THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIV. - DECEMBER, 1889. No. 7

DECEMBER, 1889.

THE INLAND ARCHITECT
AND NEWS RECORD.

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

ARCHITECTURE,

CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

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

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

PUBLISHED BY THE INLAND PUBLISHING CO.,

19 TRIBUNE BUILDING, CHICAGO, ILL.

AMERICAN INSTITUTE OF ARCHITECTS.

OFFICERS FOR 1890.

PRESIDENT . . . . . RICHARD M. HUNT, New York, N. Y.
SECRETARY . . . . . JOHN W. ROOT, Chicago, Ill.
TREASURER . . . . . SAMUEL A. TREAT, Chicago, Ill.

VICE-PRESIDENTS:

First Vice-President . . . WILLIAM W. CARLIN, Buffalo, N. Y.
Second Vice-President . . JAMES W. McLAUGHLIN, Cincinnati, Ohio.

EXECUTIVE COMMITTEE:

RICHARD M. HUNT, Chairman (1 year)..... New York, N. Y.
JOHN W. ROOT, Secretary (1 year).....Chicago, Ill.
SAMUEL A. TREAT (1 year).....Chicago, Ill.
EDWARD H. KENDALL (3 years).....New York, N. Y.
DANKMAR ADLER (3 years).....Chicago, Ill.
ROBERT W. GIBSON (2 years)..... .....New York, N. Y.
WILLIAM W. CARLIN (1 year).....Buffalo, N. Y.

BOARD OF DIRECTORS:

For Three Years.

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

For Two Years.

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

For One Year.

T. P. CHANDLER, Philadelphia, Pa. SIDNEY SMITH, Omaha, Neb.
ADOLPH CLUSS, Washington, D. C. G. W. LLOYD, Detroit, Mich.
J. C. STEVENS, Portland, Ore. W. C. SMITH, Nashville, Tenn.
C. F. SCHWEINFURTH, Cleveland, Ohio. A. C. BRUCE, Atlanta, Ga.

STANDING COMMITTEES.

COMMITTEE ON EDUCATION:

Professor Russell Sturges, chairman.....New York, N. Y.
Professor William R. Ware.....New York, N. Y.
Professor N. Clifford Ricker.....Champaign, Ill.
T. M. Clark.....Boston, Mass.

COMMITTEE ON CODE OF PROFESSIONAL ETHICS:

Louis H. Sullivan, chairman.....Chicago, Ill.
E. H. Kendall.....New York, N. Y.
W. W. Carlin.....Buffalo, N. Y.
Henry Van Brunt.....Kansas City, Mo.
R. W. Gibson.....New York, N. Y.

COMMITTEE ON CLERK OF WORKS:

R. W. Gibson, chairman .....New York, N. Y.
D. Adler..... .....Chicago, Ill.
W. G. Preston.....Boston, Mass.
W. R. Forbush .....Cincinnati, Ohio.
J. G. Cutler.....Rochester, N. Y.

Consolidation of Architectural Associations Accomplished.

After two years of labor and the fullest possible consideration of the different interests and objects involved, the consolidation of the American Institute of Architects and the Western Association of Architects has been accomplished. That this consolidation will result in the strengthening and further elevation of the profession in America is hoped. That an inevitable result is the absolute loss of two years in association work is certain. It remains now for the profession to recognize and improve the opportunity for advancement thus made and resume the work that the Western Association was so active in inaugurating, and forcing it to a conclusion. The principal value of architectural association thus far has been in its purely social feature. This has been established. The adoption of a uniform style of contract is rapidly bearing the result looked for through its general use. In all other measures the committees in charge have simply "reported progress" either through neglect of their duties or inability to surmount the difficulties in the way.

Necessity for Individual Activity by Members.

The committees on legislation have, as a rule, done all that was possible to carry out their work, but all efforts at securing legislation are slow unless backed up by the entire influence of the public. This as yet has not been secured. The committee of the Western Association has not to our knowledge formed or sustained the organization of a single state association. The local architects, aided somewhat in almost every case by the editor of this journal, have met, formed their own rules of government and held their meetings, with little or no communication with the committee appointed to promote this necessary work. The work of the committee on statutory revision and that upon reform in the planning of public buildings has been prosecuted as vigorously as circumstances would allow. The difficulties in each direction are great and varied but in each a concerted action by the entire profession giving their strongest individual support to the committees would do much toward making their work effective. In fact, this consolidation of forces means more than a community of interests and a union of sentiment. It means that each member shall consider that his professional honor is pledged to these works of reform, and, more than that, if our thorough study of the situation means anything, to falter now and neglect to give all possible moral support to the committees in charge of national or local measures will place the profession where it was ten years ago and make any future work much more difficult.

Immediate Necessity of Obtaining a Legal Status.

The first work that should be accomplished, and with proper energy it can be, is the establishment of a legal status for the profession. It is our belief that all other work that does not have this end in view and for its direct object is useless. Why should state chapters and local chapters be formed but to secure this? Why should legal decisions be collected when without legal status the architect and the contractor are upon the same plane in the eyes of the law and can be and are (as in St. Louis) taxed as tradesmen. And if architects will look at their legal situation, and even their social status, compared with that of the two inferior professions, law and medicine, they will see that more

important than fees, more important than monuments of their skill, is the securing of a legal status which will declare architecture to be a profession and not a trade.

The Officers of the Consolidated Association.

The officers elected and under whose guidance the new association will commence its work, are perhaps the most wisely chosen of any in the history of either association. The continuance of Mr. Richard M. Hunt as president will do much to give the new body the confidence of the profession at home and sustain its character abroad. In Mr. John W. Root the association has a secretary whose work will be thorough, and who, by his prestige as an architect as well as great personal popularity, will cause the policy of the association to be vigorously carried out. The other officers, Mr. Treat, the treasurer, and Messrs. Carlin and McLaughlin, the vice-presidents, are equally capable and popular, and strong and active in association work. The executive committee is well chosen and will commence its duties at once. It is intended to hold a meeting about the beginning of the year, when the question of state chapters will be fully reviewed and charters issued, so that the present chaotic condition of state associations and local chapters will be reformed.

Necessary Appointment of Standing Committees.

The consolidation convention, from a newspaper standpoint, was "light," and in reviewing the proceedings, the work left by the convention to be finished by the executive committee is exceedingly heavy. One of the first matters that should engage the attention of that body is the reorganization of the committee on uniform contracts. There should be but three architects to meet the three builders and a seventh member should be chosen from among the architects, builders and owners in the city where the committee happens to meet. This committee should meet more frequently, and as far as possible perfect the work so well begun in the first draft of the contract. The chair neglected to appoint a committee on competitions, but as the Western Association expressed itself so well four years ago upon this subject, it seems that this committee could be discontinued without great damage to the association. On the whole the association can now settle down to solid work, as its membership is as comprehensive as the country and its roll of officers, headed by Mr. Richard M. Hunt, are among the most illustrious of the profession.

Danger from Underground Electric Wires.

The earlier demands that electric lighting wires should be put underground were based partly on the danger to linemen and firemen in the discharge of their duties, partly on inconvenience to the public from fallen wires, partly on inconvenience to the public by interruption of electric service from storms, high winds and fires, to some extent by the infrequent though possible danger to the public from crossed or fallen wires, while always it has been contended that the wires were a nuisance from the fact that they marred the beauty of the finest buildings. If the immediate danger from high-tension currents were removed, the foregoing reasons would still remain conclusive against the continued use of overhead wires. Public opinion is intermittent, it burns furiously for a brief period, and then, exhausted by its own energy, sinks back quiescent, having accomplished usually but a modicum of its original demands. Accordingly, in New York City, where electric wires of all kinds are more numerous than in other American cities, part of the wires are underground and a large part still overhead. The recent alarming increase of fatalities from overhead wires, the sickening details given in the newspapers, and the publication of the fact that in New York alone there have occurred one hundred deaths from electric wires, have once more inflamed the public mind and given fresh impulse to the demand that all wires should be immediately put underground. Objections to underground wires have been raised from many points of view, though generally with reference to the expense of placing wires in suitable conduits and of making necessary repairs. These and kindred objections have been easily disposed of. In such matters a slight increase of expense is not to be given weight as against public safety, for throughout these discussions the public and the newspapers generally have assumed that the placing of the wires underground would insure the safety of life and property against danger from electric currents. In a recent issue of the *North American Review*, Mr. Thomas A. Edison argues that placing the wires underground, so far from insuring protection from dangerous or fatal shocks from high-tension currents, will rather increase the danger by bringing wires through which high-tension currents are forced into direct contact with a network of other wires and with systems of iron piping, or, indirectly through the medium of a connecting line of moisture or an electric arc, thus conveying the deadly currents into buildings in all directions to the equal danger of those who use and those who do not use electricity.

The General Destructibility of Insulation Materials.

The reasons which lead Mr. Edison to condemn the use of high-tension currents may be stated very briefly. The currents in use for electric lighting are low-tension, continuous currents; high-tension currents continuous or semi-continuous, and alternating currents. Any high-tension current, not properly insulated, is dangerous or deadly. The alternating currents in use are high tension with pressure of from one thousand to three thousand volts. But an alternating current of low tension is dangerous to the nerves of human beings at a pressure which would be harmless in a continuous low-tension current. The question then resolves itself into one of insulation. Experience shows that no insulation retains its elasticity and insulating quality when subjected for a long period to the vibration or pulsation of an electric current. A high-tension current or an alternating low-tension current may be safely used only so long as the insulating material lasts; and when the insulation fails at one or more points, there is danger. Until an insulating material can be found — and there is now no clue to such a material — that will withstand this current permanently, the only safe way is to use only a comparatively low-tension current with a pressure of not more than six or seven hundred volts, continuous or varying through a range of only a few volts. The use of such a system is controlled by no monopoly, the sole question is one of cost of outfit. The low-tension current requires a larger copper wire and more frequent power stations so as to shorten the distances. When so operated it can be made harmless and fully as effective as the high-tension current. Experience has proved that it can be made financially profitable. If Mr. Edison is right in his argument, there is no question as to the details of the legislation needed; and no mere pecuniary consideration should be permitted to stand in the way of such legislation.

Romanesque Architecture.*

CHAPTER IV.

THE ABBEY CHURCH OF MOUNT ST. MICHAEL (FRANCE)—THE CHURCH OF WALTHAM ABBEY (ENGLAND)—PETERBOROUGH CATHEDRAL ENGLAND)—CLOISTER OF MOISSAC (FRANCE).

The abbey church of Mount St. Michael presents in its plan an arrangement similar to that of Cerisy-la-Forêt, and recalls the same Latin and Byzantine influence. If the traditions about it are to be believed, it must have been built on the remains of an oratory erected by St. Aubert in the eighth century, and on the ruins of a church constructed in the tenth century by Richard I, grandson of Rollo. There are no traces of the edifice of the eighth and tenth centuries, but of the church founded in 1020 by Richard II, Duke of Normandy, there yet remains the transept and the greater part of the nave.

