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The Congress of Architects at the World's Fair.

Almost two months of a possible eighteen have passed since the American Institute of Architects appointed a committee "to make arrangements for a convention of architects representing the entire world," to be convened during the Columbian Exposition at Chicago in 1893. It is time this committee held a meeting and arranged a definite plan of action. A general scheme for exhibits of drawings and models could also be formulated and each architectural society when notified of the congress could have the general plan placed before them, with the request that they form a committee representing their country or section for the collection of exhibits. In this way a large collection could be made and sufficient space allotted to it in one of the art buildings or elsewhere. The time is short, and if anything is to be done it must be done at once or the entire plan given up. The resolution passed by the Institute appointing this committee is as follows:

Resolved, That it is the sense of this meeting that a convention or congress of architects should be arranged for, to take place in Chicago during the World's Fair, and that the arrangements for such a meeting shall be made by a committee on foreign correspondence of this Institute, consisting of five members, as follows: R. M. Hunt, W. L. B. Jenney, D. Adler, C. F. McKim, Henry Van Brunt.

The five members of the committee are architects of buildings for the World's Fair and they are known to architects everywhere. We would suggest that before a meeting of the committee is called (which might take place in Chicago when the members are there on World's Fair business) each member formulate the general plan that seems to him most feasible and send it to Mr. Hunt, who is chairman of the committee. After this preliminary work is accomplished the work of the local committee of the Institute, the Illinois Chapter, would be effective.

Necessity for Supporting State Chapters.

In the face of strong and broadly apparent reasons why the state Chapters of the Institute should be supported and active in their work, there has been considerable discussion of the advisability of abandoning the state Chapters. This, too, in two of the largest states in the Institute membership. In one it was with the greatest difficulty that the advocates of this dissolution were persuaded to allow the matter to rest for another year. In the other it will be one of the principal topics for discussion at its next annual meeting. In view of this, the directors should take immediate action upon the resolution presented by Mr. Yost at the last convention of the Institute, which is as follows:

WHEREAS, it is important that the profession, especially the members of this Institute, should perfect such organization as will most effectually combine the influence of its members in every work of importance to the profession, and

WHEREAS, the legislation by the several states sought by the profession can be more easily effected through state organizations and their representatives than through local organizations or no organization, and

WHEREAS, there are many other advantages which may accrue and will accrue from state organizations; therefore,

Resolved, that the Board of Directors be requested to suggest to the several local Chapters such form of state organization as can best unite and uphold the interests of the profession and its members in the several states; and

Resolved, that membership in such state organization shall rest upon the same qualifications as in local Chapters, as laid down by this Institute, and that membership in such state organization shall be accepted as the requisite to membership in this Institute now required in local Chapters.

This is the proper method, and the state Chapters can safely leave the matter in the hands of the directors of the Institute, meanwhile sending them, before the meeting in January, a summary of the reasons given for the abandonment of the state Chapter. In this way a general plan can

be formulated, and the influence of the state Chapter will not be lost when required to push state matters. The main reason urged is that in general the local Chapters in the several cities fill all the requirements of organization, and it is a useless expenditure of money to support the state Chapters, and of time in attending the annual meeting. If there were no state Chapters, a meeting of the architects of a state once a year for the discussion of general affairs would be valuable, and it is upon the vigorous work of the state Chapters that all legislation, both state and national, most largely depends. Therefore, the state Chapters cannot afford to be precipitate in their action at the annual meetings about to be held.

A Superb Journal for Architectural Students.

For two years architects and architectural students have been interested in an elegantly presented portfolio issued monthly by the architectural students of the Massachusetts School of Technology, called the *Technology Architectural Review*. It has been ably edited and conducted, and in its prescribed field has done more than was promised in the initial prospectus in presenting the competition and thesis designs of the school for the current year. After the experience gained, it has been decided to widen the field and scope, and now with change of name the first number of *The Architectural Review* is placed before architectural students for approval. Preserving the same general appearance of elegance and finish in dress, the thesis designs therein are added to by measured drawings of European work, and it has increased its literary department by securing an excellent staff of writers. The most notable department, and one that will give it a place among architectural authorities or consign it to the large and well-covered plane of journalistic mediocrity, is that devoted to criticism of contemporaneous work illustrated in other architectural journals. It is a department which we are glad to see established and hope to see supported by the most able among architectural critics. Broadly educational in its aim, eclectic in its policy, the *Architectural Review* has a work before it that reaches into the architectural future of the country — a work that will stimulate a love for the ideal and artistic in a land where a commercial spirit is obtaining too strong an influence upon architectural design.

Important Arbitration of a Strike in London.

The arbitration of a dispute between the Central Association of Master Builders of London and the Carpenters' and Joiners' Association by the Royal Institute of British Architects marks a new era, and probably a distinctive advance in the equitable settlement of all disputes between intelligent labor and employers. In 1872 these associations made a specific agreement regarding hours per week, wages per week, overtime, etc. This was in force, with a slight amendment in 1887, until 1890, when a communication was sent by the Carpenters' and Joiners' Association to the employers, submitting a new set of rules for approval. These rules were carefully considered but not agreed to, and in May, 1891, a strike was declared against certain firms, which was followed by a general lockout. Correspondence was finally opened between the Central Association of Master Builders, the London Building Trades Council and the Royal Institute of British Architects, which resulted in an award being issued by the president of the Royal Institute on November 19, 1891. The original agreement called for 52½ hours' work per week, all the year round, at 9d. per hour; the demand was for 47 hours per week, all the year round, at 10d. per hour; the award was for 51¼ hours for thirty-six weeks in summer and 47 hours for sixteen weeks in winter, equal to an average of fifty hours per week all the year round, and the rate of wages to be 9d. per hour. This intelligent and dignified settlement of a strike is not only worthy of approval, but illustrates how general the disposition is among intelligent workmen to submit their differences to arbitration. In this country the most important arbitration yet made in a similar case was by a judge, who was supposed to be thoroughly unbiased, but who, being a political appointee, and looking to the votes of the people for advancement, the award was not received with that satisfaction and belief in its unbiased quality which must characterize the award made by the Royal Institute of British Architects. With this precedent before us and the experience in the case referred to, the next important arbitration in the building trades will probably be referred to the highest authority, such as the American Institute of Architects, to which no suspicion of biased judgment can reach.

University of Pennsylvania School of Architecture.

The School of Architecture, at the University of Pennsylvania, has passed the experimental stage and become one of the permanent institutions of Philadelphia. Indeed, it may be questioned whether an experimental stage has been part of the history of the school; so unmistakable was the need for it and so earnest the purpose and efforts of its founders that from the beginning it took strong hold upon the interest of Philadelphians, and has ever since steadily gained in strength and favor. The opening of the second year has shown this very clearly. The Freshman class is more than twice in number that of last year; a higher grade of students have applied for admission, while the percentage of students electing to take the full course is nearly ninety as against less than sixty last year. A vigorous policy adopted by the faculty at the end of the first year had the effect of reducing the number of students nearly one-half, yet, notwithstanding this and the raising of the standard for admission, the attendance has this year reached twenty-seven. The course of study now being offered is entirely academic, and embraces all the subjects necessary to a thorough technical training in architecture. It is under the direction of Professor Warren P. Laird.

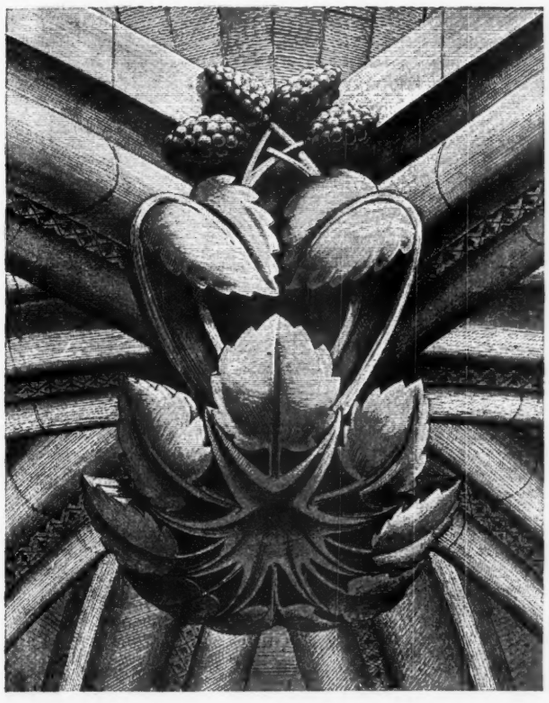
Sixth Annual Convention N. A. B.

The sixth annual meeting of the National Association of Builders, which will be held at Cleveland, Ohio, next month, again brings the question that seems to agitate many local exchanges at their annual meetings, which are held about this time, and which is brought up by the appointment of delegates to the convention — "does the National Association pay?" Now, the largest sum assessed any member of any exchange, as far as we can learn, for the entire six years of usefulness which the National Exchange has passed through is about seventeen dollars, or less than three dollars a year. The man who believes he has not received some benefit in his business from this constant exchange of thought among the most successful builders in the country could not learn were they to give their entire time to his instruction, and he should instantly withdraw from a body of men so inferior to himself in intelligence.

Architecture and the Allied Arts.

BY BARR FERREE.

NORTHERN artists excelled in the use of sculpture. Gothic architecture is one that readily lends itself to the use of sculpture decoration. The Egyptians did not make use of this art in the embellishment of architectural parts, such as the column, capital, architrave, etc., nor did the Greeks in the Doric; both relied exclusively on painting for ornamentation. In the Ionic and Corinthian a certain amount of sculpture was used, but the columns of each building were simply replicas of each other and offered no variety. In the Byzantine and Romanesque styles a different system



BOSS, LAON CATHEDRAL.

came into use, consisting in surmounting the columns with capitals obtained from various sources. In this way a greater variety was given to the architectural members of a building than was possible under the more formal method of the Greeks and Egyptians. It was an easy advance from this to carve specially designed capitals when the means of the builders permitted them to do so, or when there were no longer any ancient capitals to steal from other structures. Nor was this all, for the dependence of the Gothic on small materials naturally suggested ornamenting each course of stone with different decorations and additional impetus was given to the employment of carved embellishments. The Gothic thus offered unrivaled opportunities for the display of the sculptor's art. Even the plainest of Gothic buildings, and most devoid of the assistance of the accessory arts, affords in the capitals of the columns and the carving of the other architectural members a quantity of work of the highest interest, which not only has a duty of its own to perform, but a particular architectural principle to express, and is therefore an essential part of the building.

There is absolutely no limit to the variety of ornament that the Gothic architects gave to these parts of the structure. Scarcely any two capitals are alike in the cathedrals of France, and the examples in other parts of Europe are as infinitely varied. Sometimes the ornament is a leaf or a combination of leaves, more or less conventionalized. Sometimes buds and flowers are introduced; at others animals and strange grotesques add to the variety. Now a human head is carefully carved in the midst of a ground of leaves, and again a little monk or a leering devil protrudes from the most unexpected corner. The richness of invention displayed in these works is marvelous and seemingly without limit. There is no formality, no stated rules, no bounds that the artist is compelled to respect. He gave full swing to his fancy, and though at times the grotesques he produced seem somewhat out of place, judged by our modern ideas of the solemnity of a church building, they were not so in reality. No better expression has ever been given to the buoyant life of the art world in the middle ages than is to be noted in the capitals of the columns. And when it is remembered that these features frequently numbered hundreds in a single edifice, each different from the other and each with a character and force of its own, it will be seen how important was the part they occupied in a mediæval building.

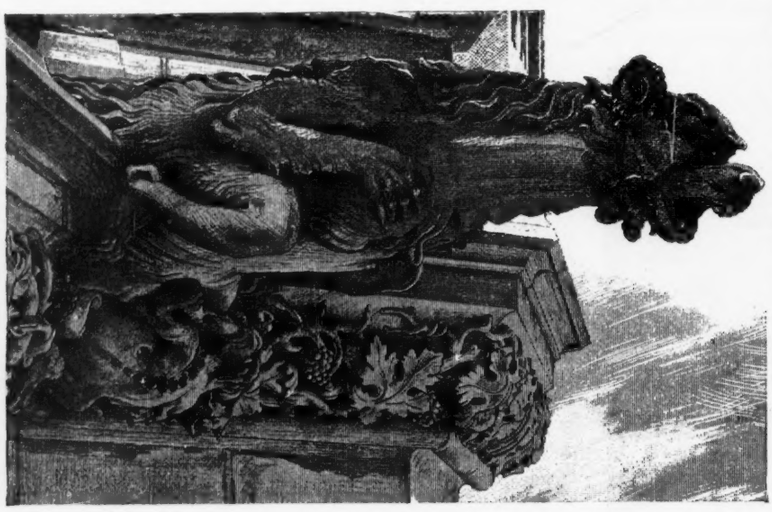
The capital was but one of the parts on which the skill of the sculptor was exercised. The column was not seldom ornamented with carving, sometimes in its entire length, sometimes in bands at stated intervals. A very ordinary method was to separate the different courses of stone of which the column was composed, with string courses, more or less carved. The base of the column likewise came into its share of the ornamental process, though generally confined to moldings. String courses, carved in simple moldings or ornamented with leaves and other devices, were carried across the walls to mark the leading lines of the buildings, and were used both externally and internally. Bosses were placed at the junction of the ribs of the vaulting, and were frequently splendid pieces of work. The ribs of the vaulting, and the under sides of the arches were often decorated with bosses, leaves, acorns, knots, crochets, and similar devices, and on the exterior grotesquely carved gargoyles carried off the water from the roof.

Carved forms were used on the outside of the building as well as within, and the windows and doorways are points of more or less elaboration. In France, the greatest display of sculpture was on the doorways, on which the artists lavished the fullest resources of their art. The doorway naturally prepared the way for the solemnity of the interior, and it was fitting that the symbols displayed on it should prepare the faithful for the high purpose to which the building was dedicated. Nowhere in Europe were the doorways so fully developed as in France, and they are justly regarded as the pride and greatest glory of the French cathedrals. The portal was the chief feature of the front, and with its porch and ornamental details frequently occupied the larger part of the entire façade. The cathedrals of Paris Chartres, Reims, Amiens, Bourges and Troyes all possess portals of great extent and wonderful beauty. Those at Paris do not monopolize the façade as in some of the other cathedrals, but the results in all cases are among the finest produced by any architectural monument. The doorway proper is deeply recessed in a series of arches which bring the main arch on a line with the building, as in Paris, or with the porch, as in Amiens and Troyes. The arches are supported by columns, with elaborately carved capitals, frequently having between them a series of statues on pedestals or placed on the front of the column of which they become an integral part. The under surface of the arches is occupied by other statues and carved ornament, and the tympanum over the doorway is filled with a sculptured figure or group, the favorite theme being the Last Judgment, or Christ as Judge of the World, a fitting reminder of the end of man and a warning to prepare for the life to come. The system here briefly outlined is one of the simplest, but an infinite variation of design was made on this basis. Frequently rows of reliefs were inserted above the columns below the springing of the arches, and sometimes the column which supported them disappeared and their places were taken by statues. There was, in fact, no definite

ORNAMENTED BAND, NOTRE DAME, PARIS.

rule, and the architect aimed only at producing an original work that would surpass all others of a similar nature.

The gigantic arches of the French doorways gave a character to the opening which not only permitted an elaborate decoration, but rendered the entrance to a cathedral the most important feature of the edifice. A different system was carried out in England and in most German churches. In these buildings the doorways are comparatively insignificant, and occupy but a relatively small part of the façade. The doorways at Cologne, for example, are notoriously out



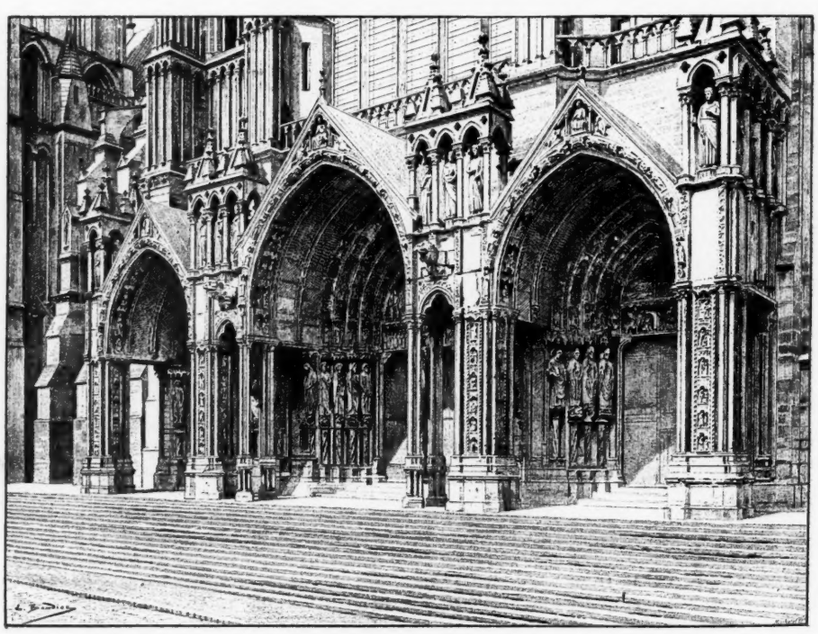
GARGOYLE, NEVERS CATHEDRAL.

of proportion to the enormous height above them, and are one of the greatest defects of the building. In England a similar system was followed, much to the detriment of the structures they were intended to ornament. Notwithstanding the free use that was made of sculpture in all parts of the Gothic structure, the doorway was the point at which it was most extensively employed. By occupying every available position the artist managed to crowd an almost inconceivable number of figures into a given space. The sculptures on the doors and porches of the transepts of the cathedral of Chartres include nearly 2,000 figures of all sizes, and illustrating not only the entire story of the Redemption, but the sum total of the knowledge of the times. These portals were of unusual magnificence, but there are many others which approach them in the elaboration of their decoration.

The Gothic artists did not limit their carving to the architectural features of the building, and did not hesitate to fill the vacant spaces of the wall, the spandrels of the arches and all other available space with their best work. What it may lose from the standpoint of a perfect form it more than makes up by the spirit of truth, the search after better things, the expression of the life and thought of the age. No better index is required of the rapid changes in mental growth that humanity underwent in the clearing away of the dark ages than the sculptured designs on all parts of the buildings. We may point out errors in technique, distortions of positions, lack of knowledge of perspective, and a multitude of details in which we require perfection in the art of our own time, but superiority in details do not make a thorough art, nor indicate a genuine love for it. The very faults of the Gothic carvers speak volumes for the estimation in which art was held, and indicate an appreciation of truth that is often wanting in the art of other times.

The façade of the cathedral of Reims is one of the finest examples of a fully developed Gothic exterior. Here sculpture, as interpreted by the Gothic artists, reaches its finest expression. The richness and variety of the carving add materially to the effect of a façade of great architectural merit. The three great western portals, the surfaces of the buttresses, the projection above the portals, and the space over the rose window in the central aisle are all adorned with reliefs; the gallery crowning the façade, and the lateral buttresses, are ornamented with statues, so that the architecture seems almost lost in sculpture. Nor is the wonderful decoration limited to the main façade, but the fronts of the transepts are as elaborately decorated. Within the church the entire west wall is filled with small statues in niches, placed in rows one above the other. Great and splendid as are the sculptures of the cathedral of Reims it is but one of many churches adorned with almost equal richness. Nowhere else are the sculptures carried out on so grand a scale and applied to so many parts of the building, but there are numerous other instances where certain parts are decorated with similar magnificence. Each of the great cathedrals of France illustrates the important aid that sculpture gives to architecture. No Gothic building was complete without this adjunct and the history of Gothic sculpture is intimately connected with the history of Gothic architecture.

