—Architect Charles S. Sedgewick: Residence for M. W. Savage, two stories; cost \$10,000.

Architect Harry W. Jones: For C. W. Van Tuyl, two-story residence, of buff pressed brick; cost \$9,000.

Architects Orff & Joralemon: Methodist Episcopal church at St. Peter, Minnesota, 53 by 78 feet in size; of Kasota stone; cost \$10,000. Also eight-room school at Lambert, Minnesota; brick and stone trimmings, 72 by 75 feet in size; cost \$15,000.

Pittsburg, Pa.—Architects Longfellow, Alden & Harlowe: For L. C. Phipps, a hotel building of brick and terra cotta, eight stories. For D. F. Henry, hotel of fireproof construction; nine stories; cost \$100,000.

Architect Ludwig Dick: For G. J. Ramlock, dwelling of Pompeian brick; cost \$20,000.

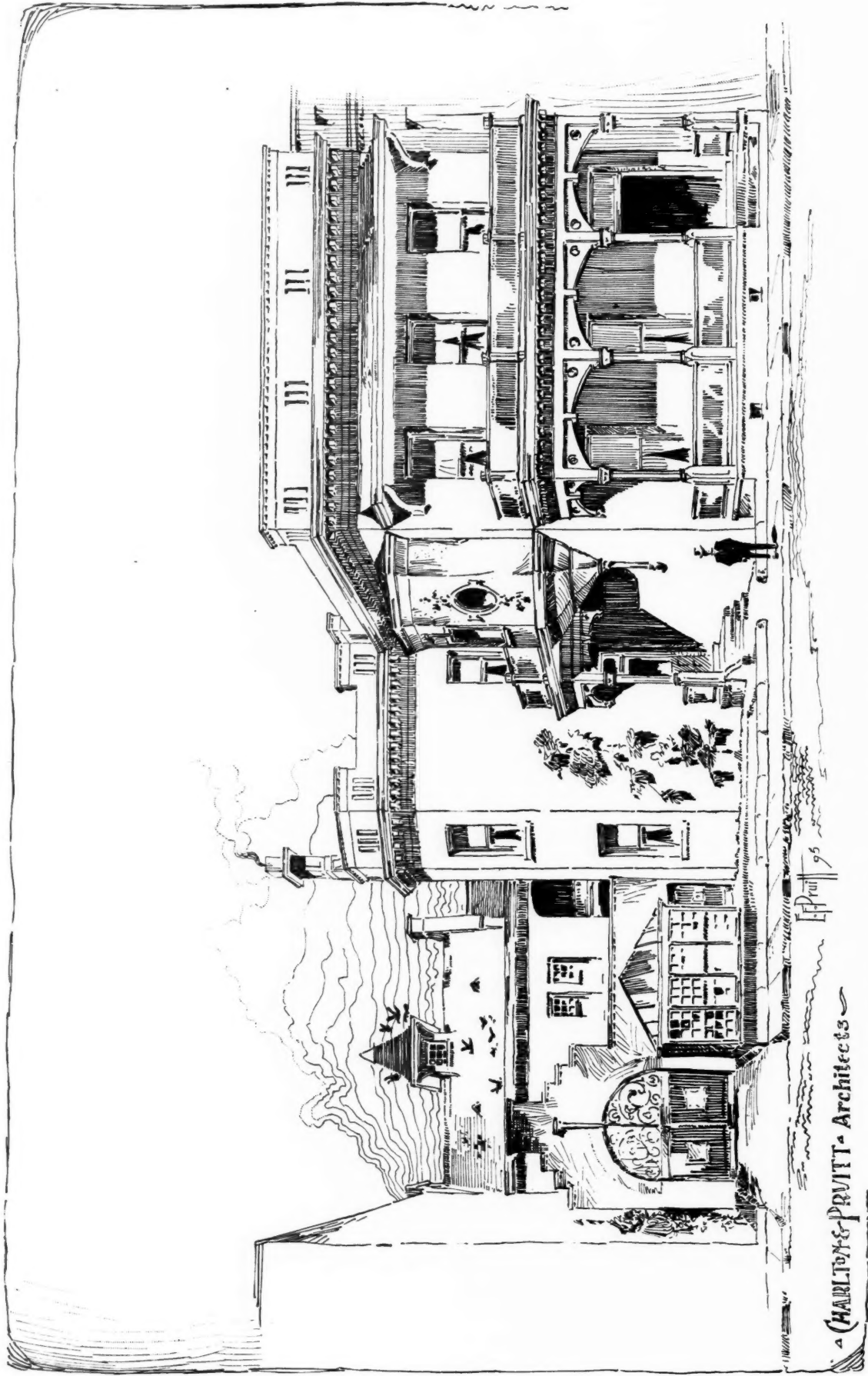
Architect E. Knox Miller: For Pittsburg & Lake Erie Railroad Company, station; cost \$75,000.

Architects George Orth & Brother: For W. H. Brown, residence, of blue-stone; cost \$75,000.

Architect F. C. Sauer: For City Savings Bank, bank and office building; of pressed brick, with granite and terra cotta trimmings; cost \$50,000.

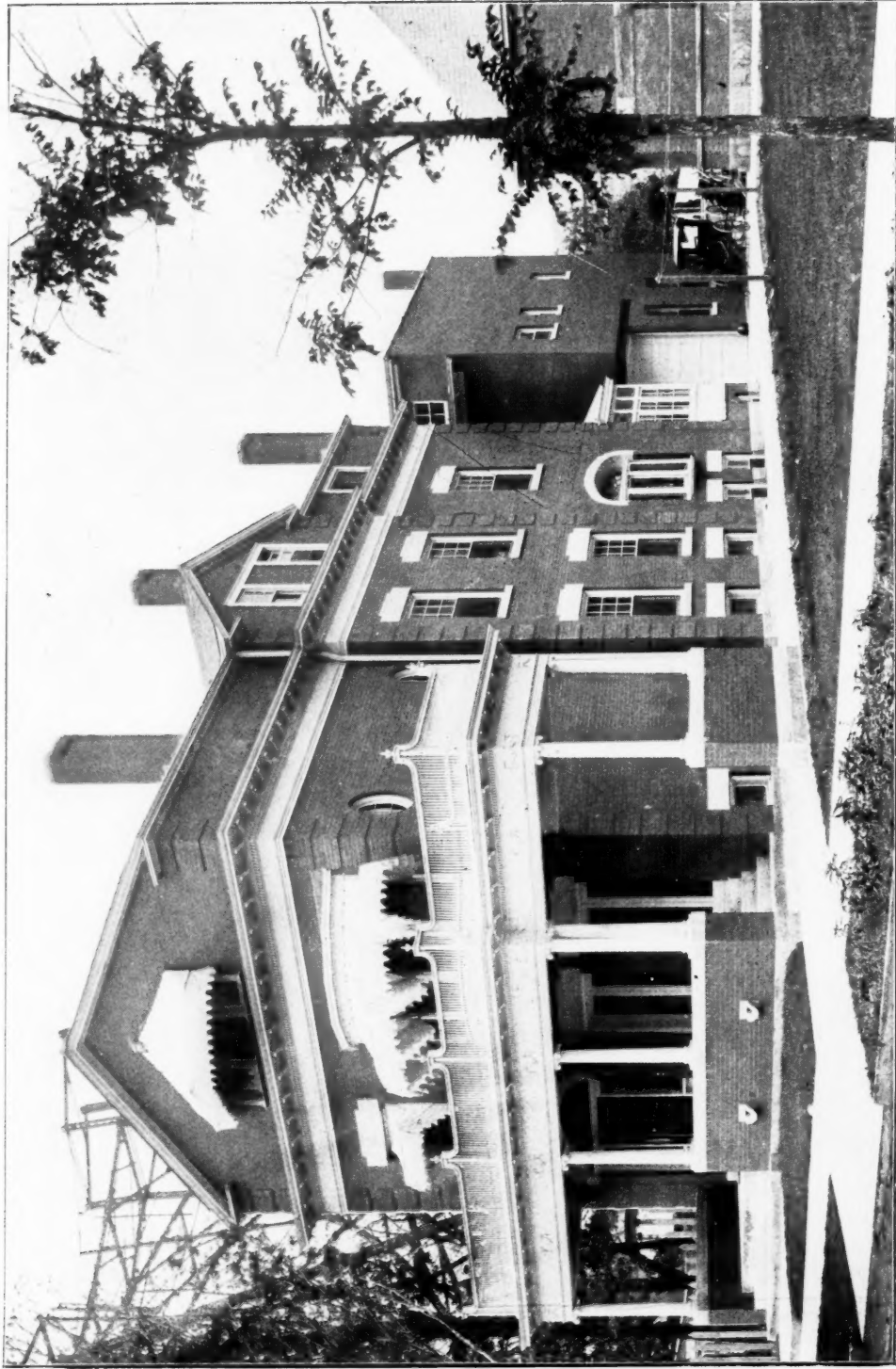
St. Paul, Minn.—Architects Buechner & Jacobsen: Insane hospital for St. Croix county, Wisconsin; size, 116 by 134 feet; pressed brick and stone trimmings; cost \$30,000.