The church was commenced in 1020 by Hildebert II, fourth Abbot of Mount St. Michael, and whom Richard II charged with the details of the work. To Hildebert we must attribute those vast substructures of the Romanesque edifice which have such gigantic proportions on the western side. Instead of cutting away the summit of the mountain, the architect, chiefly not to lessen the majesty of the base, constructed a vast plateau, the center of which was level with the peaks of the rocks and whose sides rested on walls and piers, the piers united by vaulted arches, forming a sub-basement of perfect solidity. The immense structure, whose foundation is eighty meters above sea level, is admirable in every way, first from the grandeur of the conception, and second because of the effort it was necessary to make in accomplishing it in the midst of obstacles of all kinds resulting from the situation, the difficulty of supplying materials and the limited means of bringing them to the work. Figure 109 is the plan of the church after its completion. The dotted line is that of the choir, reconstructed in the fifteenth century; the dotted line on the west indicates the additions made by Robert of Torigni from 1154 to 1186.

The vast edifice erected on the artificial plateau constructed by Hildebert had at the time the form of a Latin cross, made by the choir, transept and nave, which was composed of seven bays. Three of these bays remain, the first having been destroyed in 1776. In the center the triumphal arches of the nave and choir, as well as the lateral arches of the transept, support the lantern tower of Bernard du Bec, thirteenth abbot of the Mount. He constructed the tower in 1135, and traces of it still remain on the fine faces of the present lantern tower constructed above the massive pyramid in 1602.

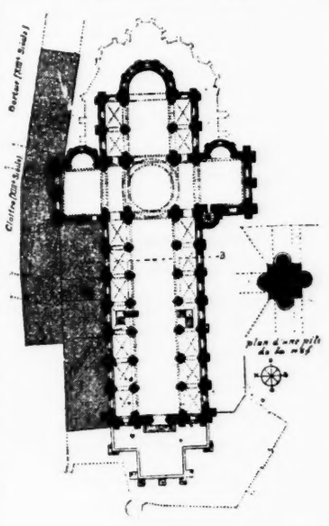


FIG. 109.

Here, as in the greater number of Romanesque churches built in northern Europe, and especially in Normandy, the central nave was covered with an open timber roof. The choir and apse were covered with barreled or quarter spherical vaults. The small apsides of the transept were similarly vaulted, that is, with quarter spheres. The side aisles were covered with vaulting composed of groined arches, with ribbed arches in the spaces between.

As in Normandy, however, all construction seemed to tend toward a vaulted covering. The pillars were either small dressed stone ones or groups formed of half columns and round moldings. Their bases were a simple torus and a chanpfered plinth; the capitals a rudimentary variation of the Arabic form.

The square piers are surrounded by four engaged columns (Fig. 109). The columns are placed on the side of the nave and rise to the upper cornice, supporting the beams of the timber roof (Fig. 111). The three other columns, surmounted by the capitals, received the ribs of the lateral walls and the side aisles.

The transept and the small apsides have kept their old arrangement, except for the open timber roof. The façade of the north side of the transept was modified in the thirteenth century by the construction of the cloister.

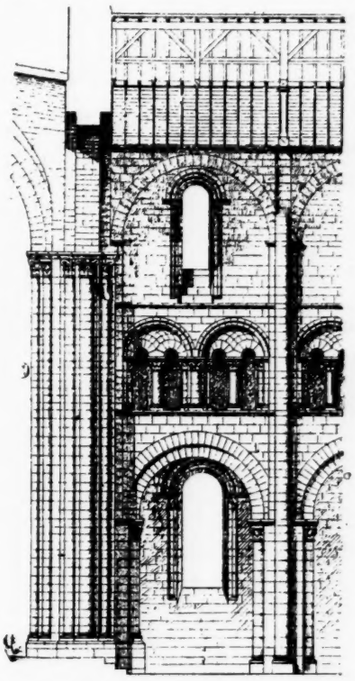


FIG. 111.

Romanesque architecture exercised in England a certain influence which was manifest from the earliest times of the Norman Conquest. This influence was natural, for edifices built toward the end of the eleventh century on either side of the channel were built by Norman architects or by those educated in Normandy where Romanesque architecture had made such great progress. After the Conquest, when the Normans overran England, they found there a Christian civilization centuries old. The national architecture, as far as we are able to judge by the occasional documents that have come down to us, followed the basilica traditions in religious edifices. These traditions were rudely interpreted by the Saxons, who, either not knowing of or not daring to use the vault, covered their churches with wood. This system of roofing was so universal a practice of the native builders, that it is hard to cite in the entire English architecture of this epoch a single example of the vaulted nave. Even after the Norman Conquest we see the piers of high columns rising to the highest part of the nave, as if searching for imaginary vaults, stop abruptly under the painted or gilded panels of a wooden roof.

The abbey church of Waltham was built after this fashion at the close of the eleventh century, or at the commencement of the following one. The nave is composed of two rows of superimposed arcades, rising from the ground to the cornice, supporting the open timber roof without other connection with the side walls. The upper arcade is nothing but the traditional decoration, for it only opens like the lower into the side aisles which are one-storied and covered with an open timber roof. The interior wall of the nave is of great thickness and seems to have been built with the idea of easily resisting the thrust of the vaults of the nave. (Fig. 114.)

The general arrangement, and the details of the construction, recall the churches of Normandy, but especially that of Cerisy-la-Forêt, of which Waltham Abbey seems to be a servile copy, except in the small details of the upper arcade of the nave. It is interesting to compare the cut (114) with that of Cerisy-la-Forêt (108).

The church or cathedral of Peterborough, built or commenced in the first years of the twelfth century, presents a still more complete resemblance to the abbey church of Cerisy-la-Forêt.

The central nave is covered with wood and the side aisles are vaulted, with this peculiarity that the vaults are not ribbed but are carried upon pointed arches.

These side aisles are surmounted by galleries covered with an open timber roof, sloping in one direction, and opening onto the arcades which are in the central nave (Fig. 117). A narrow gallery arranged in the thickness of the wall of the nave, as at Cerisy-la-Forêt, affords, even in Waltham Abbey, a passage around the edifice at the height of the high windows of the nave.

In the center of the edifice rises a lantern tower, carried on four great piers, forming the cross of the transept and the nave, like the Romanesque churches of the continent. In the English church, as in the Norman, the archivolts of the arcades, the framework of the galleries, and especially the doorways, produced a profusion of linear

* "L'Architecture Romane," by Edouard Corroyer, Paris. Translated and abridged from the French for THE INLAND ARCHITECT, by W. A. Otis, architect. Commenced Vol. XIII, No. 3.

ornaments peculiar to the Norman school, billets, dog tooth moldings, stars, imbricated designs, broken lines, etc.

The façade of Peterborough Cathedral rising between two towers situated at the end of the side aisles, is finished with a very heavy embattlemented cornice. The doors have round arches, without either lintel or tympanum, the door itself extending the entire height of the opening.

The greater part of the churches and cathedrals of England belong to the Norman epoch, but as they have been enlarged and transformed at different periods they only bear the traces of their Romanesque origin in the crypts or confessionals over which they were built.

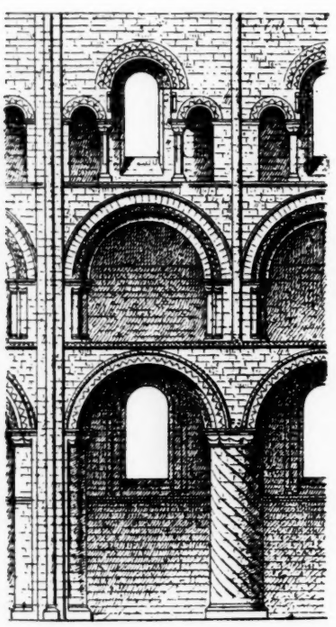


FIG. 114.

Winchester Cathedral, which dates from the end of the eleventh century, still possesses a transept and a large, original crypt. Other important crypts exist in Worcester and at Canterbury as well as in Gloucester, where there is also a choir of the close of the eleventh century.

Peterborough Cathedral, finished toward the end of the eleventh century, presents all the characteristics of churches built from the eleventh to the twelfth centuries, under the direct influence of continental Romanesque architecture. It resembles them most strongly in the grandeur of its dimensions, the proportions of its arcades, and even the details of its ornamentation. These different primitive elements undergo a transformation and constitute the basis of English architecture, or rather Anglo-Norman, in which one always finds traces of its Romanesque origin.

The cloister of Moissac, if it cannot be classed among edifices of the basilica form, ought to be counted among the number of those that most closely resemble them by the system of construction Its form is rectangular ; its galleries, covered by an open timber roof, are built of brick, plain or molded. They are formed of a series of arcades of pointed arches, resting alternately on single or twin columns and on square pillars, insuring the stability of the fragile arcade (Fig. 118). The capitals of the small columns are very heavy in proportion to their diameter. These capitals, very richly but somewhat rudely carved, recalling the Byzantine traditions, as do also the large figures decorating the square pillars, prove the edifice to have belonged to the eleventh century. Fragments of the original building were used to reconstruct the cloisteral building in the first years of the twelfth century.

CHAPTER V.

ROUND AND POLYGONAL CHURCHES—CHURCH OF THE HOLY SEPULCHER AT JERUSALEM.

Without wishing to write the history of the round temples, it is but fitting to recall one of the most ancient of this kind of building, the Pantheon of Agrippa at Rome, which was studied in the first part of this work with the attention which one of the masterpieces of Roman genius merits.

"The long list of Romanesque architecture presents a certain number of churches and chapels remarkable for their round or nearly round form. They gave the idea for other edifices in the earliest age of Christianity, though these in their turn were taken more than once for heathen monuments. The Holy Sepulcher, whose conquest was the aim of the first Crusade, was not the great and magnificent basilica which Constantine had built on the plan which tradition assigned as the site of the tomb of the Savior. Twice reconstructed after having been twice destroyed, once by the Persians, another time by the Arabs, it received in the seventh century the form which it has today, that of a rotunda with two-storied aisles. This rotunda, however, which the moderns have finished with a cupola of masonry, received and preserved during the entire course of the Middle Ages a wooden covering in the form of a truncated cone, open at its summit. In this the transept of the Holy Sepulcher resembles the hypetheal temples of antiquity. Its plan, moreover, was not a new one. Rotundas had been constructed for the exercises of Christian worship before the sacking of Jerusalem by the Persians, as witness, see St. Constance and St. Etienne-le-Rond, at Rome, and our St. Germain-l'Auxerrois at Paris, which was originally a round temple, and many more. It cannot be said that the remodeled church of the Holy Sepulcher was the first one built on the round plan, but it is certain that under this form it became a type that was imitated through all Christendom. History shows us that in the eleventh and twelfth centuries in France they made many copies of it on a grand scale. They did not last, however, for we see in their places churches of later construction of the ordinary form. The disappearance of these churches, constructed by Romanesque architects in imitation of the Holy Sepulcher, was wholly due to the faults of construction in their coverings. Sometimes they endeavored to cover them with cupolas, which, however, fell in. They then sought to avoid the difficulty by constructing a cupola with an open timber roof, as in the Holy Sepulcher at Jerusalem, but such constructions were a prey to fire, and in their ruin brought down the whole buildings. However, two of these attempts, St. Benignus at Dijon and the church of Charroux, remained till the first years of this century, thanks to the fact that the greater part of their diameter was over the side aisles, so that the central rotunda was very small, and, consequently very simple to cover. St. Benignus was also hypetheal. The smaller imitations which have been preserved enable us to conjecture what the greater part of these grand edifices were like."

