# THE INLAND ARCHITECT AND NEWS RECORD

Vol. XVIII. AUGUST, 1891. No. 1



## THE INLAND ARCHITECT AND NEWS RECORD.

*A Monthly Journal (with an Intermediate News Number) Devoted to*

ARCHITECTURE,

CONSTRUCTION, DECORATION AND FURNISHING IN THE WEST.

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

L. MULLER, Jr., Manager. R. C. McLEAN, Managing Editor.
C. E. ILLSLEY, Associate Editor.

SPECIAL CONTRIBUTORS:

| | | |
|---|---|---|
| D. ADLER, | D. H. BURNHAM, | W. L. B. JENNEY, |
| HENRY VAN BRUNT, | P. B. WIGHT, | IRVING K. POND, |
| WM. PAUL GERHARD, | LOUIS H. SULLIVAN, | ALLEN B. POND. |

TERMS: Regular number, $3 a year; Photogravure edition, $8 a year. Single copies, Regular number, 25c.; Photogravure edition (including 7 photogravures), 75c. Intermediate number, 10c. Advance payment required.

THE INLAND ARCHITECT is in no degree the property nor the organ of any architect or collection of architects. Its columns and illustration pages, therefore, are open to all alike, merit and availability only determining what shall be published. Contributions appropriate to its pages are always desired.


## AMERICAN INSTITUTE OF ARCHITECTS.

OFFICERS FOR 1891.

| | |
|---|---|
| PRESIDENT . . . . | RICHARD M. HUNT, New York, N. Y. |
| SECRETARY (*pro tem*) . . | DANKMAR ADLER, Chicago, Ill. |
| TREASURER . . . . | SAMUEL A. TREAT, Chicago, Ill. |

VICE-PRESIDENTS:

| | |
|---|---|
| FIRST VICE-PRESIDENT . . | WILLIAM W. CARLIN, Buffalo, N. Y. |
| SECOND VICE-PRESIDENT . . | JAMES W. MCLAUGHLIN, Cincinnati, Ohio. |

EXECUTIVE COMMITTEE:

| | |
|---|---|
| RICHARD M. HUNT, Chairman (1 year) | New York, N. Y. |
| JOHN W. ROOT, Secretary (1 year) | Chicago, Ill. |
| SAMUEL A. TREAT (1 year) | Chicago, Ill. |
| EDWARD H. KENDALL (2 years) | New York, N. Y. |
| DANKMAR ADLER (2 years) | Chicago, Ill. |
| ROBERT W. GIBSON (1 year) | New York, N. Y. |
| WILLIAM W. CARLIN (1 year) | Buffalo, N. Y. |

BOARD OF DIRECTORS:

*For Three Years.*

| | |
|---|---|
| W. M. POINDEXTER, Washington, D. C. | GEORGE C. MASON, JR., Philadelphia. |
| G. B. FERRY, Milwaukee, Wis. | LEVI T. SCOFIELD, Cleveland, Ohio. |
| C. J. CLARK, Louisville, Ky. | E. F. FASSETT, Kansas City, Mo. |
| ALFRED STONE, Providence, R. I. | M. J. DIMMOCK, Richmond, Va. |

*For Two Years.*

| | |
|---|---|
| EDWARD H. KENDALL, New York, N. Y. | JAMES G. CUTLER, Rochester, N. Y. |
| CHARLES A. CUMMINGS, Boston, Mass. | C. E. ILLSLEY, St. Louis, Mo. |
| DANKMAR ADLER, Chicago, Ill. | E. T. LITTELL, New York, N. Y. |
| HENRY VAN BRUNT, Kansas City, Mo. | JAMES H. WINDRIM, Philadelphia, Pa. |

*For One Year.*

| | |
|---|---|
| R. S. PEABODY, Boston, Mass. | C. A. COOLIDGE, Boston, Mass. |
| R. W. GIBSON, New York, N. Y. | W. H. HAYES, Minneapolis, Minn. |
| W. W. CLAY, Chicago, Ill. | O. P. HATFIELD, New York, N. Y. |
| STANFORD WHITE, New York, N. Y. | W. R. BRIGGS, Bridgeport, Conn. |

STANDING COMMITTEES FOR 1891.

*Committee on Education:* Professor Russell Sturges, chairman, New York, N. Y.; Professor William R. Ware, New York, N. Y.; Professor N. Clifford Ricker, Champaign, Ill.; T. M. Clark, Boston, Mass.; Professor C. Francis Osborne, Ithaca, N. Y.

*Committee on Code of Professional Ethics:* Louis H. Sullivan, chairman, Chicago, Ill.; E. H. Kendall, New York, N. Y.; W. W. Carlin, Buffalo, N. Y.; Henry Van Brunt, Kansas City, Mo.; R. W. Gibson, New York, N. Y.

*Committee on Clerk of Works:* R. W. Gibson, chairman, New York, N. Y.; D. Adler, Chicago, Ill.; W. G. Preston, Boston, Mass.; J. W. McLaughlin, Cincinnati, Ohio; J. G. Cutler, Rochester, N. Y.

*Committee on Uniform Contract:* O. P. Hatfield, chairman, New York, N. Y.; D. Adler, Chicago, Ill.; Alfred Stone, Providence, R. I.

*Committee upon Conservation of Public Buildings:* The presidents of Chapters.

**Department of Fine Arts, Architectural Exhibit.**

Mr. Halsey C. Ives, chief of the department of fine arts of the World's Columbian Exposition, has taken up the matter of the best possible expression of American architecture as a fine art, and has also begun correspondence with European architectural societies regarding adequate exhibits of recent architectural progress. A special effort will be made to secure from abroad as large collections as possible of reproductions from monumental decorations, which will probably remain in this country, and give a rare opportunity for comparison. "Building and construction" will not be included in the Department of Fine Arts exhibit, this belonging to the class of "civil engineering," as constructive architecture, in the Department of Liberal Arts. These subjects, which belong to Class 839 in Group 148, Department L, Liberal Arts, include the following:

Plans of public buildings for special purposes; large and small dwelling houses.

Dwellings and specifications for foundations, walls, partitions, floors, roofs and stairways.

Estimates of amount and cost of material.

Designs and models of special contrivances for safety, comfort and convenience in the manipulation of elevators, doors, windows, etc.

Working plans for the mason, carpenter and painter — Designs and models of bonds, arches, coping, vaulting, etc.; plastering and construction of partitions; painting and glazing.

Plans of appliances for hoisting, handling and delivering.

Building materials to artisans — Scaffolding and ladders; special scaffolding for handling great weights; portable cranes and power elevators.

Illustrations of the strength of materials.

Plans and sections of special architectural forms — Metallic floor-beams and girders; hollow bricks and other architectural pottery for heating and ventilation; metallic cornice and conduits; shingles and sheathing; glass roofs, floors and accessories; architectural hardware.

Methods of combining materials.

Protection of foundations, areas and walls against water.

Working plans for paving and draining.

According to the rules and regulations issued by the Department of Fine Arts, the subjects exhibited in this department will include sculpture, fresco painting on walls and antique or modern carvings, and architects everywhere should be interested in making this department notable, while those in America should see that the exhibit of American architecture bears comparison favorably with those made by other countries. In general, all works to be admitted to the Department of Fine Arts must be originals, with the exception that casts from original works by modern artists are placed in the same class with original figures and groups in marble. There will be three sections in the department — an American section; a section for foreign countries that are represented by a commission; a section comprising private collections and the works of artists from countries not represented by a commission, and all works must be examined by an official jury before they can be admitted.

**Five per cent Universal for Architects' Services.**

There is probably no custom so firmly established by universal recognition as the general charge of five per cent upon the cost of architectural work. It has spread throughout the world, and whenever architects have met together and agreed upon rules of practice they have laid down five per cent as a basis of compensation for their services. It is remarkable that this is so, because there are few rules that will apply to the customs of every country; but in the absence of statute which can be changed by the few in legislative power, the many have seen the advantage of system and of precedent and given to the world a new law

that shows by its universal recognition to be as firmly established as the *meum* and *tuum* of common law. Its history is not hard to trace. First adopted by the Royal Institute of British Architects, it was adopted with other features of that association by the American Institute, and as the architects in Australia and other British colonies became organized, they drew their schedule of professional charges upon the lines of the parent organization. The architects of France, Germany, Italy and other European nations also took this schedule for a basis, and so unchanging it stands a law, established upon the foundation of all law — custom. But the details have changed to meet new conditions and requirements, those societies latest organized having been most active in perfecting the details of the schedule. That of the Western Association of Architects had its influence upon that of the American Institute, from which it was originally copied. The new societies in Australia have a more complete schedule than that of England or this country, and Germany and Belgium have a more elaborate scale still. The tendency is to make five per cent a minimum rather than implied maximum charge, and in the vast difference of labor involved between the cost of designing of a factory and that of a private residence, it is but right that some elasticity in the schedule be necessary. This is, however, more imaginary than real, for who can say that the artistic ability to design a piece of decorative work should be worthy of more compensation than the constructive skill demanded in the planning of a factory? If architects would make it a rule to present a copy of their association schedule to the client when first consulted regarding their services, they would do much to protect themselves against an unappreciative public, and there would be less complaint of inadequate compensation.

---

**Accurate Definition of the term "Bay Window."**

A case came up in the Chicago courts recently which necessitated expert testimony in the matter of a definition of the term "bay window." A definition was formulated and agreed to by some of the most eminent members of the architectural profession, and this definition was the one accepted by the court. As it will be of interest to the profession generally, we give it: "Bay window, an adjunct of any shape that is designed to be an enlargement to a room, and which projects beyond the exterior face of a main wall of a building, and does not extend above the main cornice. It may have its foundation in the ground, or be supported on corbels or otherwise." It is probable that this was not intended as a "dictionary definition," but was made with special reference to this case, but that it may not be regarded as final it would seem well to comment upon it. It is a fair definition of bay, though not in the generally accepted architectural signification of that term, and it is equally applicable to niche, or to alcove, but it does not define "bay window" at all. Would not "glazed" adjunct shed a little light on the subject? Even thus modified the definition would not cover bay window alone, but would include a bay with a window in it, which, we take it, is not necessarily a bay window. A bay window should be a more than one-sided affair. It would seem well, also, to remove the definition beyond the limits of a special case by striking out the adjective "main," which, applied to a building with a broken ground plan, would cause some confusion. Without impeaching the astuteness of the court, or questioning the wisdom of the eminent professional gentlemen, we would submit this revised definition for their consideration: Bay window, an adjunct to a building, that is designed to be an enlargement to a room, which is of any shape, which is glazed on a curve or on two or more sides continuously, which projects beyond the wall to which it is attached, and which does not extend above the cornice or coping of that wall. It may have its foundation in the ground, or be supported on corbels or otherwise.

---

**State and Foreign World's Fair Buildings.**

The sites for state and foreign buildings at the World's Columbian Exposition are grouped in what is known as the improved portion of Jackson park, located north of the main buildings. Upon these sites the several states of the Union and foreign governments will erect buildings either independently or in combination as they may choose. The local commissioners appointed by the state government will select an architect, and he will design and furnish working drawings for a building. Upon the approval of the chief of construction, both upon design and construction, they can be erected upon the allotted site. The general disposition seems to be that a local architect should be selected, and the construction be composed of local materials, and, as far as possible, demonstrate the building material resources of the state to which the building belongs.

---

**Slight Stoppage of World's Fair Work.**

A notification to contractors upon World's Fair buildings issued on August 11 by the chief of construction, occurring simultaneously with the resignation of chief of engineers Gotlieb, caused something of a sensation, although hardly worthy of note except from the publicity given to the incident by the daily press. Mistakes having been found in the strain sheets upon some of the buildings it was thought best to stop work until all could be checked off, and in two cases, the Mines and Mining and the Women's buildings, which were furthest advanced in construction, some of the work had to be reconstructed. The Construction Department has in its employ some of the best architects, engineers and superintendents in the country, care having been taken from the first to fill every important position with an expert, and this stoppage of work only evidences the extreme care with which the construction is carried on by the Chief of Construction, the incident being of so ordinary a nature as to have passed unnoticed had it occurred upon any work of less sensational character than that connected with the great Exposition of 1893.

---

**Slow Burning versus Fireproof Construction.**

In endeavoring to show by description and photographs, as accurately as possible, the effect of fire upon the different methods of both slow burning and actual fireproof construction, as demonstrated by the fire in the old Lumber Exchange building at St. Paul, with which considerable space is occupied in this number, we hope to give to architects an unanswerable argument in discussions with clients regarding the practical advantages of fireproofing. While the covering of wooden joists with fireproof material may render them safe in a majority of cases, the result narrated shows how useless the fireproofing is when any break occurs in the construction, where wood joists are used, and how absolutely safe from fire the building is when the approved methods of fireproof construction are employed.

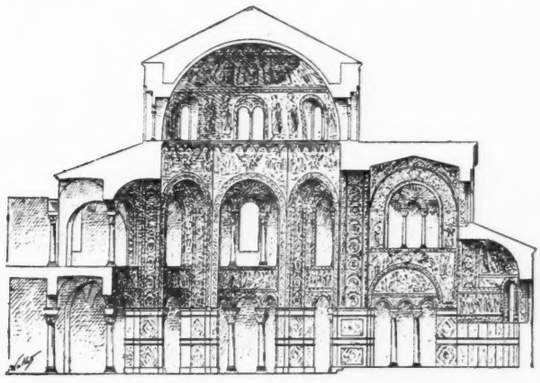
## Architecture and the Allied Arts.

BY BARR FERREE, LECTURER IN THE SCHOOL OF ARCHITECTURE, UNIVERSITY OF PENNSYLVANIA.

PART III.

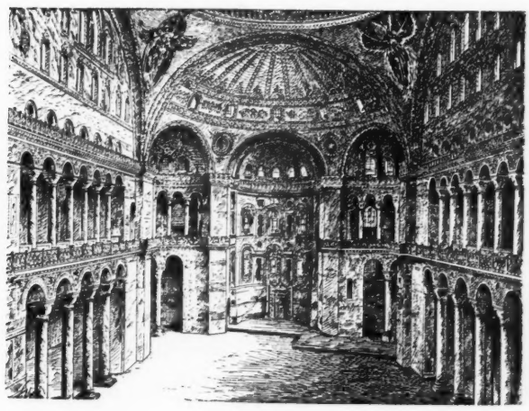
EARLY CHRISTIAN, BYZANTINE, MOHAMMEDAN.

THE transfer of the Roman capital from Rome to Byzantium by Constantine was attended with more momentous consequences to art than the imperial reformer dreamed of. At this time art in Italy had reached a point on the downward path that required more energy to improve it than the worn-out luxury of the great capital could concentrate on one cause, even if it related to the existence of the empire, much less in art, which was now degraded to a



SECTION, CHURCH OF S. VITALE AT RAVENNA.

plaything for the rich and powerful. Roman art drew its best inspiration from the Greek, and when the traditions of Greek art died out there was no native genius to develop it. The last years of Roman art, are, therefore, a servile following of the Greek. Little hope for improvement could have been entertained at Rome, but at Byzantium a new direction was given to the development of art. For a time it seemed that a fresh lease of life had been gained. The emperors were desirous of perpetuating their names and memories by building a new and magnificent city. This laudable desire and the absolute necessity for the erection of palaces and other public buildings were the chief factors in bringing about a new condition of things. In the East the Romans came in contact with a people having methods of



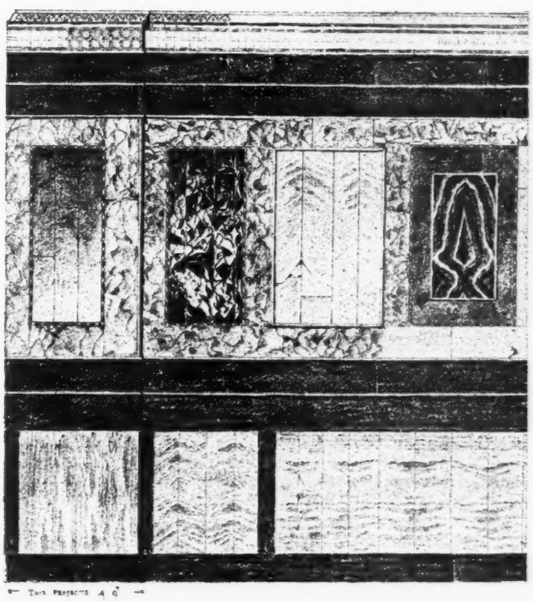
INTERIOR, CHURCH OF S. SOPHIA, AT CONSTANTINOPLE.

building different from their own, and they speedily evolved a style quite unlike its Roman predecessor.

The growth of Christianity and its adoption as the state religion had an important effect on the development of art. At first, a mere change of name sufficed to transform a heathen edifice into a Christian one. In process of time, this was not enough, and structures Christian from their foundation were built. The desire to erect something that was totally different from the temple hastened the development of the new style. Paintings of the gods were, by a simple change of name, transferred into representations of the sacred personages of Scripture. With the spread of the new religion, however, these heathen symbols fell into disuse, and quantities of them were destroyed, to the great injury to art and the regret of a more enlightened posterity, for no other reason than their association with the evil things of past times.

The early Christians were not a people under whom art, either in the form of architecture, painting or sculpture, could be expected to flourish. Originating among the very lowest people of the empire, they were too much occupied with gaining a bare existence to have the means of erecting structures of architectural pretensions. However insignificant may have been the churches and places of worship of the early Christians, the piety of the Christian emperors led them to donate large sums and grant extensive revenues to the Church. Thus, notwithstanding the generally retarded condition of architecture, the early Christian period produced some churches of great magnificence and very considerable proportions.

Byzantine art set the model for Christian expression in architecture as well as in painting and sculpture. Christian ideas in art first gained visible form in the East, and while at one time it seemed as though a progressive form of architecture had been evolved, the conditions of the Eastern empire, which lacked the vigor which once made Rome great, were such that art in all forms became stagnated, and instead of any active advance being made it became bound by rules that almost completely stifled individual life and feeling. Of the historic forms of architecture the Byzantine style employs the

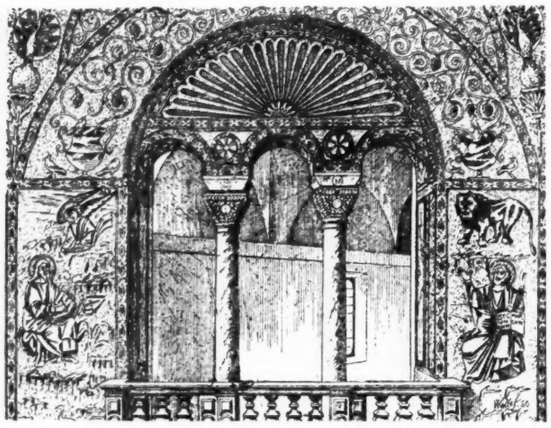


MARBLE PANELED DECORATION, CONSTANTINOPLE.

allied arts to the least extent in so far as organic action is concerned. The exteriors were almost totally devoid of any architectural or ornamental features. They were simply coverings to the interior without any thought of rendering them architecturally impressive. Yet the plain solid exteriors were not altogether deficient in merit. The church of S. Sophia, for example, though one of the ugliest structures imaginable without, has a certain dignity, and actually appears larger than it is. This quality, however, is so negatively artistic, as scarcely to call for commendation.

Though the Byzantine builders seemed absolutely regardless of the external appearance of their churches, they decorated them within with a characteristic and superb decoration. Mosaic, which the Romans had used chiefly for floors, became in their hands a new and brilliant art with which they produced results of almost unsurpassed magnificence. Much of this early work has been lost, and very considerable of what remains has been restored to too great an extent to enable us to judge actually of its original condition. The church of S. Vitale at Ravenna, and S. Sophia at Constantinople, however, fortunately enable us so gain an accurate idea of the great splendor with which the Byzantine church was decorated. The walls are lined with slabs of marble of various colors, arranged to form panelings by their color and veining, without chiseled ornament. In the upper part of the walls scenes in mosaics are introduced, and the spandrels, arches and other constructive features are decorated with ornaments in the same art. Comparatively speaking, there is little carved ornament. The columns are of rare marble, taken, in the earlier churches,

from older edifices; the capitals, which are almost the single instance of carved ornament, are in low relief, the decoration being incised and closely following the outline of the bell. Similar ornament,



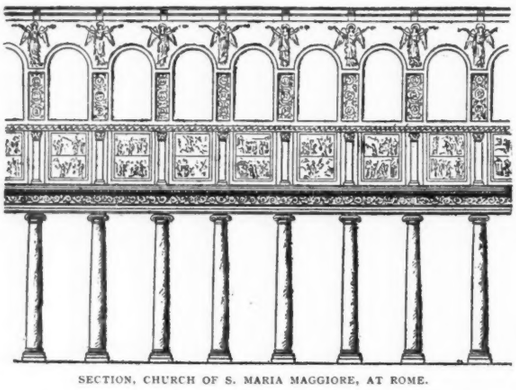
DECORATION, CHURCH OF S. VITALE, AT RAVENNA.

which gives scarcely any relief to the walls, and indeed from a distance seems scarcely cut at all, is sometimes used around the arches and in the cornices.