Youngstown, Ohio.—Architects Owsley & Boucherle: For John Bickil, Butler, Pennsylvania, three-story business block; press brick and stone; cost \$20,000. Eight-room schoolhouse, Meadville, Pennsylvania; cost \$20,000. For J. G. & W. Campbell, Butler, Pennsylvania, three-story business block, pressed brick, stone and terra cotta; cost \$20,000. Addition to Youngstown waterworks; cost \$10,000. Presbyterian church, Poland, Ohio; cost \$10,000. Five department buildings, Warren, Ohio; cost \$15,000. Addition to infirmary, Warren, Ohio; cost \$7,000. Office building, for Lloyd Booth & Co., Youngstown, Ohio; cost \$3,000. Residence for D. Reed, Esq., Youngstown, Ohio; cost \$8,000. For G. B. Sennett, foundry and machine shops; cost \$18,000. German Lutheran church; stone; Butler, Pennsylvania; cost \$25,000. Remodeling McKean Street school, Butler, Pennsylvania; cost \$15,000. Remodeling hotel for W. Packard, Esq., Warren, Ohio; cost \$20,000.



HOUSE FOR A. L. LEVY, NEW ORLEANS, LOUISIANA.

CHARTON & PRUITT, ARCHITECTS.

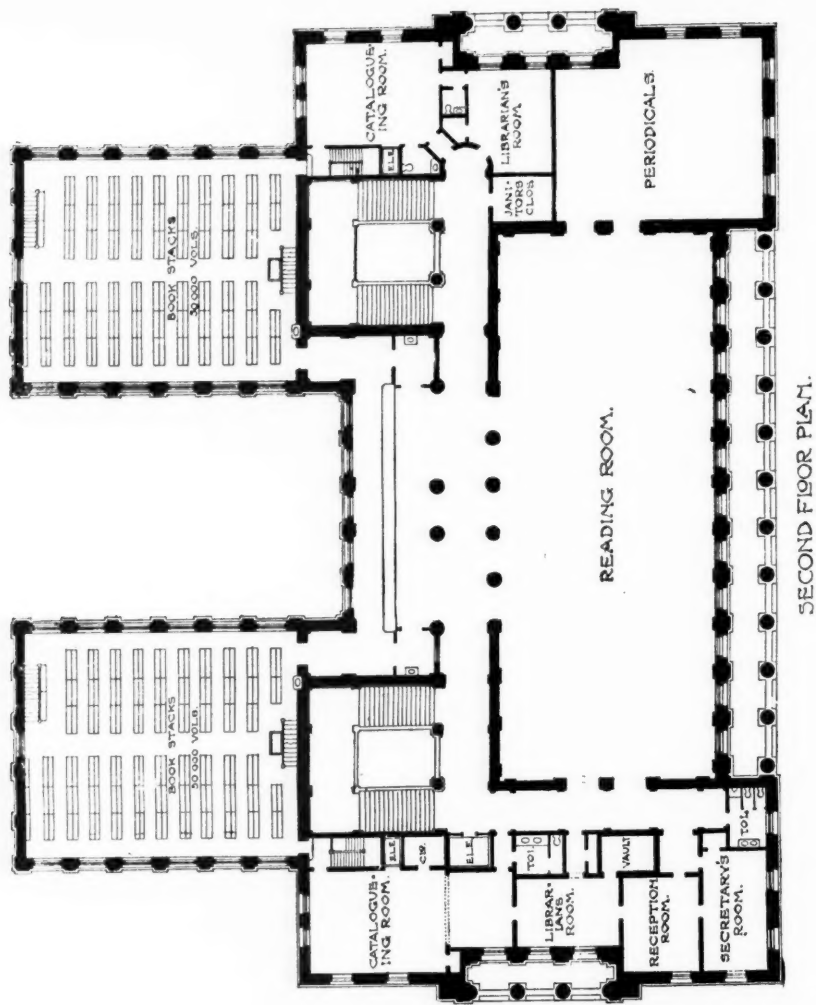
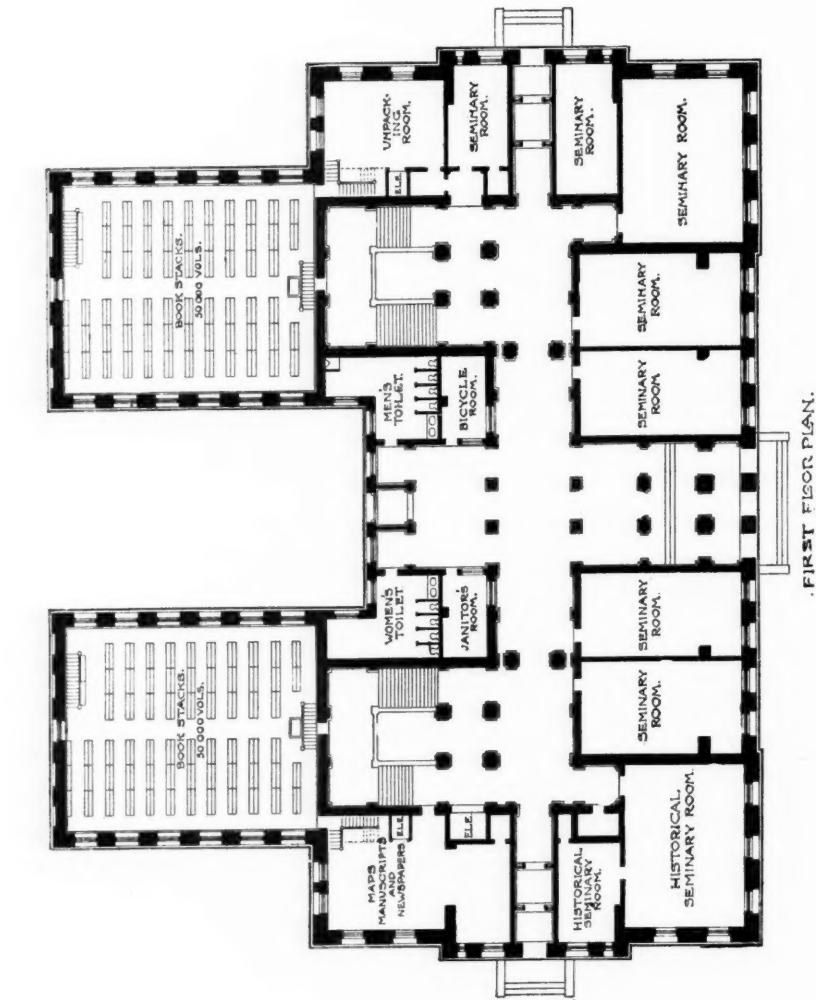