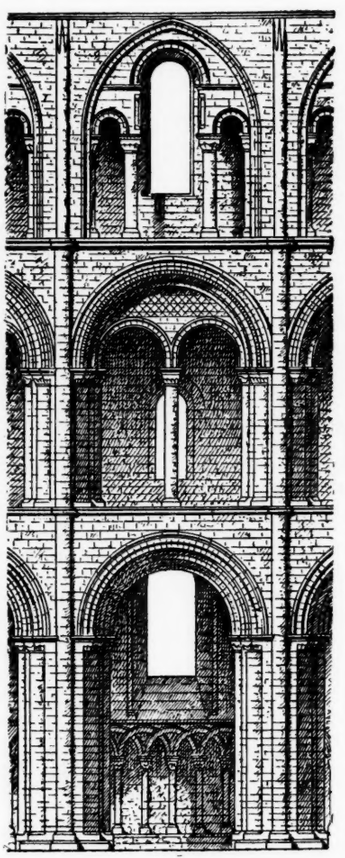


FIG. 117.

The first buildings of the church of the Holy Sepulcher at Jerusalem were erected by order of Constantine. Commenced in 326, they were finished in 335, the year of their dedication. They consisted of a great basilica, courts and colonnades. These magnificent edifices were totally demolished in 614 by Chosroës II, King of Persia. To these victorious bands were joined one thousand Jews, who were the most implacable in the work of massacre and destruction. The work of restoration was undertaken by a monk named Modeste, superior of the convent of Theodosius, and later, patriarch of Jerusalem. With the aid of St. John the Almoner, patriarch of Alexandria, it was accomplished in the space of fifteen years. Modeste was not able, like Constantine, to cover the whole of the holy place with an immense basilica ; he was forced to construct on each venerated spot a little church, according to the tastes of the time. It was in this new church of the Resurrection that on September 14, 629, the Emperor Heraclius II, in his turn conqueror of Chosroës, bore on his shoulders the wood of the true cross, a precious trophy of his triumph. But the reign of the Christians was not of long duration. Eight years after the exaltation of the cross the disciples of Mahomet, conquerors of Heraclius and of Jezdegerd, masters of Syria and Persia, attacked

Jerusalem. The patriarch Sophronius placed himself at the head of the inhabitants, and, by a vigorous resistance, obtained at last a capitulation. The first article stipulated that the caliph himself receive the submission of the vanquished. Omar came from Medina. He concluded before the gates of the holy city a treaty which guaranteed to the Christians the possession of their churches and freedom to worship in them. Then he entered Jerusalem praying on the steps of the eastern entrance of the church of the Holy Sepulcher, and laid the foundation of a mosque on the ruins of the temple, after having designated the site of a grand cupola which commonly bears his

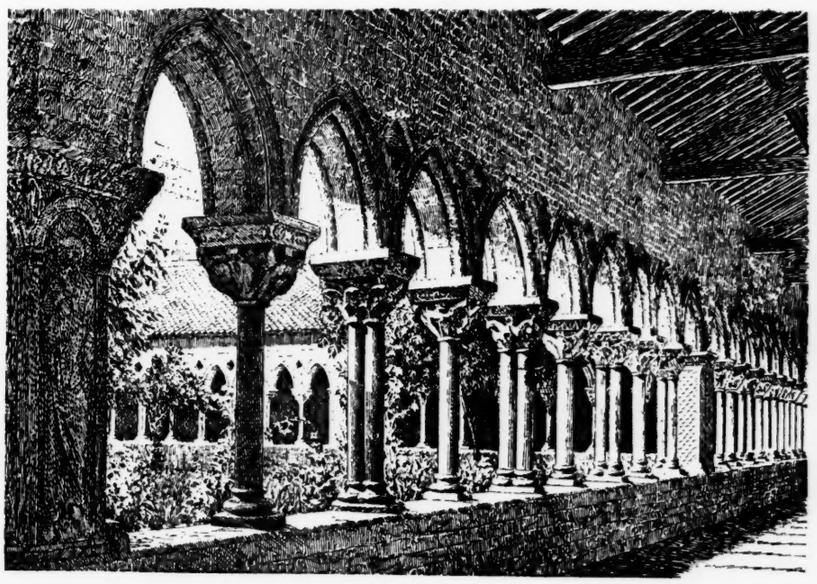


FIG. 118.

name. From this time till the commencement of the eleventh century the church of Jerusalem experienced different periods of repose and persecution.

The new sovereign, Hakem-Biamr-Illah, in 996, urged on, says Raoul Glaber, by the Jews of the West, ordered the complete destruction of all the churches in Jerusalem. The orders of the caliph were executed most rigorously; the churches of the Resurrection, of Calvary, of St. Mary, of St. Helen, fell under the hammer and torch of the spoiler. The Holy Sepulcher alone escaped. The same year as that of the destruction of the holy churches (1010), permission was given to restore them. Raoul Glaber says, there flocked from all parts of the universe crowds of pilgrims bringing money to be used for the rebuilding of the house of God. But the resources were not sufficient, and they had to content themselves with only a partial restoration. The reconstruction was resumed under the direction of Greek architects, and was finished in 1048.

"From this epoch till the time of the first Crusade, these edifices seem to have experienced no change. During the first years of the Frankish occupation, the conquerors, occupied in strengthening their conquest, had no leisure to work on the enlargement of the churches. Some years later, in the first years of the twelfth century, the Crusaders joined in one work and united in a single monument all the sanctuaries up to this time isolated. This construction still exists."

CHAPTER VI.

THE CHURCH OF OTTMARSHEIM (ALSACE)—THE CHURCH OF RIEUX-MÉRINVILLE (FRANCE)—CHURCH OF CAMBRIDGE (ENGLAND).

The Palatine chapel of Charlemagne at Aix, built after the model of St. Vitale at Ravenna, which was itself copied from the Golden Temple which Constantine had erected at Antioch in honor of the Virgin, had a great influence on art in the neighboring countries. This new form, imported from the East, and adopted by the most powerful sovereign of his time, could not fail to find imitators among the French architects, who were under the most direct influence of Carlovingian art.

The octagonal church of Ottmarsheim, in upper Alsace, was built, according to Roman chroniclers, by Rudolph of Suabia, brother of Vernher, bishop of Strasburg (Fig. 123). It is almost an exact copy of the Carlovingian church at Aix. The central nave of Ottmarsheim, crowned by an ovoid cupola, is an octagon whose arrangement on a smaller scale is nearly identical with that of Aix-la-Chapelle. As in that, the cupola rises on piers united by superimposed arcades; the lower ones correspond to the side aisles of the edifice, the other to the upper galleries surmounting these side aisles. The great difference lies in the form of the exterior wall. It has not sixteen sides as at Aix. It is octagonal, and the vaults superimposed on the side aisles form alternately square and triangular compartments.

At Aix-la-Chapelle Romanesque architecture made its appearance; it is established in Ottmarsheim by the systematic use of the ribbed arch in the vaults. However, the influence of Byzantine art is very strongly marked by the absence of the buttress, and by the details of construction.

The monument of Rieux-Mérinville, near Carcassonne, which was built at the end of the eleventh century, is evidently one of the numerous imitations of the church of the Holy Sepulcher at Jerusalem.

Circular churches, or those which approach more or less to that form, according to the number of sides inscribed in the circle, are very rare in France, and even in the rest of Europe.

The church of the Holy Sepulcher at Cambridge must have been built in imitation of the Palatine chapel, rather than after the example of the celebrated church raised at Jerusalem over the tomb of Christ. According to English authors, it must be the oldest round church in England. It dates back to the time of Henry Beauclerc, who died in 1135, or at least to the first half of the twelfth century. It has much analogy, in its architectural parts, to Peterborough Cathedral, which is certainly an imitation of the Norman churches of the twelfth century. At all events, the influence of Norman Romanesque architecture, clumsily interpreted by the Saxon builders, is plainly visible in the arrangement of the superimposed arches resting on the coarse capitals of the pillars, massive, heavy and low, and in the construction of the vaults of the side aisles. These were of

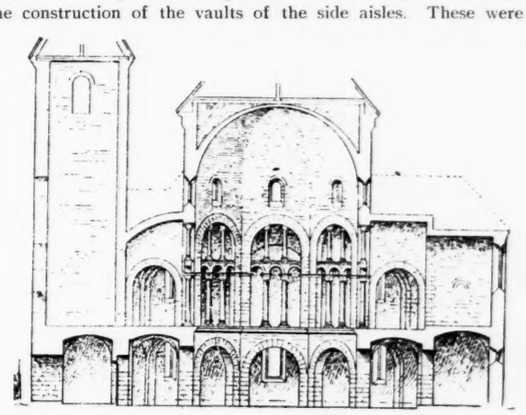


FIG. 123.

ribbed and groined arches, very solid, but very rudely treated by the timid builders but slightly acquainted with the architecture that they were trying to imitate.

The attempts of the Anglo-Norman architects of this time are nevertheless interesting to study, because one sees the efforts that they made to build lasting monuments, which, however, have endured rather by the rude solidity of the pile than by wise combinations made by the builders. The rotunda of Cambridge presents this peculiarity, that contrary to the ancient edifices, that served as models, the lower stories are circular and the cupola octagonal.

The church of the Holy Sepulcher of Cambridge is composed of a circular central nave of two stories, surrounded by similar side aisles without a second story. In each story eight heavy columns

on an equally circular plan are joined by arcades of superimposed ribbed arches. The upper gallery, whose arcades are in pairs, open onto the central nave, which is surmounted by an octagonal cupola. The interior angles are strengthened by engaged columns in the vertical parts and by ribbed arches in the round part of the cupola, whose thrust is balanced by the considerable increase of thickness of the wall Half circular windows, cut in the faces, light the central nave. The side aisles are lighted by windows splayed in the interior, and the high galleries above the vaulted side aisles are covered with an open timber roof.

(To be continued.)

Development of Architectural Style.

BY GODFRIED SEMPER — TRANSLATED AND ARRANGED BY JOHN W. ROOT, ARCHITECT.

AS early as in 1852, under the heading of, "The Four Elements of the Art of Building," I published a short treatise on the origin and historical development of certain inherited and generally accepted types which are being used in the art of building, these elements being expressed in generally intelligible symbolism. This experiment attracted very little attention, but the author has saved it from utter oblivion by adding to the essay some attacks upon it, based upon the authority of a celebrated art critic who was then all-powerful. The author was honored with a special reply to his essay by this great authority, but the purpose of this reply was only to refute the contradictory views on the polychromics of ancient architecture and sculpture contained in the original essay. The real substance of the treatise, however, was dismissed with one single supercilious remark which so well characterized the then prevailing tone among literary men and artists, that I beg leave to repeat it verbatim. At the end of his essay directed against me, Kugler says:

The second subject which Semper's essay deals with has a peculiar interest, from the standpoint of history, poetry or art. The author goes back to the primitive condition of the most ancient peoples. From them and from their varied historical positions he discovers the elements of architecture and the course of development which architecture was compelled to take. It is fascinating to descend into dark regions of history, guided by an artist full of imagination, and our own thought is given thereby a valuable impetus, even if great imaginative power is needed to draw conclusions from these dissolving views. Once before I had publicly announced and completely prepared an essay on antique polychromics, but I was deterred from publishing it, because the well-known work by the above mentioned art critic upon the same subject had just appeared. In the same manner I had publicly announced the elaboration of the theme which was only touched upon in his essay; but, owing to the above cited assertion, it is still unpublished. I made the mistake of losing confidence in my own conviction.