A Byzantine structure, therefore, presents none of that organic union of all the arts which is to be noted in many other styles. The mosaic decoration was gorgeous, and the gold backgrounds on which the scenes were depicted gave in an unequaled brilliancy, but the ornamentation is distinct from the architecture, and the architecture distinct from the ornamentation. These two parts do not help each other, yet both form the Byzantine style. Byzantine art produced many beautiful pieces of individual carving, yet as a whole the art was undeveloped. Sculpture was looked upon as an especially heathen art, and relatively few statues were produced in this style of art. Its chief glory were the mosaics, and few systems of decoration have been devised so effective, so rich and so satisfying to the eye.

In Italy the Byzantine style is seen to best advantage in the churches of Ravenna, but even in those buildings in which only traces of it are to be found, the mosaics form the chief decoration. The Roman basilicas are ornamented in this manner. The church of S. Appolinave at Ravenna is an excellent illustration of early Christian architecture, with its columns and capitals borrowed from Roman edifices, and its superb decorations of mosaics.

The Church of S. Mark, at Venice, though dating from the tenth and eleventh centuries, is a superb illustration of the Byzantine style. Notwithstanding the various kinds of decoration employed on it, owing to the length of time consumed in its building, it is essentially Byzantine in character. It is interesting to compare the interior of this church with that of S. Front, at Périgueux, which is built on much the same plan as S. Mark's, but is totally devoid of any



SECTION, CHURCH OF S. MARIA MAGGIORE, AT ROME.

sort of decoration. These two churches — and the French one is undoubtedly modeled after that at Venice — are very good illustrations of the effect decoration has upon style, and the important part it takes in giving character to the edifice.

Byzantine art includes so many elements that afterward received peculiarly Mohammedan development, that while it is interrupting the historical sequence of this narrative to allude to it here, the present offers a convenient opportunity for glancing at some of its more important features. Mohammedan art is the natural successor to the Byzantine, and resembles early Christian in the respect that the religious traditions of the people were adverse to the making of representations of natural objects, either animal, vegetable or human. The Mohammedans speedily invented a style of decorating their buildings and relieving them of the plainness that must otherwise have distinguished them. This was accomplished by a system consisting in the application of geometrical designs of infinite variety and grace, a method which soon met with universal application, and became one of the characteristic features of Mohammedan art.

Mohammedan decoration covers the walls of the buildings like tapestries or embroideries and without architectural arrangement or connection. It has been suggested, and with every likelihood of plausibility, that it is a survivor of the embroidery with which the nomadic Arab women were accustomed to ornament the interior of their tents. It is an interesting fact, whatever be its origin, that this system of decoration is very general throughout the East. The three great civilizations that originated between the Nile and the Euphrates — the Egyptian, the Assyrian and the Mohammedan — were all characterized by this embroidery-like decoration. The Mohammedans never got beyond the unconstructive character of their ornament; the stalactitic system of pendentives adopted in their later work is totally independent of the construction, and performs no constructive duty.

There is no sculpture in Mohammedan architecture, but the decorative system is so elaborate and beautiful that the need of it is not

INTERIOR, CHURCH OF S. MARK'S, AT VENICE.

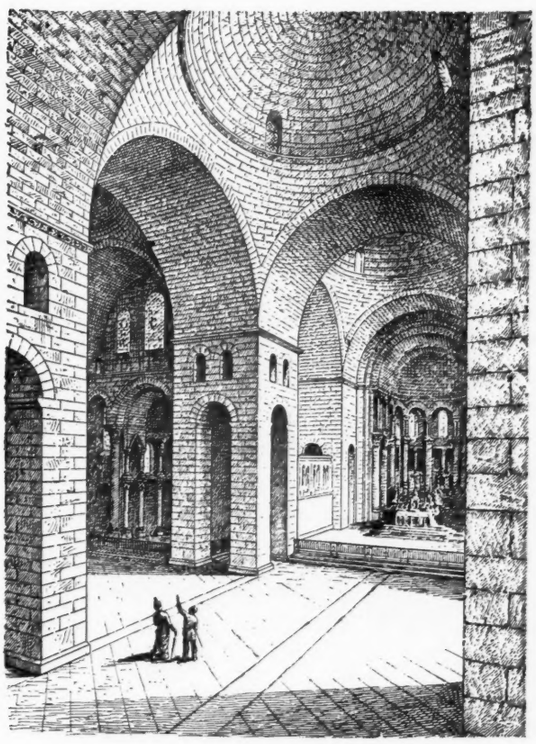
apparent. Much of this decoration is in the form of tiles and incised lines, but in no sense did it approach sculpture. The union between architecture and an ornamental decoration was never closer than in Mohammedan art. The outsides of their buildings are perfectly plain, and are frequently left in a rough state that is almost repulsive. This was the usual custom in all Mohammedan private buildings, though there are some exceptions in the public buildings, official structures, mosques, etc. It was so universal that doubtless the canons of propriety among these people refused to recognize any other system, and violations of it would have been looked upon as trespassing upon good taste. It had the effect of rendering the cities and towns exceedingly monotonous and dull, and if one has seen one Mohammedan town one has seen them all. The variety that is exhibited by every western town of even ordinary importance is entirely wanting.

While outwardly the large part of Mohammedan structures were thoroughly devoid of interest, internally they made up for any lack of exterior ornamentation, and by the brilliancy of the colors, the invention of the designs, the delicacy and grace of the combination, obtained results that have seldom been surpassed in the history of art. Limited as they were by their religious faith to geometrical designs, which, however, they gradually extended by the application of conventionalism to some natural forms, chiefly leaves and flowers, their wonderful inventive genius thus forced into one direction produced works of such infinite variety that one scarcely realizes that there is any limitation at all. It is a remarkable fact, as showing how rapidly art may develop when it is confined to one direction, that the Moslems had a complete and elaborate art before the Christians had

formed one of equal advancement. Unfortunately, the direction in which the Mohammedans worked was incapable of infinite development, and the older buildings exhibit more perfect forms and a more correct application of them than do the later ones. The collapse of Mohammedan art naturally followed the loss of power and dominion by the followers of the Prophet, and it could not be expected that with the decline of the state any genuine art could be maintained.

It is not possible to describe here in detail the various schools of Mohammedan art, which were almost as numerous and varied as the schools of Gothic art, but the influence of the decoration on the development of the most marked forms should not be overlooked. In the early Mohammedan buildings of Egypt, the architecture has a grandeur and solemnity that comes only from the judicious use of ornament. In other schools, the decorative elements were more largely used, but their development was at the expense of the architecture. This was especially the case with Moorish architecture in Spain. In the Mosque of Cordova, the architecture has a decorative tendency that is quite different from the early Egyptian school, and in the Alhambra it is almost lost in the decoration. Though of surpassing beauty, the architecture of the Alhambra is too highly decorated, and the ornamentation, instead of holding a subordinate part, forms the entire structure itself. Nowhere else in Europe is there to be found such a blaze of color in a building, nowhere else has such a harmonious and wonderful system of decoration been carried to successful completion, and it is an object lesson in the application of design to surfaces; in the correct and harmonious coloring of walls, and in the erection of a building designed for the warm and voluptuous climate of the South it is without a rival.

With all its grace and beauty, however, the Alhambra is a monument to the fatal defect of Mohammedan architecture. Unlike other great builders, the Moslems did not build for all time. Many of their earlier structures, erected before the cultivation of art was carried to the excess of later periods, exhibit considerable strength and solidity; but in later times, when the fondness for lighter things and the love for beauty and delicacy had become a passion, a false step was made



INTERIOR, CHURCH OF S. FRONT, PERIGUEUX, FRANCE.

in the use of plaster and stucco on which the designs were executed and which became the vehicle for the application of art forms. When the Moslems had intrenched themselves in one locality and had formed a strong, powerful and rich government, the use of these frail materials was not particularly improper. Funds for repairs were in abundance and they had the great merit of permitting a rich and striking decoration at comparatively slight expense. Possibly this predilection for the use of plastic substances may have come down from the ancient methods in vogue in Asia Minor and Assyria. Assyrian architecture was wholly one of clay, and, like the Mohammedan, called for constant repairs which, if omitted for only a short time, resulted in the rapid ruin of the structure. The Mohammedans did not hesitate to use clay and plaster as the chief vehicle for ornamentation, and as a result a large part of their art has been lost. Perishable as the material is, it is doubtful if Mohammedan art would have reached such glorious results had it not been used.

Plain, ugly bare walls was the ordinary Mohammedan manner of treating the exteriors of buildings. There were, however, some exceptions, and many Persian palaces and mosques have an external decoration of tiles. In India, where Mohammedan art came into contact with a developed and characteristic native art, an ornamented system seems to have prevailed, which, while largely used, was not universal. Many of the greatest monuments of Mohammedan India are as richly decorated and colored without as within. These are chiefly government works or state buildings, or those of a monumental character, which could very well have been made exceptions to the rule that no citizen would undertake to violate. The Mohammedan architecture of India has a charm which arises from its combination with the native art. Buildings like the Taj Mehul show what exquisite structures and delicate forms it was capable of. All of its beauty, however, is dependent upon the decoration, the color, the tiles, the mosaic, the painted ornament, for the total effect. It is impossible to conceive of the Taj denuded of its delicate decoration, and graceful as are its architectural form and lines, it would never have excited the admiration it has had it been built in solid granite.

Mohammedan architecture, whether in the forms of India or of Spain, of Egypt, of Persia, or of Syria, is essentially an architecture of the South. Its forms and methods, its delicacy and refinement, are not applicable to cold climates, and any attempt to transfer them to our comfortless latitude must be attended with failure. But though we cannot reproduce the buildings, we can study the decorations, and absorb as well as our cold northern nature will permit, the grace and beauty they exhibit. Whatever be the defects of Mohammedan architecture from a structural standpoint, it produced wonderful results by the use of color and ornament, and to these elements it owes many of its most striking characteristics.

In some exceptional cases the Mohammedans made use of both sculpture and painting, and produced representation not only of animals but of human beings. Much of this was done by Christian artists, and is to be noted in the period of the decadence of Mohammedan art. At no time did they ever form an integral part of a Mohammedan structure, but their use was not unknown.

(*To be continued.*)

## Notes from our French Exchanges.*

WALL PAPERS.

IN most cases a wall paper, according to *La Semaine des Constructeurs*, should form a background without so striking a decoration as to particularly attract the attention, serving to set off the furniture, hangings and other objects in a room without in itself making a pretense of being a special decoration. Velvet papers are generally those that are most effective in a parlor, but they have one dangerous feature of which we shall speak presently. Small flower designs, in little clusters, branches, etc., are suitable for bedrooms, but on condition that they do not fatigue the eye, in which case they cause headaches and even sometimes fevers to weak persons. For a study the paper should be very calm and simple, preferably of a blue or greenish tone, to save the eyesight as much as possible.

In our opinion it is a great mistake to cover the walls of a dining room, as has been the custom for some years, with a paper having patterns of leaves and branches in dark and somber colors. Was this barbarous fashion set by some miserly housewife, who thus hoped to have her guests eat less? In this room everything, as well as good cooking and good wine, should season and accentuate the pleasure of living. Brillat-Savarin used to say that Amphitrion ought not only to feed his guests, but should make them happy by every means in his power.

For my part I prefer for this room a bright, gay kind of paper, and I even regret the loss of the old-fashioned landscape wall paper with distant views upon it, which used to add pleasure to a meal in my boyhood even if the colors were brighter than in nature. But in general, the dark tints and the "dim religious light" should be *everywhere* proscribed. Such rooms are only suitable for persons whose

*Translated and arranged by W. A. Otis, architect.

complexions have faded, while they injure everything else. Everywhere that it is possible, have large windows with very simple and semi-transparent curtains.

From the point of view of health it is often dangerous to use indiscriminately this or that color of paper. Very many of the green papers commonly sold should be avoided, because the base of the coloring matter is arsenic; however, the light, cheerful greens are the best for the eyes, and at the same time the colors that give more life and gaiety to a room.

Whenever there is no poison in the coloring matter, such papers are certainly extremely satisfactory, and as green can be made, and that cheaply too, with other materials, it is to be hoped that they may soon be used with safety everywhere.

Yellow chrome papers, which frequently show the most charming play of colors, are among the most dangerous, the basis of that color being lead. The not less charming mineral yellow with its changing shades is also made with a color whose base is lead. The reds are frequently obtained from bases of lead and are injurious, while most people are aware of the dangers that lurk in the use of Prussian blue.

Papers having a white background or of delicate tints are generally the least harmful, and at the same time are the ones most pleasant to the sight, although it must be confessed that they are extremely trying for a coquettish woman who is not an absolute belle!

Some papers are colored with an extremely fine powder which is, during the process of manufacture, attached to the paper by means of glue. This glue when entirely dry holds the particles of coloring matter in place, but after a certain length of time, the changes of temperature, alternating from hot to cold and from dry to moist, cause the glue to lose somewhat of its adhering quality, and little particles of powder are set at liberty and float about in the air which is breathed. They settle upon everything, even upon the food placed upon the table, and from these causes there is sometimes considerable danger to health, especially in the case of the so-called velvet papers.

### THE MANUFACTURE OF EGYPTIAN ANTIQUITIES.

If genuine antiques are numerous, those modern ones manufactured today are none the less so. The prices for all Egyptian antiquities, whether genuine or false, depend upon the cartouche with which they are marked as showing the sovereign under whose reign they were made. One of these ellipsoidal curves containing the graven name of Rameses II, the classical Sesostris, doubles the value of an object, and consequently it is easy to imagine how many pieces of work and monuments have within the past few years been ornamented with the cartouche of that conquering hero. If this tide of monuments continues, our great-grandchildren will have their hands full of business when they come to study the monuments left by Rameses to posterity.

But to make a cartouche is a small affair, when the manufacturing of the scarabeus and the turning out of statues covered over with inscriptions is now a business in full blast. For some time past, owing to a few carefully executed casts, it has been possible to manufacture statues out of the precious metals. The recipe is extremely simple and according to the well known rule: A statue is taken from which a mold is made, and into this mold metal is run. Later on, it is chiseled off a little, if desired, and the job is complete.

But there are some poor devils who cannot afford statues of such precious material; no matter, they make them of earthenware and glaze them; indeed, some remarkable results are obtained. It would appear that for some time past most beautiful very large pieces in silver have been made of this material. In the same manner, bronzes of a good quality can be made, and we were shown models of funerary statuettes extremely well executed.

The art of giving an antique platina or green rust to Egyptian objects is very widespread, but it might be remarked before going into this subject that almost all such rust is false. To be sure, any object when found in the earth is completely covered with a coating of green and verdigris with sand hardened into it; but the statue, to show its beauties, must be taken out of this envelope. Several methods are employed to accomplish this result, the most common being to place the object in a weak solution of sulphuric acid and water. Shortly the bronze becomes as smooth and clean as when it came from the hands of the founder. Our modern friends, however, always give their works a coating. There are several formulas for this purpose; the most simple are the following: First, bury the object in earth moistened with vinegar; in a short time the bronze is covered with a fine green coating. Second, heat the object and wax it; then heat again, and the wax in melting produces a blackish substance, which has only to be rubbed with a woolen rag. We give there two methods, but there are many others; in fact each merchant has his own process, for it is a little trade secret which is handed down from father to son. It is unnecessary for me to remark that these imitation antiques are always covered with an irreproachable coating of this green rust.

Monuments made of stone require a more delicate workmanship; soapstone, alabaster, serpentine, and a fine and compact limestone are all used. The antique appearance is easily obtained, for the objects are covered with bitumen stolen from the mummies or else painted with colors taken from the tombs. At a first glance, and especially for a person who has not carefully studied Egyptian art, these monuments seem to have the real and genuine character. But an attentive examination will show the imperfections of the work; the figure is not well proportioned, being heavy; the hands are apt to be defective and the face grinning with angular-shaped eyes. The details of the costumer, the headdress and the particular symbols of each god are more or less unskilfully executed, while, as for the inscriptions, they rarely have any sense.

One cannot think of everything, and the Arabs have not yet learned that it would be a good thing to know the hieroglyphics, consequently the best tests of genuineness are the texts and ordinary prayers consecrated to each divinity. But progress is advancing with giant strides, and possibly the day is not far distant when some enterprising merchant will flood the market with correct texts of his own composition.

Objects in the harder stones, like black basalt, feldspar, jasper, etc., are also made, the Jews of Cairo having acquired a certain fame in this kind of industry, but the difficulties of working this class of stones and the inevitable awkwardness render these impositions rarer and more easy to recognize. However, the scarabeus is manufactured every day and some of the specimens are extremely handsome. Besides these things mentioned, how many others are made it would be impossible to tell. M. Maspero, who during his stay in Egypt made a particular point of seeking out the processes of falsification, has formed at Boulaq a little museum of imitations, and this is probably the best method to instruct tourists and show them the risk they run in buying from the natives "souvenirs" of Egypt.

### SYSTEM OF HEATING THE GALLERIES OF THE LOUVRE.

The government architect of the Louvre has just completed the placing of a new system of heating for certain rooms of the palace, notably the large ones, known as the Hall of Melpomena and the Hall of the Venus de Milo. As the heating by steam of rooms containing works of art has never been approved by the French architects, this system, which is supposed to represent the best knowledge of these authorities, is of interest. The description in *La Semaine des Constructeurs* is, however, only too short; but, according to the article in question, the heating is accomplished by air under pressure, from what has been named an air-furnace *(Aéro-Calorifère)*. This furnace is composed of a blower or ventilator (run by compressed air), which takes the air from the outside and forces it by underground conduits to the furnace proper, situated at some considerable distance. The ventilator has a diameter of nearly six feet, and furnishes from 18,000 to 20,000 cubic yards of air per hour. This air, forced through the conduits and upon the furnace, distributes itself evenly over the various heating surfaces which are surrounded by brick to prevent loss of heat. The furnace is so constructed as to instantly raise to eighty degrees Fahrenheit a current of air moving at the rate of 100 feet per second, and on account of the pressure constantly used it loses but little of its heat and leaves the pipes at the registers at nearly this temperature. A single heater pipe with branches to registers suffices for the distribution of the hot air, while in all other systems, on the contrary, each register requires a separate pipe to and from the furnace, from which there results a considerable simplification of the pipes. The other advantages are that where an ordinary furnace would only heat 4,000 to 5,000 cubic yards of air, this will heat three times as much with an expense for fuel of one-half required by the old system to do the same work; besides, the hot air being always under pressure, distributes itself the same as gas — even, if necessary, at a downward angle; and lastly, the great quantities of air that can be rapidly heated, render it unnecessary to keep them going so many hours.

---

THE Executive Committee of the American Institute of Architects will meet at New York August 18. The appointment of the date of the next meeting of the Institute at Boston will be made and other business preparatory to the convention will be transacted.