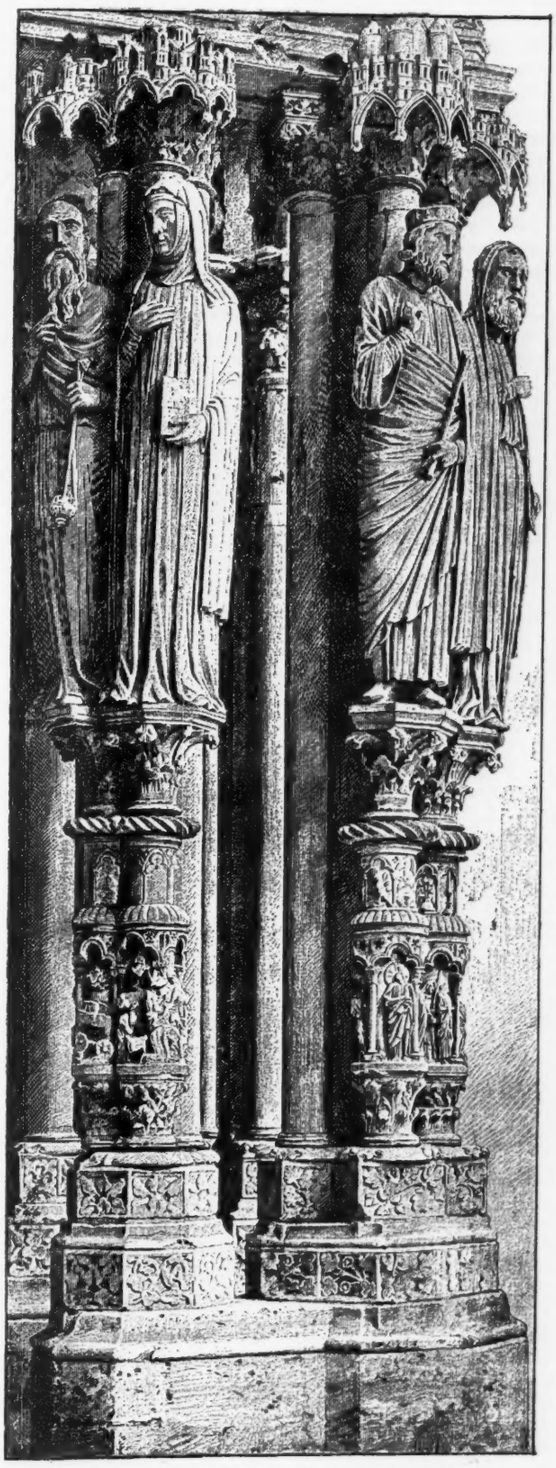
The history of mediæval art presents a series of developments in particular directions. In Italy painting was the most highly developed of all the arts; though this may perhaps scarcely be said of the Gothic period. In France architecture reached its finest form; and while painted glass was carried to a high point of perfection, sculpture was the practiced of all the subsidiary arts. In England neither painting nor sculpture had the importance it had on the continent. In Italy sculpture was not neglected for the sister art of painting. The development of the latter was more rapid than that of the former, but early Italian Gothic buildings employed it to a very considerable extent. In the façade of the cathedral of Sienna mosaic is a largely used decoration, but in the cathedral of Orvieto sculpture is used in a profusion not heretofore seen in Italy, and in the master works of



SOUTH PORCH, CHARTRES CATHEDRAL.

Giovanni Pisano it was placed for the first time in a position of equality with painting and mosaic. Some other Italian churches exhibit the same decoration, but the genius of Italian sculptures was employed more on interior furniture and monumental work than on decorating entire façades. In England the low state of painting and sculpture arose naturally from the lack of a native school of art such

as existed in Italy and France, and the consequent dependence on foreign artists. In but a single English cathedral — that of Wells — has there been any attempt at a general scheme of sculpture decoration. Here upward of 600 figures are introduced in horizontal rows of statues or reliefs depicting the History of the Redemption. The experience gained in the production of this work was not availed of in any subsequent church building, and while the English cathedrals are not devoid of sculpture they cannot begin to compare in this respect with the cathedrals of France. Frequently the capitals were simple moldings without any ornament.



SCULPTURE ON NORTH PORCH OF CHARTRES CATHEDRAL.

An architecture which encouraged the use of painting and sculpture in close juxtaposition, as the Gothic, necessarily permitted the use of painted sculpture. The origin of the application of colored ornament of any kind to the exterior of buildings is found in the use of mosaic, which was the most ancient as it was the most gorgeous of Christian decorations. When mosaic went out of use, which was probably due more to a diminishing of the technical knowledge necessary to produce it than to an appreciation of the superior advantages for individual work afforded by painting and sculpture, the same style of decoration was retained by the use of paintings. Much of the earliest work in external painting is a direct copy of the results obtained by mosaic. The greater part of the color in all mediæval buildings has been lost, but sufficient remains to indicate how very generally it was employed. It was not limited to sculptured work alone; but stonework, as distinguished from statues and reliefs, was also colored.

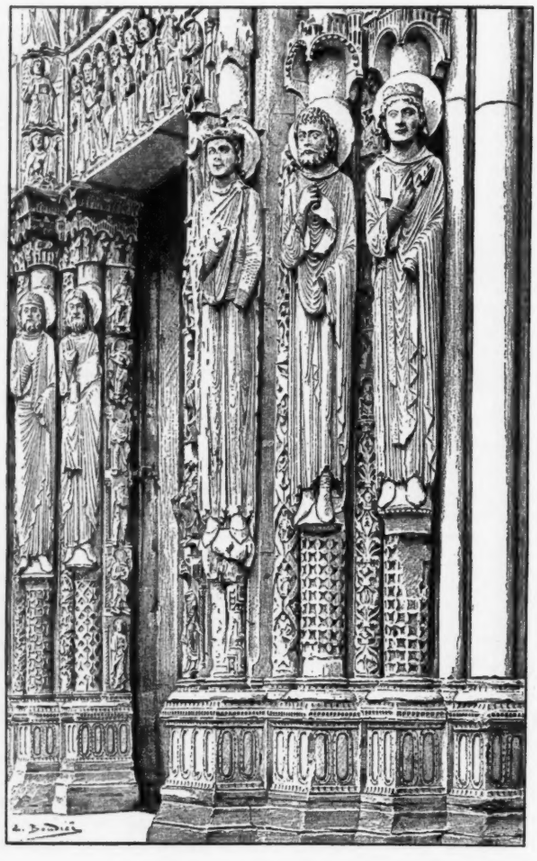
The influence of architecture upon the relative progress of sculpture and painting is thoroughly illustrated in mediæval art. As building preceded ornament, it is evident that the cultivation of either art was due to structural peculiarities, and that the relative capacity of any one people for one style of work did not determine the style of the architecture, but on the contrary, the architecture fostered and encouraged the national capacity for certain kinds of art. Thus, for example, the hot, brilliant sun of Italy necessitated small openings, and the buildings required but little light to render them suitable to the climate. The Italians found themselves confronted with enormous blank wall spaces, and at once set to work to cover them with paintings. The genius of the people was therefore directed almost exclusively to this sort of decoration, and the progress of sculpture was comparatively slow. In France, on the other hand, the climatic necessity for large windows, as well as the structural tendency of the architecture to expand the opening at the expense of the wall, absorbed all the wall space, and there was no opportunity for the production of great mural works, such as were to be found in the South. Carving and sculpture thus became the favorite and most practiced arts in the North, where an advanced school of sculpture flourished nearly a century before the art begun to revive in Italy. Mediæval sculpture has had the misfortune to be treated in a superficial manner that it is far from deserving. Sandwiched, as it were, in between the glorious art of the classic period and the Renaissance, it has been alternately looked upon as the decadence of the former and the preliminary stage of the latter. In studying an art where beauty of form is combined with beauty of execution, historians have been apt to overlook an art in which faithfulness to nature and an earnest regard for truth more than makes up any deficiency in form. A rich, extensive and little worked field for research is afforded by mediæval sculpture, and it is to be hoped that its extremely interesting remains will not long remain a closed book.

Sculpture was not only one of the most important means of decoration employed in the French cathedrals, in which structures Gothic art had its fullest and freest expression, but in its earlier forms it gives ample evidence of the influence of architecture upon it. The long, stiff, narrow figures which were used before the columns of the portal, as, for example, in the western portals of Chartres Cathedral, are elongated because the artist thought it desirable for the position they occupy. The smaller figures of the same portal are quite natural in their proportions, but the larger figures are exaggerated, so as to give them almost the appearance of columns themselves. In work of a later period this singular attenuation was diminished and all the portal figures took natural proportions.

It may be going too far to maintain that of all forms of architecture the Gothic is that best adapted for the employment of a great variety of accessory arts, but it certainly is the style which most employed them. Even the Renaissance, as we shall shortly see, did not surpass it in multiplicity of materials and devices. Sculpture, painting, painted glass were employed in a profusion never equaled, and a fully developed and ornamented Gothic cathedral presents a picture of infinite variety and wonderful beauty. These three arts were the most used, as they are those in which, with the exception of architecture itself, the artistic genius of mankind has chiefly found vent. But the mediæval builders were too profound artists to let any opportunities escape them, and they employed many minor arts and every possible material. The ancient records tell us of the large quantities of precious metals, both gilt and silver, that were used in certain buildings. In A. D. 328 Constantine presented to the churches in Rome crosses of gold weighing 300 pounds, large patens of gold,

chalices, lamps, luster fonts and altars of gold. From an account in the Bodleian at Oxford, we learn that in A. D. 684, King Ina caused to be built a chapel of gold and silver, and placed within it ornaments and vessels of the same costly materials. In A. D. 1066, Harold had Waltham Abbey Church ornamented with plates of copper plated with gold. He also made an altar of gold and golden vessels for chief days, and silver ones for feasts. None of these monuments have come down to our day, the material of which they were composed offering too tempting a bait for needy monarchs and being easily made away with in times of disquiet or war. This costly display of wealth was limited to a few special instances; it never came into universal use and was intended more as a votive offering on the part of the sovereign or donor than as any regular form of embellishment for churches.

But though Gothic builders never made a practice of lavishing the costly metals on their architecture, they did not hesitate to employ it for the sacred utensils, altars, shrines and like structures of small size



PORTAL SCUPTURES OF CHARTRES CATHEDRAL.

which were part of the furniture of the church. Metal shrines came into use in the ninth and tenth centuries, and before long gold and silver were reserved for them. The veneration of the age for sacred reli naturally suggested the use of the most costly materials and the employment of the most developed art for their resting places. The shrines were of various sizes, some approaching very respectable proportions, while others were small. All were more or less elaborately finished and some of the most exquisite work of mediæval artists is to be found in them. Bronze, silver and silver gilt were employed, according to the wealth of the builder, and the merit of the structure was not in the costly material but in the art value given it by the by the genius of the artist. One of the most splendid of early shrines is that of S. Taurinus in the cathedral of Evereaux. The shrine of S. Eleutherius in the cathedral of Tournay is another interesting example; but the most magnificent monument of the kind is the famous tomb of S. Sebald, at Nuremburg, by Peter Vischer. This monument exhibits none of the restraint of mediæval work and belongs to modern art, but it is the legitimate successor of the earlier shrines.

The furniture of a Gothic cathedral was an element of considerable importance, and materially added to the general appearance of the interior. Altars, shrines, screens, galleries, organs, stalls, thrones, pulpits, baptismal fonts, canopies, gates, lecturns, doors, candlesticks, the vessels of the altar, all were given architectural form aud all had Gothic characteristics. The altar was sometimes a simple slab, at others the table was supported by a sculptured frontispiece. One of the most celebrated monuments of Italian Gothic art is the Tabernacle of Or San Michele by Andrea Orcagna, which, while having many of the characteristics of an altar, is really a shrine. The central feature is the great picture of the Madonna and Child, attributed to Ugolino of Sienna. This, however, is but a single part of a wonderful whole. Orcagna has covered his tabernacle with reliefs and statuettes, the former relating to the life of the Virgin, and the latter consisting of prophets and angels. The sculpture is rich and varied and the structure has the appearance of being carved from one piece of marble. Each figure has, however, been carved separately, and the whole joined with the greatest care. It was once decorated with gems, but the genuine jewels have long since disappeared, and their places filled with imitation stones. The monument exhibits the influence of the goldsmith's training that Orcagna had, but it nevertheless ranks among the best work of Italian Gothic.

Painting developed more rapidly in Germany than in France, and German altar pieces are superior to French ones. One of the finest was painted by Hubert and Jan Van Eyck for the Church of S. Bavo at Ghent. The art of this wonderful painting carries it out of the realm of Gothic, but it is so complete and so fully illustrates the German method that it may be referred to here. The picture was a double one, with folding doors, and was painted both within and without. When opened, the central compartment displayed the Adoration of the Lamb. Above was God the Father on his throne, with the Virgin and S. John the Baptist on either side. The right-hand wing had, in the lower division, groups of Pilgrims, Hermits, Saints and Poor, and above S. Cecelia playing on the Organ, and in the outermost compartment, Eve. On the left were Pilgrims, Kings, Princes and Rich, groups of Singing Angels and Adam. The space over Adam was occupied by the Sacrifice of Cain and Abel, and that over Eve with Cain slaying Abel. The outside of the wings was likewise in two rows of compartments. John the Baptist and John the Evangelist filled the lower central ones, with Jocodus Vyts, the donor of the picture, on one side and Lisbetta, his wife, on the other. Above was the interior of the Virgin's House, with the Angel of the Annunciation on one side and the Virgin on the other. The space over these was occupied by two sybils and two prophets.

In the fifteenth century a well marked school of carvers in wood was developed in Germany and was employed largely in the production of altars. The general plan of these works was a large shrine filled with statues or small scenes in relief. Richly colored and gilded they presented a brilliant appearance. Sometimes the central panel was occupied by a painting and the carving continued the scene represented. The high altar of the Church of S. Kilian at Heilbronn is one of the richest and most splendid of German carved altars.

In Spain a high reredos, frequently reaching to the roof and filling the entire space of the apse, is the usual form. The brilliant climate did away with the necessity for windows here, and the architect took advantage of this natural condition to devise a characteristic piece of church furniture. Many Gothic monuments of this kind have been removed to make way for hideous over-ornamented specimens of Renaissance, but some few of the earlier ones still remain. One of the finest is the retable of the old cathedral of Salamanca, described by Mr. Street. It fills the entire wall of the apse and exactly fits the curve, though the usual plan is to cut off the eastern end. It consists of fifty-five panels, five feet in height and eleven feet in width, each surrounded by a delicate architectural framework. The panels are richly painted with a groundwork of gold, and the effect is further heightened by the white of the tracery. The work is of wood and dates from the fourteenth century. Above the retable the semi-dome of the apse is occupied by a Last Judgment. A later example, designed by Damien Forment (1509-1515), is the extremely rich retable in the cathedral of Our Lady of the Pillar at Saragossa.

Chicago surveyors have issued a circular letter calling attention to the importance of the work done and the inadequate remuneration heretofore received, and notify owners, architects and builders that the fee for surveying an ordinary house lot, including street grade, shall be $18; for survey alone, $15; and for the street grade alone, $10. The fee for the survey of larger lots and for lots in the business parts of the city will be subject to special arrangement depending upon the value of the property, the difficulty of access and the character of the structure to be erected upon the lot. For acre property in open country from $3 to $7 per acre, and for survey by the day for a party of three persons, $25 and necessary expenses.

Notes from our French Exchanges.*

VENTILATION APPLIED TO BUILDINGS.

SOME of our subscribers, says *La Semaine des Constructeurs*, have asked us to indicate the most economical arrangements for ventilating their rooms and workshops without risking the injuring of health by a too sudden cooling of the air. The study of a complete system of ventilation is necessarily closely allied to that of heating and lighting, and in a properly constructed building, the heating apparatus should serve to ventilate or at least assist in the ventilation. To ventilate an apartment or a room consists simply in removing the air as rapidly as it is vitiated by the breath of the occupants, by lights, or by any other cause. The problem is complex, because the means of ventilation ought to be such as can be employed under very different conditions — to great rooms and audience halls, to small rooms, and also to factories and workshops. Finally, it is necessary to take into consideration the season of the year in which the ventilation takes place. In winter the heating and lighting apparatus create of themselves a demand for fresh air, which enters through the cracks about windows and doors, and necessarily there is a corresponding amount of vitiated air forced out of the room. In summer, however, it is quite otherwise, and then it becomes a question of taking air from the outside at a temperature lower than the room itself, and without mechanical devices this is often much more difficult to accomplish than in winter.

To have fresh air to ventilate a room, it is often taken by means of chimneys at the top of the building. In fact the air there is at a lower temperature than at the ground, but the taking of this air requires certain precautions. Care is required to avoid the proximity of all dangerous or unhealthy emanation, also to avoid a locality where there are large reflecting surfaces like certain kinds of roofs, which would heat the air within their vicinity.

A cross section of an air conduit should be large enough so that the flow of air shall not be too rapid. Everyone recognizes that most of our houses, especially the ones for rent, have no arrangements whatsoever for the renewing of the air in summer, and an elementary precaution almost invariably neglected is to open the dampers in the fireplaces at night. [In America, one might open the windows, not having that dread of fresh air so deeply implanted as on the continent ! !] Also at certain hours during the day a natural and beneficial airing out might be brought about by this same means. It is frequently the case, however, that the fireplaces are hermetically sealed up by an ornamental covering, which closes it up all during the summer season.

We strongly recommend this method of ventilation ; but each case should be separately studied, as to the draft of the chimney, the position of the flue, and especially in respect to the hours of the day when it is heated by the rays of the sun, since by this means only can practical success be obtained by this very simple process, which is covered by no letters of patent. Let us now consider the influence that the location of the air inlets and outlets has in ventilation.

In the problem of summer ventilation the difficult point is to find a location from whence one can take air that is both pure and fresh, and at the same time satisfy the two conditions of expelling the foul air, and introducing a corresponding volume of new air. But in all cases, whether of summer or winter ventilation, it is desirable that the air introduced shall be of a lower temperature than that of the room to be ventilated, consequently let us first study the movement of the air in a closed room, according to the position of the inlets and outlets.

If the outlets for the foul air and the inlets for the fresh air are both near the floor — by two openings at opposite sides of the room — the fresh air goes across the room and is rapidly drawn out, while the hot air of the room, on account of its greater lightness, rises and accumulates below the ceiling. Hence this arrangement is defective and does not fulfill the proposed requirements, since the air introduced has not perceptibly lowered the temperature of the room while passing through. A little more satisfactory result is obtained by placing the inlet near the ceiling and the outlet near the floor. In this way the denser and less pure air is naturally forced out, but at the same time the cold air is forced out and the temperature of the room has not been much lowered. By placing the inlet and outlet at opposite sides of the room, and both near the ceiling, the requisite conditions are fulfilled, since the cold air descends in the room, on account of its greater density, while the hot and vitiated air above has a chance to escape by the outlet prepared for it. A good result can also be obtained by placing the inlet of cold air near the floor and the outlet for foul air near the ceiling ; but it is to be noticed that this disposition may seriously discomfort and possibly injure those who are obliged to work near the cold-air entrance. This difficulty may, however, be in a measure overcome by increasing the number of fresh-air inlets without increasing the quantity of air introduced. But whether the air be brought in at ceiling or floor, it should be distributed about the room with all precautions and should especially be done with a slow current, which may be readily accomplished when mechanical ventilating machines are employed, as would be necessary in all large establishments.