Every phenomenon, whether of art, science or nature, has an origin, and the inquiry after it and investigation of it is the source of all truth, the Alpha and Omega of all knowledge. This inherent impulse of man, which forces him back to the cause of things, guides him in his work. Every religious system has its own cosmical basis; every constitution may be called the embodiment of a certain prevalent consciousness of the normal condition of society, and of its origin. Under the supremacy of architecture, the arts served to illustrate prevailing social, constitutional and religious systems, and proceeded from the conceptions upon which those systems were based. They existed always and were everywhere acknowledged to be the most effective elements in the more systematic developments of such systems, propagating and strengthening them.

The origin and development of the art of building are as clearly entitled to an investigation as are the natural sciences or comparative philology. We find also a special impulse for such researches in this field of art, as it is true that they lead to the most important principles and rules for new art creations, while the doctrine of evolution (to illustrate) will never reward the natural philosopher with similar success. It may be considered too visionary to base the possible cause of a type of art creation, or guide for art invention upon researches into the origin, evolution and significance of traditional types of art, but we must admit that these researches give us certain fixed points which serve as vantage ground, facilitating the survey of that varied abundance of objects which we meet in the sphere of the world in miniature with man as a creator. It must further be admitted that they are of use in the more accurate valuation of the present condition of art and of the tendency of our modern efforts in this direction. They are therefore of great practical value, and are by no means merely indulgence in useless speculation. We are unintentionally led, or rather forced, to comparisons of this kind and to inquiries into the origin of building styles, if we see with our own eyes a series of beginnings of so-called architectural styles, whose would-be inventor feels himself inspired to devise new kinds of buildings which shall be purely practical; for we live in an age of inventions, and our architects wish to keep abreast of the time, nor do they lack a high patronage nor the necessary opportunities.

Did we not all witness when Louis Napoleon, assisted by his faithful Prefect-de-Seine, Haussmann, overthrew the foundation of the old historical capital of France, to rebuild it on a new plan, that he aspired in this manner to settle with the past of France, and attach her future to his name and dynasty, thus making himself a worthy successor to the mighty kings and builders of the past. The future alone will show to what extent he succeeded in realizing his lofty aims, but we may doubt even now whether his millions-absorbing building operations advanced architecture one single step; it is certain that there is no peculiar invention in art perceptible during that revolutionary time, or in consequence thereof, and that, in spite of all the rage for innovation revealed, his creations are characterized by an almost complete lack of originality and fertility.

The artistic power and activity of the French has by no means grown impotent. They have but retired to departments that are far removed from monumental art. This fact always indicates diseased conditions and approaching decay of architecture. A certain conservatism, however, a respect for inherited forms which the Frenchman preserves in spite of all his vacillation, and which, after many oscillations, always recovers its balance, still protects France against the total decay of her monumental art. This inherent respect is assisted by that sound public judgment in art matters which was cultivated by the people of the great metropolis of Paris during many centuries, and cannot easily be found anywhere else in modern times. The features of the Neo-Grec and its constrained essays at decoration; the false, coquettish romanticism of the Neo-Gothic and other aspiring innovations of similar intent, have outlived themselves in a very short time in Paris, and find imitating admirers only among strangers.

The new opera house with its boastful finish, for which thirty or forty millions were spent; the no less objectionable Palais de Justice, with its constrained, mannerized and lying front, these were all thrown into the *charivari* long ago. They are not exhibited as examples of right doing, but pointed out as things of terror, showing artists and laymen how not to build. Simultaneous manifestations of the same kind, although infinitely less grand, appear in other countries, but they are far more dangerous in their consequences.

Let us, in a few words, touch upon the condition of German art.

In modern times there has been more hard work done in style-making here than anywhere else, partially according to recognized orders, partially by ingenious architects on their own motion. In such a manner was developed in Munich, the celebrated "Maximilian style," according to fundamental desire. It is based upon the following profound idea: Ours is a mixed culture; it is composed of elements of all earlier cultures; consequently, our modern building style must be a mixture of all possible styles of all times and nations, and must reflect the entire history of culture. The consequences of such deductions are shown by the latest productions in the City of the Muses, on the shore of the Par. Add to this the multitude of private style inventors, who show their cheap inventive genius in large and small residences, railway stations, and many other kinds of buildings. They proceed largely from the erroneous supposition that the question of style is principally a constructive question, and they do not acknowledge the inherited traditions of art symbolism. They thus attained the merit of contributing their mite to the prevailing Babylonic confusion. Another kind of style-makers are the so-called tourist architects, who, from their excursions into foreign lands, bring home and dispose of a new style every fall. Finally, we must mention those that find in the medieval so-called Gothic, the future of national architecture and their own as well. In the latter respect they seldom make a miscalculation.

Contrary to these practical solutions of the style problem, an opposite view has gained headway. Building styles, according to this, are not invented, but develop in various departures from a few primitive types, according to the laws of natural breeding, of transmission and adoption. Thus the development is similar to the evolutions in the province of organic creation. In the support of this view we may cite Hermann Grimm, the biographer of Michael Angelo, who says, "It may be taken for granted that where sudden contrasts appear in building styles, they must be attributed to the influence of distant examples, or to the loss of the gradually connecting links." Other authorities in the history of art express the same opinion on this subject. As to the application of the celebrated axiom, "Nature does nothing by leaps," and of Darwin's doctrine of evolutions upon the special world of the little "after-creator" (man), it seems somewhat

doubtful, considering that monumental science very often exhibits the monumental illustrations of knowingly retained objects of the simultaneous and successive forms of culture of the nations.

The old monuments are very correctly designated as fossil shells of extinct organisms of society, but these shells did not grow into the back of the latter, like snail shells, nor did they shoot up like coral reefs according to some blind process of nature. They are free creations of man, who used intelligence, observation of nature, genius, will, knowledge and power, in their production. Therefore, we must consider the free will of the creative mind of man as the most important factor in the problem of the origin of building styles. It was naturally controlled by certain higher laws, which were traditional, of the requisite and the necessary, but it appropriated and utilized them through free, objective conception and application.

In this regard, moreover, the phenomena of the history of art are identical with those of the history of human culture, whereof the former is a subordinate but integral part. The history of mankind would merely tell us of chaotic conditions of society, if it were not for the temporary interference of moving and organizing forces, of powerful individuals or corporations who, through their mighty preeminence, direct the dull, fermenting masses, and force them to condense their ideas to a historical nucleus, and to travel a certain established road. History is the successive work of individuals who understood their time and found the plastic expression for its requisitions, but wherever a new civilizing idea took root, and was accepted as such in general knowledge, there it found architecture at its service to define its monumental expression. Its powerful civilizing influence was always recognized and its works were intentionally and knowingly impressed with the mark of the prevailing religions, social and political systems, thus making itself their symbol.

But this new impulse was not the work of the architects. It was the issue of the great regeneration of society. Owing to the incompleteness of our exact knowledge in the department of monumental science and of ethnology in general, it may prove to be difficult, if not impossible, to demonstrate this sentence. Our time, too, is limited, and we can only slightly touch some curious data in the comparative history of architecture, which are of great importance. Nevertheless, I beg leave to set forth a short definition of what I wish understood by the term "style."

Style is the conformity of an art object with the circumstances of its origin and the conditions and circumstances of its development.

From a stylistic point of view this conformity does not strike us as something absolute, but as a result. Style is derived from the name of the pencil, the tool which the ancients made use of for writing and drawing. It is, therefore, a very suggestive word for the relation of form to the history of its origin. But the tool requires a hand to guide it, and a will to impel the hand. Here we find indicated, therefore, the technical and personal elements of the origin of a work of art.

Thus, hammered metal requires a different style from castings. Thus we say, for instance, Donatello and Michael Angelo are related in style, both assertions being equally correct. Furthermore, the tool and the hand that guides it require the material to be treated, the shapeless matter which is to be converted into form, and which should be reflected and revealed by the appearance of every work of art. The Greek marble temple, for instance, differs in style from the otherwise almost identical temple from Proas stone. Thus we may speak of a wood style, brick style, or stone style. But there is another element in art which stands higher than matter and which really forms the soul and substance of every art creation; it is the subject, the theme used for artistic application. As this is the most important and decisive element, we shall limit our essay to its exclusive consideration.

The question arises, "What, in most general conception, is the subject of all efforts in fine arts?"

In my opinion it is man in all conditions, and in his relations to the surrounding world, namely, man first, as individual, the family; second, man in a collective sense, the state; third, mankind, the ideal man as the highest object of art.

On the subject of culture one might be induced to tread the thorny path of speculation, to describe the historic, primitive conditions, and comment on the well-known tenet of Aristotle: "Man is a social animal; the state is older than man." But, fortunately, the subjects for artistic fertilization which obtained form by the creative power of man were never formed by the true conditions of things, but always by traditional subjective conceptions of this true condition of things. According to these old traditional conceptions, the individual who knowingly separated himself from general telluric existence was always considered the element of mankind. This conception serves as a basis for all traditions of architecture.

We are led to this conclusion by the following curious fact; there are decorative elements used by architecture, partly to accentuate the proper relation of parts of a work of art, partly to designate their separation and their joint effect, partly to relieve its relation to the universe upon which it is based, and, finally, partly to illustrate the purpose which the whole or every part of it serves. All these art symbols owe their origin to the adornment of the body and to some procedures of the most primitive family industry directly connected with such adornment. These have retained their traditional validity up to this day in spite of all the changes they underwent for millenniums, and they cannot be replaced by anything fundamentally new.

Adornment is really a very curious culture, a kind of historic phenomenon. It is one of the privileges of man alone, and it is perhaps the first he made use of. No animal adorns itself; the crow strutting with false feathers is known to be a fabulous creation. Adornment is the first important step toward art; in adornment and its laws is contained the complete codex of formal esthetics. That striving for individuality, that separatistic sense in man, which is one of the two principal elements of human development, tends to express itself in adornment, for by adorning anything, be it alive or inanimate, I bestow upon it the right of individual life. By making it the center of relations that pertain to it alone, I elevate it to the rank of a person. I must cite here another important example.

The domestic hearth of the wandering nomad, with its sheltering primitive roof-covering, remained through all times the sacred symbol of civilization, and retained its bright consecration as altar and as temple-cell. It was the fundamental form of the concealed Egyptian sekos, the Chaldaic Assyrian pyramidal superstructure and the Jewish tabernacle, through all phases of culture to the Holy Kaaba and the Christian Tabernacle, added to this separating inclosure and the hearth-protecting lower structure. We will find all the inventions of architecture expressed in those few primitive motives borrowed, we might say, from the first couple in Eden.

Man as a social creature; architecture in the service of religion and the state. The decentralizing tendency toward independence and individual existence is balanced by the centralizing sociability, created by external circumstances, by the battle for existence amid dangers that could be met by combined forces only. Both elements, the centrifugal power of the instinct of independence and its opposite, the instinct of subordination, were always active and often counterbalanced each other even in the most ancient times. This is evident from the fact that the oldest great centers of culture arose in direct proximity to the abode of wandering nomad tribes. The same contrast was necessarily a foe to art.

Terrific natural phenomena may have originally caused the dispersed groups of men to throng together in safe places. This idea, for instance, prevails in China, whose history begins with accounts of an all devastating flood, followed by a golden age, during the reign of Jao, the glory of which can never again be equaled. The same idea is contained in the tale of Nimrod and of the construction of the Babylonic tower.

According to another view, the crawling swarm of mankind is organized like a colony of ants, grown out of the ground in which it toils. Upon this idea, upon the unalienable rights of possession by birth and of autochthonie is based the aristocratic priestly constitution of the new empire of Egypt.