A CHICAGO RESIDENCE.



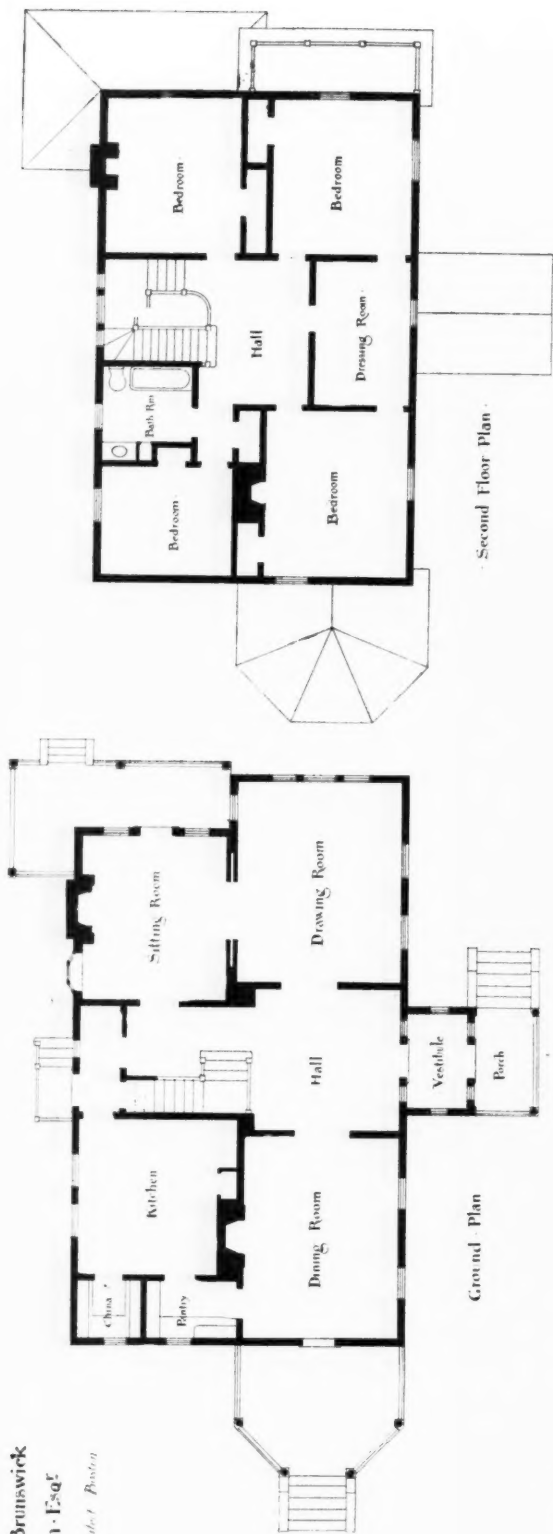


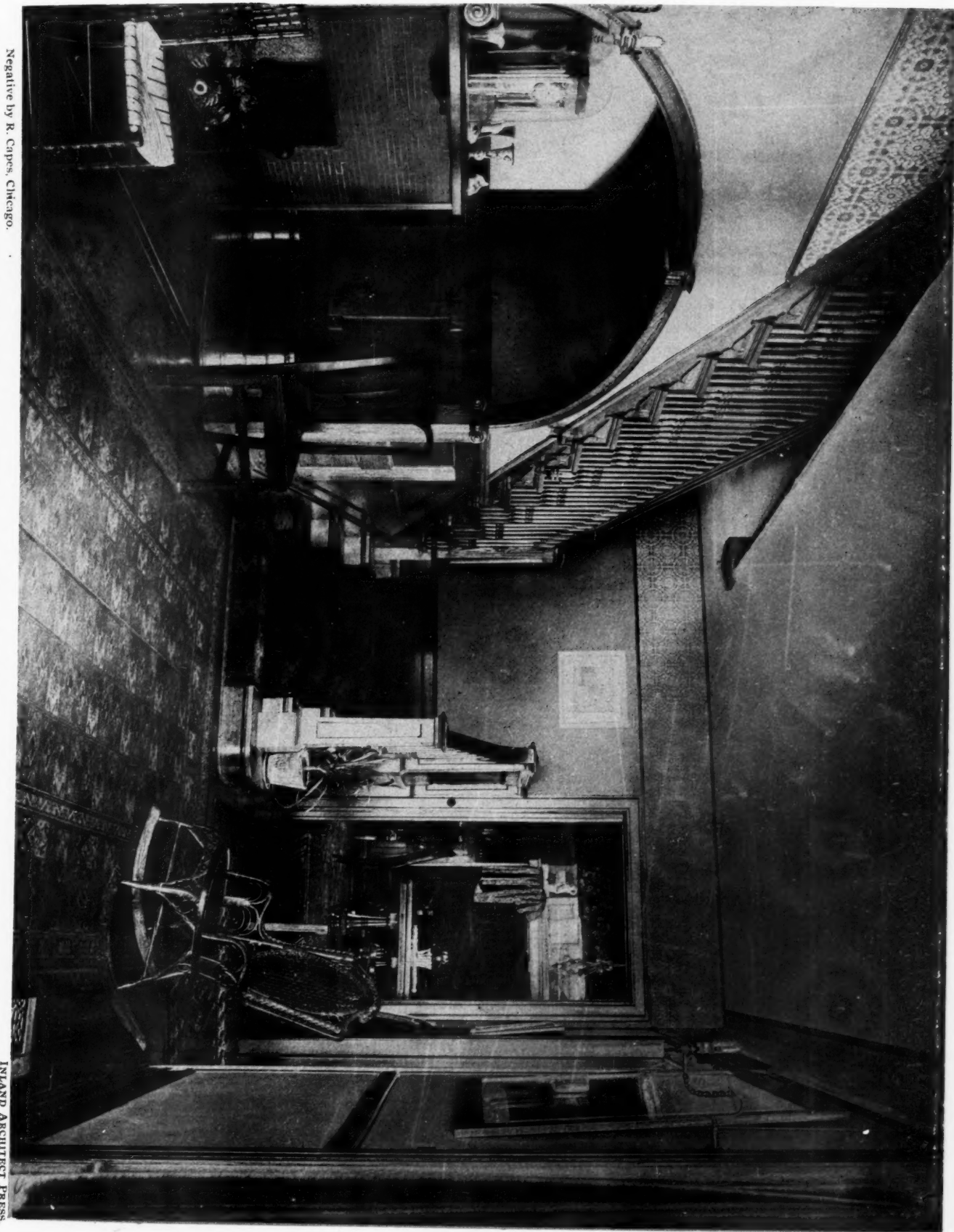
BUSINESS BUILDING, DETROIT, MICHIGAN.
MASON & RICE, ARCHITECTS.