If fresh air of low temperature cannot be directly procured, it should be cooled artificially before introducing into the rooms to be ventilated. For this purpose it is sometimes made to pass in conduits through large cellars where the temperature is low ; but when this is impossible or impracticable recourse can be had to other means. In England air is purified by passing it through a wall built of coke, kept wet by a small stream of water. M. Generte has applied the same principle in the following manner : A large cylinder is filled with coke and moistened by water dripping on it from above. The air to be cooled is introduced at the lower part of the cylinder and passed through the coke in its upward passage. Also a very considerable use is made of freezing mixtures, but all of these are expensive. Another process employed with considerable success consists of forcing a current of air through a sheet of water, which very perceptibly reduces the temperature. Thus it is seen that of mechanical devices an architect may find a large field to draw from, although unfortunately the most perfect systems are decidedly expensive.

For detailed study of this subject the following book is recommended : "Chauffage et Ventilation des Lieux Habités," for sale by André, Daly fils et Cie, Paris.

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

THE PROGRESS OF FIVE HUNDRED YEARS.

At the last salon, in the section of architecture, M. Barbaud exhibited a remarkable series of drawings, photographs, etc., showing the actual state and a restoration of the old chateau of Bressuire, one of the most curious specimens of French architecture of the middle ages, parts dating back to the eleventh century. The work was at once awarded the great silver medal by the jury, and so noticeable was the impression made by the drawings that the author was requested to speak before the recent congress of architects upon the subject. In fact, very general interest seems to have been taken in this old feudal castle, and apropos of it one of the most distinguished of the French architects drew up a curious document, showing most forcibly the changes of modes of living in the last five hundred years. This is published in *L'Architecture*, where he says : What kind of an age was it when such a dwelling was required ? Certainly, the Lords of Beaumont, who resided there, were a rich family ; but is it possible to imagine one of our present very rich families now forced to live in this kind of a bastile, even if furnished with all imaginable luxury ? How quickly they would take the first railroad train to escape ! I suppose for an instant that our École des Beaux Arts then existed, and that the professors gave out their programmes, the same as now, so that what would now be the country place of a rich person would then have been the castle of a high and powerful seigneur. Let us try a parallel of these two :

YEAR 1391.

The castle of a high and powerful seigneur.

This construction will be built upon a precipitous rock, as inaccessible as possible.

The approach will be by a crooked, narrow path, provided with pit-falls, wolf traps, and protected by a chevaux de frise.

First. At the entrance shall be a small gate, flanked by towers, with a draw-bridge, all properly protected by port-holes and embrasures.

Near to this entrance shall be a post for archers, a look-out man, a guard-room, and all the means for a first defense.

The castle shall be surrounded by several high walls, with towers, all provided with places to shoot from, and the whole inclosed within a deep ditch.

In the first enclosure, interspersed with walls for defense, will be the following indispensable military dependencies, viz.:

Barracks for soldiery, comprising horsemen and foot soldiers.

A magazine for different kinds of arms, including stones to throw down from the parapets.

A place to boil water and oil, to turn down on the heads of an attacking party.

Store house for live stock, grain and general provisions for a siege.

Second. In a second enclosure also defended by walls, but higher and thicker than the first, shall be the citadel, which can be held against a large attacking force, even when the first enclosure had been forced by the enemy.

It shall contain a small place of residence.

Besides the necessary defenses, such as towers and iron-studded gates, there shall also be

A family living room and several sleeping rooms, taking up the least possible space, giving all the room necessary for means of defense.

A room for storing tar, Greek fire, etc.

Several prison cells.

A torture room, with place for all instruments of torture.

A sufficient number of dungeons.

At the highest point a gallows shall be erected, which shall be in plain view from all directions.

There shall be an extremely large cistern in the citadel, which will contain a supply for several months.

All the windows shall open upon the interior courts; the outer walls only be pierced with holes for the use of engines of war.

YEAR 1891.

The country place of a rich private individual.

This construction will be built upon a gently sloping ground and within easy distance of a railroad station.

The approach will be by a wide avenue of large trees, where shall be the carriage drive, the whole bordered by wide lawns.

First. At the entrance there shall be a monumental gate with a principal entrance and two smaller entrances at the sides.

Near this entrance there shall be a gate lodge, also a gardener's cottage, with seats, benches, etc., in abundance.

The building shall not have any kind of walls or inclosure about it, but will, at several points have doorways leading out directly into a very large pleasure ground and park.

In a rear enclosure, which shall be large and open, will be placed the following dependencies, viz :

Cottages for persons employed on the estate, including gardeners, coachmen, etc.

Barns, stables with both box and open stalls, with a large storehouse for garden utensils.

A small ice-house for butter and eggs.

A large greenhouse with a room for the arrangement of cut flowers into bouquets, etc.

Second. In front of the buildings mentioned and open at all sides shall be the residence proper, which shall be in direct communication with the gardens and flower beds.

It shall be a very large and spacious residence.

Besides the large vestibules, steps, etc., necessary as means of entrance, there shall also be

A very large reception hall, together with very fine dining room, parlor, drawing rooms, etc., with spacious suites of rooms for the family.

A large library.

Several boudoirs.

Fine hot, cold and Russian baths with couches, hot and cold rooms, etc.

Numerous suites of apartments for visiting friends.

At one of the highest places there shall be an observatory tower, from which the finest views of the surrounding country can be obtained.

There shall be fountains, vases, cascades and general ornamental effects with water as a feature.

All light shafts and interior windows shall be avoided, but the outer walls shall be filled with large openings permitting views of the country in all directions.

Does someone say that this is a play of antitheses ? But no antithesis will be as great as the contrast of the things themselves. Ah, the good old times ! Only to think of them makes the cold

shivers run down one's back. This good old time, thank goodness, is past; the Renaissance buried it; the struggle was short but sharp. As the old customs were killed by new ideas, so the Renaissance ought to kill off that old architecture.

Illinois Chapter A. I. A.

AT the regular meeting of the Illinois Chapter of the American Institute of Architects November 16, in accordance with a request received from the Chicago Real Estate Board for an expression from the chapter regarding the limitation of the height of buildings, the matter was taken up by the chapter. It was stated by the president that this request was received since the last regular meeting, and a meeting of the executive committee was called and a letter ballot sent out. In response to this, out of a membership of sixty-seven but thirty-one responded, of these twenty-seven were in favor of limiting the height of buildings to 125 feet for all buildings except elevators and sugar refineries and 100 feet for hotels and apartment houses; three were undecided, and one against any such action.

Mr. Adler inquired why exceptions were made in favor of one class of investors as against others in the matter of grain elevators and sugar refineries.

Mr. Clay replied that, generally speaking, buildings which are inhabited are likely to congest the streets. The main object in taking such action as proposed was not that the buildings could not be erected or are not safe, but the objection to high buildings was that there is not room in the streets to accommodate the population. These buildings were probably excluded from the list from a sanitary standpoint. He concluded by saying that he did not believe in restricting the height of buildings or anything in which the efforts or genius of man could be demonstrated, and that owners should be permitted to go as high as it is possible to build.

Mr. Willett did not view the question as one of great moment either from an architectural or an engineering point of view. He considered the sanitary feature as the most important, and one to which attention should be called. He did not think that it made very much difference if only a few such buildings were put up, but should the streets be lined with them we would be a city of cave dwellers. He was surprised that the doctors were not up in arms against their construction. Hospitals were constructed with a view to as much floor space as possible and the accessibility of air and light. As it is, we are building cities upon cities, and if it continues our children will be pulling them down.

Normand S. Patton did not believe in placing the chapter on record before the subject was thoroughly discussed. He had not yet given up the idea that he was to be the designer of a sixteen-story building. He did not believe in any unnecessary restrictions, yet all must now stop and begin to think of what would be the result of building up both sides of the streets with these tall buildings. He thought that the greed of individuals should be restrained for the good of the public. He knew where occupants of offices had sought other quarters owing to the cutting off of the light, and that the occupants of all the buildings would be confronted with the question of taking rooms in the lower part of the building, or in the upper part above all the surrounding structures. He said that we owe to the present high buildings the superior class of fireproof construction which now prevails. He thought that they might be hazardous to the occupants of the upper stories in case of fire. The main objection that could be urged against them is the cutting off of air and light. The limitation of the height should also, he thought, be considered from an esthetic point of view.

Mr. Hill, one of the ablest advocates of the measure, thought that the future should be taken into consideration. At present Chicago has a million and a quarter inhabitants, and the streets are very much congested. This city occupying the geographical position which it does, with its thirty or more railroads, and its lake commerce, which for the eight months the season is open is larger than that of New York City for the entire twelve months, will, before fifty years have elapsed, be the largest city in the world. It will probably have five million inhabitants, and if these Babylonian imitations were allowed to continue he did not know what would become of the people. There had been some talk about underground passageways and elevated ways, but the streets were intended for traffic.

Mr. Beaumont felt that common courtesy to the real estate board demanded an early reply. He did not think it easy to specify at exactly what height buildings should stop, and the committee had no time given to them to go into details. He explained that from a sanitary standpoint the height of buildings should be limited. In the sections of the city where big buildings were the rule, he said the streets were colder in winter and warmer in summer because it was difficult for the sun to get in, and dispel the cold weather, and wind get in and dispel the heat in hot weather. Smoke and steam pour down into the streets and cannot get out.

Mr. Seeley thought it would be a good plan to consider the subject from a legal standpoint, as if an ordinance is passed it must be upon such grounds that the courts will uphold it. He did not think they could go into court and say the high buildings are dangerous, as we already have high buildings. You preclude the construction of one thing on the ground that the public health demands it, and you permit something else which may be just as detrimental. The doctors say that the farm is the place for man to live, yet he keeps coming to the city and clambers into stories one above the other. He also develops a tendency to create centers. In regard to light and air, the man who cuts off his neighbor's light has no right to complain if some one puts up a building higher than his and cuts off his sunlight. The health of the man who does business on La Salle street in the region of the enormously high buildings does not seem to be in great danger, and his ability to get around, to get through the streets, does not seem to be curtailed. If the height is to be limited he believed in limiting it to the highest now prevailing. In New York City an attempt to limit the height of buildings had been made and the courts overruled it. The limit should include all buildings which are used for residence purposes, the height of non-fireproof structures; and he said that he would also like to see an ordinance which would limit the construction of bay windows.

Mr. Adler said that he agreed almost fully with all that had been said. He believed that there were very few present who were socialists to the extent of denying that there were certain rights and privileges, both personal and the rights of property, which must yield to the good of the community at large. All of us must restrict ourselves in one way or another so as not to come in conflict with our neighbors. If it could be shown that limiting the height of buildings is conducive to the good of the community, it is the right of that community to establish such limitation, but it must be done legally. Since this discussion had been begun in this city, many reasons had been assigned for the desire to see such limitation established. One member stated that as far as the architectural view was concerned, there was no danger, yet if there were not so many high buildings put up there would be more of less height, and more architects consequently would be employed. A member of the real estate board said that if the height was limited, values out from the center of the city would be greatly increased. Mr. Adler considered both arguments selfish and not worthy of attention. The other argument was the concentration of traffic and the consequent congestion of the streets. He considered this absurd and ridiculous. He said that of those who have had occasion to go about on business in New York, Boston and European cities, there are none who will not say that it is possible to transact a given amount of business with more comfort in Chicago than in any of these cities. To see ten or twelve persons in London it was necessary to take from five to ten times as many steps as it was to see the same number in Chicago. The concentration of business he considered was the very thing which reduces congestion. In the districts of high buildings it is easier to get around than it is when they are lower. The congestion of State street, where there are but two buildings higher than six stories, was due to the temptations set before the people by the merchants who set forth in the newspapers the wonders and prices of their goods. If we want to prohibit the congestion of the streets, he thought the common council should pass an ordinance preventing the merchants from advertising their wares in the newspapers. He considered that the more the business was concentrated in the heart of the city, the less the people had to travel. Should the business district be extended to Twenty-second street on the south, Ashland avenue on the west and North avenue on the north, the several hundred thousand people would be thrown a great deal farther away. He thought the argument of congestion a very lame one. He thought that the greatest significance should be attached to the question of sanitation in relation to the high buildings. On the down-town streets, now lined with these buildings, the result would be that they would either have to be taken down or the streets raised to the fourth or fifth stories in order to get sunlight. Apart from that, the question of sanitation was altogether with the high buildings. The vermin-ridden structures are not to be compared with the new buildings now taking their places. The high buildings are better than the low ones because they are compelled to construct them of better material, and that if they returned to the construction of lower buildings, they would revert to cheap construction. He considered the recommendations of the Executive Committee regarding limiting the height of hotels and apartment houses particularly unfortunate. Should this recommendation be adopted, buildings of this kind below 100 feet need not be fireproof, while one 101 feet high must be fireproof. He thought they should forget everything but the good of the community, and whatever increases the volume of business in this city is of value to everyone doing business here. We are all interested in Chicago and the development of her business, and if concentration makes it possible to accomplish in three or four hours what would take much more time elsewhere, this is the kind of building we want to encourage. He thought it would be the duty of the chapter to guide the line of policy in the direction which will favor most the development of our business interests, and on such lines as will preserve as much as possible the sunlight in our streets and buildings. He then suggested a means by which this could be accomplished. He believed that instead of crowding out on the streets to the extreme edge of the ground, and then shoving bay windows out and taking additional space, a more enlightened policy should be followed, such as had been adopted in the Pullman building, the Rialto, Woman's Temple and in the German Opera House, all of which were built so as not to absorb all the light. In these buildings an external court is formed which gives back to the street a recompense for light taken. A building constructed after this manner, even if built two stories higher than the Rookery, Unity and others, would admit more light and more air than a lower structure built right out to the street line with an inner court. External courts or parts which recede can only, of course, be built on any large properties, and the owner of a small piece of ground could not build so high, but there are always large companies in formation and which also desire to secure larger holdings. Restriction should be elastic and should not confine the construction of buildings to one absolute dead level of sky line. The owners of these buildings are not putting them up because they are a menace to health. The public is waiting and anxious to pay rent for them, and when there is no demand their construction will stop.

Mr. Adler presented the following resolution:

Resolved, That the subject-matter limiting the height of buildings by municipal legislation be referred to the Executive Committee, with the request that the committee develop more fully the proposed attitude of this chapter with

regard to this subject with a view to securing such elasticity of the proposed ordinance as will be most in accordance with the best interests of the city; and that the Executive Committee report its further action to a meeting of the chapter to be held at the call of the president.

The resolution was adopted, after which an adjournment was taken until November 30, when the discussion was continued.

At the meeting November 30, Mr. Adler presented a draft of a letter to the building committee of the city council which recommended the limiting of the height of buildings to twice the width of the street and called attention to the "bay window, basement entrance nuisances," etc., and after discussing the matter of limit, using the same general arguments as at the former meeting, a resolution was passed recommending the limit to be placed at one and two-thirds the width of the street and again placing the matter in the hands of the executive committee to revise the letter and place it in the hands of the city building committee, after which the meeting adjourned to the next regular meeting.

The recommendations as finally formulated by the committee of the chapter and presented to the committee of the city council recommend that the height of buildings be proportioned to the width of the streets upon which they are to stand, and that this limit be determined with a view to the admission of direct sunlight to the streets for a reasonable part of the day — upon streets of 40 feet or less in width, to a total height of 100 feet; upon streets 40 to 66 feet wide to a height of 120 feet; upon streets of from 66 to 80 feet to a height of 140 feet; upon streets of 80 to 100 feet to a height of 165 feet, and for streets or open spaces over 100 feet in width, 175 feet. In the case of buildings erected with frontage upon streets of varying widths, the limit of height shall be the average of the heights fixed in the foregoing for streets of the widths of those upon which the buildings are to be erected. These heights may be exceeded if the building or a part of it is set back from the street line so as to materially increase the width of the street in front of this building. In this case the increase shall be permitted directly proportioned to the aggregate increase of width of street so made. Buildings may also be carried to greater heights if all parts of such structures which it is intended to carry above the limits of height prescribed shall be kept back of and within a line drawn from the opposite side of the street through the highest point of the wall as fixed in the first recommendations regarding height. Nothing in the recommendations shall prohibit the erection of spires, towers, domes or cupolas, provided always that their area is not more than fifteen per cent of the ground area of the proposed building. In cases where two stories or more are used in whole or in part for the storage or sale of combustible merchandise and the rest of the building for habitation, offices or manufacturing, the whole of the part used for the storage or sale of goods shall be provided with overhead automatic sprinklers of a standard and character to be fixed by the city fire marshal. All buildings 75 feet or more in height shall have a system of internal and external fire pipes made in accordance with a standard to be fixed by the fire marshal. In buildings where so-called skeleton construction is used the external skeleton shall be surrounded by masonry of sufficient thickness to resist the wind pressure to which the building may be exposed and of sufficient strength to carry its own weight independently of the skeleton structure to be used. In all buildings of greater floor area than 12,000 square feet a heavy brick wall shall extend from the ground to the top of the building for each additional 10,000 square feet or fractional part, and all openings through this wall shall be guarded against spread of fire by heavy iron doors on each side of the opening. The recommendations concluded by stating that the building ordinances of the city are in many respects not in accordance with the best modern construction and suggested that a committee be appointed, to which the chapter will lend its assistance, for revising them, calling attention to the fact that the present ordinances relating to slow burning and fireproof construction were the result of the deliberations of one of its committees.

Western New York Chapter A. I. A.

THE sixth annual meeting of the Western New York Chapter of the American Institute of Architects was held at Rochester, December 1, in the Chamber of Commerce, the following members being present: W. W. Carlin, Buffalo; Jacob Agne, Utica; Otto Block, Rochester; George W. Baxter, Syracuse; J. Blaby, Palmyra; H. H. Bickford, Elmira; J. R. Church, Rochester; Charles E. Colton, Syracuse; E. A. Curtis, Fredonia; O. W. Dryer, Rochester; Jay Fay, Rochester; O. K. Foot, Rochester; Frederick L. Gouge, Utica; E. A. Kent, Buffalo; Thomas Nolan, Rochester; J. H. Pierce, Elmira; Charles R. Percival, Buffalo; Jesse R. Porter, Buffalo; H. G. Tuthill, Corning; W. W. Taber, Syracuse; W. C. Walker, Rochester.

The meeting was called to order by President W. W. Carlin, of Buffalo, who addressed the convention reviewing the work of the chapter during the year, spoke at length regarding the state license bill and the work of the national, state and local societies. Mr. Carlin called attention to the necessity for every architect to use his influence with local representatives and the public generally, so that a strong sentiment in favor of the licensing bill should be formed before it came before the state legislature for passage.

At the conclusion of the president's address and the reports of the treasurer and committees had been received, that upon the bill for licensing architects was taken up and the discussion occupied the remainder of the morning session.