Still another view, quite different from this, assigns to society a warlike origin and institutions. This latter conception is probably the most correct one, for war of all against all is certainly the natural condition of men. In that way they first tried the advantages of discipline and joint action, before thinking of combining to build dams and canals, and thus extort blessings from resisting mother earth. Relics of warlike institutions may be discerned almost everywhere; their traces may be found in the ancient partly theocratic empire of Egypt; and even in the new empire, wherever slavery, bondage, caste divisions and absolute rule are found, they are certain signs of their own mastery in the past.

We, therefore, begin with the warlike states, where the fortified camp — the castle — forms the fundamental motive of monumental art. It serves as model for temples, palaces, private residences, and even suggests the plans of entire towns. This motive predominated throughout ancient Asia, and its influence can be seen there even yet. The province of Mesopotamia is most instructive is this regard. It is known that southern Mesopotamia (the land of the Chaldeans)

was conquered by culture at a time almost pre-historic, from which no monuments descend to us.

The earliest traditions represent the inhabitants as a conglomeration of many races and tongues — Semites, Arians, Turanians and Kuschites promiscuously mingled. It seems, therefore, that this fertile territory has been subject to manifold invasions, not only during the later centuries, but from the earliest times. The table-lands of Asia sent forth their rapacious sons, who, under the banner of a hardy leader, appropriated by force the luxuriant low river lands and subdued with little difficulty their inhabitants, who were enervated by voluptuousness. They founded a state which had a military communistic basis, the ruler being sole representative of right and property. For a while the new government developed immense power, but the sudden change, the mixture of inherited rudeness and acquired luxury enervated the conquerors; the great lieges rebelled and made themselves independent; the state crumbled to pieces, and, thus weakened, finally became the booty of another lucky conqueror.

(To be continued.)

Architecture in the West.

ONE of the most critically exact, powerfully analytic and, withal, unbiased comments upon the present phase of American architecture appears in the *Atlantic Monthly* for December from the pen of Architect Henry Van Brunt, of Kansas City, and as such, worthy a full reproduction in these pages, though space will permit of but a liberal excerpt. While the article is written for the lay reader much of it should be read thoughtfully by the professional brother, who, by the aid of the writer's eyes, may not only see the new and much talked of and hoped for "American style" slowly developing, but may, as in a drama, see the form of the actor pressing against the curtain that is about to rise and disclose a new architecture, that is all our own, and the product of American social and commercial necessities, already a substantial and permanent fact.

After outlining the effect of the slow developments of civilization upon architecture, the writer says:

Civilization is advancing into the wilderness of the great West like a brimming and irresistible tide which knows no ebb. Its first waves of occupation bear upon their crests a human element of astonishing energy and force. No conquest or crusade of history has been accomplished with a greater display of hardy intelligence. It has planted cities and established civil order upon virgin soil in less than thirty days. The external aspects of these first occupations are remarkable for the skill, directness and economy with which means are adapted to ends. The first settlers are comfortably housed in a week, so that all the processes of simple domestic life are made possible without delay. Structures to accommodate the land office, the saloon, the variety store, the railway station, the bank, the school and the church arise to meet the emergencies of border life, and the visible town is begun. These structures, of course, have value only as temporary make-shifts; but as material prosperity increases, and with it the ambition for permanent investments, the way is open for a much more definite expression of thought in building. At this stage of development the natural desire of every citizen to own property of the best possible appearance at the lowest possible cost leads to what may be called an architecture of pretense — an architecture intended to appear better than it is. This architecture, or, more properly, this method of building, has, without essential local characteristics, spread over the entire occupied territory of the West. It has met for many years, and will meet probably for many more, all the practical requirements, and has flattered the crude artistic aspirations of millions of intelligent and exceptionally ingenious and prosperous people. It must, therefore, be respectfully considered as, at present, the vernacular art of the country, though, when judged by the most liberal and catholic canons of educated taste, it fails to satisfy *in esse* if not *in posse*. Nowhere else in the civilized world can be found anything resembling it. It is peculiar; it is ours.

I have called this characteristic and almost universal expression of western civilization an architecture of pretense, because of its ambition and of its desire to make a vain show with small means. No people in the world understands cheap construction and economical methods of building so well, and is so inventive in providing for it. But, unwilling to let it appear what it is and to let it grow into a legitimate expression of art by natural processes of development, it has been forced to assume forms which do not belong to it, which contradict its proper functions, and which are devised to satisfy false and unsettled ideals of beauty and fitness. The facility with which wood and galvanized iron may be molded, painted and sanded to imitate stone or other nobler materials makes this baleful process possible, and tempts the builder to mask his honest work with crude travesties of conventional art.

It must be admitted that this method of architectural masquerading had its origin in the eastern part of our country; but there, under the influence of better examples and higher education, it soon fell into disrepute, because, theoretically, it is an offense against fundamental principles of art, so gross that it cannot survive the first touch of intelligent criticism; and, practically, because this architecture of pretense cannot stand the test of time. Like all other experiments in the evolution of forms, only the fittest remain. But the West, eager to anticipate the fruits of success, too impatient to wait for a natural growth of art, ambitious to emulate the older civilizations, is, for the moment, contenting itself with an appearance. The vernacular style in the remoter districts has still undisputed sway, and, in the hands of uneducated builders, plays with these dangerously facile materials such fantastic tricks before high Heaven as make the angels weep, and give no true and permanent satisfaction even to those whom they are intended to surprise and delight. It serves, for the time, to confer upon the newly built streets of the West a delusive aspect of metropolitan completeness and finish, until, after a few years, the paint wears off, the wooden sham begins to decay, and the galvanized iron to betray its hollow mockeries. "A thing of beauty is a joy forever," but a thing of cheap and vulgar ostentation, by a happy accident of fate, finds speedy oblivion. It is a piece of singular good fortune that the vernacular style has thus within itself the seeds of its own dissolution.

After reviewing and comparing the present building methods in European countries and the limited knowledge of each other's work enjoyed by the architects of the Middle Ages, the writer continues:

I believe I am justified in stating that what, for the want of a more convenient name, I have called the vernacular art of the West — that which accompanies the first advances of civilization into the new lands, and lingers long after the successful establishment of all the institutions of civil order and prosperity — will not be recognized in the future history of American architecture; much less, that it will be stigmatized as a reproach. In fact, it is merely preliminary to architecture, though for the moment it pretends to be the real thing. It is evidently a hasty growth out of the immediate necessities of an enterprising people, too busy with the practical problems of life and the absorbing question of daily bread to have established ideals of art, or to have deliberately formulated in building an adequate expression of their civilization. It is an art whose essential characteristics have been derived from expediency — an art which has been mainly concerned with mechanical devices for quick and economical building. These devices have been invented by practical men to meet practical wants in a practical way. When freed from the misleading adornments imposed upon them by ignorance and pretense; from shams of wood, galvanized iron, machine-made moldings, and all the other delusive rubbish of cheap deceit, which have no connection whatever with the structure, these practical devices will develop style. Until these quips and cranks of undisciplined imaginations shall have shabbily descended into their inevitable oblivion, and have been replaced by methods of decoration developed out of the construction according to the spirit of precedents furnished by the best eras of art which remain to us for our delight and instruction, deliberate and permanent architecture will not come into existence.

Upon this simple proposition rests the hope of architecture in the West.

Chicago seems to have fairly won the distinction of being the fountain-head of architectural reform in the West. The healthy impulses from this active and impulsive center are felt in the remotest towns as soon as opportunities have occurred for permanent improvements. The dangerous liberty which the entire absence of schools, traditions, precedents, and consequently of discipline in art has conferred upon the architects of the New World, and more especially of the West, and which has given rise to all the crudeness and vulgarity of our vernacular building, has proved, in the hands of a few well-trained young men in Chicago a professional privilege of the most conspicuous importance — a privilege, indeed, which has not been enjoyed to the same extent in any other city in the world. The resistless enterprise and public spirit of the western metropolis, its great accumulations of capital, the phenomenal growth of its commercial and social institutions, and the intelligent ambition of its people to achieve a distinctive position in all the arts of civilization have given abundant opportunity for monumental expressions in architecture. The manner in which these opportunities have been used during the past eight or ten years gives encouragement to the hope so long cherished that we may at last have an American architecture, the unforced and natural growth of our independent position in art.

It is not to be understood that these fortunate men have deliberately set to work to invent a new architecture. They have been too well trained in the best schools and offices of the East, and often by travel and study abroad, not to respect the great achievements of the past, and not to make the fullest use of their rich inheritance of architectural forms. But their merit consists in the fact that some quality in the civilization of the West — its independence of spirit, perhaps, its energy, enterprise, and courage, or a certain breadth of view inspired by its boundless opportunities — has, happily, enabled them to use this inheritance without being enslaved by it. * * * *

The hope that we are entering upon such an era rests mainly upon the fact that the characteristics of the best new work of the West are based, not on the elegant dilettanteism, which is appreciated only by the elect, but by the frank conversion of practical building into architectural building without affectations or mannerisms; thus appealing directly to the common sense of the people, and creating a standard which they may be capable of comprehending. It is based on a sleepless inventiveness in structure; on an honest and vigorous recognition of the part which structure should play in making a building fitting and beautiful; on an intelligent adaptation of form to the available building materials of the West; upon the active encouragement of every invention and manufacture which can conduce to the economy or perfecting of structure and the embellishment of structure; upon an absolute freedom from the trammels of custom, so that it shall not interpose any obstacles of professional prejudice to the artistic expression of materials or methods; and, finally, upon

knowing how to produce interesting work without an evident straining for effect.

The difficulty of conveying to the laity in words, without graphic illustrations, the characteristics of this interesting architectural situation is noted, and using the apparent difference between grammatical and ungrammatical language, the writer continues :

The opportunities afforded by the West to architecture on the high plane which I have endeavored to describe are mainly commercial. It is in making the wisest use of these that the leading architects of Chicago have achieved their characteristic successes. A ten-story office and bank building, fireproof throughout ; with swift elevators for passengers and freight, a battery of boilers in the deep subbasement, giving summer heat throughout, and supplying energy for pumps, ventilating fans, and electric dynamos ; equipped like a palace with marbles, bronze and glass ; flooded with light in every part ; with no superfluous weight of steel beam, fire-clay arch, or terra-cotta partition, no unnecessary mass of masonry or column ; the whole structure nicely adjusted to sustain the calculated strains and to bear with equal stress upon every pier of the deep foundations so that no one shall yield more than another as it transfers its accumulated burden to the unstable soil beneath—such a problem does not call for the same sort of architectural inspiration as the building of a vaulted cathedral in the Middle Ages, but, surely, for no less of courage and science, and, in providing for the safe, swift and harmonious adjustment of every part of its complicated organism, for a far wider range of knowledge. The one required a century of deliberate and patient toil to complete it ; the other must be finished, equipped, and occupied in a year of strenuous and carefully ordered labor ; no part of its complex being overlooked, all the details of its manifold functions being provided for in the laying of the first foundation stone, and the whole satisfying the eye as a work of art as well as a work of convenience and strength. Whether one compares a modern building of this sort with a cathedral of the first class, with one of the imperial baths or villas of Rome, or with the Flavian amphitheater itself, it must hold equal rank as a production of human genius and energy, not only in the skillful economy of its structure and in its defiance of fire and the other vicissitudes of time, but as a work of fine art developed among practical considerations which seem fundamentally opposed to expressions of architectural beauty. * * *

When a mighty political leader was required to carry our country through the mortal perils of the civil war, a new man, modeled on a new plan out of

"Sweet clay from the breast
Of the unexhausted West,"

was raised for this heroic service. I am tempted to believe that we may look to the same virgin and prolific source for the spirit which may give us, in due time, a national art. This would be logical, and, if I do not read too hopefully the signs of the times, the fulfillment is not far removed.