## A Practical Test of Fireproofing.

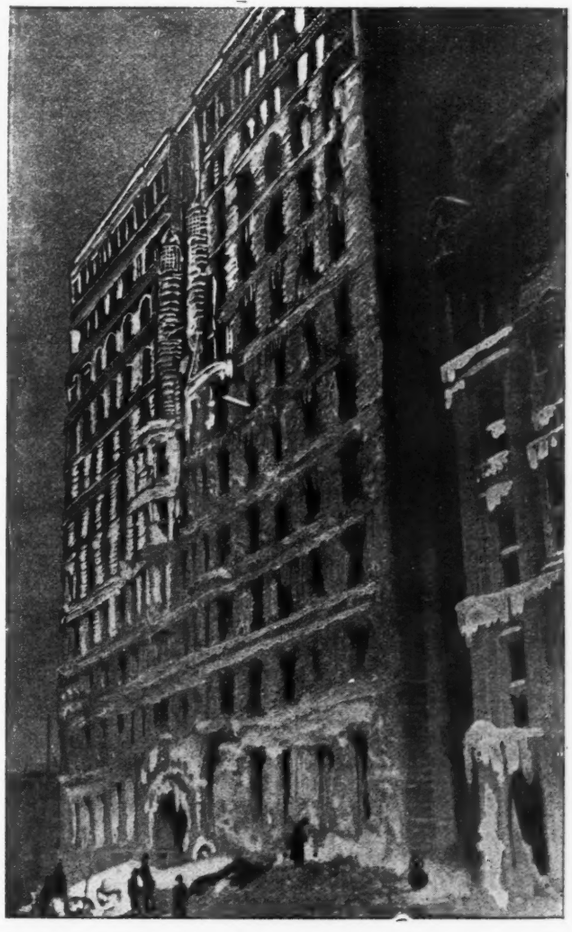
NO. 1.—EXTERIOR VIEW OF LUMBER EXCHANGE BUILDING, AFTER FIRE, FROM CORNER OF FIFTH STREET AND HENNEPIN AVENUE.

DATING back to the great fire in Chicago the question of a fireproof construction that would be light and at the same time indestructible in itself, and a perfect protection to all structural material encased within it, has grown in interest and development. At that time the heavy brick and concrete arch was in vogue. Soon, however, patents were procured by Johnson & Co., the founder of the great fireproofers, the Pioneer Fireproof Construction Company, followed by the Wight Company in Chicago, and by other parties in the East.

The stability of the methods introduced was at first looked upon with some doubt, and "tests," so-called, were made from time to time, and though the conditions were always much more severe than probably would be found in actuality, always to the satisfaction of architect and owner. In Chicago, during the construction of the Board of Trade, the six-foot flat floor arches were tested by rolling a heavy safe over them; pig iron was piled six feet high, etc., all without disturbing an arch that was only required to hold a probable 200 pounds to the square foot. There was a fire test when the Ryerson buildings on Wabash avenue were under construction. A cast-iron column (we did not use steel then) was encased in the usual manner, and one exposed was placed beside it, a loaded beam resting on top. These were surrounded with combustible material sufficient to burn a Dutch oven, and after a few hours of combustion, a hose turned on and the fire extinguished. The exposed column was destroyed, the one protected still retained its coating of tar paint, and it has mainly been such tests as these upon which architects have depended to prove the fire-resisting quality of fireproofing materials. They were good as far as they went, but in every way misleading, as the conditions of an actual fire could never be imitated, and all interested have waited for that rare occasion, a fire in a fireproof building, to show exactly how the material would act under practical conditions.

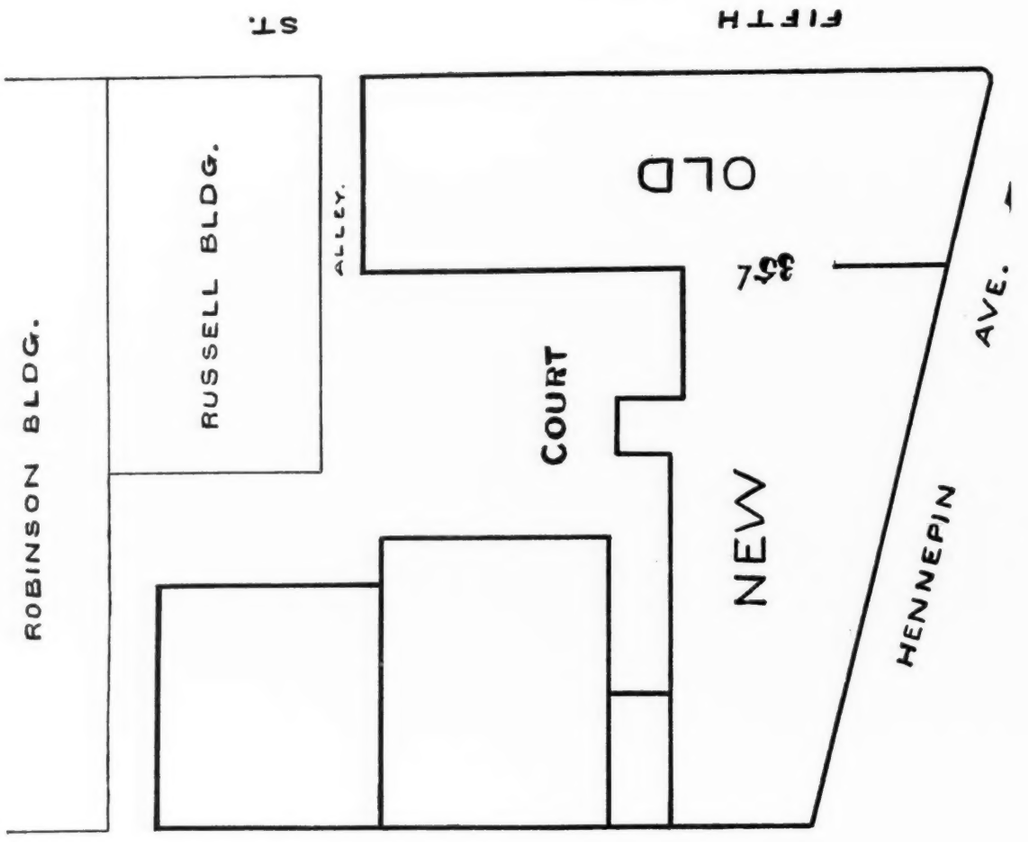
The Stillman apartment house, a six-story building in Cleveland, was fireproofed, except the top story. This burned off and the floors below were uninjured. The roof of the fireproofed Chicago Opera House, which was of wood, burned off and destroyed the ornamental part of the interior, but the structural part of the building was uninjured, and in the twenty years of progress, these constitute the main tests to which fireproof construction has been subjected, until one day last January it was telegraphed throughout the world that "the fireproof Lumber Exchange building at Minneapolis was totally destroyed by fire." Here was the test that had been looked for for twenty years, and, as a close examination proved, could not have been better planned for such a purpose had the entire structure been built and the conditions arranged for a thorough test.

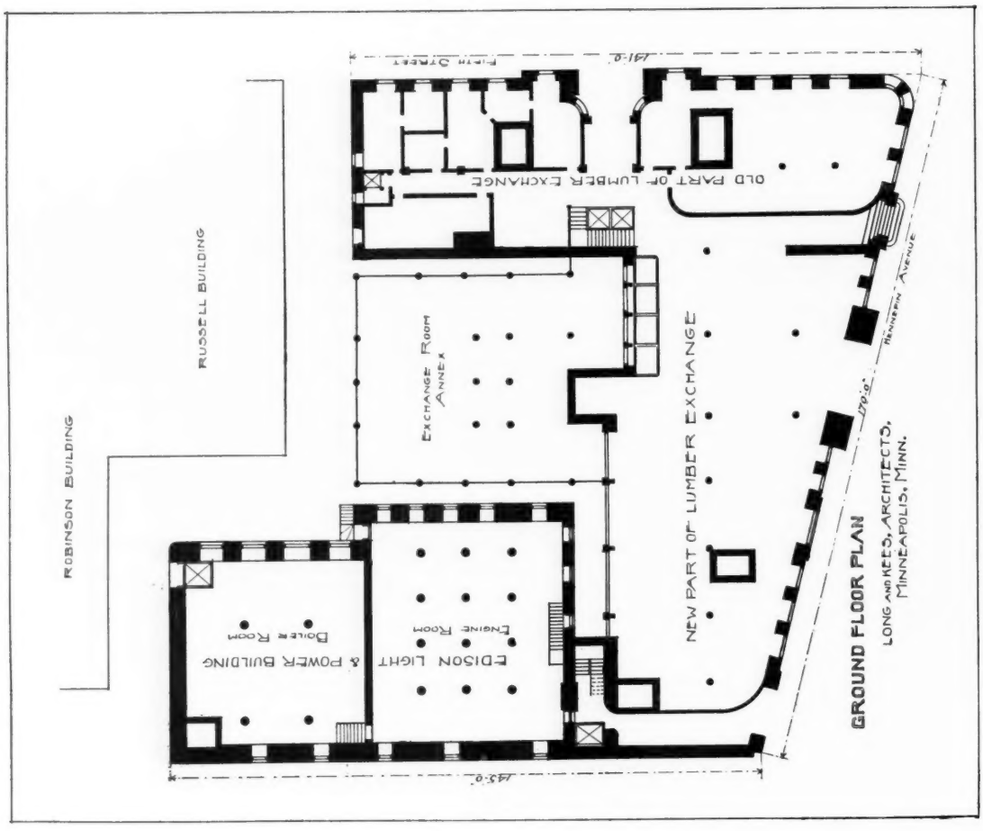
On the corner of Fifth street and Hennepin avenue the Lumber Exchange built and occupied a nine-story building, The walls were of brick and the interior constructed of wooden joists supported by iron columns and girders. Both wood and iron were covered with fireproof tile, the entire system being what is known as slow-burning construction, but not fireproof. It was decided to enlarge the building, and Architects Long and Kees of Minneapolis designed a fireproof building, of longer frontage and eleven stories high, to join the old building on the east. Back of this building is the Electric building, ten stories high and fireproof. (See ground plan of buildings.) Facing on Fifth street, south of the old Exchange building, is a stone and brick building, of ordinary wood construction, five stories high, a twelve-foot alley between. This was occupied as a wholesale paint and oil store. When the new Lumber Exchange build-



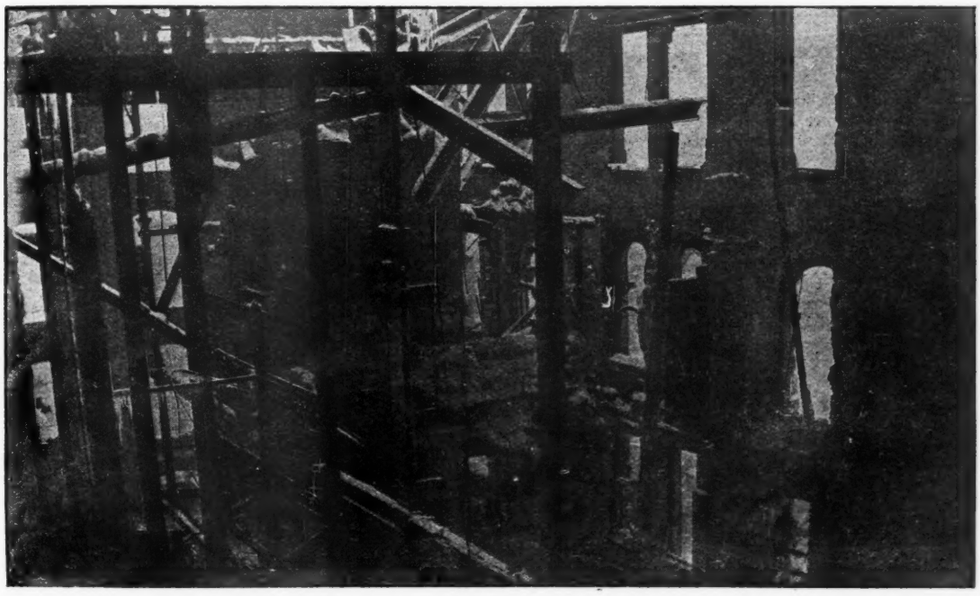
NO. 2.—FRONT OF BUILDING ON FIFTH STREET, SHOWING PAINT STORE ON THE RIGHT.

ing was built two stories were added to the old building and fireproofed. Thus without design a perfect foundation for a magnificent and exhaustive test was laid, and needed only the conditions that existed at the time of the fire to carry out the test in every detail. (See outline plan.) Here was a wooden building five stories


ROBINSON BLDG.
RUSSELL BLDG.
ALLEY.
COURT
NEW
OLD
HENNEPIN AVE.
FIFTH ST.


ROBINSON BUILDING
RUSSELL BUILDING
EXCHANGE ROOM ANNEX
EDISON LIGHT & POWER BUILDING
ENGINE ROOM
BOILER ROOM
NEW PART OF LUMBER EXCHANGE
OLD PART OF LUMBER EXCHANGE
GROUND FLOOR PLAN
LONG AND KEES, ARCHITECTS.
MINNEAPOLIS, MINN.

high for the fire to start and gain headway in, and filled with paints and oils, the most inflammable material for the purpose. Twelve feet away was a nine-story building with the most approved slow-burning construction, which might have protected it sufficiently had not a large hole been left in the upper stories through which a water tank was being elevated, the ends of the joists being supported by



NO. 3.—GENERAL INTERIOR VIEW OF OLD BUILDING AFTER TWENTY-FOUR HOURS OF CONTINUOUS FIRE.

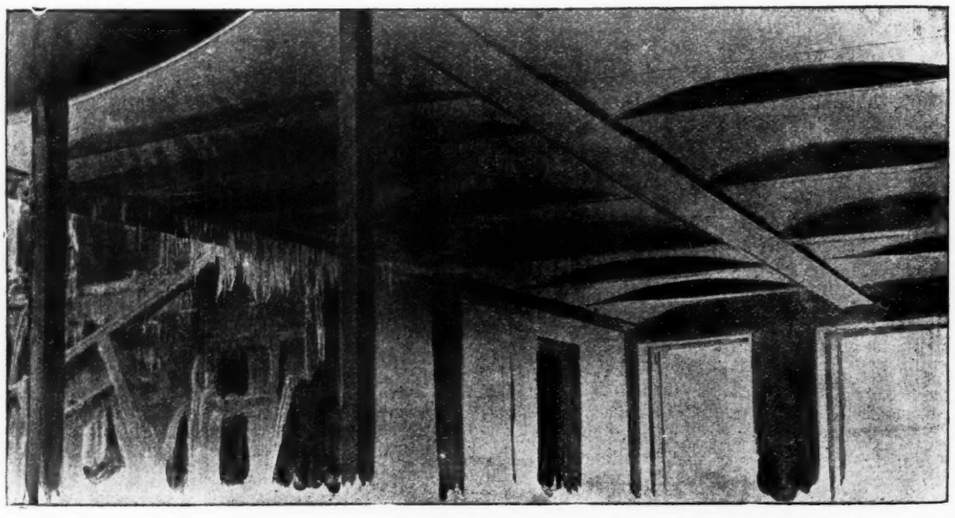
false construction of wood which caught fire and burned away, allowing the tank to fall upon the joists, destroying them and the fireproofing upon the girders below. Then the new building, almost completed, with thirty-five-foot openings at each floor through which the fire had perfect communication, and for an entire day subjected the new fire-proofing to a terrible heat test. Not only this, but the two fireproof stories above the old building were supported by the iron columns which fortunately retained their tile coats and were uninjured. The Electric building, as seen by the outline plan, was exposed to the fire upon two sides, with a large number of windows opening upon the court and alley. Thus, as has been said, a better plan for a fire test of modern fireproofing material and methods could hardly have been devised, and was not open to the objection that accompanies all alleged tests, that of having been constructed for a test and not for practical use. At the date of the fire, the new building had been plastered and was being trimmed. The iron stairways were in position, but only the risers had been placed, and the rooms contained more or less lumber used in trimming. When the fire occurred, as is usual in cases of fire in buildings in which the slightest attempt at non-combustible construction has been made, the newspapers all stated that another fireproof building had burned (like the Jewett building, in Buffalo, that had exposed iron columns and nothing else to support the claim). A special representative of THE INLAND ARCHITECT went to Minneapolis to investigate, and the architects of the Lumber Exchange, both old and new structures, Messrs. Long and Kees, offered every facility, and with the owners, Messrs. S. G. Cook & Co., aided by the photographs and diagrams shown in placing upon record the exact facts in every particular.

The fire gained considerable headway before it was discovered, and when the fire department responded the entire interior of the paint store was in flames. There was some controversy existing in the fire department at the time; the chief was in Boston, and a general disorganization of the department seemed to exist. When the old Exchange caught fire, instead of ascending the stairways in the new structure and easily subduing the flames through the openings at each floor, the fire was fought from the outside, the photographs Nos. 1 and 2 showing by the

NO. 4.—TENTH FLOOR CEILING IN OLD BUILDING, SHOWING ARCHES UNINJURED AFTER THE FIRE.

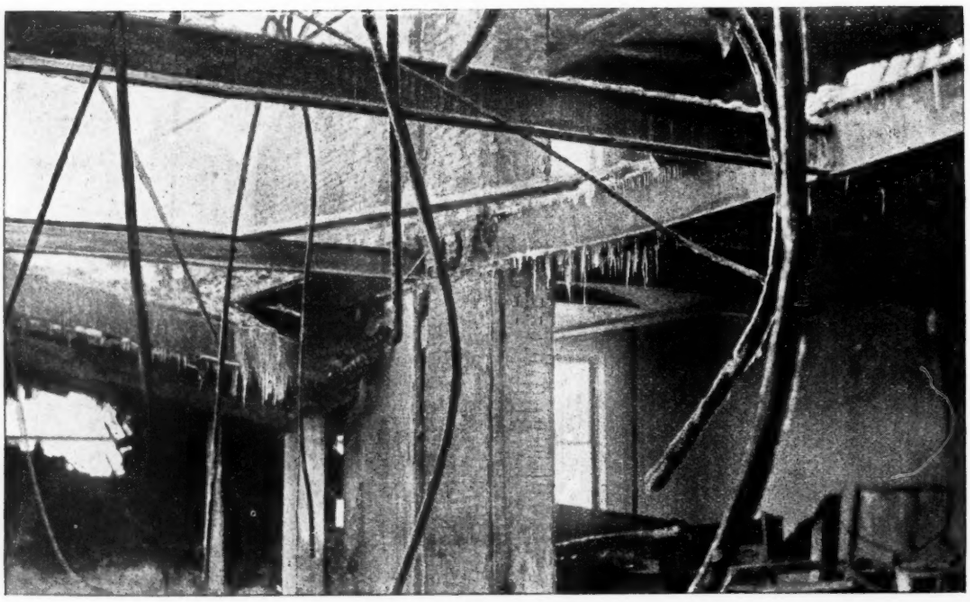
icicles how near the water came to reaching the ninth floor when the fire caught in the false construction. This soon burned away, allowing the heavy tank to fall, carrying with it everything in its way below the tenth floor, and the slow-burning construction burned for twenty-four hours, leaving the interior as illustrated by photograph No. 3. Of the construction, the iron columns that supported the

iron floor beams alone remained. These still retained their fireproofing, and, being uninjured, supported the top stories. Thus the tenth and eleventh having been added, and thoroughly fireproofed when the new portion of the building was built, stood the enormous heat generated by nine stories of burning timbers without a flaw or crack, as shown in the general interior view (photograph No. 4). The hole made for the passage of the tank was only increased as far as the floor beams covered with the false construction reached (see photograph No. 3). A hole about four feet square was cut through the tenth floor after several hours of labor by the firemen in order to reach the fire below, and even here the remainder of the arch was not destroyed. These arches were seven feet between beams and consisted of five-inch hollow tile. The plastering, of course, was destroyed, but photograph No. 4 shows their perfect condition though the stone trimming around the windows was crumbled in many places.



NO. 5.—TENTH STORY CEILING IN NEW BUILDING, SHOWING INTERIOR OF OLD BUILDING.

While the value of slow-burning construction, i. e., wooden joist covered with terra cotta tile, is not fully demonstrated in this fire, the covering having been to a greater or lesser extent knocked off by the falling tank and timbers, it is sufficient to show how inadequate this system is beside the regulation fireproofing system in which iron or steel joists are used.



INTERIOR VIEW OF SIXTH FLOOR, SHOWING OPENING BETWEEN OLD AND NEW BUILDINGS, AND IRON GIRDER WHERE SAFE STRUCK.