At the afternoon session the following officers were elected for the year: President W. W. Carlin, of Buffalo; secretary, J. H. Pierce, of Elmira; treasurer, George W. Baxter, of Syracuse; first vice-president, Cyrus K. Porter, of Buffalo; second vice-president, J. R. Church, of Rochester; executive committee — E. A. Curtis, of Fredonia, and Orlando K. Foote, of Rochester.

A paper on "The Transition of the American Dwelling House" was read by C. K. Porter, of Buffalo. The executive committee, before whom the project of consolidating the Buffalo Chapter with the State Chapter had been placed for consideration, reported in favor of such consolidation. In the discussion following the report, an equitable plan could not be arrived at and the entire matter was referred to a special committee to present a plan at the next session. The Chair appointed C. K. Porter, J. H. Pierce, E. A. Curtis, F. H. Gouge and Jay Fay as such committee, and the session adjourned.

A banquet was given in the evening at the Rochester Club, Thomas Nolan, of Rochester, acting as toastmaster. Letters and telegrams of regret were received from Chancellor Sims and Professor Comfort, of Syracuse University; Professors C. Francis Osborne and Charles H. Babcock, of Cornell University; President Hill, of Rochester University; L. P. Ross, George Moss, E. T. Curtis, Senator Parsons, E. R. Willard, Mrs. Louise Bethune, of Buffalo, and R. C. McLean, of Chicago.

The first toast of the evening, "Architectural Associations," was gracefully responded to by W. W. Carlin; "The Architects and the Mechanics' Institute," by Ezra R. Andrews. S. H. Lowe, of the *Morning Herald*, responded to "Architecture and the Press," and referred to the similarity between honest architecture and honest journalism. J. Harry Stedman, in responding to "Architecture and Poetry," gave a sample of what he knew of both in the following:

Of the various vocations that absorb the human mind,
The Architect's profession is the most peculiar kind.
An office and a shingle are essential things no doubt,
But several other factors help to round the practice out.

Mechanical ability a set of plans to make,
Artistic sense to work them up so they are sure to take.
Preliminary estimates at maximum prepared
That will foot up so little that the client won't get scared.

Some knowledge of surveying, that he may lay out the land,
The lines and grades electing where the edifice shall stand.
In "ancient lights" and "real estate" he must be quite at ease,
Not to mention landscape gardening, sidewalks, sewers, shrubs and trees.

Then he must cope with coping and everything discussed,
And know much more of fencing than how an arch will thrust.
Clairvoyant he must be to know before the work's begun
Exactly how the thing complete will look when it is done.

Au fait in all materials, in every kind of stone,
Which best will hang together, and which will stand alone.
Not stuck on stucco, but in clays familiar as a potter,
And be on terra firma when he talks of terra cotta.

Then, he must pile up harmony, both presto and andante,
And take care of his capital when he puts up his antæ.
He must be fully posted on his heating and his frieze,
And the lining of his architrave must not bag at the knees.

His members, frames, groins, ribs and feet would puzzle any doctor;
His attics and his lofty forms electrify the Proctor.
No laundress or musician knows so much as he of fluting;
His moldings way up to O G, as well as his mail-chuting.

Slate, tiles, conductors, shingles, tin, eaves, cornices and flues,
Paints, oils, stains, putty, fillers, glass, the finishes they use;
Acoustics, optics, papers, paint, interior decoration;
Distempers, dog-teeth, dados, plumbs, jambs, beads of every nation.

There's tensile strength and crushing strain and fireproof construction;
Plumbing and gas, electric work and ventilating suction;
Lime, mortar, plaster, cement, bricks, locks, bolts, door-closers, hinges
And with each peculiar client know just where the shoe impinges.

Boilers and fuel, pipes, exhaust, the fastest elevator;
Cold storage as embodied in the Wickes Refrigerator;
Ranges and grates and furnaces, the principles of Ruskin;
The better points of every school, Assyrian, Greek, Etruscan.

Stair-builder! mason! carpenter! designer! what a head!
'Tis marvelous that "Fools rush in where angels fear to tread."
He gives his best for perfect work, and when he's done it all,
He finds his labor is in vain, "*that closet is too small.*"

"Architecture and the Ladies" gave Mr. Foster Kelly an opportunity to show a familiarity with each, and John H. Coxhead, of St. Paul, in speaking of the "Progress of Architecture in the West," spoke of the vigor of the examples shown in that section as against the superior fineness in execution displayed in the East.

Otto Block and Thomas Nolan, the committee on entertainment, left nothing to be desired in providing a thoroughly enjoyed dinner.

Chicago Architectural Sketch Club.

THE annual banquet of the Chicago Architectural Sketch Club took place on Monday evening, November 16. All active members of the club were present; also the majority of honorary and associate members were in attendance. The dinner was served in the assembly hall of the club rooms, which, although commodious in the past for entertainments, is now hardly adequate for this use owing to the rapidly increasing membership. The walls were covered with drawings showing the representative merit of active members, interspersed with casts, art loans, etc. The Clark medal competition drawings were also exhibited, which were premiated as follows: First place (gold medal), George G. Will, Omaha, Nebraska; second place (silver medal), Walter E. Pinkham, San Francisco, California; third place, F. R. Hirsh, New York; fourth place, M. G. Garden, Chicago; fifth place, F. H. Briggs, New York; sixth place, F. C. Baldwin, Detroit; seventh place, Adolph Thule, Omaha, Nebraska; eighth place, C. M. Olsen, Omaha, Nebraska. The officers for 1892 were formally installed in office by ex-President W. G. Williamson as follows: Charles A. Kessell, president; W. E. Kleinpell, first vice-president; Arthur Heun, second vice-president; John E. Youngburg,

secretary ; Ernest J. Wagner, treasurer ; executive committee — Frank L. Linden, T. O. Fraenkel. The dinner being disposed of, coffee and cigars were enjoyed while the following toasts were responded to : "The World's Columbian Exposition," C. B. Atwood ; "The Present Company," Lorado Taft ; "The Prevailing Style," Dankmar Adler ; "The History of Architecture," Fritz Wagner ; "The Sphinx," W. L. B. Jenney ; "The Draftsman Off Duty," I. K. Pond.

In consequence of a judicious sampling of famous vintages during the disposal of an elaborate menu, the toasts were responded to "humorously," as a matter of course. Recitations and club songs, exhilarated by "Punch a la Fritz," concluded the programme of the most notable event in the club's history.

The first business meeting of the current year was held November 13. The syllabus for the coming year was discussed and plans formulated for the coming year of work and recreation. There will be frequent and valuable papers from experts in the various branches of building materials and methods, who have been engaged for the lecture course, a feature that will be of much practical benefit to the members. A large and inviting course of competitions will be selected, and interpersed between these and the lectures will be informal entertainments to which the friends of members will be invited and for which the new club rooms in the Athenæum building are well adapted. Sketching trips into the surrounding country will be organized for the summer and on the whole there seems to be more enthusiasm prevalent in the club than ever before in the club's history. There are suggestions of an illustrated catalogue next year and many other improvements in the club's proceedings and purposes that will make the year a memorable one in club history.

Ohio Chapter, A. I. A.

AN adjourned meeting of Ohio Chapter of American Institute of Architects was held during the sessions of the convention of the American Institute of Architects in the new library building, Boston, Massachusetts, at 10 A.M. October 30 ; Vice-president J. W. McLaughlin in the chair ; George W. Kramer, secretary. The members present were J. W. McLaughlin, J. W. Richardson, G. W. Kramer, J. W. Yost, Guy Tilden, John H. Boll, G. W. Drach, Boucherle, F. A. Coburn, G. W. Rapp, Samuel Hannaford, J. M. Freese, E. O. Fallis, R. C. McLean.

On motion, the reading of minutes of meeting held in Akron was dispensed with, the same being approved as published in THE INLAND ARCHITECT.

Mr. Yost offered the following resolution :

Resolved, That a committee of three be appointed authorized to prepare a definite plan or arrangement in regard to dues, privileges, and relations which shall exist between state and local chapters, their report to be offered as an amendment to the constitution and by-laws, and shall be determined by letter ballot at as early a date as practicable and in such manner as is provided for by the constitution and by-laws.

The resolution was discussed and adopted, and on motion by Mr. Coburn it was determined that the next regular meeting should be held in Columbus, and that all officers be hereafter selected without reference to place of holding meeting.

The Chapter then proceeded to ballot for officers for the year commencing January 1, 1892, which resulted as follows :

J. W. McLaughlin, of Cincinnati, president.
J. W. Yost, of Columbus, first vice-president.
G. W. Rapp, of Cincinnati, second vice-president.
G. W. Kramer, of Akron, secretary.
E. O. Fallis, of Toledo, treasurer.

Executive Committee — J. W. McLaughlin, of Cincinnati, chairman ; G. W. Kramer, of Akron, secretary ; F. A. Coburn, of Cleveland ; S. Hannaford, of Cincinnati ; G. W. Drach, of Cincinnati.

On motion of Mr. Rapp, the badges left over from the Cincinnati consolidation convention were ordered turned over to the treasurer to be disposed of.

On motion, the meeting adjourned to meet in Columbus the third Thursday of August, 1892, unless otherwise ordered by the Executive Committee.

Association Notes.

DUNDEE INSTITUTE OF ARCHITECTURE.

The eighth session of the Dundee Institute of Architecture, Science and Art was opened on November 4 in the hall of the Young Men's Christian Association by Prof. G. Baldwin Brown, M.A., Edinburgh, who delivered a lecture on "Some Notes on the Growth of Cities." The president, Mr. Charles Ower, C. E., occupied the chair, and there was a fair attendance.

Professor Brown began his lecture with a detailed account of Old Dundee, and explained its topography by the help of a lime-light view of the city from the slopes of the Law and a reproduction of Crawford's eighteenth century plan of the town. Though there were three eminences round the city, the Steeple seemed to have been the citadel from which enemies were kept at bay, the ordnance being fired from the windows at the top of the lofty structure. Professor Brown proceeded to say that there were two kinds of city—the old and the new; the old city which grew up irregularly, just as nature prompted, and the new city, which was laid down according to a regular plan. In Dundee they had no striking contrast between the old and the new city, and perhaps the most notable instances in Britain were to be found in Edinburgh and in Bath. This led the lecturer to speak of the rectangular planning of Edinburgh, and to say that that feature was conspicuous in ancient Greece. Old cities were laid out with a view, not so much to the convenience of the inhabitants, as to the keeping of enemies at a distance. In addition to the rectangular there was the radiating principle of forming cities, branching out from the center after the manner of spokes from a wheel, and this plan was seen to advantage in Paris. Referring to the mediæval and classical (or regular) styles of architecture, he said that, while with the one they secured charm, picturesqueness and variety, with the other they got dignity and stateliness. A large number of views were shown as illustrating the points of the lecture, and, in conclusion, capital pictures of the Dundee Town Hall and the Morgan Hospital were exhibited. In regard to the Town Hall, he remarked that while one might wish to see a grander building, one would, at the same time, desire to retain its massive and substantial appearance.

The Chairman proposed a vote of thanks to the lecturer ; and Professor Brown, in acknowledging, alluded to the naturally fine situation of Dundee, and said there was scope for the formation of a beautiful city in the West End district.

THE ARCHITECTURAL LEAGUE OF NEW YORK.

The Seventh Annual Exhibition of the Architectural League of New York will be held at the Fifth Avenue Art Galleries, 366 Fifth avenue, New York, and will be open to the public after December 24, under the following rules and conditions :

1. The exhibition will be open to the public on Thursday, December 24, 1891, and will be open until January 9, 1892.
2. The galleries will be open for the reception, by card, December 23—Press : 10 A.M. to 4 P.M.; and reception in the evening.
3. The exhibition will consist of drawings, etc., not before publicly exhibited in New York, representing as far as possible the present condition of architecture and the allied arts. All kinds of works are admissible, such as : architectural designs embodied in plans, elevations and sections, or shown in perspective. Designs for decoration, furniture and the like. Photographs of executed work. Cartoons for stained glass, full-size drawings for ornament and the like. Models of executed or proposed work. Completed work, such as carving in stone or wood, wrought iron, mosaic glass, stuffs and furniture. Sketches, drawings and paintings of architectural or decorative subjects.
4. Works will be received only at the Fifth Avenue Galleries on the 16th and 17th December, 1891. No works will be received before or after that date.
5. If the secretary is notified on or before the 14th December drawings will be called for and returned without expense to the exhibitors. Collections to be made the 16th and 17th of December.
6. The blank form attached to this must be filled and sent to the secretary by the 14th of December.
7. A card must be attached to the back of each drawing or exhibit, giving the title, name of exhibitor, the address, and where to be returned.
8. All works intended for exhibition will be at the risk of the owners.
9. All rules customary at exhibitions, and not above mentioned, will be considered to apply equally to this exhibition.

47 West Forty-second street. EDWARD T. HAPGOOD, Secretary.

All drawings and photographs must be framed or mounted. Exhibits will be catalogued by title with name of exhibitor, and it is especially desired that the name of the draftsman may appear ; any other data may be on margin.

THE PHILADELPHIA T-SQUARE CLUB.

The opening meeting of the T-Square Club for the season of 1891-92, was held October 7, when the following officers were elected for the ensuing year : President, John Stewardson ; vice-president, Frank E. Mead ; secretary, C. Barton Keen ; treasurer, Albert Kelsey ; Executive Committee — F. M. Day, Wilson Eyre and Frank A. Hays. over two hundred and fifty drawings were submitted, was reported

The competition of the Club, "Sketches From Nature," in which upon by the adjudicating committee, as follows :

REPORT OF JURY.

Frank A. Hays, Esq., President Philadelphia T-Square Club :

DEAR SIR, — The committee selected by the T-Square Club of Philadelphia to award the prizes for summer sketches begs to submit the following report :

The committee found the general standard of work, considered as the production of architectural draftsmen in their leisure hours, gratifyingly high. Some of the work is very commendable, and almost all shows serious effort. There is, perhaps, too much tendency to impressionistic and picturesque method, and too little accurate and delicate study of form, though some of the drawings of architectural detail are very good. The figure drawing is quite insufficient.

In awarding the gold medal for the "best general exhibition," it was found that few of the exhibitors had work in all three mediums (water-color, pen-and-ink and pencil and crayon), and none of them showed sufficient skill in all to merit the medal on that ground. It was, therefore, decided to award the medal for general artistic merit and skill, and versatility in subject matter as well as in material, and on this ground the gold medal is awarded to Mr. J. J. Bissinger, whose pen-and-pencil sketches of animals and of architectural detail are admirable. His animals are especially vigorous and truthful.

The silver medal for the best water-color sketch the committee had no difficulty in awarding to Mr. E. Boggs, whose drawings show a breadth of handling and justness of tone unapproached by the other exhibitors.

The silver medal for the best pen-and-ink sketch is awarded to Mr. Frank A. Hays, whose work shows much delicacy and feeling for line, and, with the bolder work of Mr. Bissinger, is the best in the exhibition.

The silver medal for the best pencil or crayon sketch is awarded to Mr. Charles Klauder for a graceful and charming drawing, excellent in technique and in expression of air and distance, as well as of form. Mr. Klauder also deserves mention for the somewhat timid but delicate and truthful water-color drawing of landscape.

All of which the committee respectfully submits. KENYON COX.
STANFORD WHITE.

Our Illustrations.

Hotel McCasland, East St. Louis, Illinois; J. Harry Randall, architect, St. Louis, Missouri.

St. Paul's P. E. Church, New Orleans, Louisiana; McDonald Bros., architects, Louisville, Kentucky.

Competitive Design for the Union Station, St. Louis, Missouri, submitted by George R. Mann, architect.

Competitive Design for the Union Station, St. Louis, Missouri, submitted by James Stewart & Co., architects.

Gothic Capital—Refectory—St. Martin des Champs—Capital from Reims Cathedral—Façade of Reims Cathedral, in illustration of article, "Architecture and the Allied Arts," in this number.

PHOTOGRAVURE PLATES.

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

Residence of C. S. Kilbourne, Aurora, Illinois; W. A. Otis, architect, Chicago.

Residence of W. A. Alexander, Highland Park, Illinois; W. W. Boyington & Co., architects, Chicago.

The Fourth Baptist Church, corner Ashland Boulevard and Monroe street, Chicago; Charles F. Whittlesey, architect.

Residence of H. M. Wood, Chicago; S. S. Beman, architect. Residence of Edmund Adcock, Chicago; George Beaumont, architect.

Residence No. 133 Astor street, Chicago, for Eugene R. Hutchins; Pond & Pond, architects. Three full-page plates are given as follows: Exterior view; view in dining room; view in library.

Correspondence.

Editors Inland Architect: ROME, Georgia, November 30, 1891.

I want illustrations of Venetian palace architecture; interior and exterior. Where can I get them and what will they cost?

Respectfully, J. G. BARNNELL.

Brochure No. 2, issued by *Technology Architectural Review*, Boston (10 cents), gives six exteriors of palaces; photographs of exteriors may be had of O'Brien & Son, Chicago, or Soule Photograph Company, 338 Washington street, Boston. Details in Ruskin's "Stones of Venice." Viollet le Duc's "Discourses," volume II, chapter XVII, gives interior perspective and plans of one palace.—EDITORS INLAND ARCHITECT.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, December 10, 1891.

The results of the year's business in architectural interests and in general building and construction work have been satisfactory to conservative minds. Present indications point to an increased activity next year, because of large crops for which there is a good demand at reasonable prices, a heavy and remunerative railway traffic, an increasing agricultural area, a healthy condition in the manufacturing, mining and lumber interests, and a fairly satisfactory condition of the money market. While the exact relations between the volume of money and a vigorous and healthy condition of trade is not very well understood by business men, there is a feeling that leans strongly toward a more abundant supply of currency, which, of course, it is desired should possess the greatest stability and regularity as to value. The existing trade and manufacturing conditions are all favorable. Railroad earnings, in consequence of the extraordinary freight traffic, are increasing. Manufacturers are feeling some benefits already. Money is abundant at financial centers, but rather stringent elsewhere. If there has been any falling off in building activity in large cities, it has been fully compensated in smaller cities and towns. Building material has continued all year at reasonable and steady prices. Lumber is in abundant supply, and the camps will soon be alive with industrious workmen. The West and Northwest is steadily opening up, and enlarging markets are being established throughout that region. Production is being kept well in hand throughout the manufacturing East, but competition is keenly felt in all channels. Opportunities for crowding prices upward are fewer and more risky than a few years ago. It is probable that there will be next year greater activity in railroad building. Indications all point to a steady trade during the winter. Capital has been unusually cautious for the past year, but confidence is today stronger and the strength of the business situation has been satisfactorily demonstrated. Low and steady prices, reasonable rates for money, low-priced building material and a good earning capacity of the masses, all unite to justify a favorable view as to the probabilities of 1892.

Synopsis of Building News.

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

Baltimore, Md.—Architect J. B. Wyatt has prepared plans for a four-story Athletic Club building; to cost $125,000.

The Baltimore Medical College are having plans prepared for their new building. It is to be six stories high and cost about $30,000.