After thus prophesying the almost immediate dawn of a national style with the great minds that will outline if not produce it already upon the stage and before the people, Mr. Van Brunt calls attention to the large number of students who have been taught the theory in the architectural schools and the practice of architecture in the principal offices, and shows how the combination of theory and practice will make an enlarged vocabulary, a purified rendition with no servile adherence to tradition, an intelligent use of all that has been done in the carrying out of present problems. Paying a legitimate tribute to the builders, who, coming before the architects, "have shown themselves very sensitive to good impulses, playing no inconsiderable part in the great movement of reform," he continues :

The attitude of the West toward architecture, as distinguished from that of the more cultivated parts of the East, may, I think, best be illustrated by the fact that a graduate of the best schools and practice of the East, who, finding himself in one of the rapidly growing western cities, should insist on being scholastic, and should confine himself to the correct use of strictly classic or medieval motifs, would soon have no opportunities for the exercise of his proclivities ; because, in the first place, he would not be understood, and because, in the second, he could not affect a reconciliation between his academical convictions and the modern methods of structure which he is compelled to adopt, at whatever cost of purity of style. Indeed, his most anxious study must be bestowed on the structural part of the problem. If the artistic is one part, the structural is nine parts, of his endeavor. The question which must preoccupy his mind is how he can meet the practical conditions with the greatest economy of material and labor ; how he may adjust the dimensions, forms and connections of every girder, beam, column pier and other parts of his structure, so that each shall be adapted to the service which it has to perform, with no superfluity of weight and strength on the one hand, and so that, on the other, all considerations of stability shall be duly provided for within the limit of safety. His inventive zeal must be constantly on the alert to improve on the known methods, for there are none which are not subject to improvement more or less fundamental. Fireproof structure, in especial, makes a never-ceasing demand upon his resources. An envelope of fire-clay, porous terra-cotta, plaster, or some other material impervious to fiercest heat must cover every piece of structural iron or wood. There must be no brute masses of material, such as formed the basis of Roman structure. None of these devices and methods were dreamed of when the old masters of architecture perfected their forms and proportions ; so that the decoration or artistic expression of this complicated and in each case, to a certain extent, unprecedented organism, and the conversion of it into an object of architecture, as contrasted with one of engineering, must demand of the architect such a freedom from academical restraint, such a command of the resources of design, as to make his task at once inspiring and perilous. Under these conditions, error is far easier than success ; the grooves of custom, if indolently followed, will sooner or later lead him astray from the opportunities of original expression which are lying in wait for his use. The silent growth of the building on the drawing-boards must be attended by a constant strain of doubt and anxiety. The spirit of a recognized historical style must be followed, in any case, but these new practical conditions of construction and service compel him to various and perplexing degrees of divergence from the consecrated types. To meet these difficult emergencies with adequate spirit, he must possess the thorough knowledge of the scholar, the exact training of the engineer, the enthusiastic zeal and inventive courage of the artist, and the prompt decision of the man of business. The stimulus of enterprise and the incitements of emulation are in the air which he breathes. The qualities which I have named have certainly been exhibited in some of the best buildings of the West to a degree and in a manner which distinctly differentiate them from any contemporary work of the Old World, which challenge the best endeavors of the East to emulate them, and are already giving cheerful evidence of the establishment of a vigorous architecture characteristic of the West.

Making marked reference to the change that has taken place in the architects' interest in the current literature of the profession during the past five years, the writer says :

We are too near to these developments to judge of them without prejudice, but it is certainly true that the architectural publications of the Old World which illustrate the current work of our era in that quarter have ceased to have that same degree of interest with and authority over the profession which they exercised three or four years ago. Previous to that time all the movements of the modern schools in Europe, all the changing fashions of design, and all the characteristic revivals of England in especial were marked and closely followed in our own country. Now, our own publications, setting forth our own achievements, are studied with equal if not greater interest. They certainly show that, in fundamental respects, we have broken loose from the old bondage, and are entering upon developments of style which seem to be actuated by our own local conditions. * *

I do not mean to assert that, even in some of the most successful examples of new work in the West, there are not evidences of crudeness and caprice as well as the usual sophistications apt to result from high training in art, though I might name a dozen characteristic buildings in Chicago and some of the larger cities of the West which combine extreme boldness and ingenuity of design with scholarly reserve and refinement. But, on the whole, the errors seem to me rather errors of force than of weakness ; they are such as we are accustomed to see in the earlier expressions of every healthy and vigorous style which proved to possess the elements of life and the capacity for a long career. I certainly can assert that none of the work which, by happy instinct, commends itself to builders and is copied and travestied with various degrees of success, according to the degree of education in the practitioners, is characterized by that fastidiousness and elegant dilettanteism which belong to styles which have said all that they have to say, and have lost their reproductive power.

I think I can discern in this architecture of promise just such points of difference from the more finished, elegant and scholarly contemporaneous work of Boston and New York as should grow naturally out of the peculiarities of western life. The best eastern architects frequently have some practice in the West, and have set up in Chicago, St. Louis, Kansas City, Omaha, Denver, San Francisco, and elsewhere examples of refined work of high artistic quality, full of inspiration and suggestiveness to local practice. All of them are doing good missionary work, putting out of countenance the buildings of coarse and florid pretense and cheap ostentation about them, and rendering more and more improbable the baleful repetition of them in the future. But by far the most effective missionary work in the West is done by the few structures which have risen "like an exhalation" from its own spirit.

It is difficult to specify in words the details or characteristics of composition which constitute this difference between the works of the East and the West.

In the latter, however, one can certainly detect a greater freedom from the restraints of the European schools. Qualities of material and the nature of the peculiar constructive methods evolved by practical experience are allowed to appear in the decorative scheme to an extent which, I fancy, the conservatism of the East has not encouraged. I have seen western work wherein the capacities of terra-cotta, for instance, have been recognized in the architectural design with a boldness and ingenuity, and a resultant success, which the East has not yet equaled. It is properly treated like a part of the face-brick structure, and the terra-cotta forms are not merely substituted for stone forms without change, as is customary in the East. Ornaments are contrived for the baked molded clay suited to its capacities and without regard to precedents in stone, and they are built into the brickwork in a manner that shows that they are made of the same material. The same independence of the conventionality which keeps architecture in safe but unprogressive and comparatively uninteresting grooves may be seen in the decorative treatment of metal, both on the inside and the outside of the best buildings, and its fireproof envelope is treated often with a distinction which is at once bold and felicitous. The diminished importance of the exterior cornice, in cases where that member has lost its characteristic function as a gutter, is frequently accepted in the design, and its form is changed

to that of a mere wall coping. Buildings of ten or twelve stories are treated with a different expression from that made conventional by buildings of four or five stories, and the usual procrustean processes are not admitted. No accepted formulas are permitted to interfere with the primary necessity of abundant interior light. The first consideration is that windows shall be large enough and frequent enough for this exacting service, without regard to any studio predilections, furnished by the noble wall surfaces of Italian palaces and medieval monasteries, or by any of the buttressed or pilastered symmetries of the Old World. There is no attempt to avoid the enormous difficulty forced by the requirements of modern shop fronts, and by the priceless invention through which they can be occupied with vast single sheets of polished plate glass set under girders of iron and steel — a condition important enough in itself to set at defiance nearly all the precepts of all the academies, and, if frankly accepted by the architect, to create, perhaps, out of this nettle, the flower of a new art. It is the disposition to meet these unavoidable and increasing obstacles of structure and practice with hospitality instead of hostility, and the ability to provide for them in a manner at once fitting and distinguished, that mark the work of the best trained architects of the West.

If the attitude of the government of the United States in regard to its public buildings were one of fostering care, as is the case with all other civilized nations, instead of crass indifference, we should look to these for examples of the most characteristic and advanced monumental work. The profession of architecture is not recognized by the general government, and for many years it has petitioned in vain for employment upon work which should be the greatest prizes of the profession and the most representative of our highest art.

Continuing, the writer makes a fair estimate of the capabilities for producing, and the restrictions placed upon the free action of the supervising architect under the present conditions of that office, and notes the absolute lack of influence the government and state public buildings have upon architectural development, the advance being attributed entirely to the people, never to the state. His estimate is absolutely fair and remarkably concise and accurate.

The buildings of the general government, and those of the states, counties and cities, are usually well constructed and frequently quite correct in the academic sense, though the vernacular has expressed in them some of its most vicious fancies; but foreigners seek in vain among them for an exposition of national character. In Chicago, where one might expect at least to find a type of the energy and sound common sense of the people, the county, city, and national buildings are monuments not only of civic corruption and barbaric extravagance, but of a total eclipse of art. But alongside of them are private structures, erected with judicious economy of means and a lavish expenditure of well-directed study, betraying at all points the spirit which has made Chicago, and surpassing in ingenuity and felicity of design any other commercial buildings in the world.

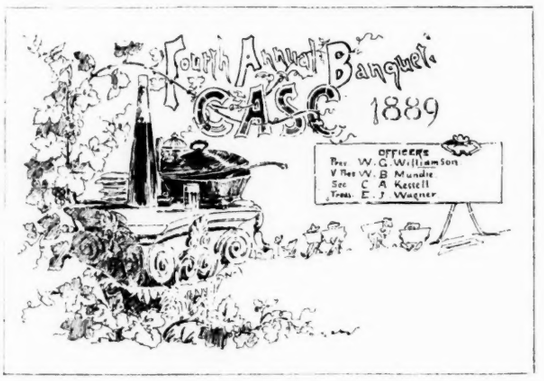
To name names is a guaranty of good faith, but at the same time it commits the writer of an essay, intended to be very general in its statements, to a certain definiteness which subjects him to the danger of serious omissions. It is obviously impossible to make an exhaustive list of the men and works most potent in the national transition which I have endeavored to describe. But I venture to think that my argument will be strengthened as well as illustrated by distinct reference to the Rookery office building, the Phenix, the Insurance Exchange, the Art Institute, and other buildings in Chicago, by Burnham & Root, of that city, who also built the beautiful Board of Trade Building and others in Kansas City; to several of the best theaters of Chicago, notably to the new Auditorium Building, which promises to be one of the most scientifically constructed and perhaps the best appointed large hall in existence, by Adler & Sullivan, of that city; to the Union Club, the Chicago Opera House, the Owings Building, and many fine dwellings, by Cobb & Frost, also of Chicago; to certain excellent ecclesiastical and domestic work by Burling & Whitehouse, of the same city; to some miscellaneous work of high merit by W. L. B. Jenney,* Edbrooke & Burnham, Holabird & Roche, and other young men who promise to become distinguished in the active work of reform. I cannot refrain from referring also to Buffington's work in Minneapolis, where the transition is receiving some of its most notable impulses.

I do not believe that there are as yet a dozen men really conspicuous for a capacity to express their art in those indigenous terms which take root and fructify in the great West. But the work to be done is so great and the field so vast that, if these were the only effective missionaries of art in the West, we might well despair of seeing the establishment and confirmation of a national art there within the century. Fortunately, they are closely followed by a crowd of trained workers, earnest and honest, doing yeoman's service in the great towns; all of them tending, I think, to unity of effort in the right direction. If they can be held together long enough by the influence of powerful examples, the result is assured.