Leaving the old building, a close examination of the new in the vicinity of the thirty-five foot opening shows this difference perfectly. While the heat was not as direct or intense as upon the ceiling just shown, had there been the slightest particle of combustible material used, the fire would have spread and destroyed one of the finest office buildings in the West. Here even within five feet of the opening the plaster was intact, and though the walls of the entire building were blackened by the smoke that rolled into it from the furnace of flame fed by thousands of feet of pine joist so near it, the fireproofing was not even cracked. Photograph No. 5 shows this. Even those who have believed that a building could be and many were made fireproof, were surprised at the photograph taken from the sixth floor of the new building, looking through the opening into the old, showing the contrast as it has never been shown before in the history of fireproof construction. A factor that must not be forgotten in summing up the stability of fireproofing is the resistance to the weight and disintegrating effects of water. Tons of water must have fallen on these arches, rapidly changing their temperature from intense heat to cold, but neither weight nor changes of temperature, or the subsequent freezing, for the fire occurred in the coldest period of a Minnesota winter, seems to have in any way affected the arches. No greater contrast than is shown by this photograph can be well conceived of, the destruction wrought where a good enough policy was pursued, and the absolute safety where a common, practical system of fireproofing was employed. Probably the most remarkable incident of this remarkable fire was one that shows the enormous strength of these fireproof arches. Photograph No. 6 gives a view taken from the center of the old building on the fifth floor, showing old and new part. A safe weighing upwards of 4,000 pounds, located upon the eighth floor of the old building, fell with the floors, and striking the large girder at the sixth floor bent it, and bounding up, struck full upon an arch in the fifth floor of the new building, and this

weight falling three stories neither disturbed the arch nor even cracked the plastering below.

It is needless to state that the Electric Company's building, which was of fireproof construction, separated from the other buildings by a court, even though the fire had access through the many windows, was uninjured when the new building, connected by an unobstructed opening of thirty-five feet at each floor, stood the test so well.

The greatest pains have been taken to show this fire and its effect upon fireproofing in the most comprehensive manner possible, as it is hardly probable that such a test will again occur. Pains have been taken to reproduce such photographs as could be obtained, and the whole exposition of this most disastrous yet fortunate fire should enable architects to convince clients how advisable it is to fireproof all important structures, and also that fireproofing by a standard system does fireproof. The old building is being reconstructed and fireproofed, the Pioneer Fireproof Construction Company, of Chicago, who were the original contractors for the fireproofing of all the buildings, being engaged for the work.

## Ohio Chapter American Institute of Architects.

THE seventh annual meeting of the Ohio State Association, and the first since its reorganization as a chapter of the American Institute, will be held at Akron, September 17. The following circular just issued by the secretary gives full information:

OFFICE OF THE SECRETARY, }
AKRON, Ohio, August 3, 1890. }

DEAR SIR: At the last meeting of the Association of Ohio Architects, Akron was determined on as the place for holding the next annual meeting.

According to revised by-laws, our annual meeting occurs on the third Thursday of August, unless otherwise ordered by the executive committee.

In accordance with this provision of the by-laws, the executive committee have deemed it advisable and to the best interests of the society and hereby change the date of meeting this year from the twentieth day of August to the seventeenth day of September.

Since our last meeting in Toledo we have reorganized as a Chapter of the American Institute; consequently this will be our first meeting as a Chapter.

You are earnestly requested to arrange your business and make your engagements in accordance with the indicated date.

This being our initial meeting as a Chapter of the American Institute of Architects, it is desired that every member be present. A correct list of all members certified to the Chapter by the secretary and treasurer will be found in the by-laws of the Chapter, copies of which were furnished each member when notified of the result of the election creating the Chapter.

As this list only includes a portion of the architectural profession in the state, it is urged that the members endeavor to secure the application of as many other architects in good standing as possible, to present to the executive committee at their next meeting, for associate membership in the Chapter.

This is especially advisable on account of the action taken by the institute at their last session, expressly stipulating that no one shall be admitted to Fellowship to the American Institute of Architects who is not already a member of a Chapter of the Institute.

It would also add to the interest of the meeting if you should prepare a five or ten minute paper or talk on some subject of professional interest.

If you have anything in the way of drawings or photographs of your late work, fresh and interesting, bring them along.

It will be understood that you will attend the meeting unless heard from to the contrary. Bring the ladies along and let us know how many.

F. O. WEARY, President. G. W. KRAMER, Secretary.

There were several good reasons for changing the date of meeting and the attendance should be large and representative. The meeting at Toledo last year was one of the most enjoyable ever held by a state association, and this should not only include those who participated in the entertainment provided by the Toledo architects, but those who were absent and have regretted it. As the circular intimates, ladies will be especially welcomed.

## New Publications.

PETITS EDIFICES HISTORIQUE. Paris, Librairie-Imprimeries réunies, No. 2 Rue Mignon.

This is the title of a new publication by the well-known Raguenet. Like his other compilations it will appear every month. Each number will contain twelve pages of designs and details with a very short description of one or more historical buildings from which such drawings are made. According to the prospectus, "by this method the author will seek to make clear the salient points of each style, and teach students to quickly determine for themselves the nationality and style of a building, together with the period at which it was probably constructed." Subscription 23 francs per year.

BITS OF CANTERBURY CATHEDRAL. Drawn by Walter Tallant Owen. 1 vol., 12 plates; size, 6 by 9½; illuminated boards. Price, $1.00. New York, Wm. T. Comstock, 1891.

The history of Canterbury Cathedral, as well as the variety and beauty of its architecture, renders it one of the most interesting in England. St. Augustine in the sixth century, and Archbishop Cuthbert in the latter part of the eighth, were the earlier builders, and the succeeding ages had the help of Odo, Lanfranc and Anselm in repairing, rebuilding and enlarging.

The styles of the different periods have all had an opportunity for display, and the cathedral today exhibits nearly all the classes of Norman architecture, while parts are impressed with the purely English style. It was here that, after the fire in 1174, the pointed arch was first introduced into England, having been employed by certain artists or artificers summoned from France, and here also are seen some of the best and most characteristic forms of purely English window tracery found in the cathedrals of England.

It is easy to understand the attraction that this place has for the traveler, be he artist or layman, and this little book is a record of a few things seen and appreciated by Mr. Owen during a brief visit to Canterbury. There is a view of the entire cathedral, and of the separate "bits" that follows a glimpse of the pinnacles through Mercery Lane, and the "Bell Harry," which is the central tower of the cathedral, and so called from a small bell hung in the top. This was formerly the "Angel Steeple," having a gilt figure of an angel crowning it, and is said by Fergusson to be, for poetry of design and beauty of proportion, the best in England, and superior to any of its class to be found elsewhere.

A view of the cloisters, the northwest tower, baptistery, turret on southwest transept, Norman stairway, ruins of old cloisters, and the Prior's gateway, are among the plates. Before each plate is a title page, adorned with some detail of construction, or of some ornament or object in the building. Among these will be found mosaics from the floor, panel from ceiling, wrought-iron work, carved woodwork, a chair, a hinge, and the armor of the Black Prince.

Mr. Owen exhibits a fine and discriminating taste in his selection of various subjects for his sketches, and shows excellent ability as a draftsman. The drawings are well reproduced upon fine paper, and aside from the pleasure to be drawn from a casual inspection, they will be of practical service to those who wish them for a study.

ACADEMY ARCHITECTURE AND ANNUAL ARCHITECTURAL REVIEW, 1871. Edited by Alex Koch, architect. Published by William Mueller, 695 Broadway, New York. Price $2.50.

The third volume of Academy Architecture contains nearly as much matter as did the former volumes combined, which accounts probably for the increased price. The selections, which are made from drawings hung at the Academy exhibit, and from published designs of work executed during the past year in England and abroad, are admirable, and the work is of marked value to architects and to students. As an innovation America has been included in the "abroad" and has been called on to furnish subjects, while those chosen give confidence in the compiler's critical taste. The condensed form makes the publication useful in a working library, while the wide diversity of subjects and countries represented give it unique value as a book of reference.

PRINTED SPECIFICATIONS, published by George W. Grove, architect, Washington, D. C. Price, 30 cents each; $3.50 per dozen, express paid.

This is a printed specification after the usual pattern of alternate print and blanks for interlineations, covering twenty pages, legal cap size. Among peculiar features we note an index on the front cover of more than one hundred items.

The first page contains general clauses and conditions, nine in number. The others are devoted to the various trades in the following order: Excavation; stone-work; brick-work; concreting; carpentry; hardware; plumbing; painting and glazing; tinning and roofing; galvanized iron; zinc and copper; wrought and cast iron; slating; terra cotta and tiles; furnace, range, etc.; bells and speaking tubes.

The brick-work, carpentry and plumbing are treated with considerable fullness, though, strange to say, there is no mention of rubble masonry, which, in all regions convenient to quarries, forms the foundation to brick walls, and is also extensively employed for the walls themselves of the more expensive buildings.

No distinction appears between the general contractor and the sub-contractor, and we find no provision for giving bond, for protection against liens, for liability from accidents, nor for insuring the building during its erection. Nor does the specification define who shall lay out the work and be responsible for its lines, levels, etc., etc.,—whether the architect is expected to do this, or some one of the contractors, and if so, which one.

The sections on stone work, painting, tinning and roofing, iron work, and plaster are far from complete, and there is nothing whatever about fire-proofing, elevators, dumb waiters, mantels or electricity, except in the index. The blanks left for interlining are probably as well arranged as is usual; in some places they are much too liberal for ordinary work, and in others as much too limited.

The bricklayer is required to "repair all damage to street or neighbors' paving." Where the street paving is other than brick, this might be better done by some other mechanic than the bricklayer.

The framing specification is quite incomplete. It should require headers to be doubled as well as trimmers. The mode of framing, whether by tenon and tusk or otherwise, should be prescribed, also the gauging, crowning, jointing and beveling of floor joists, and the sizes and location of joist anchors.

ARTISTIC HOMES, IN CITY AND COUNTRY; with other Examples of Domestic Architecture, by Albert W. Fuller and William A. Wheeler, architects; fifth and revised edition with seventy full-page illustrations. Boston: Ticknor & Co.; price, $6.00.

It is seldom that perfect self-complacency is more frankly exhibited than in the "introductory note" to this volume. One reads and marvels, and then reads and marvels yet again. So good reading is this bland preface that we cannot refrain from quoting a portion of it. Say our authors, speaking of the fifth edition: "In the preparation of it they have endeavored to alter and improve the whole work, so as to make it, as far as possible, representative of the latest phase of American domestic architecture. With this object in view they have discarded many of the older illustrations, and have replaced them by ones of later work; adding, at the same time, a few miscellaneous examples of other buildings recently designed by them in the line of

domestic work. * * * To keep abreast of the tide of improvement; to aid those about to build to secure what is best and most desirable; to show them how use, beauty, and economy may be combined; are the aims of the authors. They venture to hope that their book will be found quite as interesting and suggestive, if not more so, than heretofore." If we had been besought to suggest any modifications of this preface, we should have recommended only its punctuation, here and there, with marks of interrogation. The book, in fact, belongs to the genus "trade circular," wherein self-laudation is accordant with modern commercial etiquette; and candid criticism seems therefore superfluous if not positively ungenerous.

We are not sure that we know exactly how much of merit is to be posited of the average of architectural work; but we think we shall be safe in saying that the work herein illustrated is fully up to the average. The authors have not designed monstrosities, and the plans are not bad. The shortcomings of their work are on the finer points, judged by a somewhat rigorous standard, i. e., that which they assume in their preface. For instance, their porches and *porte-cochère* entrances are uniformly unsuccessful in that they do not harmonize with the buildings, being of the nature of desultory appendages; their use of the arch over basement windows, in many instances, wars with the rest of the design; their handling of groups of dormers is not often pleasing; their plans of main stories are seldom pleasing in what, for lack of a better term, may be called *ensemble*, that is, they have not grasped the plan as a whole, and instead of disposing rooms so as to compel broad views, and of placing important interior details as to be effective from several points, they succeed only in bringing together mechanically a number of rooms offering utility without beauty; they make such invariable use of certain features that it becomes mannerism, i. e., the fireplace under the main staircase, or the recessed balcony spanned by its round arch, the carving and decorative detail is designed at too close range, and is therefore not happily disposed and becomes incongruous viewed as a whole; and in the matter of elementary planning there is a conspicuous absence of broom closets, housemaids' closets, and well-lighted linen rooms. The volume contains several studies for "proposed" houses, and these are decidedly inferior to the executed work. Are a deduction and a moral to be drawn from this? Any query as to the value of the book is at once brought face to face with the fact that here is a fifth edition; the demand certainly demonstrated a need, and indicates that the book measurably meets it.

## Association Notes.

ST. LOUIS CHAPTER A. I. A.

On June 30, at the regular monthly dinner and meeting of the St. Louis Chapter of the American Institute of Architects, Architect J. H. McNamara read a paper upon St. Louis spires, with criticisms upon the five best designs submitted in the recent competition for a gothic tower with spire, for the unfinished spire of Christ Church, St. Louis. The members of the Architectural League, the "sketch club" of St. Louis, were invited guests, and there was a full attendance of both architects and draftsmen. Mr. McNamara's paper was well received, and at its conclusion a vote of thanks was passed. The subject matter of the paper was somewhat in the line of that contained in that upon domes and towers, read by Mr. McNamara before the last convention of the American Institute of Architects and was in every way an excellent and scholarly criticism.

CHICAGO QUARRY OWNERS ASSOCIATION.

It was suggested at the June meeting of the association by R. W. Maxton that the meetings of the association could be productive of much benefit to members if a few changes in programme were inaugurated. Mr. Maxton claimed that the association represents a large amount of capital invested, and furnishes material for large contracts yearly and yet has no permanent quarters from which to answer questions and in which to exhibit samples of stone. In justice to the association members and the architects of the city, they ought to be able to show them into a convenient hall or room, fitted with cases containing samples of all stones represented in the association, with the analysis and geology and all other data pertaining to the same; a uniform price list should be established. The association should also subscribe to literary works bearing on this question, and in time accumulate a valuable library consisting of treatises, reports and the like, and also should have in this room a testing machine, seeing there is but one in the ci y; also a system of credits similar to that operated by Dun and Bradstreet, for the strict use of our members, could be established; and to have all these in charge of a competent person for daily inspection, from 9 till 4, would be of real value to incoming members.

Mr. Maxton's plans have been taken up by the president, C. B. Kimbell, and it is hoped they will become features of coming meetings of the association.

EDINBURGH ARCHITECTURAL ASSOCIATION.

The members of the Edinburgh Architectural Association had their annual excursion May 30. Leaving the Waverly station at 9:20, they travelled direct to Kinross, where machines were in waiting to convey them to Kinross House. Mr. Thomas Ross, who conducted, explained that it had been designed and erected in 1685 by Sir William Bruce, the celebrated architect, who purchased the estate a few years previously from the Earl of Morton. It is situated on the shore of Loch Leven, and is a good example of the palatial style of architecture of the period. The Lyon-King-at-Arms (Mr. G. Balfour Paul, advocate), next acted as guide, and took the party to Tullibole Castle, which was erected by Sir John Halliday in 1608. It is a nice specimen of the castellated domestic architecture of the period. A visit was also paid to the old churchyard close at hand. From Tullibole Castle the party went to Aldie Castle, situated on a commanding height overlooking the valley of Pow. The castle, which is in fair preservation, belongs to the Dowager Marchioness of Lansdowne. Cleish Castle and Dowhill Castle were also visited. Cleish Castle is beautifully situated among fine timber, and is a modern restoration of a fine old ruin. The edifice originally belonged to Lord Ochiltree. A fine view of Loch Leven was obtained from Dowhill Castle. This castle is the somewhat dilapidated remains of what has been a large castle on the courtyard plan. It originally belonged to a branch of the famous Lindsay family. Dinner was partaken of in Haris Hotel at the close of the day's proceedings, and the party returned to Edinburgh in the evening, highly pleased with the day's outing.

## Mosaics.

POULTNEY BIGELOW, who was a schoolmate of the German emperor, will contribute an article to the Midsummer (August) number of the *Century* on the first three years of the emperor's reign—the third anniversary of his ascent to the throne having taken place on June 15. Mr. Bigelow believes that "since Frederick the Great no king of Prussia has understood his business like this emperor," and in this article he gives what he considers the secret of the power of William II with his people, and incidentally contributes many facts regarding his life. This number of the *Century* will be especially rich in illustrated articles and complete stories, and the illustrations of Mr. Bigelow's paper will include a number of views of the palaces at Berlin and Potsdam, and engraved portraits of the emperor and empress will form a double frontispiece.

TO THOSE contemplating a trip to the mountains in search of health or pleasure, Deer Park, on the dome of the Alleghany Mountains, 3,000 feet above the sea level, offers such varied attractions as a delightful atmosphere during both day and night, pure water, smooth, winding roads through the mountains and valleys, and the most picturesque scenery in the Alleghany range. The hotel is equipped with such adjuncts conducive to the entertainment, pleasure and comfort of its guests as Turkish and Russian baths, swimming pools for both ladies and gentlemen, billiard rooms, superbly furnished parlors, and rooms single or en suite, all facilities for dancing, an unexcelled cuisine and a superior service. The surrounding grounds as well as the hotel are lighted with electricity, have cosy and shady nooks, meandering walks, lawn-tennis courts and grassy playgrounds for children within full view of the inviting verandas. Six miles distant on the same mountain summit is Oakland, the twin resort of Deer Park, and equally as well equipped for the entertainment and accommodation of its guests. Both hotels are upon the main line of the Baltimore & Ohio railroad, have the advantage of its splendid vestibuled limited express trains between the East and West, and are, therefore, readily accessible from all parts of the country. Tickets good for return passage until October 31, are on sale at greatly reduced rates at all principal ticket offices throughout the country. Tickets reading from St. Louis, Louisville, Cincinnati, Columbus, Chicago and any point on Baltimore & Ohio system are good to stop off at either Deer Park or Oakland, and can be extended by agent at either resort if deposited with him for safe keeping. For full information as to rates, rooms, etc., address George D. De Shields, manager, Deer Park or Oakland, Garrett County, Maryland.

THE fact that stone façades are becoming more popular every day with the home-building public, it is a serious question as to which class is the better for such a purpose. A number of stones are known to exfoliate under climatic changes and others to discolor or disintegrate from the rains of spring and autumn and the frosts of winter. Others again offer no resistance to fire, while others again are such poor tool-workers that, where ornamentation is a prerequisite, whatever other good qualities they may possess is overtopped by this essential lacking. Possibly, taking all things together, what is known as the "Potsdam red sandstone" offers better results than any of the other building stones. At least it has no superior. Under a government test wherein fifty-eight examples, embracing all the accepted granites, marbles, limestones, sandstones, etc., were tried as to their crushing strength, the Potsdam red sandstone proved to have no competitor in the race. It is a wonderfully durable stone, being composed of pure silica. As to its resistance of fire it is only necessary to state it is used as a lining to furnaces instead of fire brick. It breaks true under hammer and can be sawed, rubbed and carved with the same facility as the best granites. It does not stain, but can be washed off as readily as glass. As sidewalk flagging it gives a smooth surface, and the grain never allows it to become slippery from wear or wet. Frost does not affect it. The strata is such that stones of any shipable dimensions can be taken from the quarries, and that too without flaw or blemish in them. Somebody once said "God doubtless could have made a better berry than the strawberry, but he never did," so he might have made a better building stone than the Potsdam sandstone, but he never did, or if he did, it hasn't yet been discovered.

## Obituary.

One of the youngest architects in the profession, and one whose promise for the future was great, Mr. T. L. Dismukes, of Nashville, Tennessee, died in that city, June 3, of pneumonia contracted in February last. At the time of his death, Mr. Dismukes had completed a number of residences that showed refinement and good taste, and also several works of considerable magnitude in his native city. He was a graduate of the Vanderbilt University, and was twenty-nine years of age. Architect G. Zwicker has taken charge of Mr. Dismuke's unfinished work, and will continue his practice.

## Our Illustrations.

Village Hall, Evanston, Illinois; Holabird & Roche, architects, Chicago.

The Venetian Office Building, Chicago; Holabird & Roche, architects.

Residence for James Charnley, Chicago; Adler & Sullivan, architects.

New Orleans Passenger Station, Illinois Central Railroad; Adler & Sullivan, architects, Chicago.

Residence of Charles Pinkney Wheeler, Evanston, Illinois; Frederick Baumann and J. K. Cady, architects.

Interior view, Synagogue, corner Indiana avenue and Thirty-third street, Chicago; Adler & Sullivan, architects.