House at Fredericton - New Brunswick
for T. Carleton Allen Esq.

R. Brown J. Architect Boston



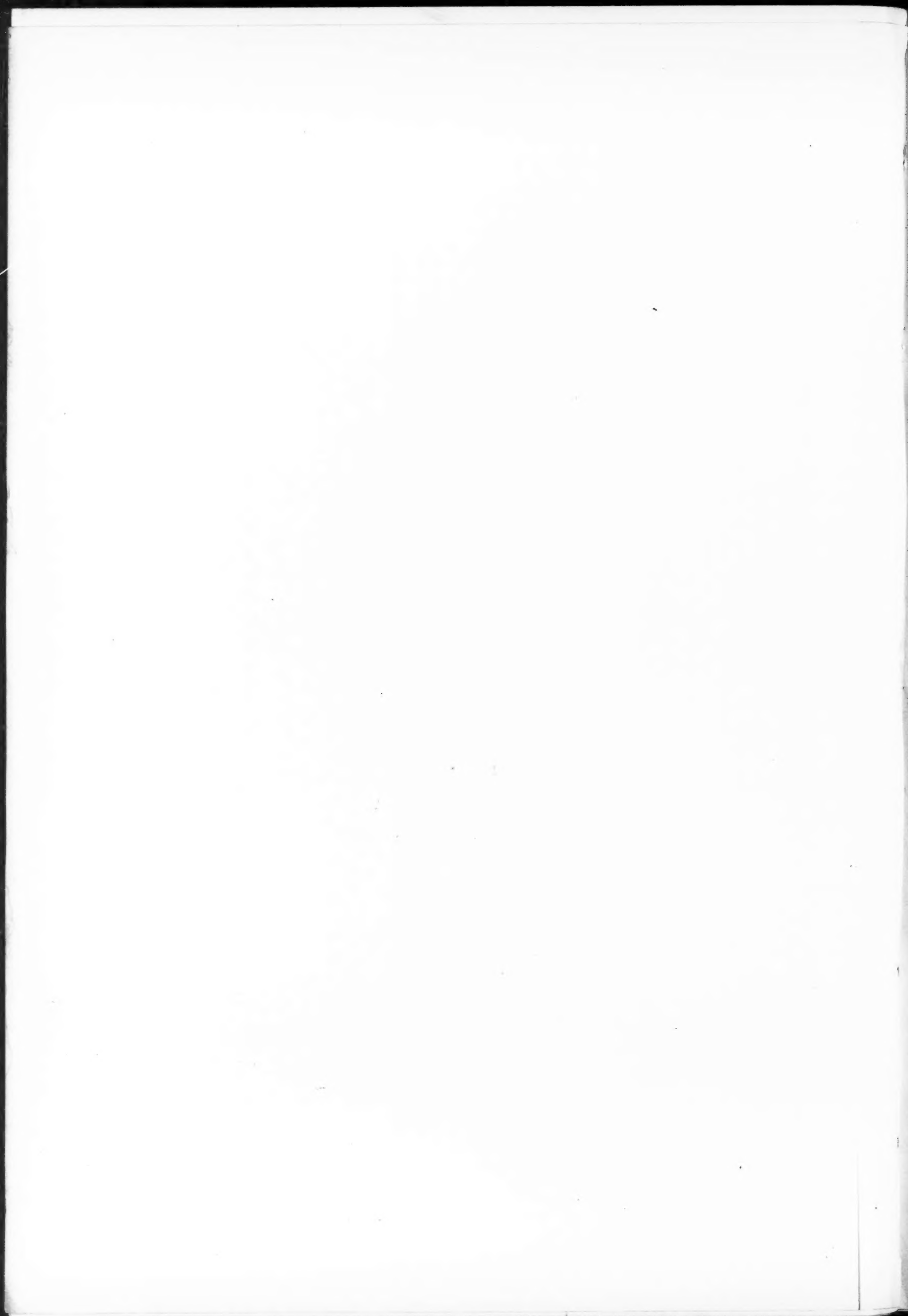


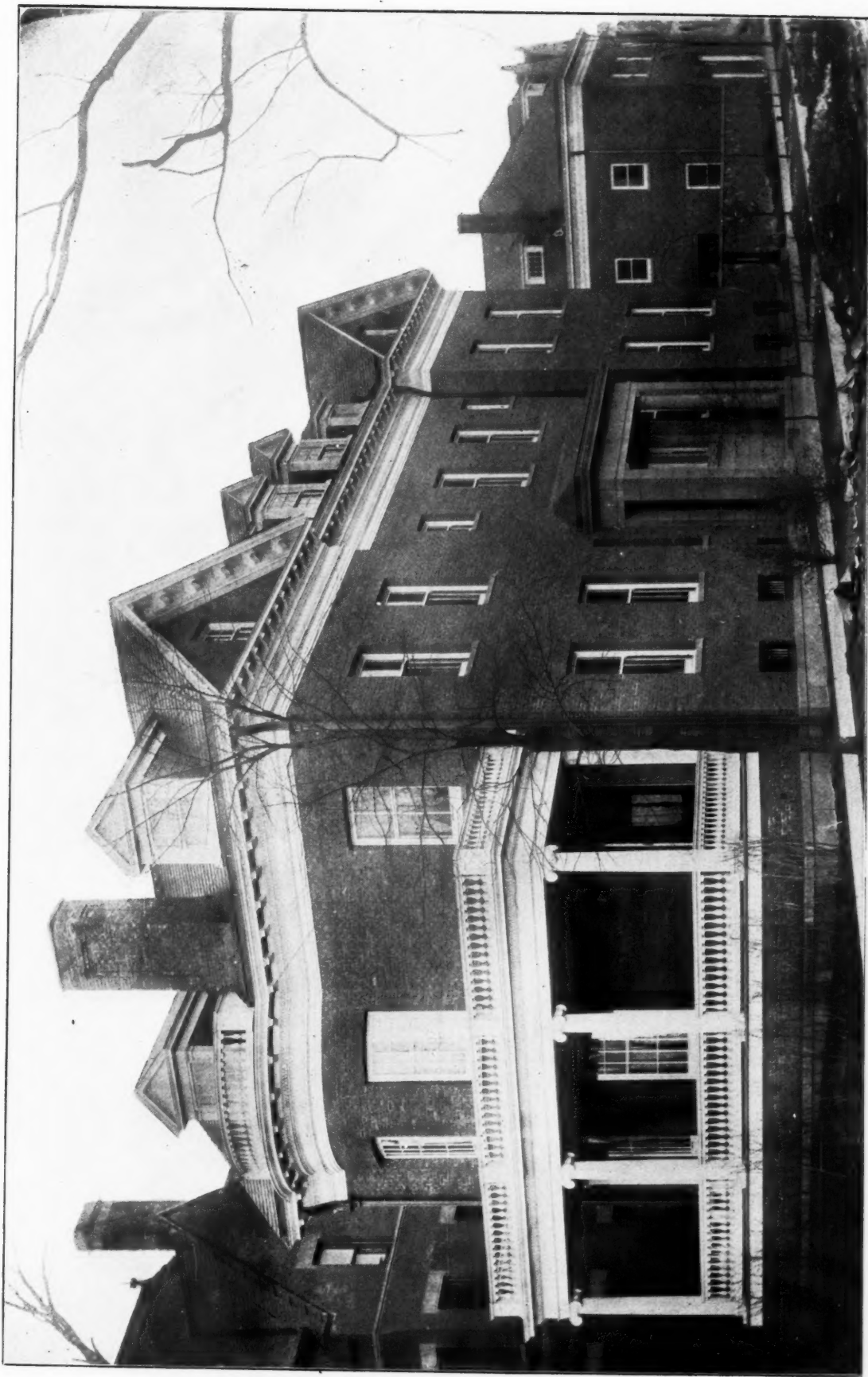
Negative by R. Capes, Chicago.