Mr. Van Brunt closes this remarkable and scholarly article with a fitting tribute to the influence Mr. Richardson exercised upon American architectural style, his work being the greatest in influence of any one man of the century, yet stating that any architecture deserving of the name must be compounded of too many elements to be the work of any one man or set of men, however illustrious, emanating by slow and indistinguishable processes from the essential spirit of the times.

* Evidently a typographical error, for Mr. Van Brunt cannot be ignorant of the fact that Mr. Jenney is one of the oldest practitioners, as well as most scholarly and distinguished, among Chicago architects. A semicolon and the word "to" after his name would be more correct.—EDITOR.

The Chicago Architectural Sketch Club.



THE annual exhibit of club drawings and the banquet which the club and its friends enjoy once a year was given at the club rooms in the Art Institute Building on Monday evening, November 18. The visitors present were: J. G. McCarthy, J. Howenstein, W. L. B. Jenney, F. Wagner, Lorado Taft, J. W. Root, J. K. Allen, Oliver Sollitt, N. H. Carpenter, D. G. Phimister, W. A. Morse, D. V. Purington, A. Dawson, S. A. Treat, James John.

The members present were: H. Helmkamp, F. H. Colpoyes, A. W. Hompe, T. T. Holyoke, S. A. Troast, A. C. Berry, George Beaumont, O. C. Christian, R. A. Dennell, Oscar Enders, T. O. Fraenkel, R. C. McLean, W. R. Gibb, A. Heun, S. H. Heinz, C. A. Kessell, F. L. Linden, F. L. Lively, J. A. Miller, Paul Muller, W. B. Mundie, R. F. Sollitt, R. E. Schmidt, G. A. Schoenberg, C. B. Schaefer, C. W. Trowbridge, Morton, Richard Wood, W. G. Williamson, C. E. Boulwood, E. J. Wagner, Robt. B. Williamson, J. C. Williamson, H. C. Troast, E. H. Seeman, A. Y. Robertson, F. Parmelee, W. E. Kleinpell, G. A. Gurd, O. A. Schye, Julius Beeckman.

The club rooms were decked in gala array. The newly frescoed walls, the work of Mr. Linden, with the blending of gray and lavender tints, formed a fitting background for the club sketches in watercolor and sepia that were hung on every side. In the assembly hall the effect was superb. Above the president's rostrum a wash drawing of the national capitol was draped with the stars and stripes, and in front of this was placed the piano, festooned with flowers. The tables were arranged along either side of the hall, and at the lower end seats were reserved for the president and guests. These were decorated with vases of red and yellow roses. The entire arrangement was creditable to the taste of the club members.

The usual happy flow of spirits characterized this, the club's fourth annual gathering. The club members and guests assembled around what was in this case truly a festive board, and the retiring president, W. G. Williamson, made the following remarks:

PRESIDENT WILLIAMSON'S ADDRESS.

GENTLEMEN,—I welcome you as guests of the Chicago Architectural Sketch Club. It is usual on such an occasion as this to expect a rather lengthy address from the president, but I have no disposition to weary you and those who know me, will say that I have not the ability. However, I will try to "say my little say" as concisely as possible.

I take great pleasure in handing over the reins of government to worthy hands and asking a hearty coöperation in the work of the club for the ensuing year, that we may well be called the best sketch club in the country, and deserving of the honors that have been bestowed upon us individually and collectively.

We cannot pass over the gift of Mr. Robert Clark without comment, such recognition of the worthiness of the club must be encouraged and acknowledged in a manner appropriate, namely, by entrance into the competitions outlined by the various committees.

Also to Mr. Phimister thanks of appreciation should be extended.

This is a chance to do a little advertising for the club. Gentlemen, I crave your attention for a moment. Some months ago the Chicago Architectural Sketch Club elected to admit worthy men of artistic talent as associate members, to be known as sustaining members, with yearly dues of $10.

We are trying to do as well as we know how and improve ourselves, and you will all see how we can do it when Mr. Smilley lays something before us.

There are still plenty of opportunities to improve this club if the draftsmen of Chicago would only interest themselves in our aims and work. It seems strange that the American draftsmen do not have the ambition of our brothers across the sea for medal honors, wishing for nothing but hard dollars, and nothing that a string can be put through.

The good fellowship that exists among those attending our colleges should be carried among draftsmen, then see what fine clubs might be organized in our large cities. These clubs would be in lieu of schools. One cannot fail to recognize the usefulness of comparison—comparison in competition, comparison in business ability, that would assist them to successful practice.

We have many friends that have assisted us, but above all, our financial success is due to our treasurer, Mr. Wagner.

We have contributed a large number of drawings for the Cincinnati Sketch Club exhibit, leaving for ourselves a few to which I respectfully call your attention.

The discussion of the excellent menu was interrupted very pleasantly by the president who announced the toast, "Individuality in Architectural Design," which was responded to by Architect John W. Root.

Mr. Root said: Architects are nothing if not critical, and while it may be said of us as Louis XIV said in regard to no man being a hero to his own valet, I would like to ask you why you do not strive to do something we do not do and stamp it with your own individuality. You see when we started we did not have the advantage of such preceptors as you have (laughter), and, speaking as architects and draftsmen, does it not sometimes occur to you how all our best designs are stolen by some of the rest of us. A glance around these walls shows that you make lots of pretty things but you are not "fly"

in your grammar, you are not "up" in your technique. Take, for instance, a trivial matter. How did the Greeks attain their perfection and accuracy in the use of particular forms? It was by their close attention to nature. I think that perhaps the trouble with all of us is that we think that which is original is permanent while it is ephemeral, and alas! you can't, as with your coat, throw the house you build away if it does not turn out as comfortable and sightly as you intended it should. Richardson's work was broad and strong, but it was finished in its smallest detail and these are the two things that have made his work lasting. He wrought with a technique that he had thoroughly mastered. What is most important is for us to go back to our primers. Notice why moldings of certain forms depended upon certain rhythmic effects of lights and shadows, for instance; take a new turn in your search for architectural perfection. Think for yourselves and out of a few good sterling things which you have created show that you have mastered your problem.

The remarks of Mr. Root were followed by a song by the club, "The Jovial Crew," written for the occasion by R. B. Williamson, and the chorus, "When John Root Gets Through, My Boys; When John Root Gets Through," was heartily sung, and the many personal allusions in the verses were complimentary to Mr. Root and other popular friends and members of the club.

The next toast was the "Chicago Builders' and Traders' Exchange," which was responded to by Mr. D. V. Purington, whose remarks were preceded by the health of the Exchange, drank standing. Mr. Purington responded as follows:

MR. CHAIRMAN AND GENTLEMEN,—When your president asked me to respond to "The Builders' and Traders' Exchange" at this banquet I assented at once. I rather relished the idea of addressing a body of artists whose wild freaks of imagination often make sad havoc with our practical ideas of the science of building. It seemed a fine opportunity to institute a comparison between the esthetic imagination and theoretical work of an architect and the practical common sense of the builder.

Without giving the matter very serious thought I had in some way imbibed the idea that an architect was a sort of necessary evil and that the Builders' and Traders' Exchange were really building up this wonderful city, but when I came to study the history of such institutions, and to critically analyze the sentiment to which I was asked to respond, I found that my powers were unequal to the task. I twisted and turned it in every possible light, I searched in vain for any allusion to such an institution in print save its own annual reports. There was no sentiment, no idea, not even the ghost of a theory; all that remained was the cold fact that six hundred men engaged in manufacturing and selling materials and erecting buildings in Chicago had found it wise to band themselves together to unite their interests and as much as possible to work in harmony.

In this country these exchanges are as yet in their infancy and can scarcely be said to have passed the experimental period. Their growth has been phenomenal and is a rare illustration of one-man power, Mr. William H. Sayward, whose intelligence, good judgment and wise enthusiasm are well known, is the acknowledged founder of the Boston Exchange, after which all the others have been modeled. Many mistakes have been made in our exchange, but no one familiar with its workings will deny that it has benefited all interested in building. Its greatest danger lies in its own unwieldy size. Six hundred men from all the different vocations connected with building form an organization difficult to direct or control.

Thus far our progress has been rapid and successful. Under the fostering care of the National Exchange, we hope to continue to prosper. I am more than ever convinced that we are and shall continue to be the servants of the architects, who could dispense with our services much more easily than we with theirs. Originally, the architect was the builder and as his work has developed he has simply given us the details to carry out under his supervision. This is not the time or place to provoke discussion but if all the architects would assume the independent position taken by the prominent ones of Chicago, namely, that their being employed to plan and superintend the erection of a building does not necessarily constitute them the agents of the owner, there would be less friction and greater harmony between architects, builders and material men.

Mr. Chairman, in the club I recognize the future of Chicago architecture; when the Boyingtons, Burnhams, Jenneys, Roots and others now eminent in the profession shall have passed away their places will be filled from the ranks of this club. Happy will it be for them, happy for Chicago and happy for the profession they have chosen if the record of their lives and services shall be as creditable as is that of the present generation.

I can conceive of no higher compliment to Chicago than the remark of a very intelligent and observing gentleman from New England, who, after studying our institutions with much care, summed up his observations by the remark, "Chicago may well be proud of her judges and her architects."

The club then sang "The Boys of the C. A. S. C.," another production from the poetic pen of "Williamson's brother."

Architect W. L. B. Jenney responded to the toast, "The World's Fair." Of course, according to the speaker, the fair will be held in Chicago, and be in its extent, architectural features and attendance, the greatest success the world has ever seen. In the different designs for some phenomenal construction, from a tower to a gigantic jumping jack, that would "jump" people from the seaboard or from Denver, Mr. Jenney saw alarming signs of an epidemic of inflammation of the inventive organs. In the serated circumference of the world's fair stamp he saw an emblem of the "buzz-saw" character of the Chicago world's fair idea, and the danger to anyone who might "monkey" with it.

Mr. Lorado Taft, the sculptor, responded to the toast, "The Relation of Sculpture to Architecture," in a well chosen and comprehensive address. The first architect that Mr. Taft ever met was Professor N. Clifford Ricker, of Champaign University, and spoke highly of that gentleman's architectural learning and artistic instincts.

Mr. George Beaumont, at the request of the president, sang "She Comes in all Her Loveliness." Mr. Beaumont has a rich, mellow, and, for a man, most sympathetic voice, and his singing is always appreciated by the club.

"A Contractor's Knowledge of Architecture" was the toast responded to by that brilliant member of the Chicago Builders' Exchange, Mr. J. G. McCarthy. The text spoken to was the lines from Longfellow:

> "In the elder days of art,
> Builders wrought with greatest care
> Each minute and unseen part;
> For the gods see everywhere."

Mr. McCarthy thought that a well-organized god might be a valuable adjunct to every architect's office.

Mr. D. G. Phimister gave a recitation, after which the toast "The Architect's Lot, Past and Present," was responded to by Mr. Fritz Wagner, of the North-Western Terra Cotta Company, in a poem which was startling in plot and original in conception to a degree that "brought down the house." The plot was Dantean in flavor, and opened in heaven, the devil complaining thus:

> "You are well aware that sheol
> Is now getting rather crowded,
> And the roasting apparatus
> Never was in perfect shape.
> It will do for rare or medium,
> But for well done and for crisp,
> There is hardly left one kettle
> That resists sufficient heat."