Perspective view of Mines and Mining Building for the World's Columbian Exposition, Chicago; S. S. Beman, architect, Chicago.

Perspective view and plan of the Woman's Building for the World's Columbian Exposition, Chicago; Miss Sophia G. Hayden, architect, Boston.

PHOTOGRAVURE PLATES.

*(Issued only to subscribers for the Photogravure edition.)*

Residences, corner Prairie avenue and Twenty-sixth street, Chicago; Charles S. Frost, architect.

Synagogue, corner Indiana avenue and Thirty-third street, Chicago; Adler & Sullivan, architects.

Summer Residence of Samuel Mather, Cleveland, Ohio; C. F. Schweinfurth, architect. Two full-page views are given.

Residence at 620 Division street, corner Lakeshore Drive, Chicago; Irving K. Pond and Allen B. Pond, architects. Three full-page views are given.

## Synopsis of Building News.

**Butte, Montana.**—Architect H. M. Patterson reports: I. O. G. T. building, 28 by 100 feet, brick and stone, pressed brick front, steam heated, three stories; cost $20,000; Jayner Bros., builders. Carder building, 21 by 70 feet, two stories; cost $5,000; Peck Bros. & Co., builders. For John R. Bordeaux, two-story and basement dwelling, 47 by 50 feet; cost $7,500. For Mr. Gunther, one-story building, 42 by 50 feet; cost $2,500. For John M. Stewart, two-story and basement double dwelling, modern improvements; cost $10,000. The above all under way. The following are projected: J. A. Herrington, two-story double dwelling, 42 by 30 feet; cost $3,500. F. H. Shepard, remodeling dwelling; cost $3,000. Three cottages, aggregate cost $10,000.

**Chicago, Ill.**—Architect W. J. Van Keuren: Making plans for Congregational Church, to be erected at Mont Clare; to be of frame with stone basement, have stained glass windows, etc.

Architect W. Henri Adams: For J. K. Armsby, Jr., a two-story frame residence, hardwood finish, furnace, etc.; to be erected at Evanston. For Henry S. Martin, at La Grange, and S. F. Davidson, two neatly designed frame houses, stone cellars, hardwood interiors, plate and beveled glass, electric light, incandescent electric light.

Architect C. H. McAfee: A six-story factory on West Van Buren street; to be of pressed brick and stone front, with gravel roof, have steam heat, electric light, size 111 by 166 feet; cost $75,000.

Architect J. C. Swalm: For J. T. Moore, on West Jackson street, a four-story flat building, 50 by 110 feet in size; to be of Ashland variegated brownstone front, with stone bays, hot-water heating, elevator, electric light, oak finish, plate and beveled glass; cost $30,000.

Architect H. H. Boyington: For Daniel Duffy, on State street, south of Sixty-seventh street, a three-story store and flat building, of Bedford stone front.

Architect C. S. Corwin: For C. S. Johnson, at Hampden court, near Wrightwood avenue, three two-story, basement and attic residences; to have stone fronts, hardwood finish, plate and beveled glass, furnaces, slate mansard roofs, etc.

Architect E. H. Turnock: For C. P. Hall, at La Grange, a two-story frame residence; stone foundation, interior to be finished in sycamore, oak and California redwood, have hot-water heating, etc. For L. H. Mitchell, at La Grange, a two-story frame residence, with stone foundation, stained and plate glass, furnace. For Mrs. Anna C. Jack, at La Grange, a frame, stone basement, hardwood finish, furnace, etc. For L. H. Holmes, at La Grange, a two-story frame residence. For J. B. Russell, a two-story frame residence. For H. L. Conard, at Hinsdale, a bungalow residence; hardwood finish, furnace and all conveniences. For G. W. Davis, on Thirty-third street, near Cottage Grove avenue, a four-story apartment house, of pressed brick and stone front, with copper bay and cornice, marble wainscoting, tiled floors, hardwood finish throughout, hot-water heating, nickel plated plumbing fixtures, laundry dryers. For Charles Coonley, at South Bend, Indiana, a two-story frame residence. For Dr. D. L. Peeples, a two-story residence of stone, hardwood finish, furnace, etc.

Architects J. F. & J. P. Doerr: Making plans for S.S. Peter and Paul Catholic school, at Naperville, Illinois; two-story and basement, 58 by 86 feet; cost $15,000; school rooms on first floor and hall on the second. For Father Genuit, on Hoyne avenue and Thirty-sixth street, Catholic church and school, 52 by 96 feet; cost $15,000; pressed brick front, with stone trimmings and slate roof. For P. Cragin, on Wabash avenue and Forty-first street, a two-story flat building, of Bedford stone front with gravel roof, furnaces, etc. For C. Riemensperger, at 2971 Wentworth avenue, a three-story and basement store and flat building, of St. Louis pressed brick and Portage brownstone. For John Becker, at 3654 Wentworth avenue, a four-story and basement store and flat building, of St. Louis pressed brick front with buff Bedford stone trimmings and galvanized iron bays.

Architects Snyder & Nothnagel: For P. O'Donnell, southeast corner of Adams street and Spaulding avenue, a two-story, basement and attic residence, of buff Bedford stone front, slate mansard, copper bays and cornices, steam heat, etc. For J. L. Dickhaut, at 625 Kedzie avenue, a two-story flat building; to be of buff Bedford stone front, oak finish, stained and plate glass, etc.

Architect E. M. Newman: For Rev. C. G. Trusdell at Lake Bluff; a two-story frame residence; size 40 by 55 feet; brick basement, pine finish, etc.

Architect F. Foehringer: For Fred. Bohl, on Wood street, corner of Lull place; a three-story and basement flat building; of Tiffany pressed brick and Bedford stone.

Architect A. F. Hussander: For L. Brown; a three-story and basement flat building; of St. Louis pressed brick and Bedford stone. For P. A. Urbanus on Baxter street, near Wellington avenue; a two-story flat building; of frame with brick basement. For P. K. Glimme, on Belmont avenue; a two-story flat building of St. Louis pressed brick and buff Bedford stone. For William Borg, on Belmont avenue; a two-story flat building; of pressed brick and stone.

Architect F. B. Abbott: For J. Johnston, at 1182 Adams street; a three-story residence; to have a buff Bedford stone front, hardwood finish, furnace, etc. For a stock company of whom W. G. Stanford is president; a four-story apartment house; size 45 by 125 feet; to cost $60,000; on Thirty-sixth street and Ellis avenue. To be of light colored pressed brick with pink stone trimmings; hardwood interior finish throughout, steam heat, marble wainscoting and tiled floors, elevators, electric light, etc. Also for a stock company, to be erected corner of Stanton avenue and Oxford court; a four-story apartment house; 46 by 125 feet in size; cost $50,000. Pressed brick and stone, steam heat, electric light, etc. He is also completing the elegant residence for C. C. Heisen, on the Lake Shore Drive between the residences of Hon. Robert T. Lincoln and Professor Swing. It is constructed of granite, and is elaborately finished in hardwoods, with mosaic floors, tile bathrooms, Spanish tile roof, hotwater heating, electric light and the finest of sanitary arrangements; the cost will be $75,000.

Architect George Grussing: For Thomas Jubb, on Fulton street, near Francisco; a two-story flat building; of Tiffany pressed brick and Bedford stone, with galvanized iron bays. For S. W. Roth, on Homan street near Chicago avenue; a two-story flat building; of pressed brick and stone, hot-water attachments, furnaces, etc. For James Barry on Lake street near Garfield Park; a two-story flat building; of Tiffany brick and stone. For George McLester at Ridgeland; ten eight-room frame residences, to have stone basements, stained glass, bathrooms, furnaces, etc.; cost $30,000.

Architect A. G. Ferree: For B. F. Chase and J. E. Tate, three two-story residences; to have rockfaced blue Bedford stone fronts, slate mansard and gravel roof, hardwood finish, furnace, plate and beveled glass, electric light and all the sanitary etceteras; they will cost $15,000.

Architects Park & Fuller: For William Ashton & Son, on Calumet avenue, between Forty-second and Forty-third streets, four three-story residences, to have stone fronts, hardwood finish, plate and beveled glass, furnaces, etc.; cost $32,000. For R. R. Thomas, on Jackson street, east of Sacramento avenue, a two-story and basement Bedford stone flat building, hardwood finish, furnaces, etc. For R. L. Finch, at 1564 Monroe street, a two-story Ashland brownstone front residence; cost $7,000.

Architect W. L. Carroll: For the Bowman Dairy Company, on Thirty-fifth street, near Indiana avenue, a three-story building, to contain office, milk depot, and apartments. The front will be of stone, with stone arches and columns, copper bays and iron grill work, hardwood interior, electric light, etc.; cost $20,000.

Architects J. M. Van Osdell & Co.: For Reid, Murdoch & Co., southeast corner of Franklin and Monroe, two additional stories, of cut stone front; steam heat, electric light, etc.

Architect Simeon B. Eisendrath: For Michael Reese Hospital, a three-story training school for nurses, and lying-in hospital; size 30 by 80 feet; to cost $15,000. Pressed brick and cut stone front, steam heat and the best of sanitary fixtures will be put in.

Architect D. A. Lapointe: For H. E. Bandell, on Walnut street, east of Sacramento avenue, two two-story Bedford stone front flat buildings; furnaces, beveled and plate glass; cost $14,000. For E. J. Lewis, on Washington boulevard, east of Albany avenue, a two-story stone front residence, hardwood finish, hot water heating; cost $10,000. For George Ilett, at 153 Sacramento avenue, six two-story flat buildings, of pressed brick and stone; cost $30,000. For N. Catellier, on Monroe street, a two-story Bedford stone front flat building; two furnaces, etc.; cost $8,000. For Justice Scully, on Warren avenue, near Hoyne, a two-story Bedford stone front residence; stained, plate and beveled glass; furnace; cost $8,000. For J. Short, on Park avenue, near Leavitt street, a two-story residence, to have a front of Bedford stone, hardwood finish, furnace; cost $7,000. Also making plans for six three-story stores and flats, to be erected on Fullerton avenue, near North avenue. Pressed brick and stone; cost $30,000. Architect D. A. Lapointe has removed to 125 Clark street, room 8.

Architect W. G. Barfield: For John O'Malley, on corner of Forty-fifth and State streets, a three-story block of stores and flats, 125 feet front on State and 70 feet on Forty-fifth street, Bedford stone front with handsome copper bay and tower on the northwest corner, to have hardwood interior; cost, $41,000. When completed will add another 125 feet, thus occupying the whole block. The same architect is taking figures on ten-story apartment house for Dr. F. D. Clark, to be erected at 333 Michigan avenue. The front will be of Bedford stone and granite, interior to have marble wainscoting, mosaic floors, elevators, electric light, steam heat, steel beams and columns.

Architects Crowen & Richards: For Mrs. S. K. Elmore, a large number of frame cottages, to be erected near the Grant Locomotive Works. Also taking figures on a four-story apartment house, to be erected on Sixty-third street and Star avenue. Bedford stone, buff pressed brick, steam heat, electric light, marble wainscoting, oak finish; cost $30,000. Crowen & Richards have removed to the Boylston building, room 516.

Architect Oscar Cobb: For Hefferlin Opera House, at Livingston, Montana, two-story building, to contain bank, store and offices, with theatre in the rear; the front will be of stone, hardwood interior, steam heat, electric light, etc.; cost $50,000.

Architect Fred Ahlschlager: Taking figures for German Lutheran Church, to be built at Washington Heights; frame, stone basement, stained glass windows, etc. Also made plans for German Lutheran Church, to be erected at Forty-ninth and Dearborn streets; stone basement and frame, stained glass, furnace, pews to seat 850 people.

Architect J. C. Brompton: For Sam Brown, Jr., two three-story and basement apartment houses, 42 by 52 feet each, to cost $36,000; the first story will be of rockfaced stone and above of pressed brick and stone with terra cotta panels; they will be finished in hardwood throughout, have furnaces, gas ranges, gas fixtures, cement sidewalks, etc.

Architects Hetherington & Warner: For Mr. Nelson, on Wallace street, near Thirty-eighth street, a three-story store and flat; to be of Bedford stone front with copper bays, plate and stained glass. For J. J. Warde, on Oak street, near Rush street, a three-story flat building of brownstone front, hardwood finish, etc.

Architect Perley Hale: For F. C. Liphard, on Vernon avenue and Thirty-seventh street, two three-story residences; to have stone fronts, yellow pine and oak finish, furnaces, etc.; cost $14,000. He also made plans for a five-story hotel 25 by 103 feet in size; to be erected on Clark street, next door south of Grace Hotel.

Architect J. E. O. Pridmore: For A. P. Spencer, on Oakenwald avenue and Forty-third street, a four-story apartment house, 104 by 75 feet; cost $50,000. It will have two fronts of pressed brick and stone, steam heat, electric light, elevators, etc. Contracts have been let and the foundation is now being put in. He is also making plans for a two-story concert hall, 76 by 150 feet in size; cost $35,000.

Architects J. M. Van Osdell & Co.: For Mrs. La Berg, on Madison street, near Halsted, a five-story store and flat building, 23 by 80 feet; cost $18,000. The front will be of granite and terra cotta, with handsome terra cotta bays. Will put in steam heat, mosaic and tile floors, etc.

Architects Faber & Pagels: For Mrs. Meidenbauer, a three-story store and hall; cost $15,000. Bedford stone, steam heat, etc.

Architect Clinton J. Warren: For Batcheldor et al, Lexington Hotel, corner of Michigan avenue and Twenty-second street. Ten stories, 200 by 150 feet in size; cost $600,000. The contract is let to Wells Bros.

Architects Lamson & Newman: For T. F. Kennedy, a three-story flat building, 25 by 76 feet; cost $12,000. Stone front, steam heat, electric light, etc. For C. M. Staiger, at 712 Fullerton avenue, a two-story residence of Bedford stone front, steam heat, etc.

Architect L. J. Schaub: For Peter Mueller, at 686 to 688 West North avenue, a three-story store and flats, 40 by 88 feet, to be of pressed brick and Portage stone; cost $20,000. For A. Klingel, corner of Robey & Greenwich streets, a three-story store and flat building of St. Louis pressed brick and Portage stone. For August Ortlett, on Center avenue and Indiana street, a four-story store and flat building, 45 by 70 feet; cost $18,000. La Salle pressed brick and brownstone front, steam heat, etc.

Architect Julius Speyer: For A. Harper, on northwest corner Van Buren street and California avenue, a four-story flat building, 28 by 100 feet; cost $20,000.

Architect George H. Borst: For Miles H. Carr, on Paulina street, near Cuyler street, a two-story frame residence, stone basement, furnace, etc. For M. F. Kellogg, on Oak avenue, near Thirty-sixth street, a three-story flat building; of pressed brick and stone front: cost $10,000.

Architects Kley & Lang: For Mr. Ludolph, a four-story building, to contain stores, flats and lodge rooms; it will have a Bedford stone front and cost $18,000. For Bernard Boedeker, on Chicago avenue, near Ashland avenue, a four-story store and flat building, 25 by 86 feet, to be of St. Louis pressed brick and Bedford stone. For B. F. Boedeker, at 36 Vernon Park Place, a three-story flat building, of buff Bedford stone front.

Architects Treat & Foltz: For J. G. Garibaldi, on Rush street and Walton place, a four-story apartment house, 112 feet front by 54 feet deep; cost $45,000; the front will be of buff Bedford stone. For W. C. Goudy, a five-story addition

to Lincoln Park Sanitarium, on Deming court and Park avenue; stone front, hardwood finish, steam heat, electric light; cost $35,000. For Mrs. Harris, a two-story addition to City Hotel, Sixteenth and State streets; to be of pressed brick and stone; size 63 by 123 feet, and cost $25,000. They also made plans for a four-story addition to Kemper Hall, Kenosha, Wisconsin; pressed brick and stone, hardwood interior, steam heat.

Architects Flanders & Zimmerman: For J. G. Stevenson, corner of Sixty-third street and Sheridan avenue, a seven-story hotel, 200 by 143 feet in size, to be of pressed brick, stone and terra cotta, have steam heat, electric light, elevators, etc.; cost $250,000.

Architect H. B. Wheelock: Made plans for rebuilding Emanuel Baptist Church, which was destroyed by fire last May; he will make extensive alterations and additions, and the expenditure will be about $30,000. For Hollett & Tinsman, at 6110 and 6112 Wentworth avenue, a three-story store and flat building, 40 by 70 feet; cost $16,000; brown pressed brick and Bedford stone.

Architect C. M. Almquist: For Charles Julian, a three-story flat building, 25 by 70 feet in size, of pressed brick and stone, steam heat, etc. For M. Butler, on West Washington street, a four-story flat building, of pressed brick and stone, size 132 by 88 feet; to cost $50,000. For I. N. Sandberg, on Dearborn avenue, between Division and Goethe, a handsome three-story residence of blue Bedford stone; to cost $15,000. For Fred H. Atwood, on Belmont avenue, a three-story flat building, of pressed brick and stone.

Architect Henry Ives Cobb: For George W. Cass, 2713 Michigan avenue, a three-story residence, 40 by 90 feet in size, to be constructed of Bedford stone, slate roof and interior finished in mahogany, birdseye maple, quarter-sawed oak, mosaic floors, marble wainscoting, tile work, electric light, hot-water heating, etc.; cost $80,000.

Architects Adler and Sullivan: For Illinois Central Railroad, at New Orleans, a handsome railway station 120 feet long, two stories high; to be constructed of pressed brick with stone trimmings and slate and gravel roof, interior to be finished in Southern pine. They also made plans for a four-story apartment house for Adolph & William Loeb, to be erected on the northeast corner of Randolph and Elizabeth streets; it will be 181 feet front by 46 feet deep and cost $60,000; the first story will be of stone and above of pressed brick and stone; Victor Falkenau has the contract for all the work.

Architect, Henry Sierks: For Heissler & Junge, Thirty-ninth and Hopkins streets, a two-story bakery, 260 by 262 feet in size; to cost $100,000; to be of common brick with slate and gravel roof, have steam heat, electric light, elevators, steam engine, two 200-horse-power boilers, etc.

**Cincinnati, Ohio.**—Reported by Mr. Lawrence Mendenhall.

There are no new developments in the trade at the time of writing. The largest job on the market is the I. O. O. F. temple, and the bids are to be in by August 1. Work will soon be begun on the Alms Hotel, and, when finished, our city will gain two beautiful buildings. I think that it can be safely said that when the building season closes here, the total amount will exceed that of last year.

Architects S. Hannaford & Sons report: For Mr. J. H. Rhodes, a residence; materials, stone, slate roof, hardwood, stained glass, furnaces, grates, mantel, gas, plumbing, and modern improvements; cost $25,000. For S. F. Dana (Campbell's Creek Coal Company), two houses; materials, pressed brick, stone trimmings, slate roof, hardwood, grates, mantels, furnaces, stained glass, etc.; cost $26,000. For F. Alms, an apartment house, six stories high; materials, pressed brick, terra cotta, slate roof, elevators, stained glass, steam heat, tiling, mantels, plumbing, gas, etc.; cost $100,000.

Architect G. W. Drach reports: For C. Hoppe, Cincinnati, a residence; materials, brick, stone trimmings, stained glass, slate roof, pine finish, furnace, mantels, plumbing, etc.; cost $5,000. For Louis A. Roth, a residence; materials, brick, stone, slate roof, plate and stained glass, plumbing, gas, laundry fixtures, mantels, etc.; cost $5,000.

Architect John H. Ball has drawn plans for a residence for Eugene Sweeny; materials, pressed brick, slate roof, hardwood mantels, furnace, grates, plumbing, stained glass, etc.; cost $8,000.

Architects Baude & Kunz report: For Dr. Charles W. Wocher, a residence; materials, pressed brick, slate roof, pine finish, furnace, gas, plumbing, stained glass, etc.; cost $6,500.

Architect S. S. Godley reports: For J. W. Iredell, Jr., a residence; materials, stone, brick, hardwood, slate roof, gas, plumbing, stained glass, furnace, etc.; cost $8,000.

Architect J. J. Rueckert reports: For Mrs. Holz, a residence; materials, pressed brick, hardwood, slate roof, furnace, gas, plumbing, stained glass, mantels, etc.; cost $5,500.