VIEW IN RESIDENCE OF MRS. BABCOCK, KENILWORTH, ILLINOIS.

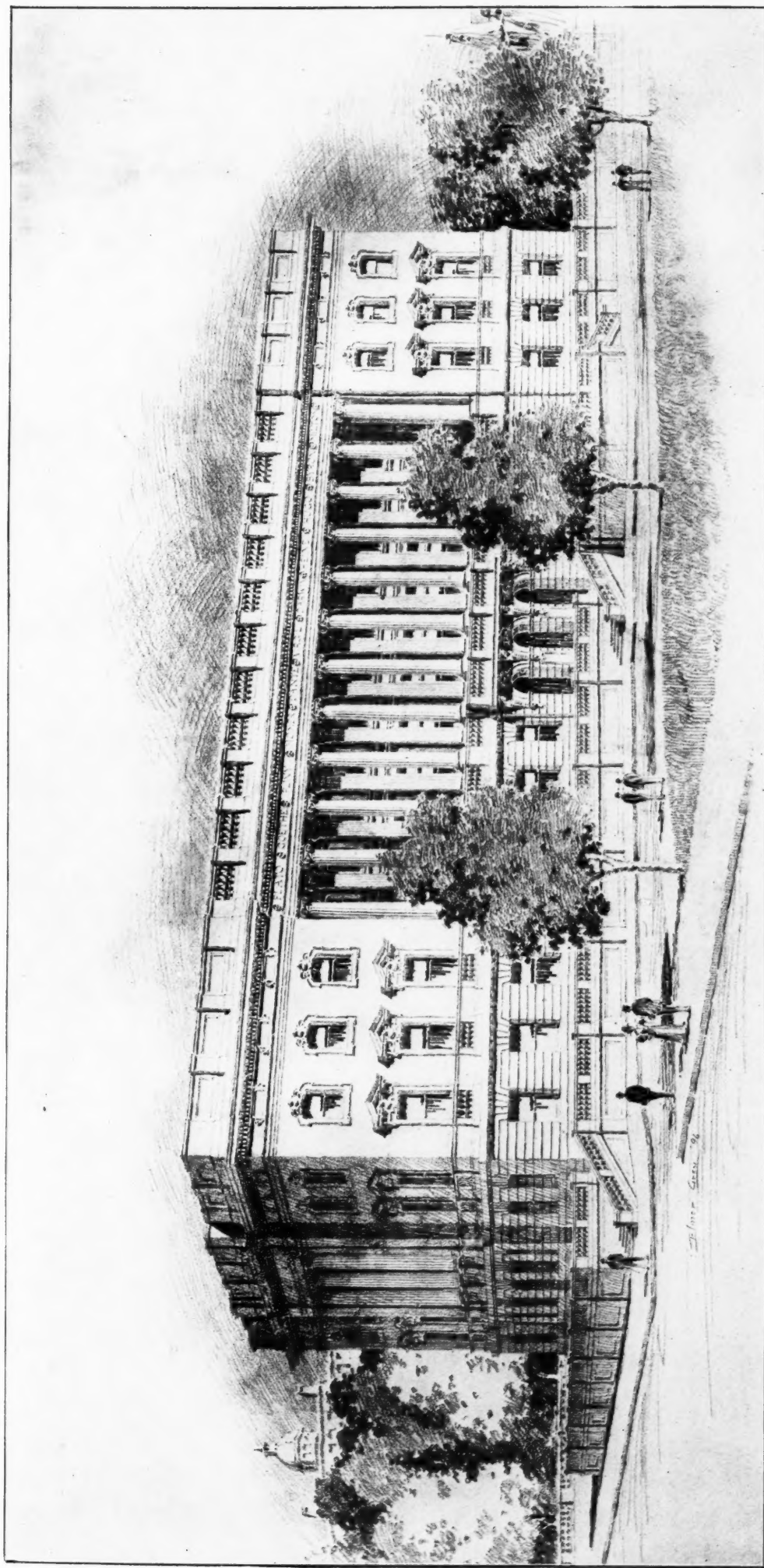
GEORGE W. MAHER, ARCHITECT, CHICAGO.

INLAND ARCHITECT PRESS.