Buffalo, N. Y.—Architect W. H. Archer has just completed plans for a new rectory for St. Patrick's Church at Java Centre, New York, said building to be 32 by 62 feet, two stories and basement, frame, classic in style, shingle roof, spacious verandas, reception room, kitchen and scullery. On second floor are situated six chambers, bath room and tank. Servants' rooms are on third floor, whitewood natural finish throughout, modern conveniences, hot-air heating, plate and other glass. Also he has prepared plans for seven depots for the Buffalo, Tonawanda and Niagara Falls Electric Railroad; and for office fittings, light shafts and lavatories for Messrs. Howard Bros.' building, Washington street, Buffalo, New York.

Chicago, Ill.—Architects J. F. & J. P. Doerr: For J. A. Duber, a three-story and basement store and flat building, 24 by 60 feet in size; to cost $10,000; it will be erected on Calumet avenue near Twenty-ninth street; the front will be constructed of Bedford stone. For L. C. Meckel, on Thirty-ninth street near Cottage Grove avenue, a double two-story store and flat building; to cost $12,000; pressed brick and stone front. Also making plans for remodeling a three-story building situate on Wabash avenue near Fourteenth street, into a modern four-story store and flat building.

Architect William Thomas: For Dr. H. B. Skiles, on Polk street near Francisco street, a three-story flat building, 50 by 60 feet in size; to cost $10,000; to be of pressed brick and stone front with gravel roof.

Architect Henry Ives Cobb: For. W. D. Boyce, at 112 to 114 Dearborn street, a twelve-story office building, 40 by 90 feet in size; to cost $200,000. For the Hartford Deposit Company, at 138 to 144 Dearborn street, a twelve-story office building; size 92 by 50 feet; to cost $300,000.

Architect E. H. Turnock: For H. B. Parker, at La Grange, four two-story frame residences; to have stone basements, furnaces, etc. For Frank O. Day, at Ridgeland, a two-story frame dwelling; to have stone basement, sanitary improvements, furnace. For Brace & Winchell, at Waukegan, two two-story and basement frame residences; to have stone basements, furnaces, and all the sanitary improvements.

Architect R. C. Berlin: For William J. Voltmer, Jr., on Oakdale avenue near Halsted street, a two-story and basement flat building; to have a Bedford stone front.

Architects Blitz & Marshall: For S. T. Warner, at Austin, a two-story frame residence in the Colonial style of architecture; to have stone basement, stained and plate glass, furnace, etc. For George F. Wisshack, on Washington boulevard west of Wood street, a five-story apartment house, 75 by 80 feet in size; to cost $60,000; the first two stories will be of granite, and above this will be of pressed brick with stone trimmings, copper bays and gravel roof.

Architects Mayo & Curry: For J. F. Keeney, at Washington Heights, a two-story hotel, size 30 by 60 feet, to be of pressed brick and stone front. For the Stager Manufacturing Company, at Washington Heights, a three-story factory, 40 by 125 feet in size, to be of mill construction, common brick and gravel roof. For J. F. Keeney, at Thirty-fifth street and Michigan avenue, a seven-story apartment house; to cost about $300,000; it will be constructed of buff-colored Roman pressed brick, with Bedford stone and terra cotta trimmings. For A. H. Black, corner of Twenty-second street and Cottage Grove avenue, a seven-story hotel, 97 by 126 feet in size; to cost $90,000; it will have two fronts of light-colored pressed brick, with terra cotta and Bedford stone trimmings. For J. G. Cozzens et al., corner of Lake avenue and Forty-seventh street, a seven-story apartment house; to cost about $225,000; the first story will be of stone, and above this will be of pressed brick and stone.

Architect D. A. La Pointe: For George T. Stoneham, on Adams street, near Western avenue, a three-story flat building, to be of Bedford stone front.

Architect J. H. Moore: Made plans for the Trinity Reformed Church, to be erected at 434 to 438 Marshfield avenue; it will be constructed of Indiana pressed brick, with variegated Portage brown stone trimmings, copper cornice and slate roof.

Architects Holabird & Roche: For the Brooks estate, at 194 to 210 Dearborn street, a sixteen-story office building; to cost $600,000. For Francis Bartlett, at 82 Van Buren street, a sixteen-story building; to cost $600,000. For Byron L. Smith, on the southwest corner of Michigan avenue and Washington street, a sixteen-story office building; to cost $800,000.

Architect D. H. Burnham: For David E. Bradley, at 79 to 83 Jackson street, a sixteen-story office building, 81 by 165 feet in size; to cost $600,000. For L. G. Fisher, at the northeast corner of Dearborn and Van Buren streets, an eighteen-story office building, to have two fronts of stone, pressed brick and terra cotta.

Architects Holabird & Roche: For the Marquette Building Company, at 266 to 274 Dearborn street, a sixteen-story office building; to cost $900,000.

Architects Wilson & Marble: For M. Martin, on Ellis avenue, near Fiftieth street, four three-story and basement residences, to have stone fronts, slate roof, etc., and cost $60,000. For Albert Mendel, on Michigan avenue, corner of Forty-fourth street, a three-story residence, to be constructed of stone on two sides; have hot-water heating, electric light, stained, plate and beveled glass, hardwood finish, slate roof, etc.

Architect O. J. Pierce: For Thomas P. Hicks, on the southwest corner of Wellington and Sacramento avenues, a two-story and basement residence, to have a stone front, slate tower, hardwood finish, gravel roof, hot-water heating, etc. For James Todd, at Batavia, Illinois, a two-story frame house.

Architect W. T. Lesher: For A. W. Keeney Transfer Company, on Aberdeen street, south of Harrison, a three-story flat building, stable and office, size 25 by 110 feet; to cost $13,000. For William Flannagan, at Thirty-seventh court and Halsted street, a three-story flat building of pressed brick and stone front; to cost $25,000. For P. J. Riley, on the north side, a two-story flat building, of pressed brick and stone. For A. A. Chichester, on Bowen avenue, near Vincennes, a three-story flat building, of stone front, hardwood finish, steam heat, copper bays and cornice, electric light, etc.

Architect H. H. Sprague: For J. L. Cochran, at North Edgewater, twelve two-story basement and attic residences, to be of frame with stone basements, gas fixtures, furnaces, etc. For E. S. Jackman, at Edgewater, a pretty two-story basement and attic residence, of stone basement and frame, to have hardwood interior finish, gas fixtures, furnace, and the best of sanitary and modern conveniences.

Architects Treat & Foltz: For Graeme Stewart, on the southeast corner of Wabash avenue and Forty-third street, a four-story and basement flat building; size 80 by 100 feet; cost $55,000. The front will be of Bedford stone, and the interior will be finished in hardwood with marble and tile work.

Architect D. A. Blythe: For J. C. Green & Co., on the southwest corner of Leland avenue and Wolcott street, Ravenswood, four two-story frame residences; to have brick and stone basements, sanitary improvements, furnaces, etc. For E. A. Somers & Co., on the northwest corner of West Ravenswood Park and Leland avenue, four two-story frame residences; to have stone basements, partly hardwood finish, all the sanitary improvements, furnaces.

Architects Edbrooke & Burnham: For Isaac & Max Wolf, on Forestville avenue and Forty-third street, a block of five two-story residences; to have buff Bedford stone fronts; cost $35,000.

Architect A. Druiding: For Ellingwood, Kansas, a Catholic church, 55 by 120 feet in size; to be of pressed brick and stone and have a tower 140 feet high with slate spire, the interior to be finished in oak and have handsome stained-glass windows: the cost will be about $25,000. For Toledo, Ohio, he made drawings for a Catholic church, 187 by 77 feet in size; to be constructed of stone or granite all round, with polished granite columns and marble caps; the interior will be finished in oak richly decorated and the ceilings in oil colors. The building will be heated by hot water, and the organ will be worked by water power or electricity; handsome stained-glass windows, marble work, and all the improvements will be put in. The transept will be 112 feet wide, and there will be a tower 236 feet high. This will be the finest church in the state. For Moorhead, Wisconsin, he made plans for a pretty church 45 by 90 feet in size; to be constructed of brick and stone and have a tower 120 feet in height. For Swan River, Minnesota, he made drawings for a Catholic church, 55 by 122 feet in size, with tower 145 feet high; to be constructed of pressed brick and stone, with slate spire. For Rev. Hoogstoel, at Tomahawk, Wisconsin, he planned a two-story and basement residence; to be of pressed brick and stone, with all sanitary and modern improvements, steam heat.

Architect H. D. Safford: For W. N. Coney, at 30, 32 and 34 Bryant avenue, three two-story, basement and attic residences, to have Amherst cut stone fronts, slate and gravel roofs, sanitary specialties, furnaces, etc., and cost $17,000.

Architect Swan Linderoth: For Andrew J. Lundin, at 5616 Wright street, a three-story flat building, to have stone front, gravel roof, and cost $10,000.

Architects Beers, Clay & Dutton: For Memphis, Tennessee, a three-story schoolhouse, 60 by 80 feet in size, to be of pressed brick and stone front, with slate roof and cost $25,000. For Noah Barnes, on the northwest corner of Jefferson avenue and Fifty-first street, five three-story residences of Anderson pressed brick and stone fronts, to cost $40,000. For C. J. Adams, of Boston, a four-story flat building, at 3535 Indiana avenue, to cost $25,000. For J. Foster Rhodes, on Michigan avenue and Thirtieth street, a ten-story hotel 100 by 120 feet in size, to cost about $500,000. The basement and second story will be of Bedford stone, and above this will be of light-colored pressed brick and terra cotta. It will be of fireproof construction and have steam heat, electric light, elevators, marble and tile work, etc.

Architects Hetherington & Warner: For W. Ryan, on Washburn avenue and Throop street, a four-story and basement flat building, to be of St. Louis pressed

brick and Bedford stone; to cost $12,000. For the same owner, at 72 Thirteenth street, a handsome two-story residence, of Bedford stone front, hardwood interior, stained and plate glass, gravel roof.

Architect L. B. Dixon: For J. Ogden Armour, on Michigan avenue and Thirty-seventh street, a two-story cellar and attic barn, 46 by 80 feet in size, to be of stone all round and have a roof of Spanish tile; cost $25,000.

Architect M. E. Bell: For Springfield Illinois National Bank, a six-story fireproof building to cost $64,000. For Otis Humphrey, at Springfield, Illinois, a two-story frame residence, to cost $7,000. For M. Hodgson, at Springfield, a two-story residence. For M. A. McLowan, on Thirty-first street and Lake avenue, a two-story stone front residence.

Cincinnati, O.—Reported by Lawrence Mendenhall.—Building matters are practically at a stand-still. The season, as shown by the following figures, has been a good one:

Number of new buildings	878
Valuation of brick and stone buildings	$3,280,850
" " frame "	834,950
" " alterations	419,300
Total value of improvements	$4,535,000

In the above list, it must be remembered, the amounts are those given by the contractors and owners when they take out the permits, and will not average more than two-thirds of the real valuation. At the end of the year a complete list of every improvement in the city during the year will be given. Carpenters are a little uneasy, but it is to be hoped that wiser counsels will prevail, and allow the goose to keep on laying her golden eggs.

Architect Henry E. Siter has prepared plans for the Cincinnati Board of Education for a school building addition to the Twenty-second District School, size 65 by 65 feet, three stories high; materials: pressed brick; furnace, tin roof, blackboards, seats, etc.; cost $30,000. Also for Avondale (Cincinnati) School Board, a school room; materials: pressed brick, slate roof, blackboards, furnace, seats, etc. This will be a very fine sample of modern school architecture, and will cost about $45,000.

Architect M. Rumbaugh has prepared plans for Mr. A. C. Campbell, Ashland, Kentucky, for a hotel, three stories high; materials: pressed brick, stone, tin roof, electric work, furniture, plumbing, gas, tiling, mantels, steam heat, etc.; cost $25,000.

Architects S. Hannaford & Sons report a business block for William Hooper and others; materials: pressed brick, stone, tin roof, elevators, gas, plumbing, architectural iron, etc.; the building will be eight stories high, and cost probably over $100,000. Also for the Schulte Sons & Co., a large factory, six stories high, 48 by 120 feet; materials: pressed brick, iron, stone, elevators, tin roof, gas, plumbing, etc.; cost $50,000.

Architects Crapsey & Brown report for Hon. J. L. Morey, Hamilton, Ohio, a block of houses for stores and flats, 60 by 150 feet, three stories high; materials: pressed brick, stone, electric bells, gas, plumbing, grates, mantels, stained glass, etc.; cost $30,000.

Architects Aiken & Ketchum report: For O. E. Peters (Peters Cartridge Company) a residence. Materials: pressed brick, stone, gas, plumbing, slate roof, blinds, stained glass, etc.; cost $10,000.

Architect S. S. Godley reports: For Robert Mitchell, two residences; materials: frame, slate roof, blinds, gas, plumbing, mantels, stained glass, hardwood finish, etc.; cost $10,000. Also for George A. Prichard, Avondale (Cincinnati), a residence; materials: stone, slate roof, hardwood finish, gas, plumbing, stained glass, laundry fixtures, etc.; cost $16,000.

W. W. Peabody, Jr., of Cincinnati, will build a residence at Madisonville, Ohio; materials: frame, slate roof, hardwood, gas, plumbing, stained glass, furnaces, etc.; cost, $6,000.

Architect A. O. Elzner has prepared plans for C. Boss, of the Gambrinus Stock Company, for a house; materials: pressed brick, stone, slate roof, blinds, furnace, stained glass, gas, plumbing, mantels, etc.; cost $7,000. Also alterations to a residence for J. C. Small, Aurora, Indiana; materials: frame, blinds, gas, plumbing, stained glass, furnace, mantels, etc; cost $5,000.

Architect G. W. E. Field of our city has gone to Hot Springs, Virginia, to superintend the erection of a large hotel, for which he has drawn the plans. The hotel will be owned by the Chesapeake & Ohio Railroad Company, and will be first-class in every respect. Pressed brick will be used. We wish him well in his new field among the beautiful mountains of Virginia.

Architect John H. Boll has drawn the plans for a large distillery at Germantown, Ohio, and will give all particulars.

Architect Charles Diss has prepared plans for a large four-storied brewhouse, size 70 by 50 feet, for Henry Adams, Cincinnati; materials: brick, iron, tin roof, machinery, etc.

Cleveland, Ohio.—Architect A. Mitermiler: For Schlather Brewing Company, alterations and additions to third story, brick; cost $20,000.

Architect S. R. Badgley: For O. Dubray, a three-story store and tenement frame building, size 68 by 80 feet; cost $8,000.

Architect V. E. Gregg: For the White Sewing Machine Company, a three-story factory, brick; size 40 by 200 feet; cost $17,000; Huinkins Bros., contractors.

Architect John Eisenmann: For William Taylor & Son, a two-story frame stable, size 38 by 100 feet; cost $7,000.

Henry Wick will build a two-story double frame dwelling; cost $7,000.

John Mooney will erect a three-story store and tenement building, size 48 by 48 feet; cost $3,300.

149	permits	granted	during	November,	frame	$180,100
7	"	"	"	"	brick and stone	27,365
78	"	"	"	"	alterations and additions	56,040
234	"	"	"	"	Total	$263,505

Detroit, Mich.—Architects Donaldson & Meier: For the Michigan Brass & Iron Works, a group of brick buildings including office building, machine shop, iron foundry and tool house; to cost $55,000. For the Bagley Estate, a five-story building; size 162 by 120 feet; brick and iron construction; cost $120,000. For William S. Rathbone, a two-story brick residence; cost $8,000.

Architects Spier & Rohns: For the railroad branch of the Young Men's Christian Association, a three-story building on the corner of Junction avenue and Annexation street; size 40 by 75 feet; pressed brick and stone; cost $10,000.

Architect George E. Depew: For Gray Brothers, a three-story brick carriage factory; cost $8,000. Hollands & Son, contractors.

Architect Gordon W. Lloyd: For the Peninsular Savings Bank, additions and alterations to brick building; to cost $30,000. For the Open Door Society, addition of a brick wing to their building; cost $12,000.

Architects E. A. Walshe & Son: For Dinan Bros., four two-story brick residences; cost $16,000.

Architect J. V. Smith: For C. J. Whitney, alterations and additions to brick residence on Woodward avenue, near Sproat; cost $10,000.

Architects Nelson & Oldfield: For Wallace Bros., a three-story brick residence, cut stone trimmings and slate roof; cost $8,000. For Frederick Ebel three two-story brick flats; cost $7,500. For John Effelt, a two-story block, stores and flats; $6,000. For William Evans, a two and one-half story residence, at Ypsilanti, Michigan, field stone and frame; cost $8,000.

Architect George W. Meyer: For Martin and Mary B. Galvin, a two-story brick residence, on Charlotte avenue; cost $9,000. For James Gourley, a two-story brick barn; to cost $150,000.

Architects Mason & Rice: For William C. McMillan, a two-story brick residence, pressed brick and brownstone; cost $50,000. For Lou Burt, a two-story double residence, on corner of Second and Canfield avenues; cost $10,000. James Buchanan, contractor.

Architect Edward C. Van Leyen: For George T. Abrey, a three-story frame hotel; size 50 by 70 feet; cost $7,5co.

Architects John Scott & Co.: For the Detroit Club, revised plans of club house, to be built on Fort and Cass streets, four stories; size 70 by 130 feet; cost $70,000.

Architect Harry J. Rill: For Our Lady of the Holy Rosary R. C. Church, addition to building; size 38 by 48 feet; cost $5,000. For Henry W. Holcomb, a two-story brick terrace; to cost $15,000.

Architects A. C. Varney & Co.: For John Edwards, a two and one-half story brick residence; cost $7,000. For Lorenzo Carey, a three-story brick residence, on Forest and Second avenues; cost $7,000. For E. R. Smith, a two-story frame residence in Clinton, Michigan; cost $5,000. For the Detroit Stay Company, a two-story brick manufacturing building; cost $6,000.

Architect P. Dedericks, Jr.: For Max Broeg, Jr., a two-story frame residence; cost $3,000.

Architects Malcombson & Higginbotham: For the Detroit School Board, a two-story brick addition, eight rooms, to Hancock school; size 36 by 120 feet; cost $15,000.

Arthur H. Nelson and George C. Oldfield have associated themselves under the firm name of Nelson & Oldfield and taken offices at 49 Hodges Block for the practice of their profession as architects.

Louisville, Ky.—Architects Drach & Thomas report the following: Residence for W. A. Haas, Esq.; to cost $8,000; located Garvin place, size of structure 30 by 48 feet, to have slate roof and heated by furnace and natural gas, exterior brick and stone trimmings. Residence for Mr. John Doerhoefer; to cost $2,300; located Thirtieth and Chestnut, size of structure 32 by 46 feet, building to be frame and shingle roof. For Central Kentucky Lunatic Asylum, a storehouse, three stories in height, the upper portion to be used for attendant departments; to cost about $9,500; size of structure 50 by 76 feet, to have metal roof, building of brick and stone trimmed, location, Lakeland, Kentucky. A boiler house, carpenter shop and pipe fitting department for same institution, to be three stories high, upper part used for attendant quarters, size of structure 50 by 75 feet, to be of brick and iron construction; cost $24,000; both buildings to be heated by steam and have electric lights. Remodeling of opera house and stores at Owensboro, Kentucky; to cost $20.000; to have steam heat, slate and metal roof, seating capacity one thousand, to have lodge rooms above. Bank building and store, to be located at Hartford, Kentucky, to be three stories, brick and stone, metal roof; to cost $8,000; size of structure 30 by 80 feet.