Architect Charles Diss reports: For John Goetz, a residence; materials, stone, pressed brick, hardwood, slate roof, furnace, grates, mantels, stained glass, etc.; cost $15,000.

Architect Lucien Plympton reports: For Walter Fisher, 261 Walnut street, a residence; materials, stone, tile roof, hardwood, mantels, grates, furnace, stained glass, tiling, etc.; cost $7,000.

Architect H. E. Siter reports: For the Board of Education, Cincinnati, two schoolhouses, as follows: for eighth district, a building three stories high; materials, brick, pressed and common; slate roof, furnaces, desks, blackboards, gas, etc.; cost $25,000. For the twenty-ninth district, an edifice similar to the one above; cost $50,000.

Architects Crapsey & Brown report as follows: For the Presbyterian Congregation, at Winchester, Kentucky, a church edifice; materials, brick and stone, slate roof, hardwood, furnaces, stained glass, pews, etc.; cost $20,000.

Architects Aiken & Ketchum report as follows: Rebuilding pavilion for Cincinnati Hospital, designing interior woodwork, etc.; cost $2,000. Also remodeling the auditorium in same building, and changing same into rooms for internes, and a library; cost $18,000. For A. M. Allen, Glendale, Ohio, a frame dwelling; materials, frame, shingle roof, pine finish, plumbing, gas, etc.; cost $7,000. For C. B. Oglesby, a store and apartment building at Middletown, Ohio; materials, brick and stone, iron, gas, plumbing, pine finish, tin roof; cost $18,000.

Architects Des Jardins & Hayward have drawn plans for a school at Osgood, Indiana; materials, brick, slate roof, school furniture, blackboards, gas, etc.; cost $8,000.

**Detroit, Mich.**—The following are reported from Detroit:

Architects Malcombson & Higginsbotham: For F. Bonenwett, a two-story brick store on Michigan avenue near Harrison street; cost $6,000. For M. J. Erwin, Harbor Springs, Michigan, two-story frame dwelling, stone basement; cost $5,000.

Architects Hess & Roseman: For B'nai Israel Synagogue (projected), edifice on Mullsett street, near Hastings street; brick with buff stone trimmings, slate roof, etc.; cost $12,000. For F. Schmidt, three-story brick store and flat building; cost $10,000.

Architects John Scott & Co.: For Michigan Stove Company, one-story office addition, 49 by 169 feet; cost $15,000.

Architects Donaldson & Wier: For John P. Huckenstein, two-story brick residence on Congress street near St. Aubin street; cost $5,500. For M. Hardin & Co., three-story foundry building, 40 by 105 feet, on McComb near Brush street; cost $10,000.

Architect Peter Deidricks: For Alphonse Posselins, four-story factory building on Gratiot avenue, near Antietam street; cost $15,000.

Architect E. E. Meyers: For Cooper Memorial Presbyterian Society, addition to front of present structure; cost $5,000 (projected). For Col. A. M. Payne, Yazoo, Mississippi; a two-story frame residence; cost $5,000.

Architect J. G. McLean: For Dr. G. A. McSavimid, Windsor, Ontario; two-story brick residence; cost $5,000.

Architects Rogers & McFarlane: For the Bagley estate; six-story factory building, corner of Congress and Randolph streets; cost $30,000.

Architects E. A. Walsh & Son: For Mrs. M. Meyers; two-and-a-half-story brick residence, on northeast corner of Abbott and Trumbull avenues; cost $6,000.

Architects A. C. Varney & Co.: For J. W. Dailey; three-story store and flat building, on Michigan avenue, near First street; cost $5,500. For Beals & Selkirk, Wyandotte, Michigan; three-story trunk factory; size 50 by 180 feet; brick; cost $15,000. For Mrs. W. Robinson; two-story brick residence; Columbia, between John R. and Brush streets; cost $5,500.

Architect Gordon W. Lloyd: For Hugh McMillan, eight-story office building, north-east corner of Washington avenue and Clifford street; pressed brick, brownstone trimmings; cost $200,000. For Women's Hospital and Foundlings' Home (projected), three-story brick, 65 by 136 feet, on Thirteenth street and Grand River avenue; cost $50,000.

**Louisville, Ky.**—Architects Drach & Thomas report: School building alterations, Fourth Ward school, Preston and Walnut streets; cost $11,000. Hotel, Ninth and Main streets; $15,000; five stories, 30 by 175 feet; pressed brick and stone. For Mr. J. Brannin, block of seven single residences for James S. Pirtle, First and Ormsby avenue; cost $52,500; brick and stone trimmings, 30 by 55 feet, steam heating, not let. Alterations and additions to Mr. John Daeherfer's residence, Twentieth and Jefferson streets; cost $8,000; stone front, slate roof, steam heating, size 30 by 70 feet; let to John Mitchell, contractor. Residence for Mr. Norton; cost $12,000; stone front, slate roof, steam heat, size 40 by 55 feet; location, Madisonville, Ky. Alterations and addition to Mr. Mike Muldoon's residence; $7,500; located on New Broadway; building not let.

Architect B. Frank Peixotto reports the following: St. James Casino, for Victoria Land Company; location St. James Court; cost $7,000; brick and stone, 60 by 30 feet, slate roof. Empire Hospital improvements, addition to Sisters' dwelling, new chapel, new foundations to main building, material frame and brick, foundations stone, metal roof; cost has not been estimated.

Architects Maurey & Dodd report the following: Residence, J. A. Flexner; $6,000; 30 by 45 feet, three stories, brick and stone; location Sixth and Ormsby avenue. Residence, Mrs. William Cornwall, Jr., 25 by 60 feet, two and one-half stories; $6,500; brick and stone, slate roof; location Ormsby, between Fifth and Sixth streets. Residence, Mr. Benjamin Flexner, 32 by 44 feet, three stories, brick and stone; cost $6,000; location Sixth and Ormsby avenue. Residence, Dr. Joseph Mathews, Fourth near York, 40 by 60, two and one-half stories; cost $10,000; brick and terra cotta, slate roof. Residence, Mrs. Quigley, Fourth and Weissinger avenue, size 30 by 60 feet, three stories, brick and stone, metal roof; cost $10,500.

**Rochester, N. Y.**—Architects Nolan, Nolan & Stern have prepared plans for Public School No. 10, for the city of Rochester, two stories, 100 by 150 feet; to contain sixteen schoolrooms, and a large lecture room in third story, to be of brick, trimmed with stone and terra cotta, slate roof; when completed will cost about $45,000. Also, just completed plans for a hospital building, to be built at Newark, New York, for the New York State Custodial Asylum. The main building will be two stories high, with a tower; the wards will be in a semi-detached circular building, 50 feet in diameter; one 12 feet story; all of brick, tin roof; to cost about $20,000.

Architects Jay Fay & O. W. Dryer have made designs for a residence to be built on East avenue, for Miss J. Brown; first story of stone, second story "half-timbered," the interior will be finished in hardwoods, the plumbing will be first-class in all respects; furnace heat; to cost $10,000. Also, for Mr. H. E. Boardman, a double house; first story of field-stone and brick, second of frame; tile roof, plate glass, heated by furnace, interior finish of oak; cost about $8,000. Also, designs nearly complete for a new drill hall for the New York State Industrial School; 100 by 300 feet, built of stone, thoroughly lighted with skylights and glass front; trussed roof, covered with tin; to cost about $25,000. For Mr. W. R. Chelice, a block of three stores and four flats, three stories high, 50 by 60 feet; buff brick, stone trimmings, copper cornice; cost $10,000.

Architects Block & Barnes have designed a residence for Mrs. C. Will, stone and frame, interior finished in hardwoods, stained glass; cost about $14,000. For Mr. William Karges, a three-story brick block of stores and flats; electric work, plumbing, tin roof; cost $12,000. For the New York State Industrial School an extension, to be used for dormitory; also a lavatory for the Primary Department, to contain the best special plumbing for public buildings; each to cost about $10,000. For Ambrose Wood, Esq., a frame residence, to be built on Staten Island, New York; to have fine hardwood interior; cost $16,000.

**Seattle, Wash.**—Architect John Parkinson: For the Seattle School Board, a two-story addition to the Denny School, size 60 by 80 feet; cost $30,000. Also a one-story addition to the Mercer School, size 40 by 80 feet; cost $7,500. For the Columbia School Board, a two-story school, 72 by 62 feet; cost $8,000. For John Watson, a two-story residence, size 32 by 50 feet; cost $5,000.

**Springfield, Ill.**—Architect George H. Helmle: For Col. J. H. Barkley, two frame cottages, size 28 by 42 feet, seven rooms; cost $3,000. For H. B. Chicken, two-story frame dwelling, size 30 by 48 feet, eight rooms, wood mantels, stained glass, furnace, etc.; cost $3,200. For J. M. Taylor, Taylorville, Illinois, two-story frame dwelling, ten rooms, furnace, wood mantels, plumbing and stained glass; cost $5,000. For Hon. J. S. Lyman, Farmingdale, Illinois, two-story nine-room dwelling, 44 by 48 feet, furnace and wood mantels; cost $4,000. For H. Taft, Rochester, Illinois, two-story frame dwelling, eight rooms, size 28 by 44 feet; cost, $2,500.

**St. Paul, Minn.**—Architect C. A. Wallingford: For a four-story double building, stores and apartments, on Fourth street, near Exchange; materials to be brown stone and pressed brick, with private halls, steam heat, gas stoves, dumb waiters, baths, electric bells, speaking tubes, etc. The contract price is $51,000. For C. A. Bettinger, a residence, on Ashland avenue near Grotto; to cost $2,500. For Dr. J. M. Welch, a row of three three-story houses, on Holly avenue near Kent; to be of brown stone, ten rooms each, with all conveniences.

Architects Herman Kretz & Co.: For St. John's German Lutheran church congregation; brick and stone church, corner Margaret and Hope streets; $60,000. Catholic church, Glencoe, Minn., of brick and stone; to cost $18,000. Frame priest-house, Glencoe; $4,000. Catholic church at Little Falls, Minneapolis, of brick and stone; $22,000. For C. B. Gardner, row of seven brick and stone houses, corner McBoal and Leach streets; $20,000. For the Sisters of St. Joseph; academy, corner Cleveland avenue and Rondo street; of brick and stone; $150,000. Work has been commenced on this. For Defiel and Zimmermann, four brick and stone houses, corner Pleasant avenue and Chestnut streets; $20,000. For W. L. Gaston, block of brick and stone stores, corner Rice and Milford; $6,000. For C. F. Arrol, block of stores and flats on South Robert street; of brick and stone; $30,000; also a block on Marshall and Dale streets; to cost $25,000.

Architects Omeyer and Thori: For W. J. Anderson, West Superior, Wisconsin, two-story frame store; to cost $5,000. For Peter Rothauser, West St. Paul; double frame house; $5,000. For Charles J. Johnson, West Superior; three-story brick and stone block of stores and offices; $20,000. For Dr. A. H. Mitchell, Deer Lodge, Montana, two and one-half-story residence; brick and frame; $20,000. For Theo. C. Sivenson, West Superior, double frame house; to cost $5,500. For Mumbson & Larson, West Superior, two-story brick row of stores and tenements; $8,000. For Ole Ask, St. Paul; brick veneer flat; $5,500. For William Coleman, Deer Lodge; brick veneer residence; $8,500. For Farmers' State bank, Madelia, Minnesota, bank, store and office building; of brick; to cost $8,000.

Architect John H. Coxhead has plans prepared for a $30,000 college building at Charles City, Iowa; also for a $10,000 college building at Wahpeton, Iowa; both buildings to be of brick with granite trimmings, finished in oak, with all conveniences. For M. Treacy, St. Paul; brick residence on Dayton's Bluff; to be built of brick with brown stone trimmings, hardwood finish. Also plans for frame residence at Highwood; with hardwood floors and finish; to cost $5,000.

Architects Gilbert & Taylor: For First German M. E. Church on Olive street; to be built of stone; at a cost of $35,000. Alsom Club stables on Summit avenue, near Dale; of stone and brick; cost $6,500. For the Great Northern Railway company; stone depot at Grand Forks, North Dakota; to cost about $50,000; also stone and brick depots at Anoka and Willmar, Minnesota; to be expensive and first-class in every way.

Architect E. P. Bassford: For State of Minnesota; deaf and dumb asylum at Faribault; $75,000. Also Catholic cathedral at Fargo, North Dakota; to cost $60,000. For First National bank, Stevens Point, Wisconsin; bank and office building of brick; to cost $30,000. For M. W. Topping, St. Paul, Minnesota; private residence on Summit avenue; to cost $15,000. For Michael Doran; private residence on Summit avenue; $15,000.

Architect Albert Zschocke: For St. Paul White Lead and Oil Company; brick factory on the West side; to cost $15,000. For Wabasha county, Minnesota; stone court house; to cost $50,000.

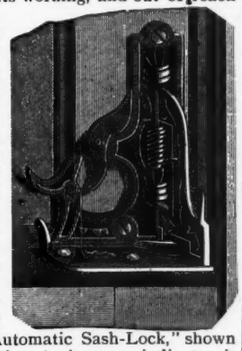
Architects Millard & Joy are drawing plans for private residences for Col. C. B. Lamborn on Dayton avenue, and J. G. Hinkle, Union Park.

**Zacatecas, Mexico.**—Architect George E. King, of El Paso, Texas: For Fernando M. de Prez, opera house, thoroughly fire-proofed. Seven carloads of this material from the Pioneer Fireproof Construction Company will be used in its construction.

THE INLAND ARCHITECT AND NEWS RECORD.
Vol. XVIII. ADVERTISERS' TRADE DEPARTMENT. No. 1

## A New Sash Lock.

A SASH-LOCK that is simple in its mechanism, efficient in its working, and out of reach of tampering with from the outside, is one that will commend itself favorably to the public. One which seems to meet this ideal of success has just been put upon the market by its manufacturers, McMaster & Lyman, 159 La Salle street, Chicago, under the name of "The Security Automatic Sash-Lock," shown in the cut herewith. As its name indicates, it is a "self-fastener." In general form it is a hinged bracket which is applied to the upright framework of the upper sash, and when at rest reaches out and over the framework of the lower sash, thus locking the two steadfastly together. To raise the window the bracket is swung to one side, or against the frame of the upper sash, where a catch holds it in place until the raised window is closed again, when a spring sets the bracket free from the catch, and it resumes its position over the lower sash as before. It will be seen, as a matter of course, that to close a window provided with this fastener is to lock it.



## Heating Dwelling Houses.

Much time and thought have been expended to ascertain the best method of heating dwelling houses, for the methods now in use are more or less objectionable.

Stoves and furnaces used as heaters are open to the objection of supplying the lungs with air more or less deprived of its oxygen, and thus rendered unhealthy. The absence of stoves would also give more room in the house, and save all the smoke, dust, litter and danger of stovepipes.

Steam heating from a central engine, with radiators in the rooms, has objections. The temperature of the house fluctuates between extremes of heat and cold, a condition very deleterious to health. If the engine stops for repairs, on a cold day, or if the pipes get out of order, the family is liable to suffer and contract colds. The radiators are in the way, and take up room needed for other purposes. The steam escaping from radiators is also injurious to furniture.

The grate is the ideal heater. It furnishes the heat-rays from the fire, direct and pure. It is constant, keeping a uniform temperature in the room. It is cheerful and a good ventilator. It keeps the feet warm and the head cool. The grate is both a comfort and a luxury. But the grate alone is not sufficient to heat our dwellings in cold weather, on account of cold and damp walls, which are often reduced below zero. Damp walls are always unhealthy. Sometimes stone and brick walls of houses during a thaw will run with water, discoloring wall paper, injuring pictures, and rendering clothing in the house damp and unhealthy.

The Mural Heating System, lately invented, overcomes all these defects, and aims to render the grate the universal heater of hard-wall dwellings. It is built into the house, when it is erected, at a small additional expense, and will last, without any repairs, as long as the house stands. It supplements the grate, by passing a current of hot air around each story, through a hot-air chamber constructed of hollow tile, covering the entire outer walls of the house. The best houses are now constructed with a hollow tile air chamber. This system meets all the necessities of modern architecture, in the way of heating, hygiene, and fireproofing. It is the most hygienic system of heating in the world, as it furnishes pure air for breathing, keeps the house at a uniform temperature during the day, and prevents it from becoming cold at night.

Companies are now organized, and are manufacturing this hollow tile at a reasonable cost.

The inventor, John D. Parker, of Fort Bowie, Arizona, will furnish correspondents, without charge, all necessary information in regard to this system of heating.—*The Tribune, Junction City, Kansas, July 23, 1891.*

## Trade Notes.

A NEW saw set has just been put on the market by the Taintor Manufacturing Company, 84 and 86 Chambers street, New York. This saw set, upon being shown to prominent builders for inspection, was pronounced as the best yet produced, and fully capable of doing all that the manufacturers claim for it. The essential feature of the Taintor saw set, and that which distinguishes it from all others, is, that in use it first grasps the tooth in a parallel vise, and then bends it. The two operations are accomplished by a single compression of the handles, automatically, and without loss of time.

THE new Kenilworth Inn, at Asheville, North Carolina, is next to the Ponce de Leon in size of any of the hotels in the south. It overlooks the vast Vanderbilt estate, and is picturesquely built on the side of the mountain. Its first story is of stone, and the rest of the building, towers, sides and roof, are covered with shingles. These shingles have been dipped in Dexter Bros.' English Shingle Stain. This has given an impetus in the use of these stains in this part of the country, as a great many of the houses had been poorly stained with other mixtures, which have either faded out or washed off. The new Southern Hotel, at New Birmingham, Texas, which is now being completed, is also stained with Dexter Bros.' stains.

THE question is often asked, "Do you know a good thing when you see it?" There are "terne plates" and "terne plates," all claiming to be the *Ultima Thule* of human skill and select material, and no doubt the makers thereof are honest in setting up their claims, since less than the best possible results is not to be looked for from an honorable business rivalry. Yet, withal, there must necessarily be some difference between them, as it is improbable each can be equally good in every particular. THE INLAND ARCHITECT would call attention to the advertisement of the Morriston Tin Plate Company with particular reference to their brand of terne plate designated by the brand "Morriston (I. C.) old style." This plate is made from the best hammered Siemen's soft steel, and the tin and palm oil used in their manufacture are purified by a peculiar process known only to the manufacturers. No flux of any kind is used in the output. Do you know a good thing when you see it?

THERE are things and things; some of them worth knowing and others it matters little whether they are known or not. One thing worth knowing and pretty generally well-known is the merit of the Garry Iron and Steel Roofing Company's output, consisting of metal shingles, siding, ceilings, etc., and another, perhaps not so generally well-known but which ought to be equally so, is the fact that the company is putting on the market a mineral paint made directly from the native ores, which, prepared as it is with genuine linseed oil and turpentine, furnishes an outside paint for either metal or wood that acts as a preserver as well as an ornamenter. It is made in red, purple, brown and yellow colors, and of a body that contrasts most favorably with those mineral paint delusions which are but little else than tinted kalsomine. A third thing worth knowing and a specialty of this company is a cement preparation to be used in the placing and repairing of metal roofs where solder cannot be used. For the repairing of old roofs, gutters, etc., it has no compeer. It hardens on the surface sufficient to walk on without injury to it, while it retains an elasticity and an adhesion that adapts itself to all expansions and contractions roofing metals are subjected to. Taking the three things above named, any builder will admit they are happily associated together and are practical facts well worth knowing.