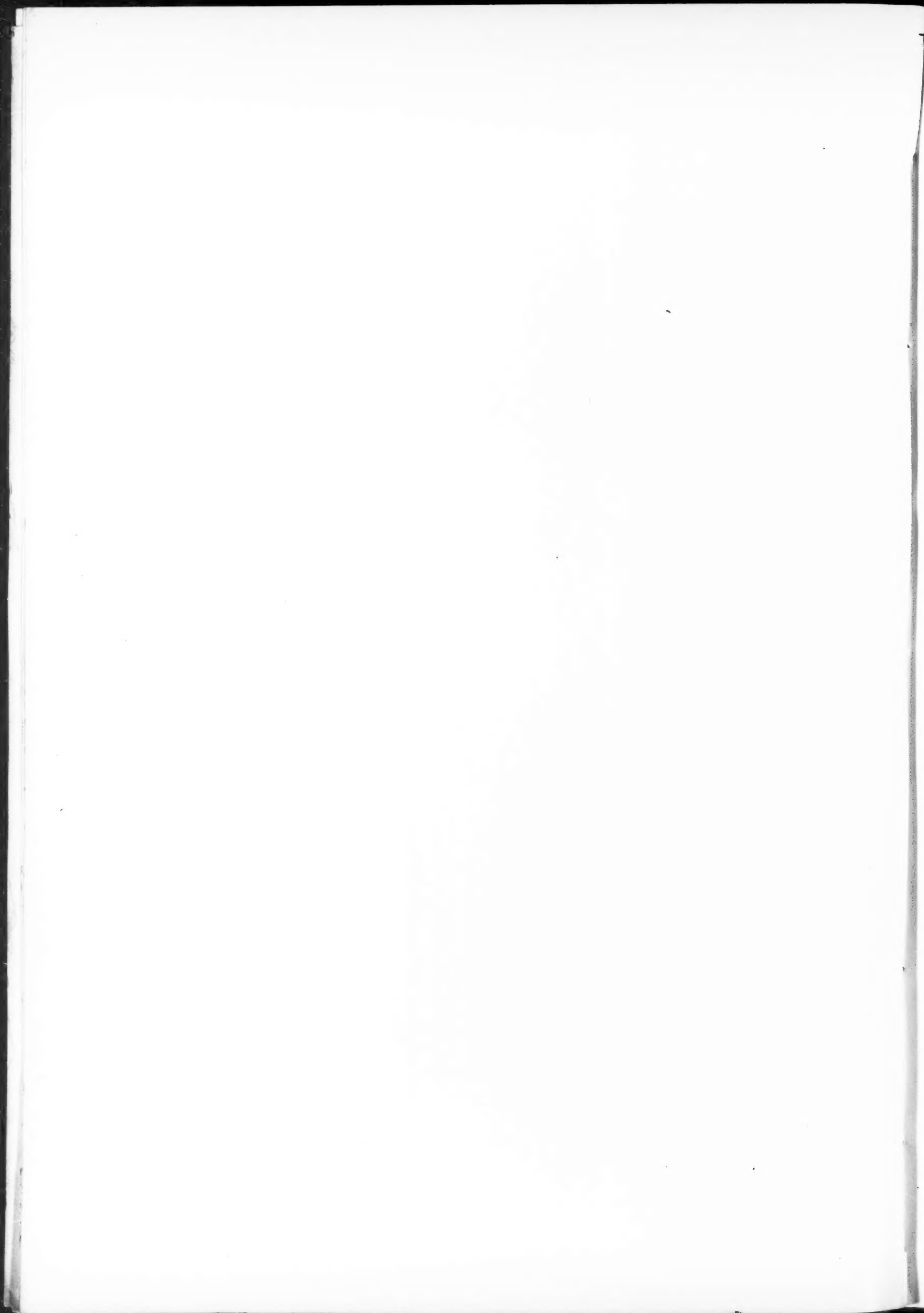


RESIDENCE OF DR. E. FLETCHER INGALS, CHICAGO.
HOLABIRD & ROCHE, ARCHITECTS.



ADOPTED DESIGN FOR LIBRARY AND MUSEUM BUILDING FOR STATE HISTORICAL SOCIETY OF WISCONSIN, MADISON, WIS.

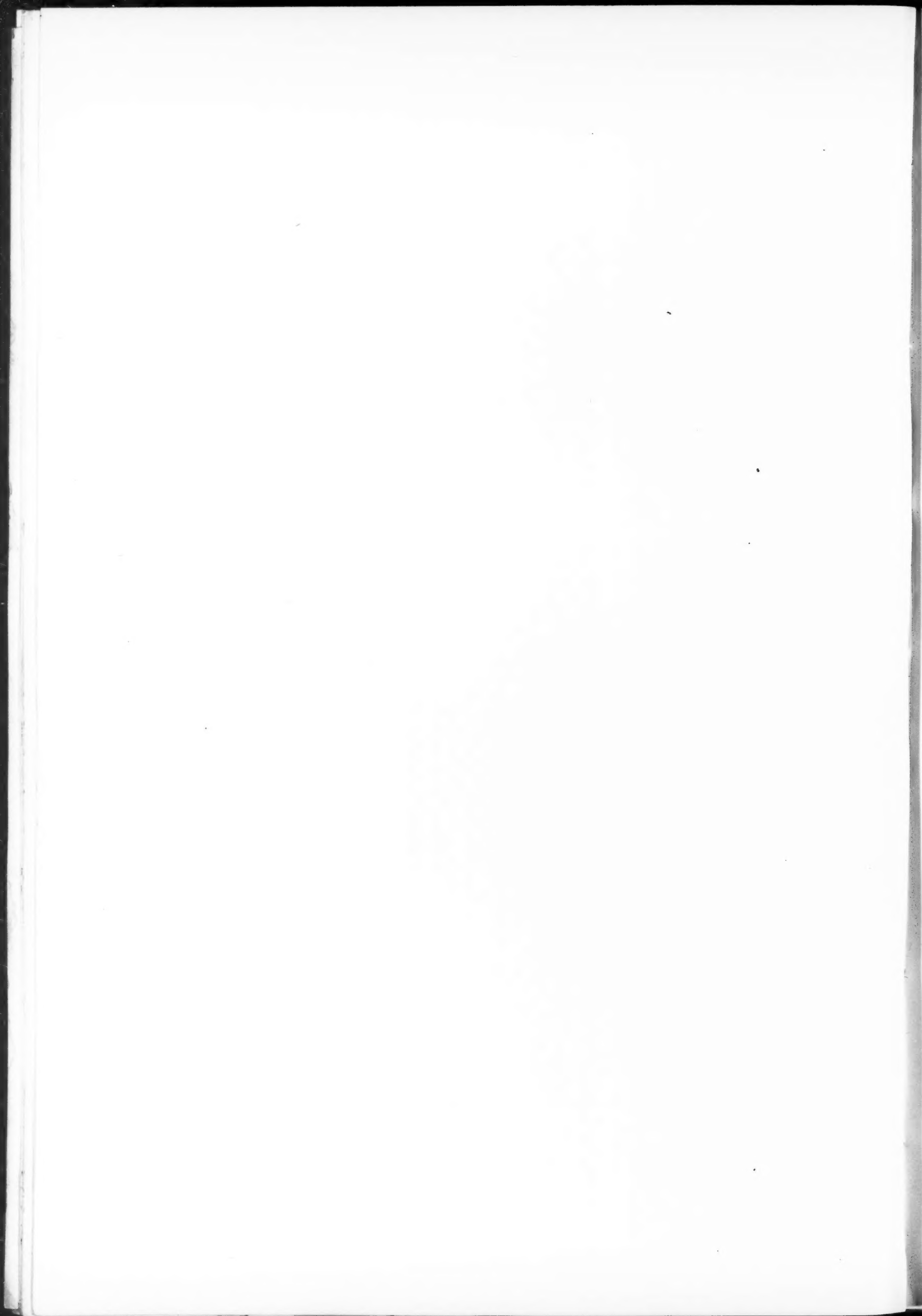
FERRY & CLAS, ARCHITECTS, MILWAUKEE, WIS.