Milwaukee, Wis.—The plans for the new government building have been drawn out, but are subject to change in details. The building will be of stone in the Romanesque style, three stories high, with high square tower nearly 60 feet above the roof.

Architects Leipold & Wiskocil are preparing plans for Linehan & McGrath, for four brick flats, on State, near Twelfth street; cost $8,000.

Pittsburgh, Pa.—Architect A. Peebles: For Atwood & McCaffrey, a four-story machine shop; size 60 by 55 feet; frame, with tin roof; cost $20,000.

Architect J. G. Frazier: For E. M. Smith, a three-story brick dwelling; size 36 by 71 feet; cost $5,500.

Architect F. Osterling: For the Pittsburgh *Times*, an eight-story business building; size 100 by 172 feet; stone and brick asphaltum roof; cost $230,000.

Architect J. W. Offerman is preparing plans for the Newsboys' Home, the building will be of stone; cost $40,000.

Architect J. P. Brennan has prepared plans for W. A. Childs, for two-story and attic residence, at Homewood; cost $7,500. Also preparing plans in competition for the Pennsylvania state building for the World's Fair; cost $75,000. All material, iron, glass, etc., to be used in its construction, will be from this state.

In the Carnegie Library competition ninety-six designs have been submitted.

San Francisco, Cal.—Architect S. E. Fisher is preparing plans for the Alliance Club "Wigwam": cost $13,000.

Architect H. Burns: For James Lamping, a three-story flat building; cost $10,000.

Architect L. S. Stone: For Charles Bancroft, a brick residence; cost $6,000.

Architect M. J. Welsh: For J. W. Dunphy, at Milbrae, a brick residence: cost $13,000.

Savannah, Ga.—Architect Percy Snyder: For W. F. McCauley, a two-story brick residence, size 26 by 54 feet; tin roof, terra cotta trimmings; cost $6,000. For Jacob Paulsen, a three-story frame dwelling, size 30 by 62 feet; tin roof, hot-air heated, hardwood, parquet and tile finish inside; cost $10,000. For the Cottage Club Company, Tybee Island, a frame club house and cottage, to cost $6,000.

St. Louis, Mo.—Architect C. C. Helmers, Jr.: For A. Vorhauer, a three-story store and flat building, size 47 by 61 feet; brick and stone; cost $10,000.

Architects P. F. Maegher & Sons: For Mr. Martin, a three-story residence, size 28 by 60 feet; brick, granite and stone; cost $6,800.

Architect Theo. Rapp has prepared plans for G. Toma, for a two-story residence, size 16 by 50 feet; cost about $5,000.

Architect L. C. Bulkley has prepared plans for a three-story store and flat building, size 20 by 75 feet; brick and stone, slate roof; cost $10,000.

Architects Foster & Ittner: For H. Feldbush, a two-story brick residence, size 27 by 50 feet; cost $7,000.

Architect A. M. Baker has prepared plans for a three-story residence for R. F. Kilgen, size 32 by 52 feet; brick with stone foundation; cost $15,000.

St. Paul, Minn.—Architect C. A. Wallingford reports: For George W. Shickley, an apartment house of six flats, corner of St. Albans and Dale streets, to be three stories in height, of stone and pressed brick, with usual modern appurtenances; to cost about $15,000.

Architect C. A. Wallingford reports: Three frame houses for Cochran & Walsh, on Victoria street. near Marshall, to have all modern appliances, and to cost $5,000 each; also a store building for W. H. Hilliard, on Selby and Victoria avenues, to be built of pressed brick with stone trimmings and hardwood finish; housekeeping flats above the first floor; to cost $10,000.

L. D. Cushing reports: For the Boston Northwest Real Estate Company, a five-story brick steel-construction building for commercial purposes, on the corner of Sixth and Roberts streets; the exterior will be of plate glass, Perth Amboy buff brick, terra cotta and copper; the building is to be absolutely fireproof, and to have all modern improvements; the estimated cost is $100,000, and the contracts for the building, which is to be finished before August, 1892, will be let this week.

Architects Omeyer & Thori report: For Dr. A. H. Mitchell, Deer Lodge, Montana, a $25,000 brick veneer residence, with steam heat and other improvements; under construction. For William Coleman, Deer Lodge, a frame and brick veneer residence; to cost $10,000. For Theodore Brantly, H. R. Whitehill and Edward Schanickow, Deer Lodge, three residences; $5,000 each.

Architects Millard & Joy report: A railroad station for the Great Northern railway at Sauk Center, Minnesota, to be of brick, with a slate roof; estimated cost, $7,000. Also a brick railroad station at Billings, Montana, for the Northern Pacific railway; to cost $7,000, under contract. Also a residence for Charles H. Clark, on Holly avenue, near Mackubin; to be of frame, and to cost about $9,000. Also a frame residence for George Thompson, on Laurel avenue, near Mackubin; to cost $6,000.

Architect Albert Zschocke reports residences: For A. Giesen, on Dayton's Bluff, to be of brick and stone, with steam heat and all modern appliances, and to cost $20,000; also a frame residence in the colonial style for Elis S. Warner, on Laurel avenue near Victoria; to cost $5,500.

Architects Reed & Stem report plans for a medical college at the State University of Minnesota, to be built of stone and brick at a cost of $60,000; fitted with steam heat and all modern appliances. Under contract. Also a brick and stone building for the Norwegian University of Madison, Wis., to have steam heat and modern improvements, and to cost $20,000. The same architects are drawing plans for residences for J. H. Bunvell, a frame building on Summit avenue; to cost $15,000. For A. W. Ritzinger, a frame house on Fairmont avenue; to cost $8,000. For E. H. Hubbell, a $5,000 frame house on Grand avenue.

The Second National Bank will soon erect a five-story brick and terra cotta building fronting on Sixth and Robert streets, to cost $100,000.

The St. Paul Electrical Manufacturing and Construction Company has commenced work on a brick factory building, 50 by 200 feet, on the West Side; to cost about $15,000.

Permits have been issued within the past three weeks, for the following residences in St. Paul, to cost $5,000 each: S. A. Bowme, on Winifred street near Bancroft; J. H. Healey, two houses on Marshall near Mackubin; Henry P. Barlow, Hague near Chatsworth; George S. Heron, Marshall near St. Albans; Mrs. A. Bernerd, Sherburne Park; E. E. Woodman, Lincoln near Grotto; C. L. Kluckholm, Goodrich near Avon; J. R. Collins, Fairmont near St. Albans; B. Barber, Jessie near Magnolia; Henry Brown, Ashland near Chatsworth; J. Hanlon, Fairmont near St. Albans.

THE INLAND ARCHITECT AND NEWS RECORD.
Vol. XVIII. ADVERTISERS' TRADE DEPARTMENT. No. 5

Trade Notes.

DIXON'S Graphite Pipe Joint Mixture, made by the Joseph Dixon Crucible Company, Jersey City, New Jersey, not only takes the place of red lead but is infinitely better, while Dixon's Graphited Oil is used where a thinner mixture is desired and also for lubricating bearings. Graphite is the best natural lubricant known.

THE "Frink Improved Reflector" is no stranger to designers and builders of halls, churches, etc., but it may not be so generally known that the manufacturer, in keeping abreast with the times, constructs them adapted to electrical lighting. The popularity of the Frink reflector is evidenced by its representation in church and similar edifices throughout the Union. It is advertised in THE INLAND ARCHITECT.

AGENTS wanted in every town to change over old-style doors and manufacture Lyle's improved screen door, ready for storm panels, patented in the United States, Canada, England and France. All persons having license can sell doors anywhere in the United States, and where only one person has license in certain territory he will have the advantage of freight, and no other person can manufacture or change over doors in his territory. Address, with stamp, W. R. Lyle, patentee and wholesale dealer, Ripon, Wisconsin.

THE additions making to the tin plant of The Cincinnati Corrugating Company will be completed in four to six weeks, and they will then have increased facilities for making either bright or terne tin plates of highest grades. The steel sheets will be rolled as heretofore, by the Piqua Rolling Mill Company, that rolled several tons of No. 30 gauge steel sheets for this purpose last week. If the Corrugating Company, finds the operation of the plant, above referred to, as profitable as they have reason to expect, they propose to double or treble it as fast as good business policy dictates.

"TRAP-SIPHONAGE AND TRAP-SEAL PROTECTION" is the title of a seemingly exhaustive paper on the subjects named, read by Prof. J. E. Denton, of the Hoboken Institute of Technology, before the American Health Association, at the eighteenth annual meeting, held at Charleston, South Carolina, December 16-19, 1890. It comes to us in pamphlet form, issued from the press of the Republican Publishing Association of Concord, New Hampshire. The paper includes a detail of experiments made with nine of the principal appliances before the public for the prevention of siphonage in water pipes, and purports to give an unbiased showing of their comparative merits. The paper affords very profitable reading for architects and plumbers.

THE difficulty in keeping apartments at anything like an uniform heat is one that has been an unsolved problem so long that it has become venerable with age. Men have planned and schemed to overcome this discomfort of habitations. Most utterly failed, and others partially succeeded, by complex and uncertain apparatus that made the alleged cure about as bad as the disease. It is only lately that a device, that carries on its face the stamp of common sense, has been introduced that completely meets the exigencies of the case, namely, the Powers vapor thermostat. By the use of this simple and philosophical apparatus, the heat of a house, hall, church or any other building interior may be kept at a desired temperature without any attention on the part of the occupants. It works automatically. It is a comparatively inexpensive apparatus; is durable, and its simplicity of construction insures a permanency of action. It is ornamental, too. Its only exposure in a room being a dial-faced indicator whereon a tell-tale pointer assures the inmates that the degree of heat decided upon is maintained. The device can be applied either to steam, hot-water, or hot-air heating apparatus. Those who are using it are loud in its praise, and uniformly allege it is a great fuel saver. The Powers Duplex Regulator Company, 36 Dearborn street, Chicago, manufacturer of the same, have published an illustrated pamphlet giving full particulars of its mechanism, etc., for which application should be made by such as would know more about this meritorious invention.

THE mail has brought to THE INLAND ARCHITECT'S table a voluminous catalogue and price-list, issued by the Butler Hardware Company of New York, which will be a very acceptable addition to those who are interested in builders' hardware literature, and wisely keep such helps on file. This catalogue is profusely illustrated with fac-simile engravings of the various articles manufactured and dealt in by this prominent house, an enumeration of which would take a page or more of this journal. Suffice it to say they are all up with the times and cover every want likely to occur in this department of building material. Every architect and contractor should have a copy of this interesting catalogue.

"ARCHITECTS' AND BUILDERS' GUIDE AND CONTRACTORS' REFERENCE DICTIONARY"; published by E. Hendricks & Co., New York. Price $5. This is a work that has entailed a large amount of labor, patience and expense to compile. It comprises 490 pages of fine-type matter whereon are listed the names of architects, builders and contractors of every kind connected with building construction within the limits of the United States and contiguous territory. Also the names of manufacturers of everything that is utilized in the building industries. The roster is arranged by states and territories, and indexed in a manner that makes a reference an easy matter. As a reference book, it is invaluable, and will be highly appreciated by those it is intended to serve.

A NEAT little book of forty-one pages has just been published by Harrison Brothers & Co., the extensive paint manufacturers of Philadelphia, Pennsylvania, entitled "The Chemistry of Paints." While the chief aim of the brochure is to give a detailed description of everything that pertains to the Harrison White Lead and Color Works, the matter treating of the chemical processes through and by which the various paints are made is very interesting information, particularly to practical painters, who have not given the subject the attention its importance deserves. The book contains also a practical treatise on painting and is illuminated with a number of colored designs of cottages, etc., illustrating not only the subject but the use of the company's products as well.

THIS has been an unprecedented year for catalogues and price lists. It is apparent the best thoughts of producers have been evoked to present the merits of their wares in the most attractive form possible. Very many splendid specimens of composition, engraving and printing in this form have reached THE INLAND ARCHITECT'S table, and it was believed the limit of perfection had been reached — that the elaborators thereof would hereafter have to go into the sighing business for "other worlds to conquer," in the way of artistic advertising. The conclusion, however, was premature. The mail has just brought a catalogue that for beauty and perfection entitles it to be promptly sent to the head of the class of expensive catalogues, as it is in every particular a gem of the first water. It is issued by the Pierce Steam Heating Company, of Buffalo, New York, and, of course, presents, by artistically drawn and engraved fac similes, everything within the scope of the company's output. One of the chief features of the book is a series of sixty fine engravings of prominent buildings using the company's apparatus, situate in different parts of the Union, embracing state capitols, court houses, colleges, seminaries, hospitals, boards of trade, hotels, churches, libraries, etc., and includes a few noted and costly residences. A list of over three thousand patrons forms a part of the letter-press, introduced as references. The publication is handsomely bound in board and muslin covers, and appropriately embossed in gold. Altogether it is a book that will make an impression on the public it is intended to reach that will be far from ephemeral.

THE Herendeen Manufacturing Company, of Geneva, New York, manufacturer of the "Faultless Furman" hot-water heater, is out with a neat hanger-card announcing the present location of the Chicago branch on the corner of Lake and Dearborn streets. The public appreciation of this most excellent "house warmer" is shown in the increased patronage during the present year, which has been more than double of that of the preceding year for the same period. In one week of this year, from October 12 to 17 inclusive, no less than fifty-four boilers were built and shipped to fill contracts. The facilities of the company enable it to fill any order within thirty-six hours of its receipt. All of these facts are indicative of the "Faultless Furman's" success. For literature furnishing all desirable information with reference to this unsurpassed and economical heating apparatus, address either the home office or the New York, Boston or Chicago branches.

WE are glad to note the great activity of the Bailey Reflector Company. We understand that they are very busy with orders; in fact, much busier than they were this time last year. It is wonderful how this enterprise has grown. A few years ago such a thing as reflectors for lighting large public buildings were not made in Pittsburgh at all, but the Bailey Reflector Company, with their new devices, are not only introducing their reflectors very rapidly into the prominent public buildings of this country, but they are shipping them to all parts of the world. It seems strange that this simple plan on which their reflectors are made should never have been thought of before. They are so constructed that they diffuse the light everywhere, so the farthest ends and corners are as bright as the center and on scientific principles, that is, the angle of reflection is equal to the angle of incidence. This new departure of the Bailey Reflector Company is what has given them such great popularity. One of the best evidences of their prosperity is to step into their nicely furnished and cozy offices, No. 708 Penn avenue, Pittsburgh, Pennsylvania.

UNDOUBTEDLY the observing architect and builder has noticed the illustrated advertisement of the Goetz-Mitchell Company, New Albany, Indiana, which appears in this journal, in which the company gives a full exemplification of what the Goetz box-anchor and timber caps are capable of doing in the way of substantial timber construction. That they are no experimental expedients every well informed member of the named professions is aware, as they have been so successfully employed in hundreds of cases in every large community. The object of this reference to said appliances is to mention the fact that the New England Mutual Fire Insurance Companies have given them their hearty indorsement, having found out by practical experience, that wherever they have been used in buildings, that such buildings were, in cases of fire, slower in burning. The indorsement is made emphatic by lowering the premium rate on buildings where the Goetz box-anchor and timber cap is used over those with the ordinary deficiencies.

THE strides toward perfection in the matter of interior decoration, both as to artistic design and finish, is strikingly illustrated in the better class of residence buildings recently erected in every city and town of any prominence. In nothing is this progress more emphasized than in the woodwork, which comprises the various hardwoods. It is now a matter of stipulation that these woods when in newels, doors and similar exposed parts, shall receive a "cabinet finish," i. e., be finished to a luster similar to that given to a piano. Two or

ADVERTISERS' TRADE DEPARTMENT—Continued.

three coats of varnish hastily applied to a half sandpapered surface, in hardly any case now suffices, unless it be in a "skin" structure. This being the situation with regard to the woodwork, it becomes a subject of grave importance what "filling" and what varnish should be used to produce the desired results. Whoever is in doubt in this direction can be helped materially by sending to Felton, Rau & Sibley, paint and varnish manufacturers, Philadelphia, Pennsylvania, for one of their pocket edition descriptive pamphlets, wherein will be found examples on actual woods of both their wood-filling and varnish. The architect or house owner who would ask for anything better in the way of final wood finish than these samples exhibit will very likely never have their desire gratified.

The Inland Architect is in receipt of a pamphlet that will interest architects and sewer builders, entitled "Some Experiments to Determine the Strength of American Vitrified Sewer-Pipe," being a paper read February 4, 1891, before the Society of Engineers, by Prof. Malfred A. Howe, of Terre Haute, Indiana. The contents embrace nine pages of resultant tables from a series of fine tests, namely, a hydraulic, to determine the bursting strength; a drop test, to determine the relative capacity to resist percussive action; a concentrated load test, to determine the strength when subjected to a concentrated load; a uniform load test, to determine the strength under conditions found in practice, and a cement joint test to determine the strength of joints made of cement when subjected to hydrostatic pressure. The experiments were made with piping from fifteen of the most prominent manufactories. The pamphlet is issued from the press of John W. Weston, 78 La Salle street, Chicago, Ill.

Clifford, Scott & Lawton, publishers, Philadelphia, have complimented The Inland Architect with a copy of an eighty-odd-page quarto pamphlet, entitled "500 Ideas in Decoration." The 500 ideas are comprised of as many illustrations, taken from the pages of the *Upholsterer*, a journal devoted exclusively to household decoration and adornment, and edited with eminent ability, in fact, is looked upon as the standard authority in such matters, not only in this country but abroad as well. This reputation of the *Upholsterer* is mentioned in order that a true appreciation of the contents of this well-timed pamphlet may be had. The illustrations cover about everything that enters into the furnishing of the prominent apartments of a dwelling. Isolated pieces of art furniture, draperies, etc., leading up by way of sketches of furnished hallways, dens, nooks and corners to completely appareled rooms. Nearly all the illustrations are original novelties of conception, the whole forming a fund of suggestions that will be gratefully welcomed, not only by professionals, but by tens of thousands of house and home owners who find the adornment of their dwellings a perplexing problem.

House designers and house constructors are often consulted by their clients about things that do not come strictly within the purview of their calling but do have a remote bearing thereon, and oftentimes they are called upon to decide the questions thus raised. It is in this light, a heating apparatus, manufactured by the Turner Stove Company, of Racine, Wisconsin, is thrust upon attention, which, while a novelty in its line, is alleged to have achieved a success that merits more than a passing knowledge. The apparatus has been named "The Zephyr Ventilating and Circulating Heater." In form it resembles ordinary apparatus somewhat; its wide departure being in the construction of the interior, which seems to have reversed common theories relating to the effects of combustion and heat generation. The apparatus can be used as a heating stove and possesses the quality of being utilized as a housewarming furnace as well. It is operated by the combustion of either wood, coal, gas (manufactured or natural) oil or gasoline, whichever may be given the preference. By sending to the home house of the company at Racine, a neatly printed pamphlet may be procured giving all desirable information relating to the philosophy of the heater's construction, as well as numerous testimonials from persons who speak with a knowledge based upon personal experience.