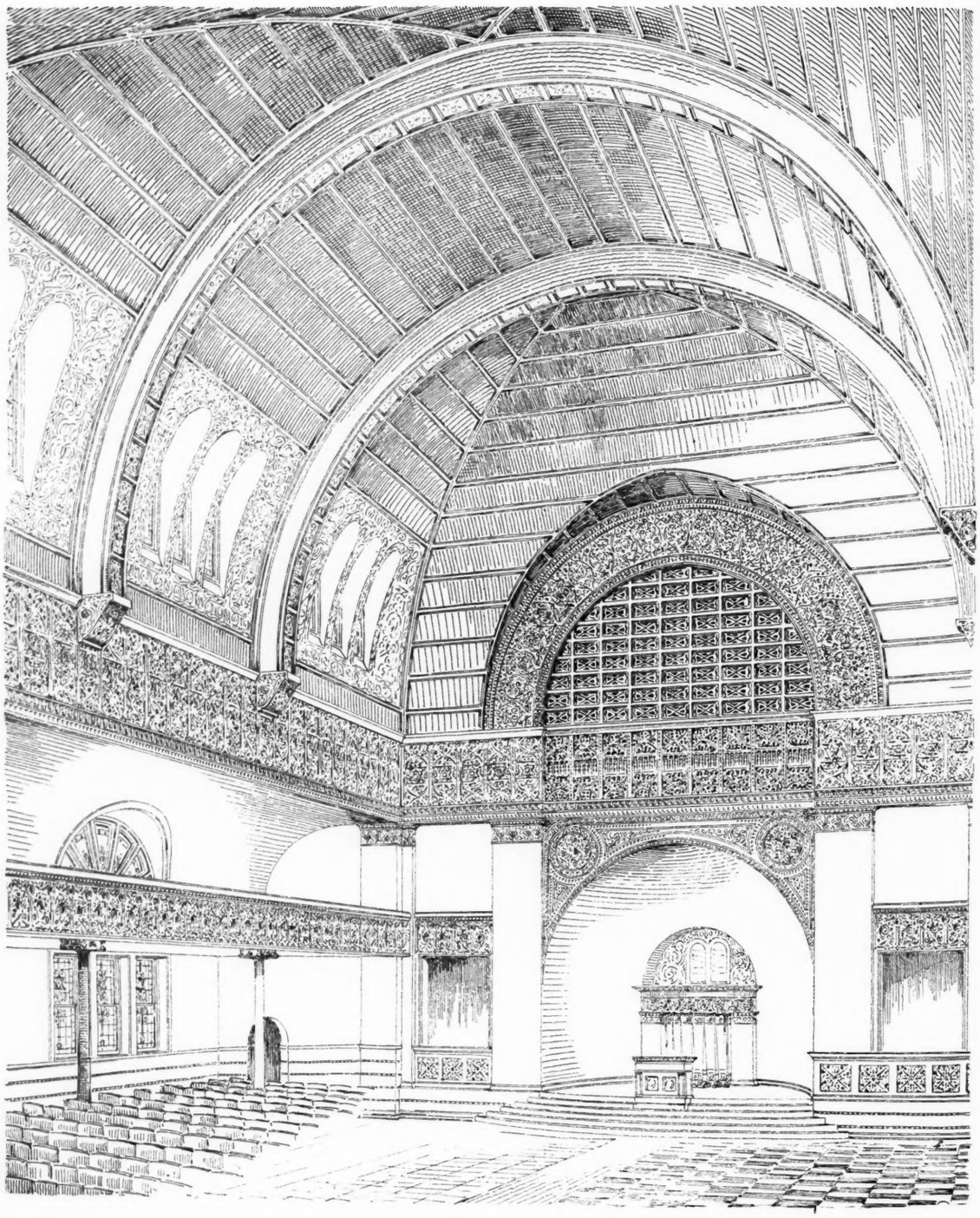
THE tendency of the age is toward a simple, inexpensive and perfectly practical motive power, that shall embrace all the efficient qualities of the steam engine without entailing any of the attending requirements of engineering skill common to their manipulation. This tendency has grown up with the "improvements" that have been introduced into modern house building, such as elevator service, individual electric plants, pumping outfits, etc., etc. Quite a number of devices have been invented. The carburetted hydrogen gas engine undoubtedly has come the nearest to public expectation, but as coal gas plants are not a universal convenience, nor has experience shown it to be an inexpensive commodity, but, on the contrary, a rather expensive one, any similar device that shall eliminate that item to an appreciable extent will be a welcome intruder by the general public. By referring to the advertisement of the Regan gas engine, or gasoline vapor engine, in this issue of THE INLAND ARCHITECT, such a welcome intruder will be readily recognized.

## Railroad Notes.

TRAVELERS and tourists contemplating a visit to the Pacific coast should bear in mind the Lake Superior, St. Paul & Union Pacific, a new passenger and freight line formed by the Chicago, St. Paul, Minneapolis & Omaha and Union Pacific railways. This line strikes about all the important far western towns and cities, i. e., of Nebraska, Montana, Idaho, Utah, Wyoming, Washington, Oregon and California, and reaches the coast several hours sooner than any other route. The accommodations are first-class in every respect and the fare as low as the lowest. Special excursion trains are run, leaving St. Paul and Minneapolis every Thursday morning. For fuller particulars address T. W. Teasdale, general passenger agent, St. Paul.

NATIONAL ENCAMPMENT GRAND ARMY OF THE REPUBLIC, DETROIT, MICH.—The Chicago & Grand Trunk Railway, the only Pullman palace sleeping car line between Chicago and Detroit. The superior advantages offered by this route between Chicago and Detroit, making it the most desirable one for those intending to visit Detroit upon the occasion of the National Encampment of the Grand Army of the Republic, to be held at that beautiful city August 3 to 8, 1891, will be perfectly apparent to all, upon consideration of the following: First, It is positively the only line running through Pullman Palace Buffet Sleeping Cars between Chicago and Detroit. Second, It has secured sufficient Pullman Palace Sleeping Cars to take care of any and all business that may be offered without crowding its patrons. Third, Its depot in Detroit, foot of Brush street, is situated in the heart of the city, only three blocks distant from the headquarters of the Grand Army, or over five blocks nearer than any other depot in Detroit. Fourth, It is the only depot in Detroit from which street cars run direct to Grand Army headquarters. Fare for the round trip on this occasion will be the very low rate of single fare for the round trip, or $7.15 from Chicago to Detroit and return. Tickets will be on sale at 103 South Clark street, corner Clark and Washington street, Chicago, August 1 to 3, inclusive, good to return up to and including August 18, but by complying with the conditions specified on the contract of tickets, the limit will be extended to September 30, 1891. Any further information required, not obtainable at your home office, will be promptly given by addressing E. H. Hughes, General Western Passenger Agent, Chicago.


: Residence of C. P. Wheeler. : Evanston: Ill:
Frederick Baumann & J.K. Cady. Architects.



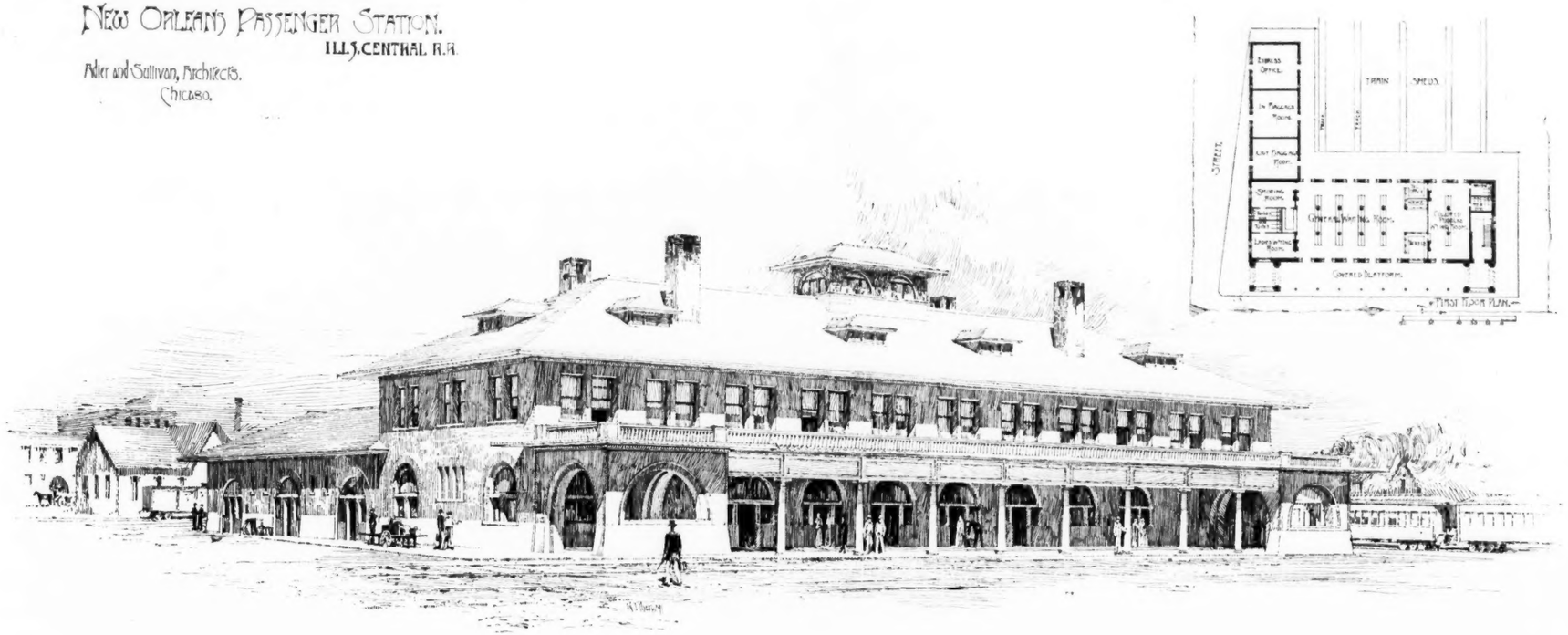
INTERIOR VIEW, SYNAGOGUE, CHICAGO, ILLINOIS.

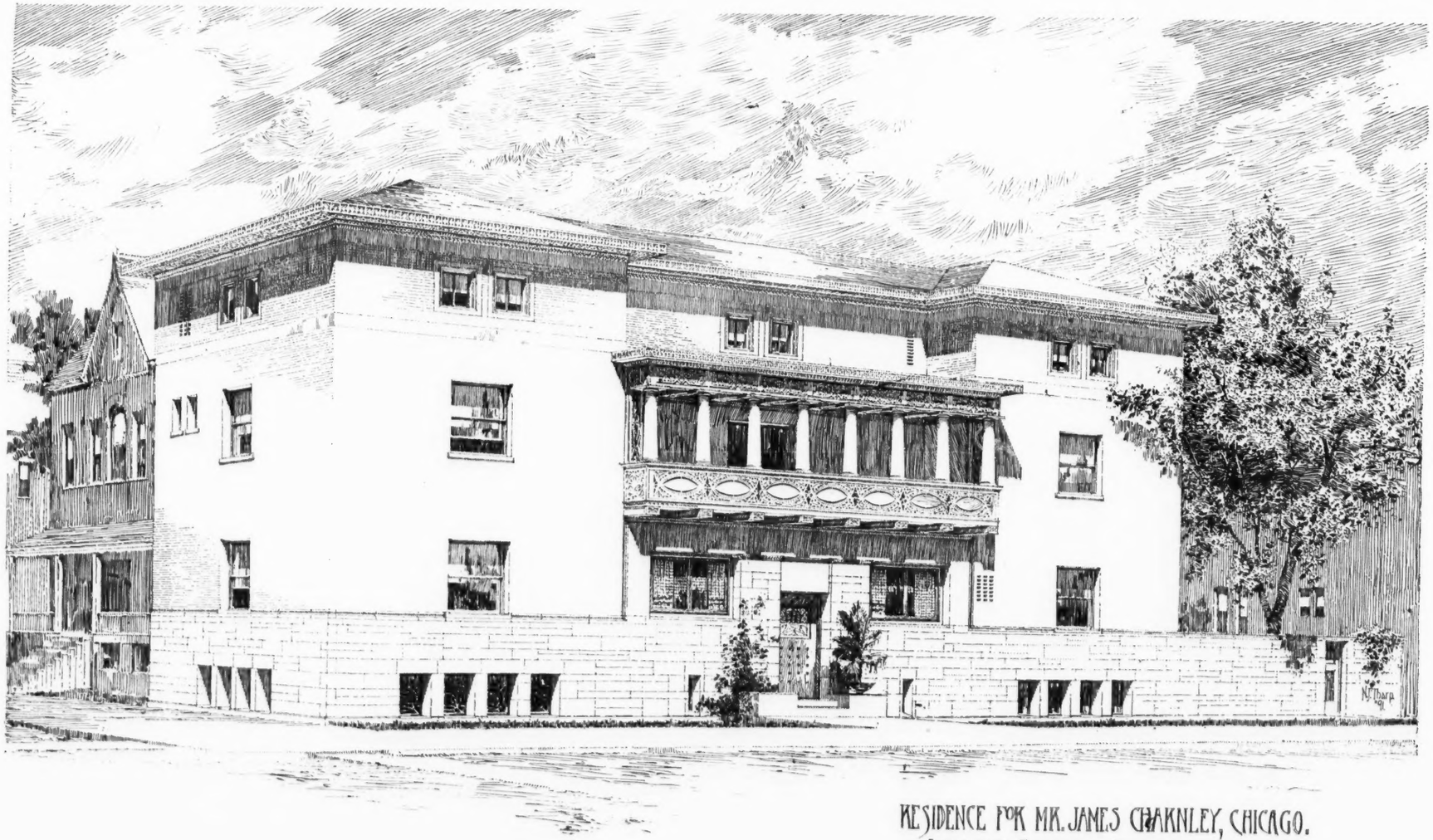
ADLER & SULLIVAN, ARCHITECTS.

# NEW ORLEANS PASSENGER STATION.

ILL. CENTRAL R.R.

Adler and Sullivan, Architects.
Chicago.





RESIDENCE FOR MR. JAMES CHARNLEY, CHICAGO.
ADLER AND SULLIVAN, ARCHITECTS.

THE VENETIAN OFFICE BUILDING, CHICAGO.

HOLABIRD & ROCHE, ARCHITECTS.

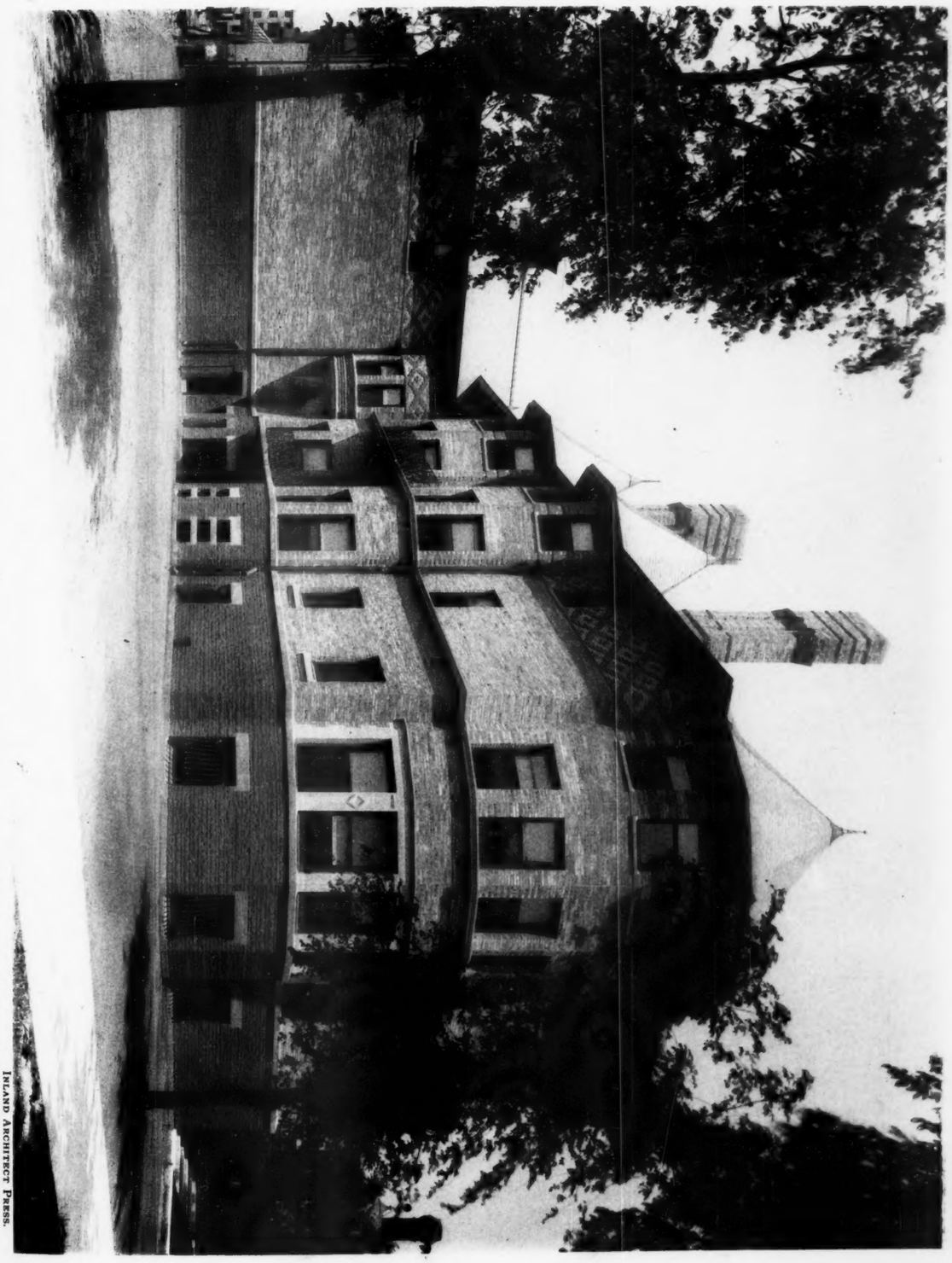

VILLAGE HALL, EVANSTON, ILLINOIS.

HOLABIRD & ROCHE, ARCHITECTS, CHICAGO.

C. F. Schweinfurth, Architect.

DETAIL OF SUMMER RESIDENCE OF SAMUEL MATHER, CLEVELAND, OHIO.

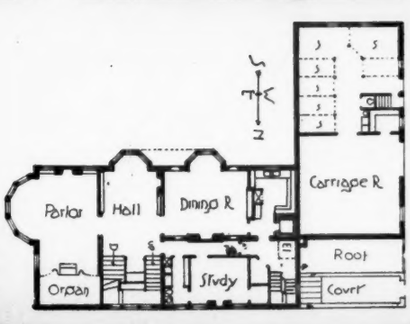
C. F. SCHWEINFURTH, ARCHITECT.



S.-E. VIEW OF RESIDENCE AT NO. 620 DIVISION ST., COR. LAKE SHORE DRIVE, CHICAGO.

IRVING K. POND AND ALLEN B. POND, ARCHITECTS.

INLAND ARCHITECT PRESS.

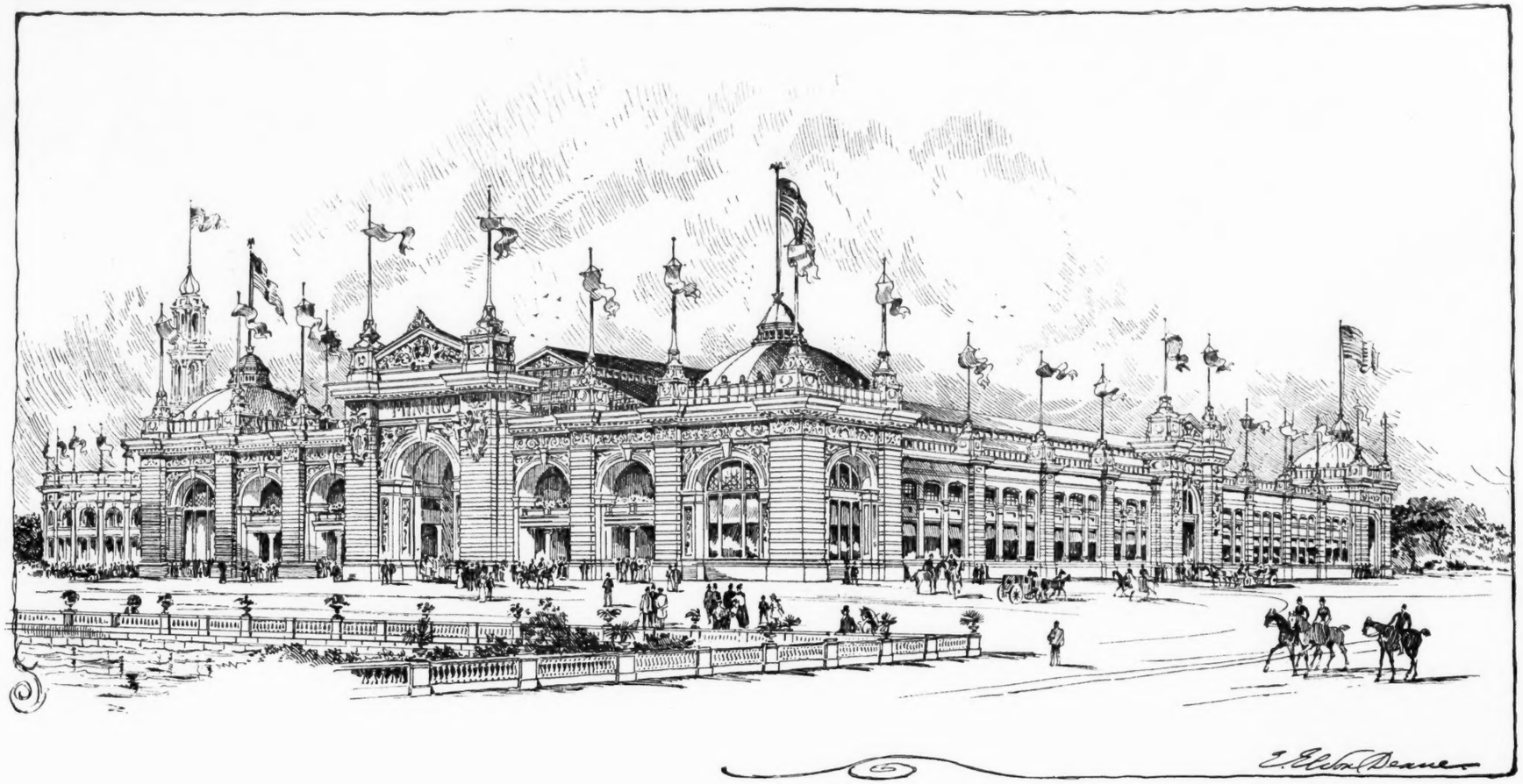


Irving K. Pond and Allen B. Pond, Architects.