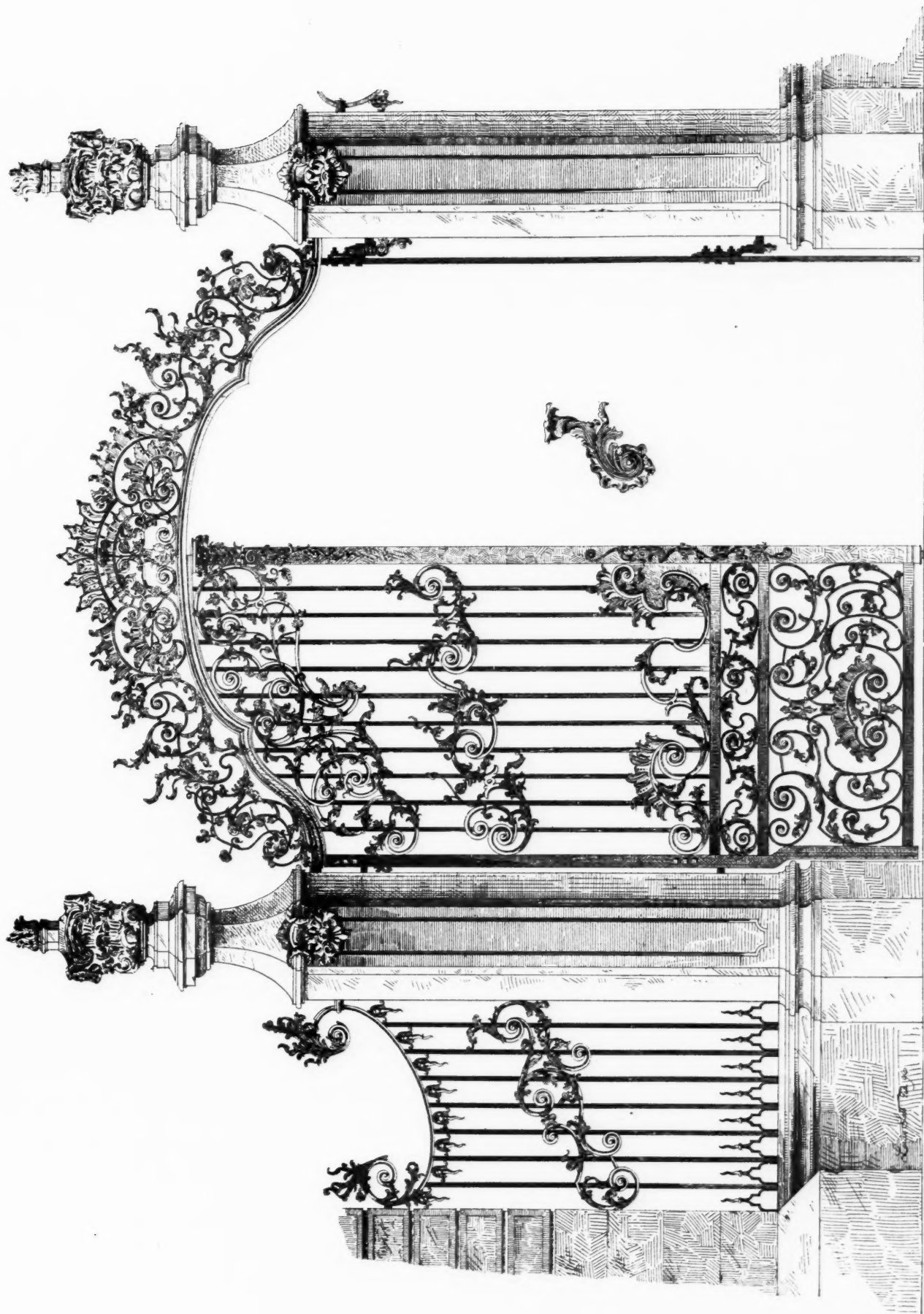


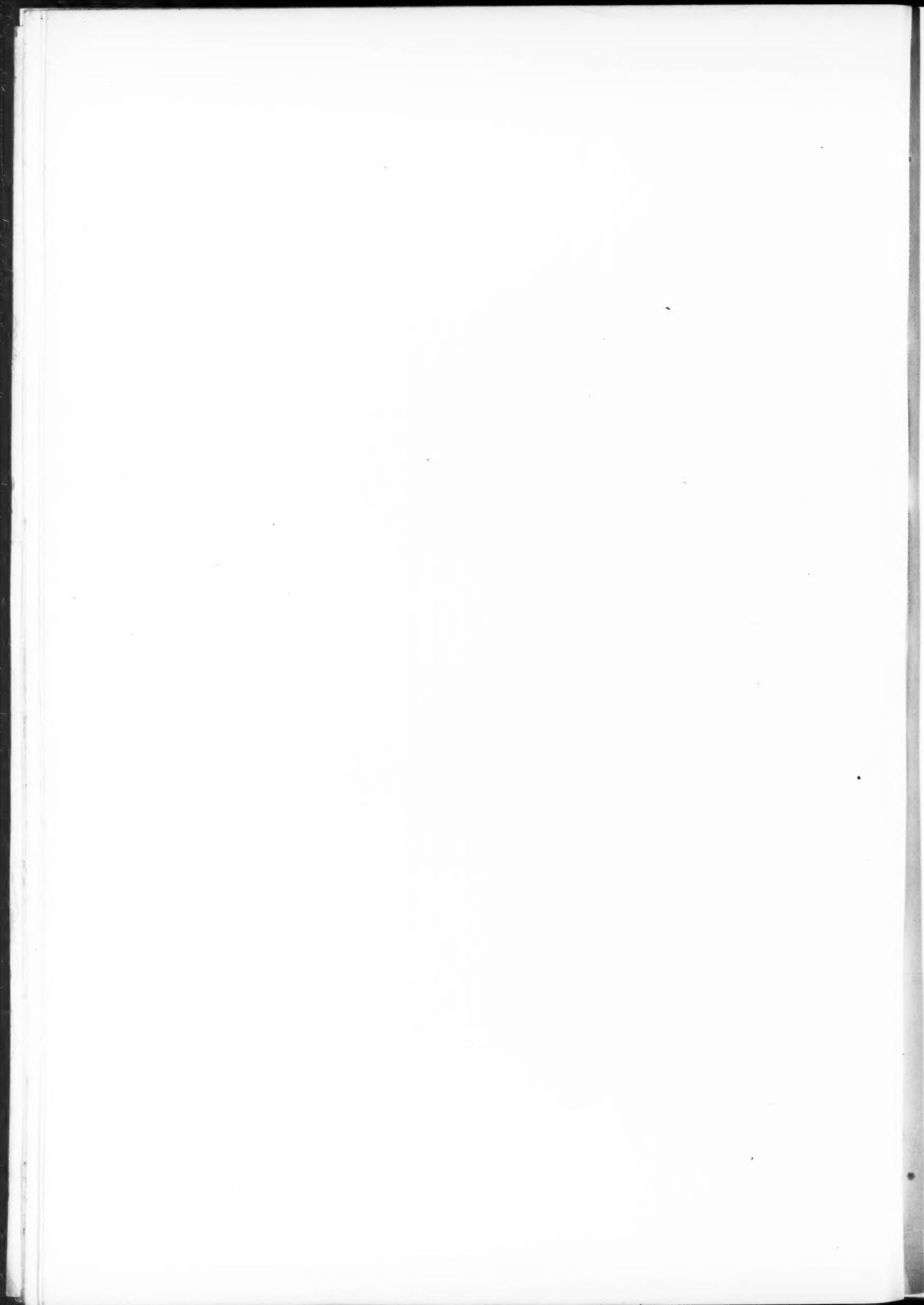


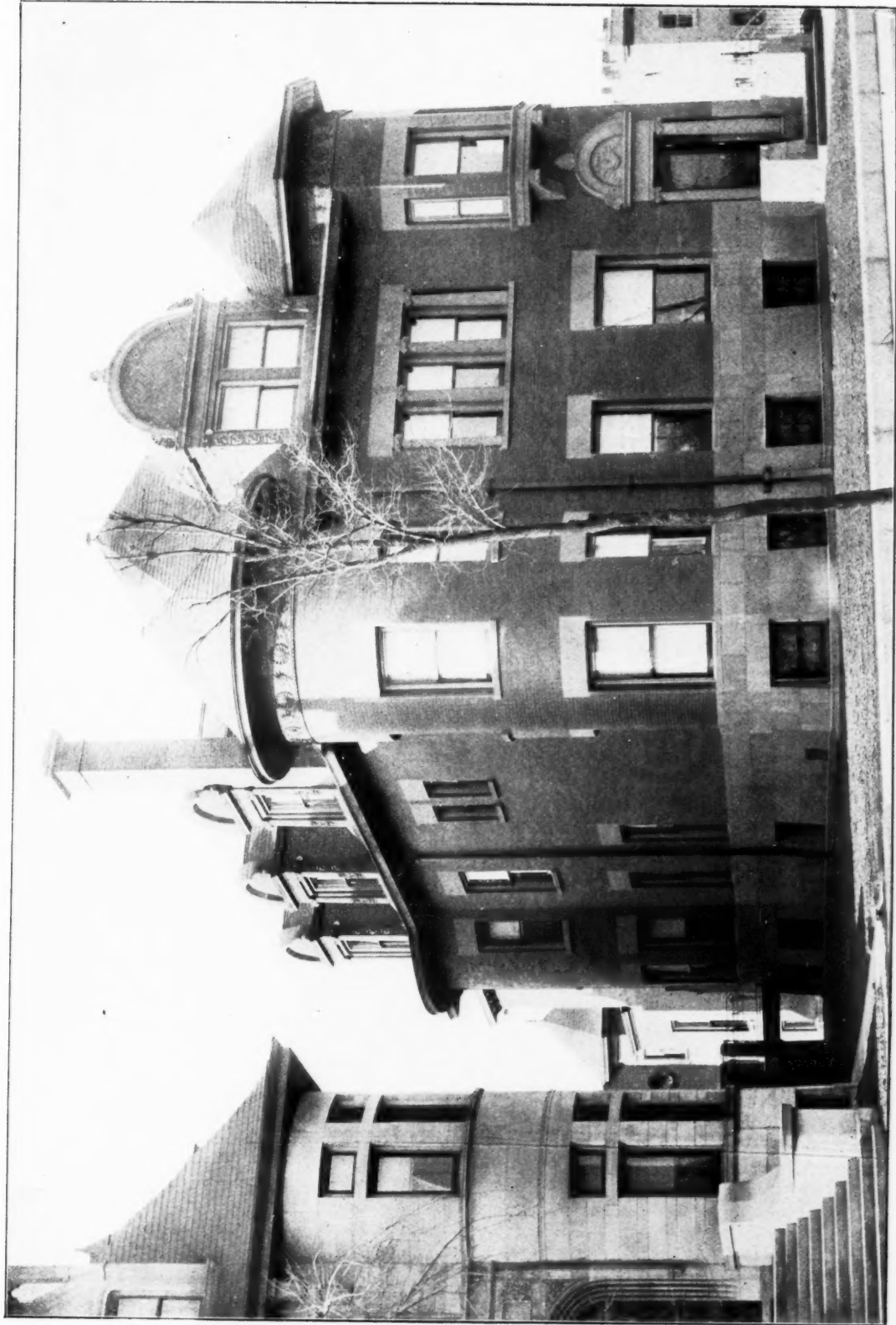
BUSINESS BUILDING, ST. LOUIS, MISSOURI.
EAMES & YOUNG, ARCHITECTS.

UNIV. OF CALIF.