The National Hot-Water Heating Company, Boston, knows how to keep before the public, and it has a happy way of doing it, too. Besides being a liberal patron of journals whose columns give a *quid pro quo*, it, like an aëronaut who keeps sending out his tiny balloons to test which way the wind blows, every now and then sends out some quaint reminder that it is actively in the field of competition. The latest, just out, is an ordinary card that looks for all the world on the address side like a letter envelope. On the reverse side is printed a rustic door, to which is attached a short, red, silken thread. A legend on the door reads: "The latch-string is always out; pull it." A pull at the latch-string tears the door open, and as it swings on its paper hinges, the "invited" discovers that the company has, in addition to the headquarters at Boston, New York and Chicago, opened an extensive one at 405 Market street, San Francisco, where a complete line of Spence hot-water heaters will be kept, including all the newest designs.

The Goulds Manufacturing Company, Seneca Falls, New York, with headquarters at No. 16 Murray street, New York City, has favored us with advance pages of a catalogue descriptive of "Triplex Electric Pumps" and "Applications of Triplex Power Pumps," which the company now has going through the printer's hands. The subject matter of this forthcoming catalogue suggests that there *is* something new under the sun, so far as pumping apparatus is concerned, and undoubtedly architects generally will find investigation of this pump interesting and, perchance, profitable. The application of electric energy to raising water from one level to another, it seems, has resulted in the production of a constant velocity of discharge at a reduction of power in overcoming the inertia of water column, and at the same time doing away with water hammer and other known attendant unwelcome features common to the ordinary methods of water elevating. There are many other interesting points of vantage claimed for the above-named pumping apparatus, all specified and explained, or to be explained in this new catalogue. What will interest architects most is that among the special construction of these pumps are those designed for supply tanks, hydraulic elevators, mill use and paper-making plants. Those for mine use and water-works stations may not be of such practical interest, but as everything is a possibility to the architect, the catalogue in its entirety is herewith commended to all who are unwilling to be behind the times.

Railroad Notes.

Do you enjoy rabbit shooting? (Depth of holes limited to not over one and eighteen thirty-seconds the width of the cabbage-patch.) Take the Wisconsin Central Railway. Bob Selter, on Grass Lake, has a ferret. Johnnie get your gun and a ticket on the Wisconsin Central to Antioch.

American travelers who have never tried the Grand Trunk route between Chicago and the East will be surprised to find what an attractive line this has become under its present management. The cars are as elegant and the service as attentive as anywhere in the United States, the track is admirably kept, enduring stone bridges have been constructed across the various streams, the speed is high, there is little or no dust and the fare is several dollars lower than by other lines. The ride through Canada gives interesting glimpses of English life and manners, the lake and river scenery is varied and charming, there is much that is novel and attractive in the cities of Toronto, Montreal and Quebec, and the road from Montreal to Boston, which winds in and around among the Green mountains, traverses some of the most charming scenery in the world. All who have traveled over this route speak in rapturous praise of its beauty and comfort. Try it once.

Save $36.50 to California.—J. C. Judson & Co's personally conducted California excursions in broad-gauge Pullman tourist sleeping cars, via Denver & Rio Grande Railroad, (the scenic line of the world) leave Chicago via Chicago & Alton Railroad, 12:00 noon Saturday of every week, each excursion in charge of an efficient and gentlemanly excursion manager. Pullman tourist sleeping cars through from Boston and Chicago to San Francisco and Los Angeles. For rates, reservation of berths, etc., call on or address J. C. Judson & Co., 195 Clark street, Chicago.

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.

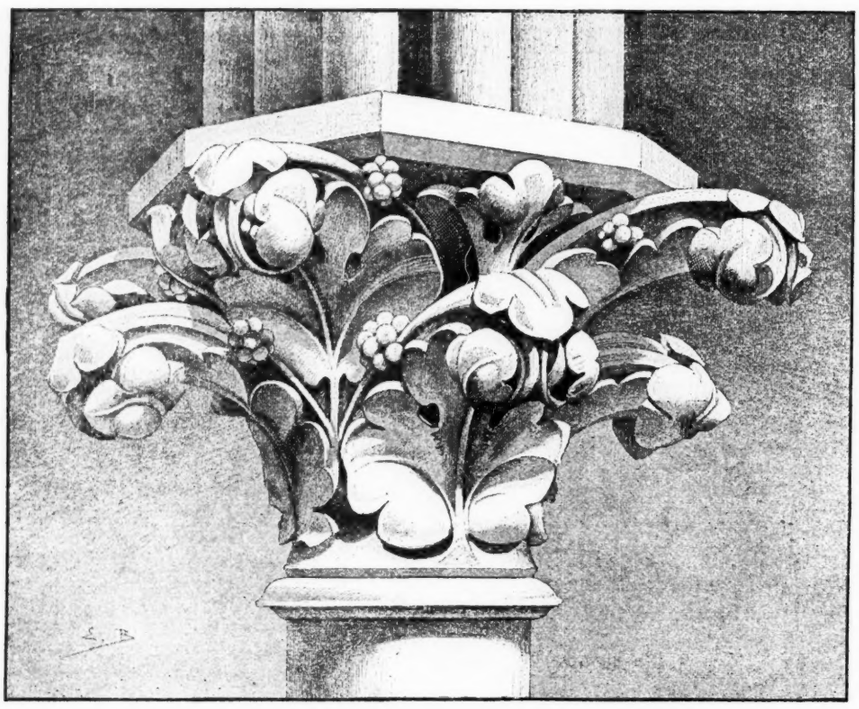
JOHN M. BAILLIE.

Your address is wanted by a subscriber. If sent to The Inland Architect, it will be forwarded him.

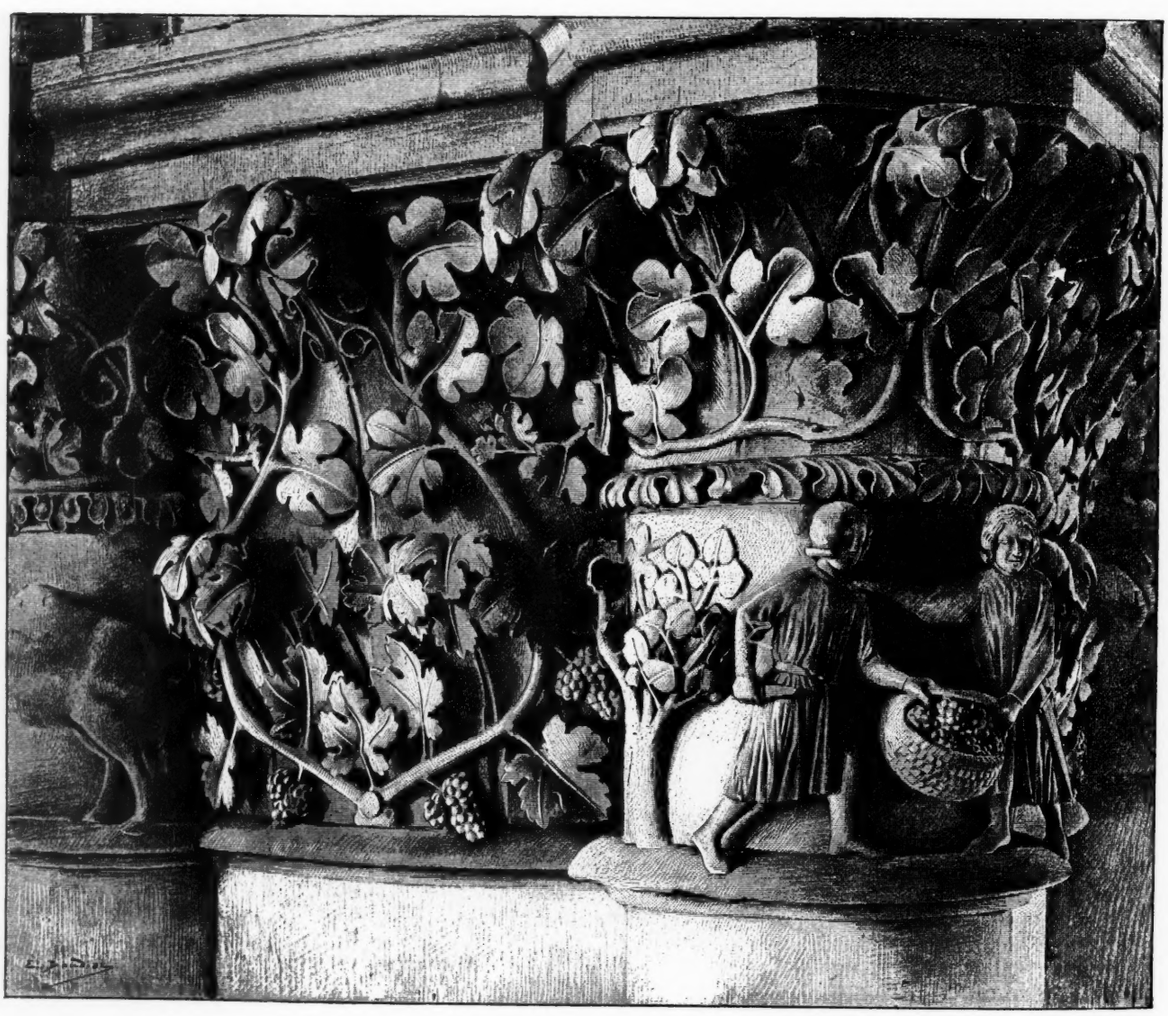
INLAND ARCHITECT,
19 Tribune Building, Chicago, Ill.

HOTEL McCASLAND, EAST ST. LOUIS, ILLINOIS.

J. HARRY RANDALL, ARCHITECT, ST. LOUIS, MISSOURI.

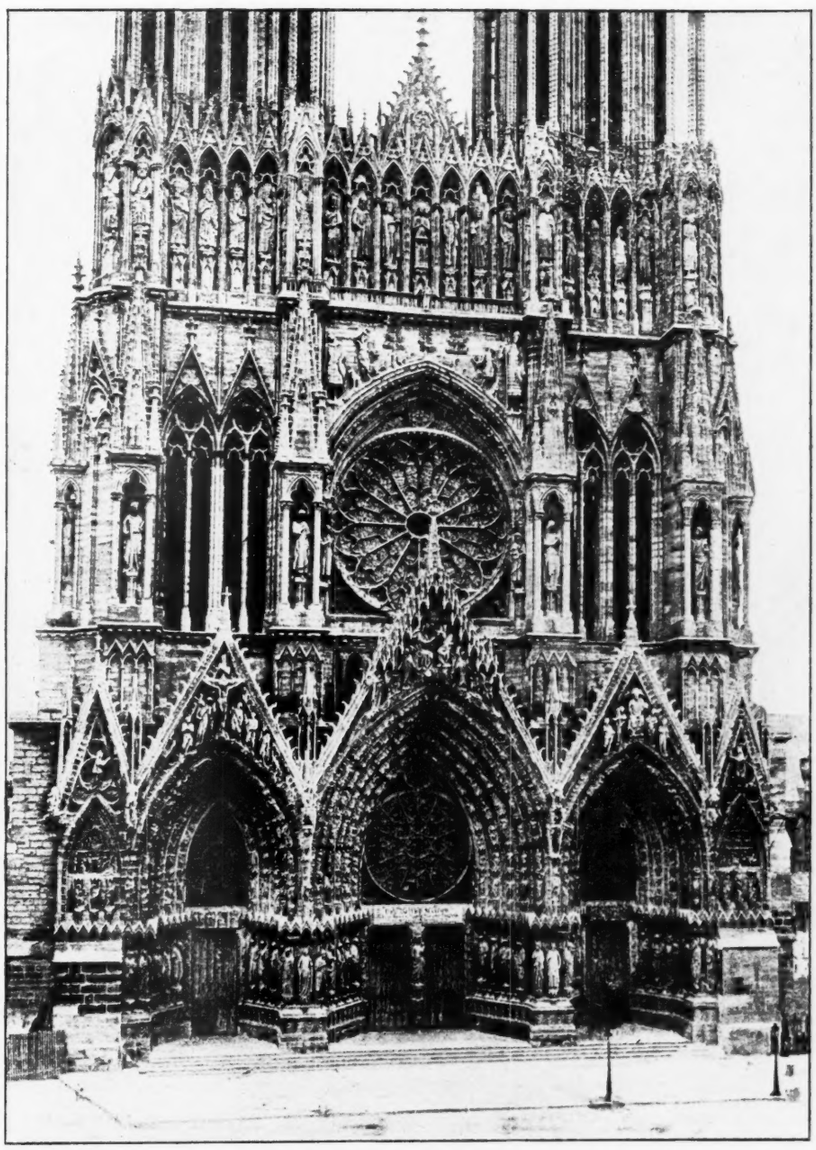


GOTHIC CAPITAL, REFECTORY ST. MARTINS DES CHAMPS.



CAPITAL FROM REIMS CATHEDRAL.

IN ILLUSTRATION OF ARTICLE "ARCHITECTURE AND THE ALLIED ARTS" IN THIS NUMBER.



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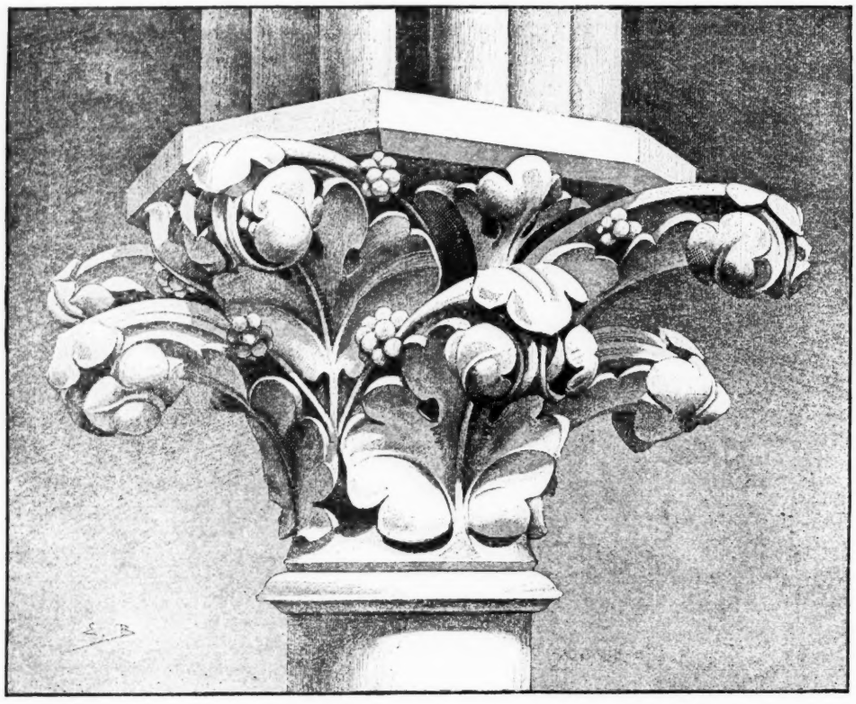

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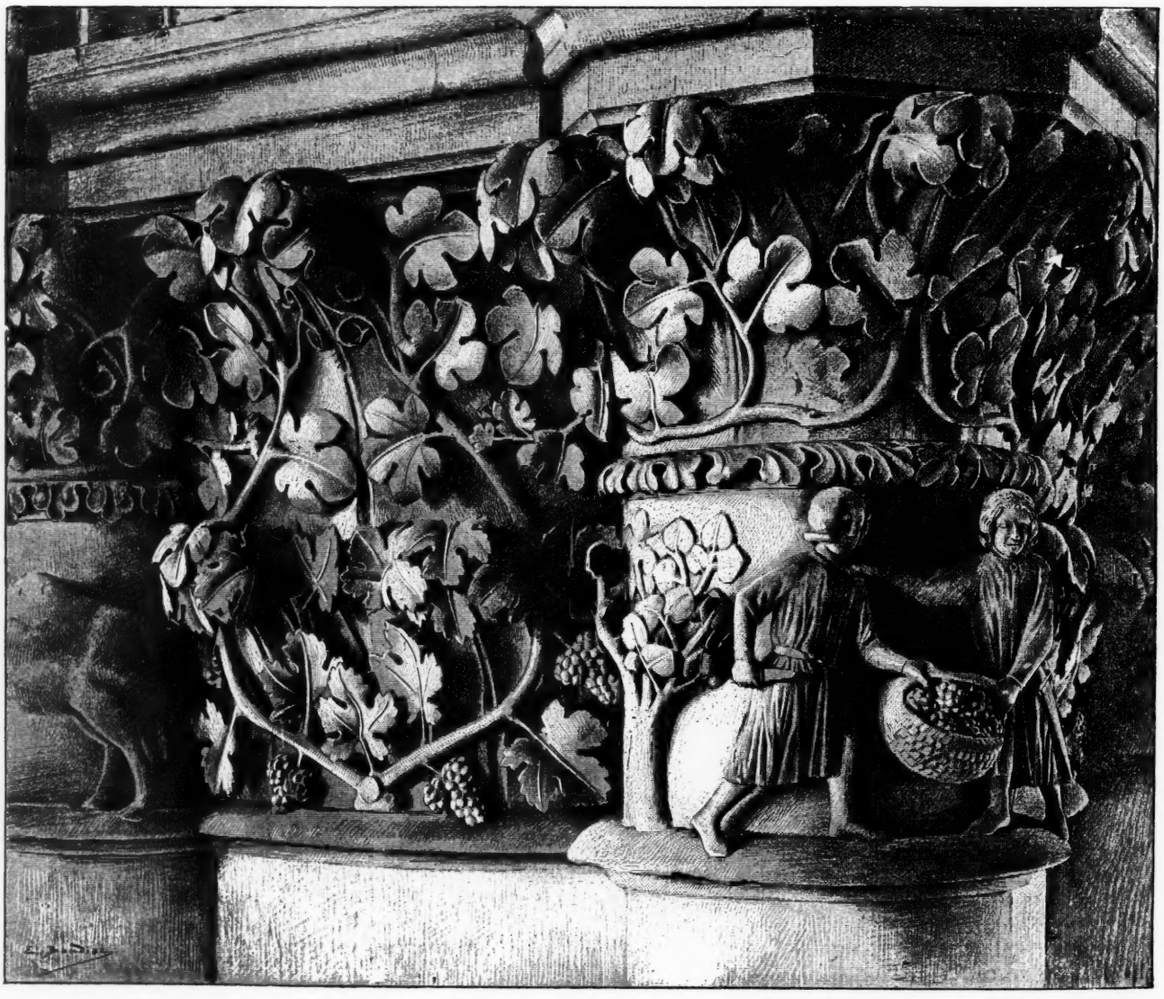