VIEW OF RESIDENCE AT NO. 620 DIVISION ST., COR. LAKE SHORE DRIVE, CHICAGO.

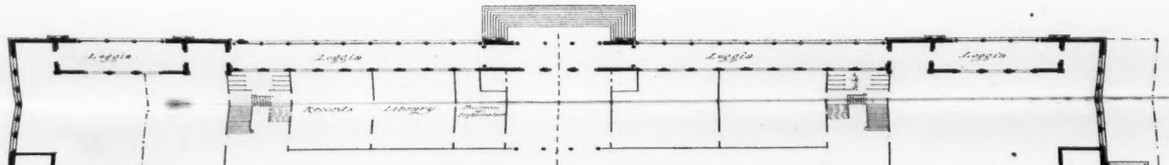
IRVING K. POND AND ALLEN B. POND, ARCHITECTS.

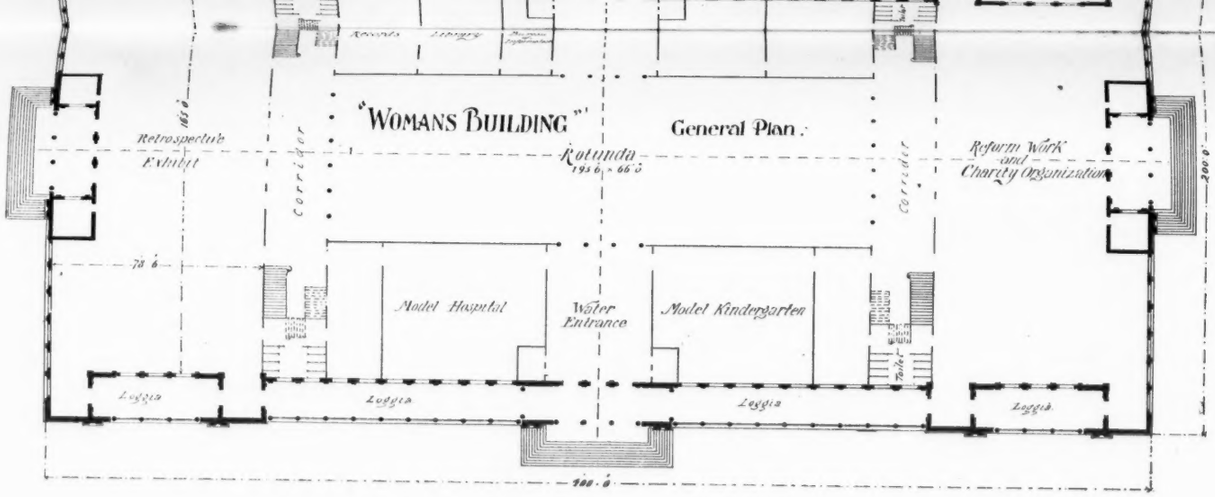
INLAND ARCHITECT PRESS.

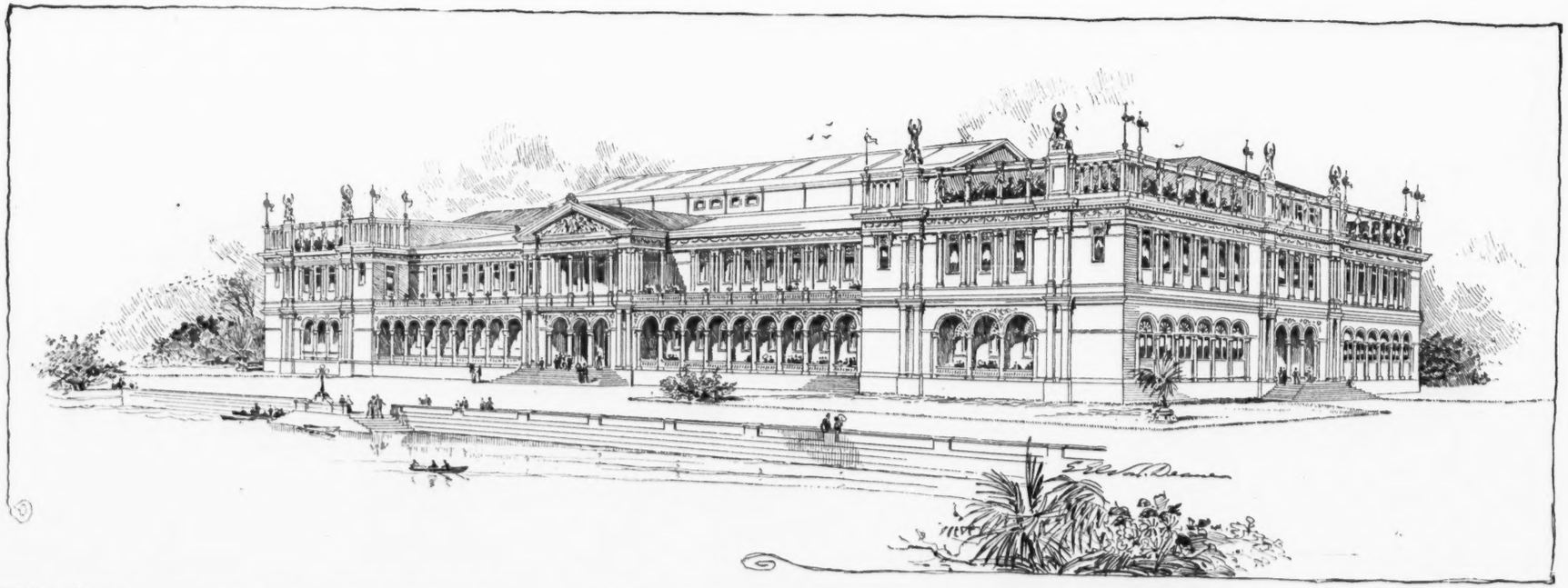



PERSPECTIVE VIEW, MINES AND MINING BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.—DEPARTMENT OF CONSTRUCTION, AUGUST, 1891.

S. S. BEMAN, ARCHITECT, CHICAGO.



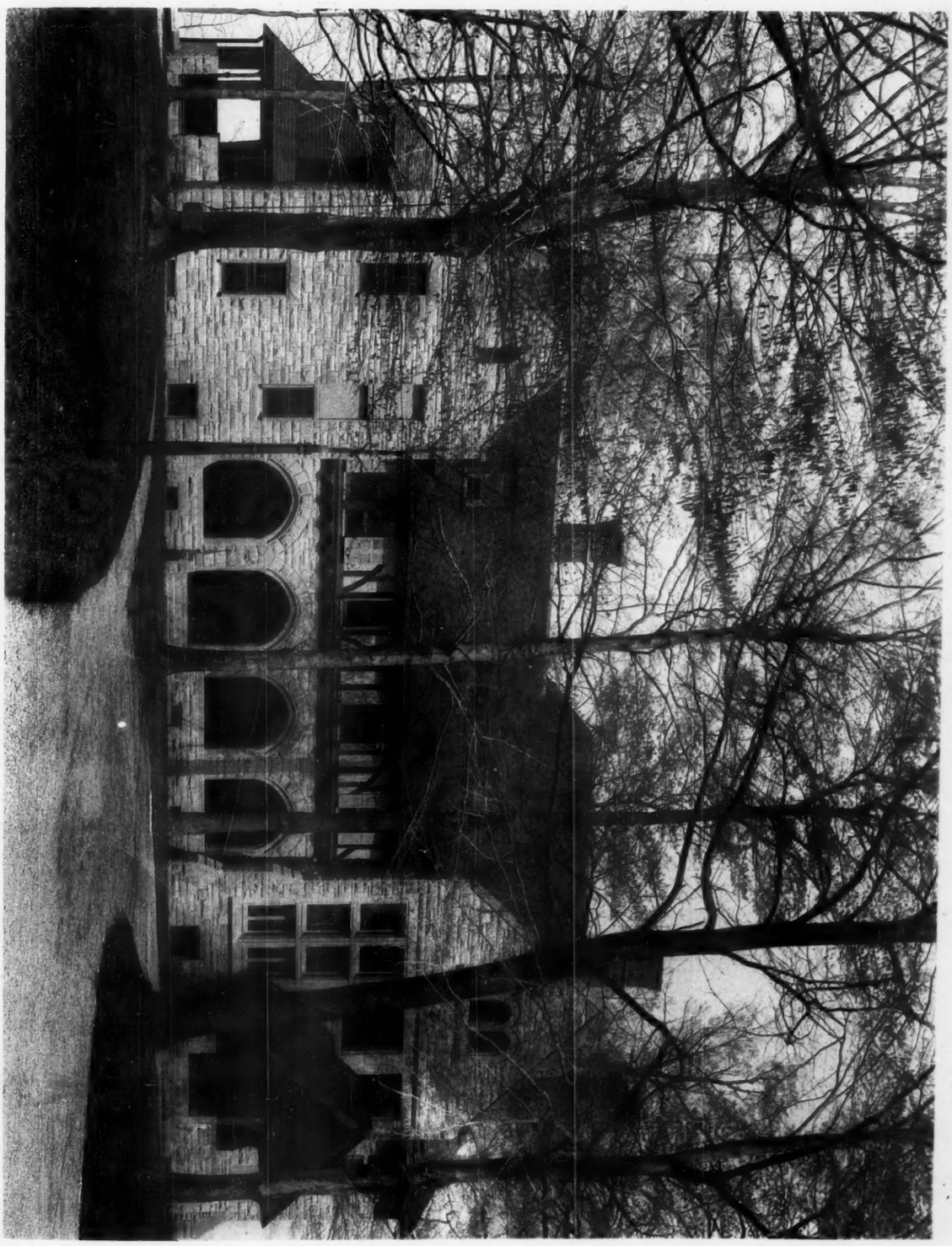


PERSPECTIVE VIEW AND PLAN, WOMAN'S BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO.—DEPARTMENT OF CONSTRUCTION, AUGUST, 1891.

MISS SOPHIA G. HAYDEN, ARCHITECT, BOSTON.

C. F. Schweinfurth, Architect.



SUMMER RESIDENCE OF SAMUEL MATHER, CLEVELAND, OHIO.

C. F. SCHWEINFURTH, ARCHITECT.

INLAND ARCHITECT PRESS.

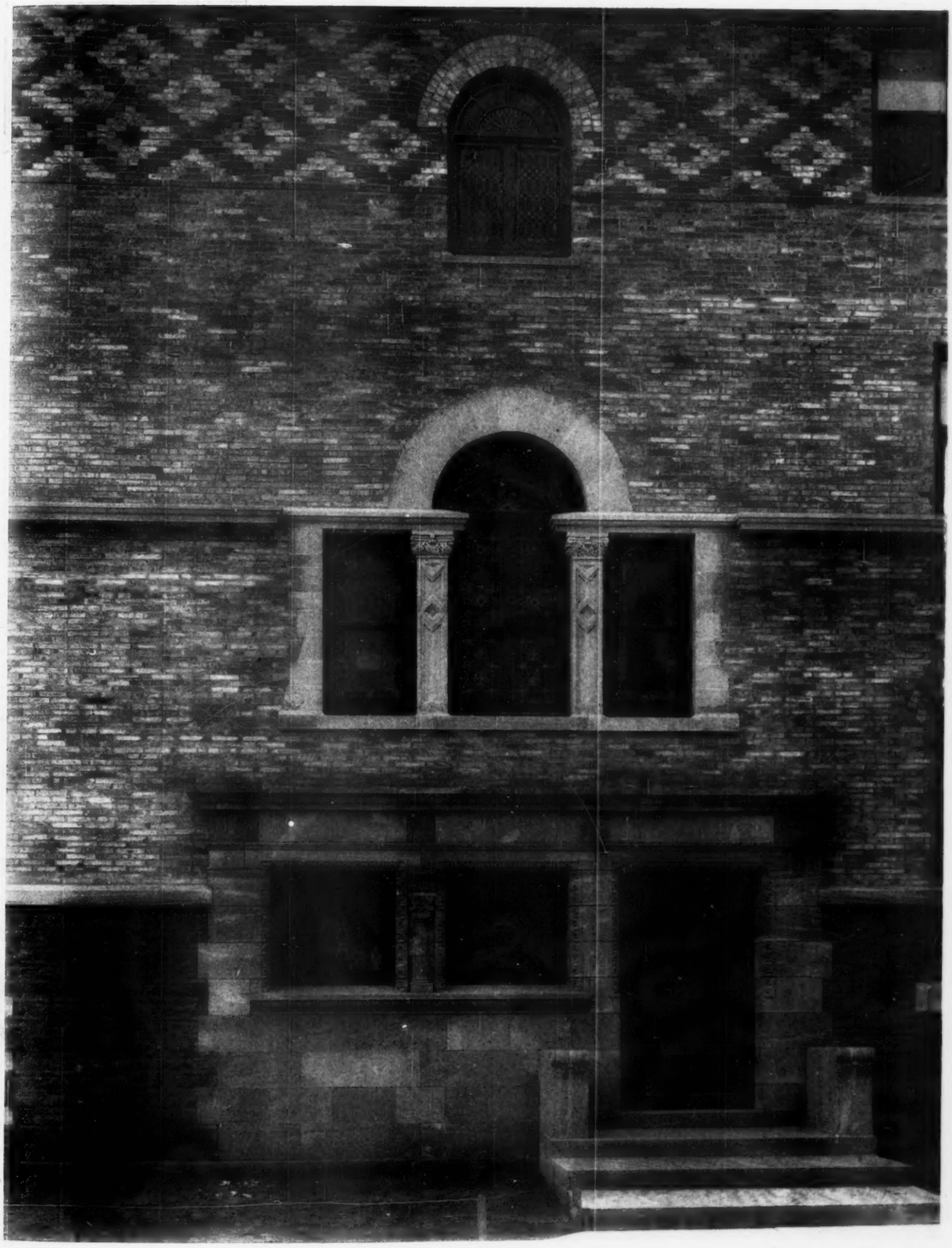
CHARLES S. FROST, ARCHITECT.

INLAND ARCHITECT PRESS.

RESIDENCE OF D. W. KEITH. RESIDENCE OF JUDGE WALTER Q. GRESHAM. RESIDENCE OF W. S. WALKER.

RESIDENCES, CORNER OF PRAIRIE AVENUE AND TWENTY-SIXTH STREET, CHICAGO.

CHARLES S. FROST, ARCHITECT.



INLAND ARCHITECT PRESS.

DETAIL OF RESIDENCE AT NO. 620 DIVISION ST., COR. LAKE SHORE DRIVE, CHICAGO.

IRVING K. POND AND ALLEN B. POND, ARCHITECTS.

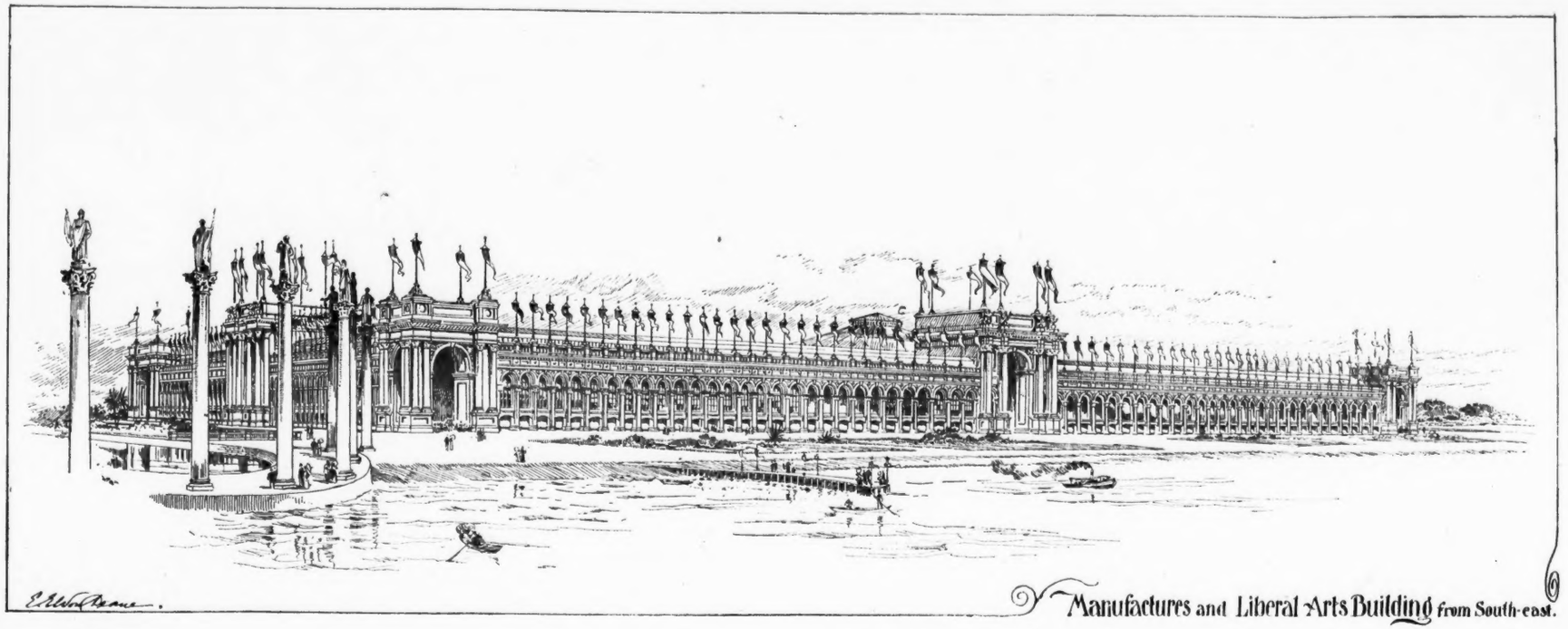
SYNAGOGUE, CORNER INDIANA AVENUE AND THIRTY-THIRD STREET, CHICAGO.

ADLER & SULLIVAN, ARCHITECTS.

SYNAGOGUE, CORNER INDIANA AVENUE AND THIRTY-THIRD STREET, CHICAGO.

ADLER & SULLIVAN, ARCHITECTS.

INLAND ARCHITECT PRESS.



Manufactures and Liberal Arts Building from South-east.

MANUFACTURES AND LIBERAL ARTS BUILDING, WORLD'S COLUMBIAN EXPOSITION, CHICAGO, DEPARTMENT OF CONSTRUCTION, AUGUST, 1891.

GEORGE B. POST, ARCHITECT, NEW YORK.