25 JUN 1895

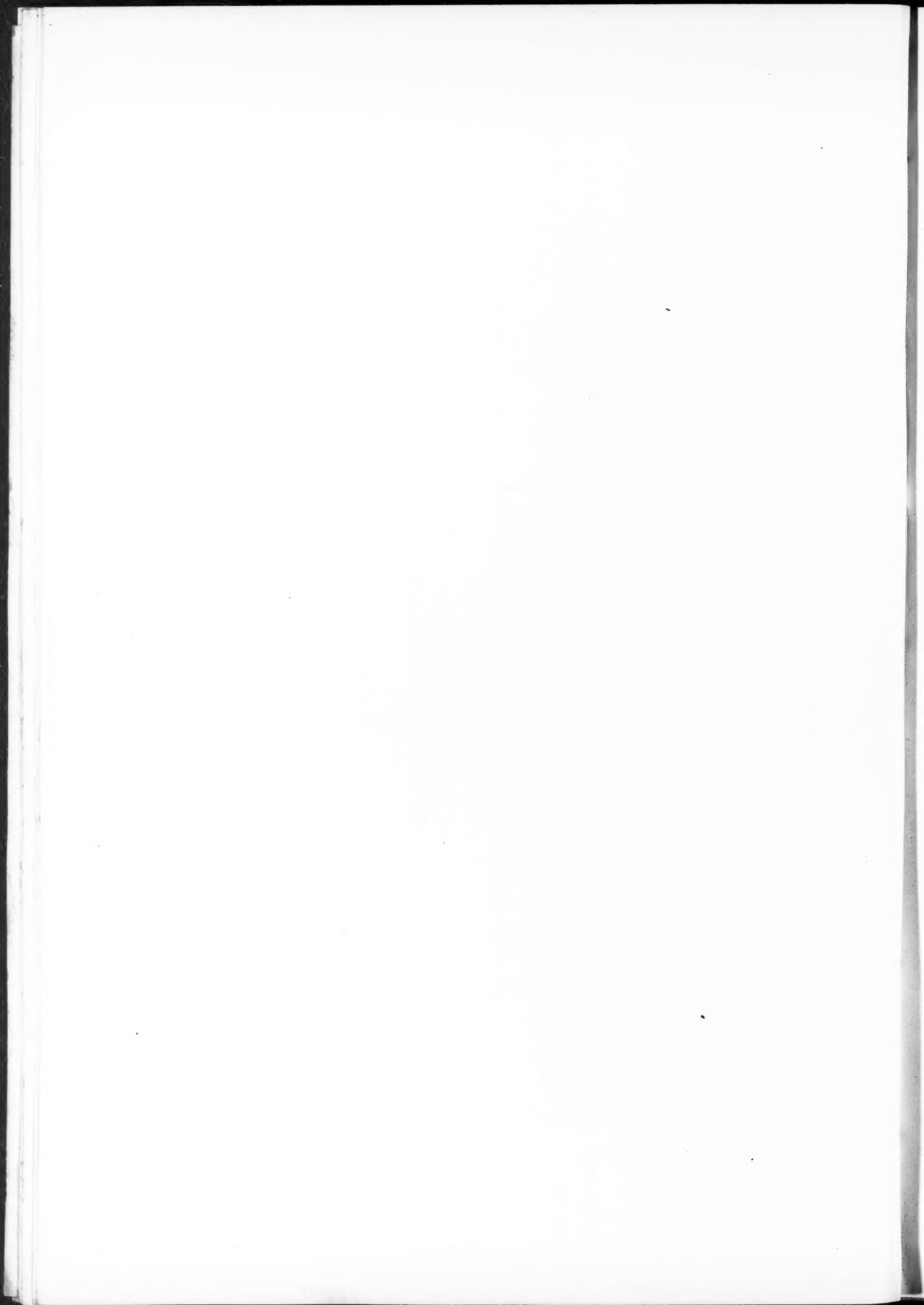








RESIDENCE OF R. M. WELLS, CHICAGO.
BEERS, CLAY & DUTTON, ARCHITECTS.



CRAWFORD COUNTY IND.
COURT HOUSE

OLIVER W. MARBLE ARCHITECT
CHICAGO III