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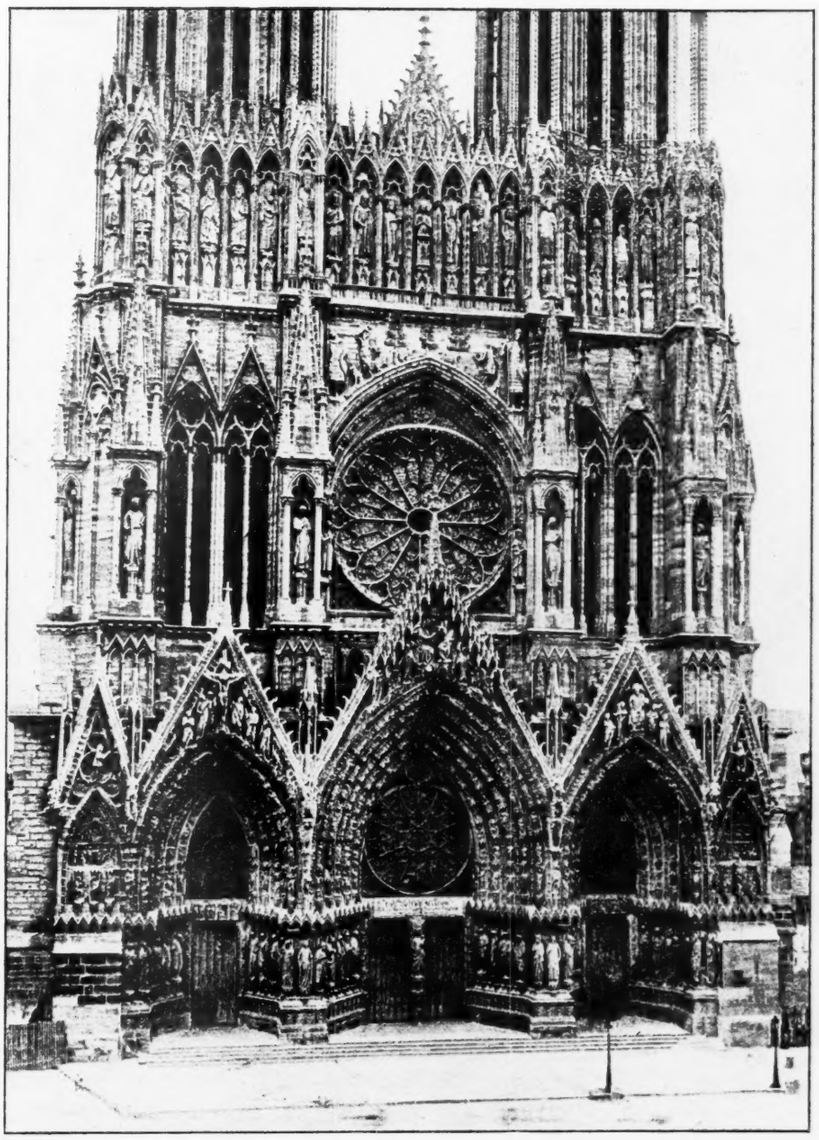

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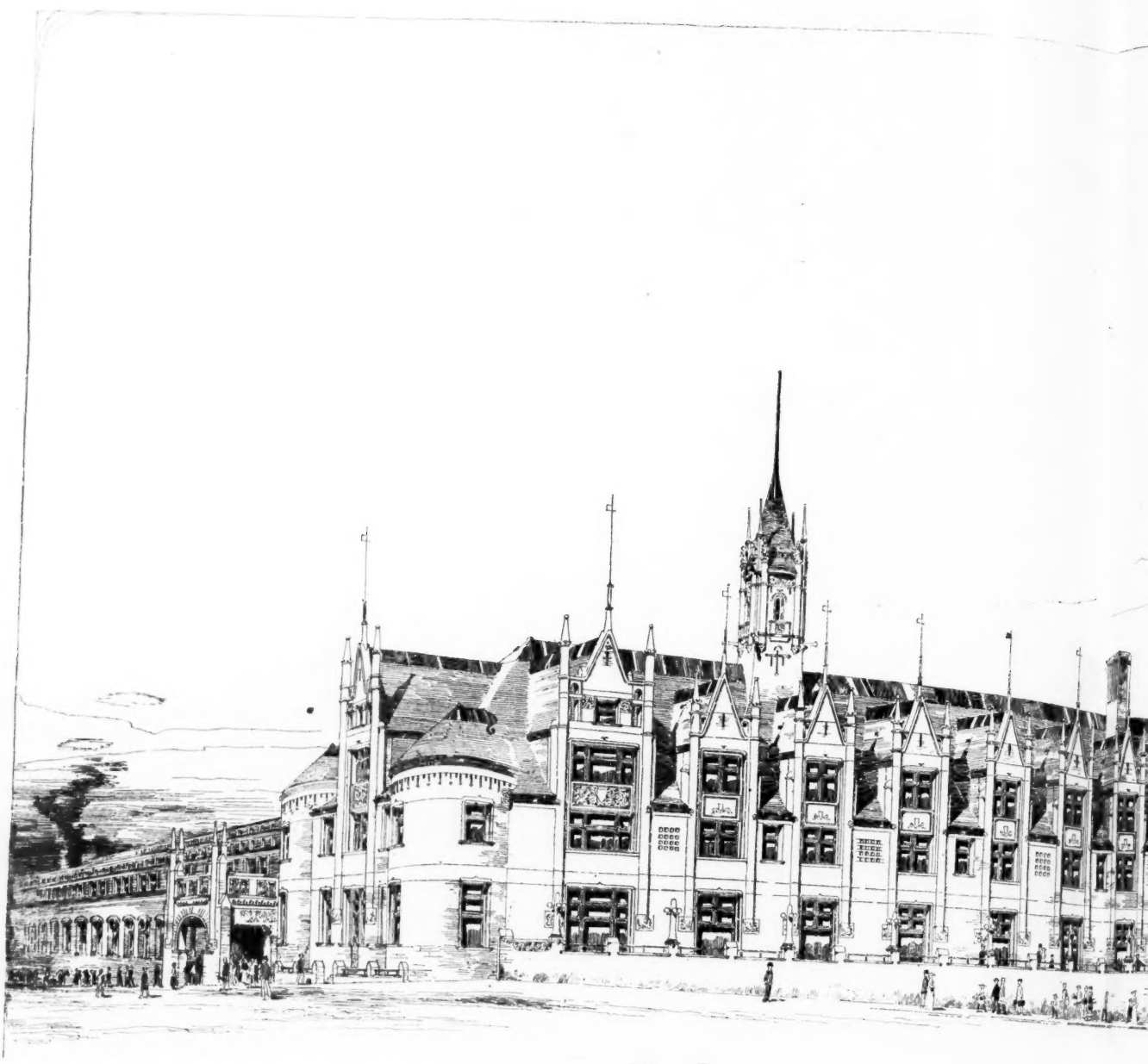
McDONALD BROS., ARCHITECTS, LOUISVILLE, KENTUCKY.



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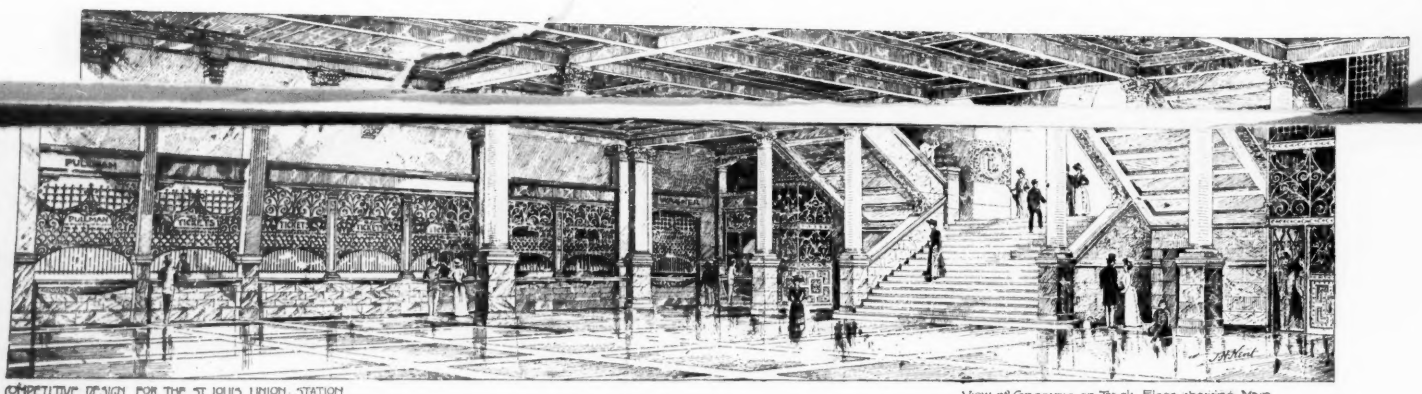

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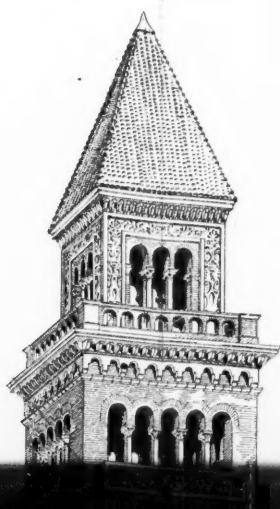
View of Concourse on Track Floor showing Main Entrance, Stairs & Front of Ticket Offices. St. Louis Union Station.



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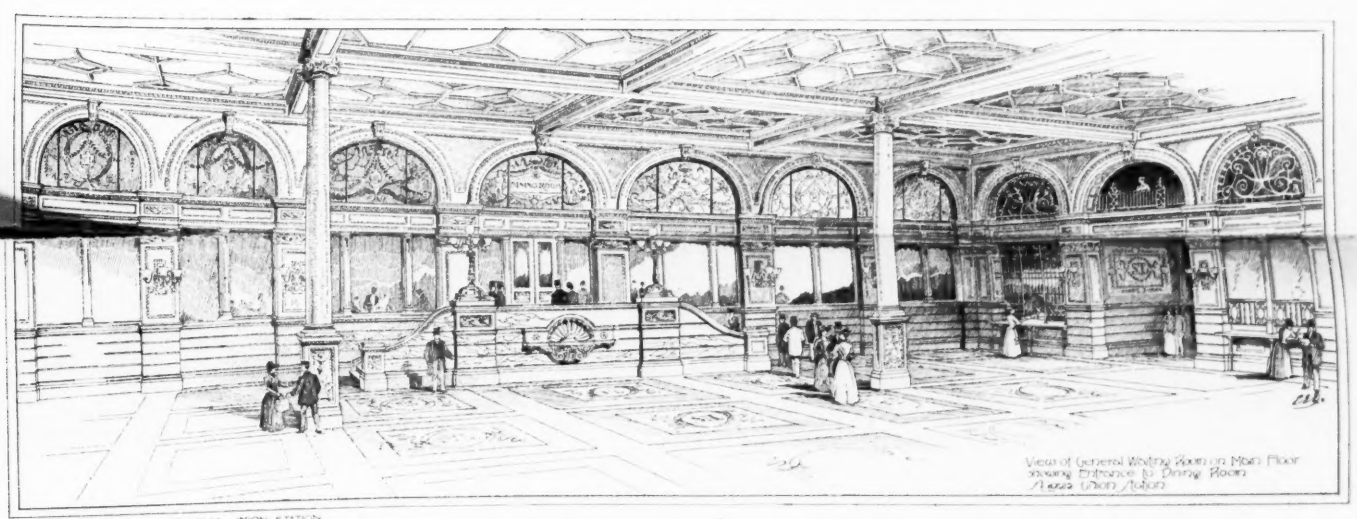
GEO. R. MANN, ARCHITECT.



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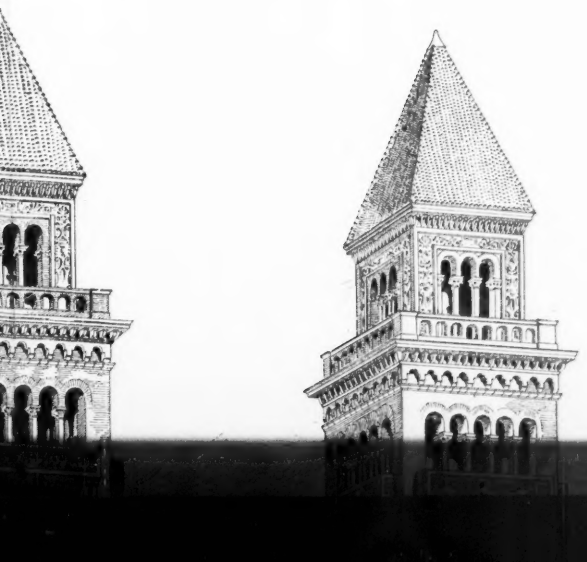

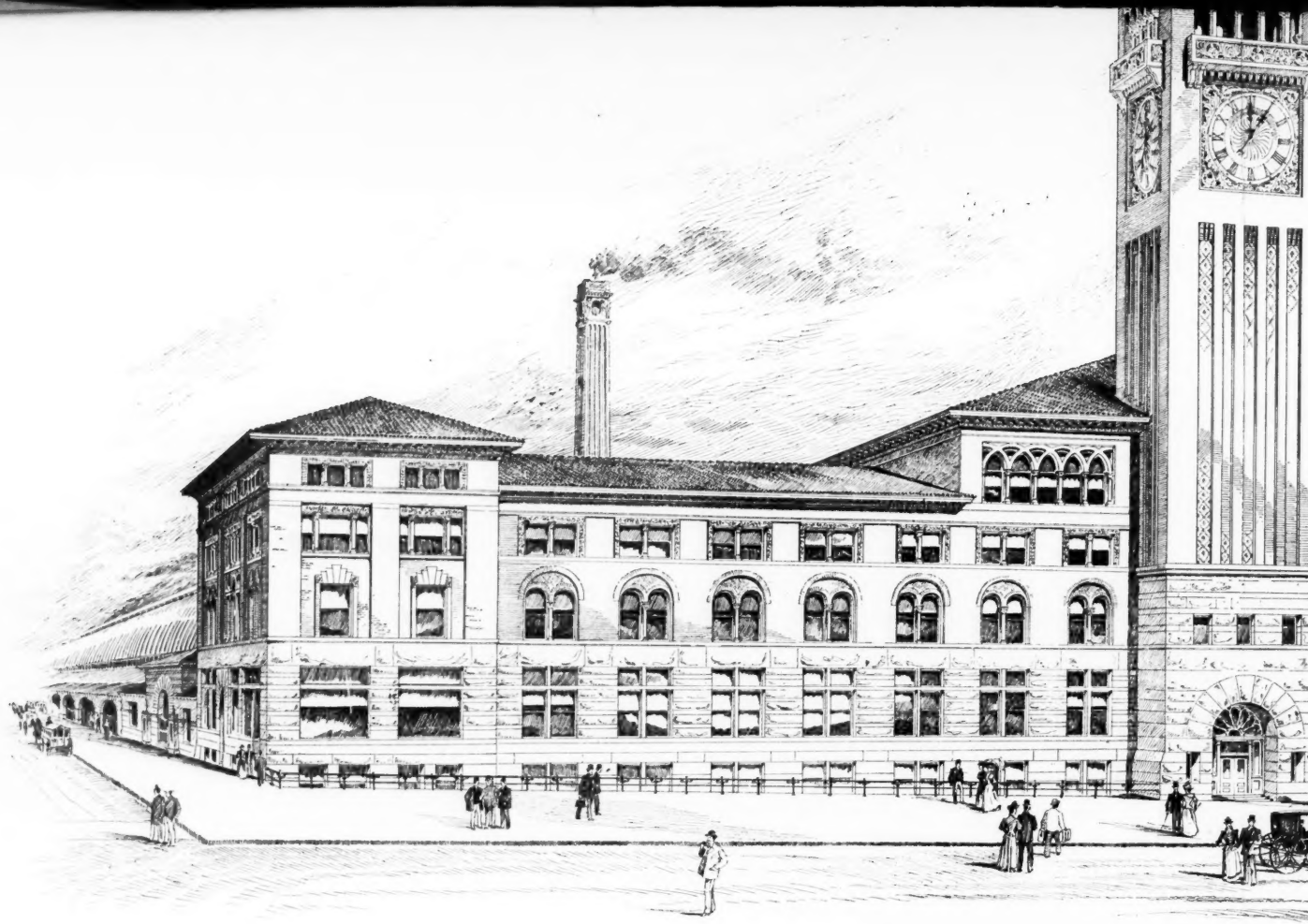

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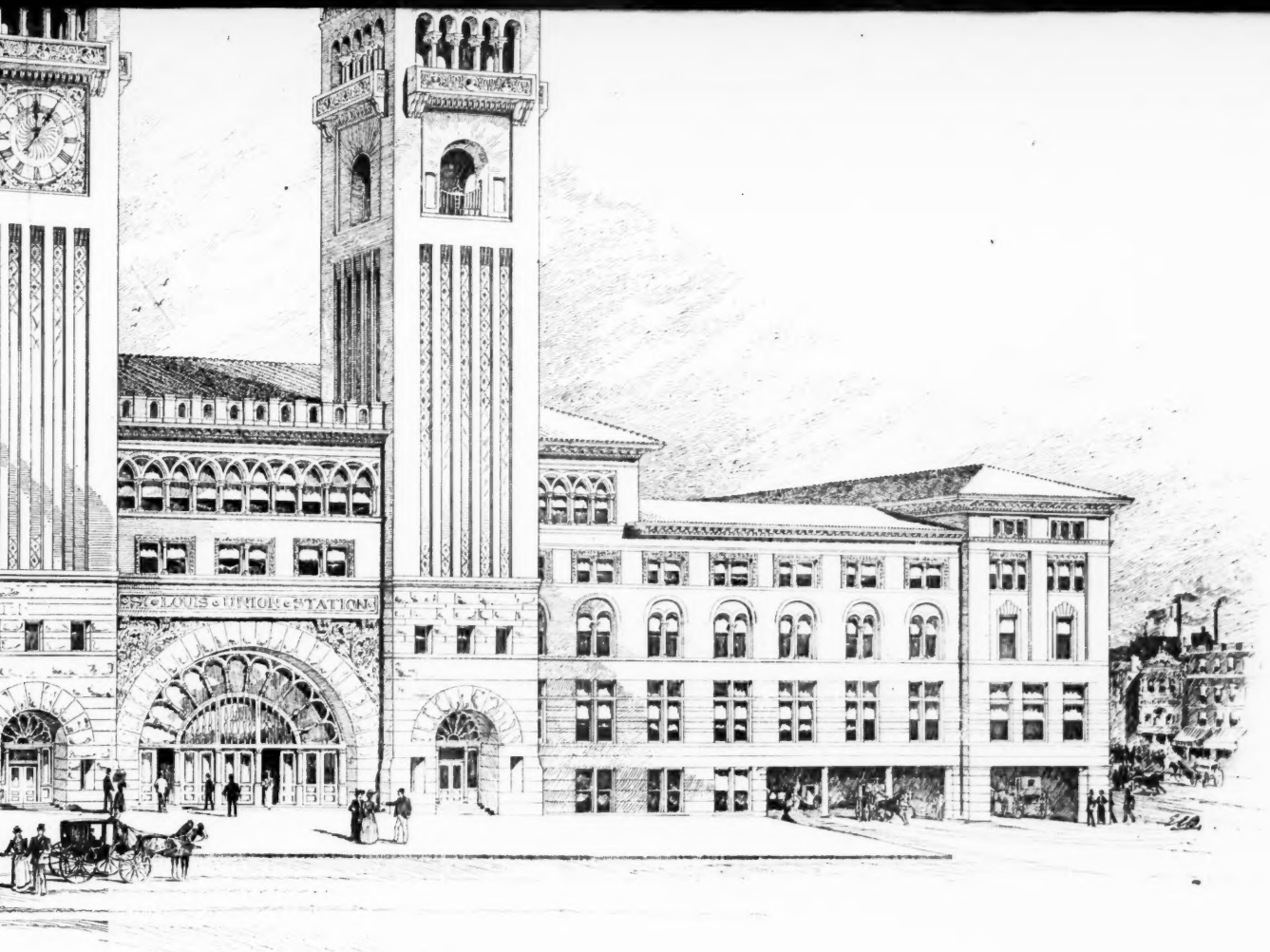

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