His satanic majesty does not seem to get the advice he wished, and leaving in a rage, thus continues:

> "Down on earth I knew a fellow
> Whom they call an architect.
> He is great on all inventions,
> He will help me out, I hope.
> Then he changed his form and habit,
> And quite modestly appeared
> At the door of Cenna Vecchio,
> And explained to him his case.
>
> Cenna was a humble artist,
> Who in study passed his life,
> Dwelt far from the real
> In the quiet realm of art."

It seems that from Vecchio he obtained some valuable hints regarding the manufacture of terra-cotta, and the cooking apparatus was at last a success. The curse which the presumption of Vecchio drew down upon himself for this is, perhaps, intended to explain the origin of many of the ills that the architect is heir to.

> "Cursed be he for all times,
> In his soul the burning longing
> For the highest shall remain.
> Ever searching shall he wander
> Through the world, but search in vain.
> And from numberless vexations
> He, surrounded, shall despair.
> Thousand troubles he encounter
> To detract him from his aim.
> Party walls, specifications,
> Building permits, iron beams,
> Dynamos and ventilators,
> Elevators, smoky flues,
> Careless masons, bad contractors,
> Cranky owners, reckless men,
> Lien laws, city ordinances,
> Plumbing fixtures, poor foundation,
> Lady clients, competitions,
> Shall absorb his precious time,
> And whenever inspiration
> In his soul's aspiring throng
> Has approached real beauty,
> There shall ever be a miser
> Who, with mourning voice, regret
> That in spite of all designing
> He could hardly pay the price,
> And to keep within the limits
> He must change and cut it down.
> Thus his lordship. And to finish,
> I beg simply to remark,
> If in spite of all vexation
> On your duties' future path
> You should win the precious laurel,
> It will be through perseverance
> And devotion of your heart,
> For your life is narrow bounded—
> Ever-endless is your art."

Mr. James John, secretary of the Builders' Exchange, was toasted, and responded with some pertinent remarks.

"The Architectural Press" was responded to by Mr. R. C. McLean. Mr. C. B. Schaefer rendered a piano solo, and Mr. W. B. Mundie, the president-elect, made appropriate remarks regarding his predecessor, and speaking of the future, said he would ever encourage advancement and a progressive active membership. Paying dues and attending meetings did not constitute the full duty of members. The syllabus for the coming year would be arranged by the club, and each competition arranged for must be entered into by every member. He spoke in favor of simple subjects, and few lines in their rendition. In regard to sketching from nature, it was a mistaken notion that the club was a school. It had been in its purposes and work rather a recreative organization, but in future the usefulness of the club would be extended if the truss constructor and the picture maker could join hands to their mutual benefit.

The evening ended happily with many songs and stories by the club members.

Personal.

H. W. CULBERTSON, a young man of exceptional ability in the line of newspaper work, has started a monthly journal, entitled *Domestic Engineering*, devoted to plumbing, lighting, heating and ventilating, with offices in the Rookery Building, Chicago. Mr. Culbertson is well known and liked by the architects and draftsmen of Chicago, and in the line of work which he has adopted, he has been a reliable and painstaking journalist for many years. The first number of his journal is all that could be expected, and it is sure to grow into a valuable exponent of sanitary affairs.

THE *Engineering and Building Record*, of New York, says in its issue of October 19, 1889: "The *Engineering and Building Record* appears in a colored cover this week, and is enlarged by the four pages which the cover makes. The improvement has been under consideration for a considerable time, and as the current volume closes with the last issue for November, it seemed best to make it now. The getting of a cover which should at once be distinctive in color and meet all the other requirements was no easy task, and the reader is left to judge of the result finally reached."

The Cincinnati Architectural Sketch Club.

THE reception that marked the opening of the national exhibit of architectural drawings in Pike's Opera House, on the evening of November 19, was attended by several hundred citizens of Cincinnati, as well as the visiting architects. The reception was entirely informal, and the evening was spent in conversation upon subjects suggested by the superb collection of drawings, and inspecting and criticising the many masterpieces of the draftsman's pen and brush. About 9 o'clock, Mr. George W. Rapp called the assembly to such order as the circumstances would permit, and introduced Mr. Hunt, of Cincinnati, who, in well chosen words, welcomed the architects to the city.

Mr. Rapp then introduced Mr. John W. Root, of Chicago, who, after thanking Mr Hunt for his cordial words of welcome to the visiting architects, made some remarks, in which he expressed his pleasure at seeing so fine a display of professional delineation as displayed upon the walls. Mr. Root, after stating that he supposed that there was considerable curiosity in the minds of those present regarding what the convention proposed doing, and that he would enlighten them by outlining what might be termed a c (ode), read the following:

CODE FOR THE GUIDANCE OF PERSONS PRACTICING THE PROFESSION OF ARCHITECTURE IN THE UNITED STATES.

This code is promulgated primarily for the instruction of members of the American Association of Architects; but since this body, with its large membership and influence, has become so largely representative of the continent, it is hoped that the code will be generally followed.

The code divides itself into three general sections, each of which embraces three articles. Section I relates to conditions of membership; Section II to rules of practice; and Section III to relations between members.

Under the first section are the following articles: 1, Definition of the term "Architect;" 2, Form of application for membership to the Institute; 3, Form of election of the applicant.

The second section embraces the following three articles: 1, The relations of the architect to his clients; 2, His relation to his contractors; 3, His relation to his draftsmen.

Under the third section come articles touching: 1, Competitions; 2, Unconscious assimilation; 3, Confraternity.

SECTION I.

An architect is a person who is either addicted to the habitual or occasional making of plans and designs for a house or houses; or, who pays at regular or irregular intervals a draftsman or draftsmen to make for him the said plans and designs. To explain:

Taking such houses as we often see, one would be enough to make its designer (the architect) wish to go off and die; or, again, the architect may make many designs and plans for one house, or he may also build many houses from one design (of course he does not, but he might).

To return to this article. But in the latter case (the employment of draftsmen, etc.) it must be generally known that the architect can read and write; can spell words of one syllable; that he does not say "cornish" and "archeetrave" (for this is not right). He must also know which is the business end of a pair of dividers and of a bow compass. He must not rub out pencil marks with a wet finger, but must use india rubber.

ART. 2. The form of application for membership shall be as follows:

I (John Jones), a practicing architect, hereby apply for membership in the American Institute of Architects. I refer to the contractors who have executed work under my charge, whose names are herewith given, and whose sworn certificates of my general good intent are inclosed. I also inclose perspective drawings of three buildings which I designed.

ART. 3. Upon receipt of this application the board of directors shall inquire, first, if he knows or has given his true name; second, how often he has been "seen" by the contractors mentioned, and what is their experience as to the cash value of his certificates. They shall carefully examine the perspective drawings submitted. If the designs prove to be made from a building commonly accredited to some other architect, then, if they fail to find, in all or one of the designs submitted, any variation from such original, they shall request the applicant in writing to point out to the board what variations there may be, and, if any variations do exist, they shall by ballot elect the applicant to full membership.

SECTION II.—RULES OF PRACTICE.

ARTICLE 1.—*Relations of Architects to Clients.*—It is the architect's duty to suitably impress his client. He must therefore tell what he has done; and if within five years of the time he has been employed as draftsman for another architect, he should claim as his own all the best work of his late employer. He should advise his client that nothing but the latest style of architecture should be used in building his house. He should also congratulate the client that he did not go to architects like Jones or Smith, who pretend to design houses in the latest style, but whose designs are marked at once by ignorance, vulgarity and utter impracticability. He should lament the decadence in the present of that refinement in design which to him is so essential. He should promise his client that he will himself visit the house twice per day during its construction, and will employ, as a clerk of the works, a competent superintendent at a salary of $3,000 per annum. He must give him a round tower on the corner, an inglenook, a stair balcony and a copper bay.

ART. 2.—*As to Contractors.*—Be firm and severe with them. Remember, however, what a blighting thing it is to lose faith in the inherent goodness of human nature. Ask the contractor, one week, if on the preceding week he fully complied with a clause of the specifications touching a part of the work now concealed. If he says "yes," believe him; if he says "no," reprove him gently, and ask if the omission was not more because of forgetfulness than malice. Never accept money nor commissions from a contractor unless you know him to be perfectly honest and disinterested, or unless he assures you that he offers the money because he loves you, and not with the desire to take advantage of you.

ART. 3.—*As to Draftsmen.*—Be friendly even jocose with him, and remember that if he have a truly artistic nature he will be above care for vulgar questions of more or less salary, or its more or less prompt payment. Make him see all the fussy old-womanish clients who bore you to death. Give him a "rough sketch," which looks to him like an incoherent freak of nature, and when he has "rendered" it, say you can't understand why he cannot catch the spirit of the original, and that you don't know where the profession is going to, on account of the ignorance of the draftsmen. Give him work enough for three days and tell him you want it next afternoon. Five years after he has left your office and has made a brilliant success for himself, always refer to him as a "pupil of mine."

SECTION III.—RELATION BETWEEN MEMBERS.

ARTICLE 1.—*Competitions.*—When you compete, compete, remembering that all's fair in love and war. The essence of a competition should be commissions, and your charges for your services, should your designs be accepted, should always be plainly set forth. Always see the persons on the committee having the competition in charge, especially about the time plans are opened. Be careful not to overestimate the cost of the proposed building.

ART. 2.—*Assimilation is All Right if Unconscious.*—When an architect has designed and erected a building the design becomes public property. And, as it rarely happens that a design is so good that it cannot be bettered, it is right that its betterment should be undertaken. If the original designer weighed three hundred pounds (intellectually) and his follower a pound or so less, so much more reason for the attempted improvement, since the effort will throw upon the general subject of "strains" a most interesting light.

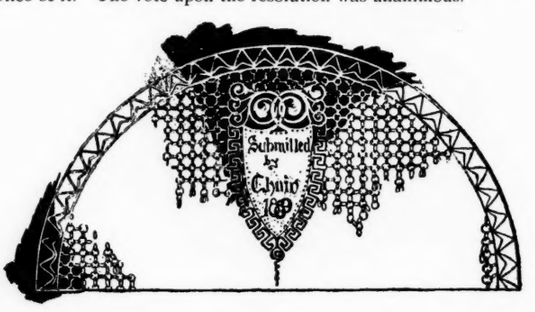
ART. 3.—*Confraternity.*—Love your neighbor as yourself, but bear in mind that architects are rarely neighbors. Always speak well of each other. A pleasant word will always charm; such as "Oh! he does no designing himself, his draftsmen do that"; or, "He got that job for two per cent"; or, "Before I'd stoop to such means to get work I'd go shoemaking." Such things warm your own heart and help to keep active all the gentler amenities of the profession.

But brief mention can be here made of this the greatest exhibit of architectural work this country has ever seen. The American Institute of Architects in convention passed a resolution of approbation, and the architects spent hours out of convention in examining the drawings. The hall was draped in flags and arranged with antique furniture, which, with the hanging of the almost one thousand drawings, was in charge of Messrs. Elzner, Heister, Winkleman, Chaney and Moorman, and while ably assisted by President Field and Secretary Zettel, and others, the work is a lasting credit to their taste, and its success some compensation for the two nights, as well as the many days, spent in its accomplishment.

The clubs represented by drawings and sketches were as follows: St. Paul Architectural Club, eleven; Detroit Architectural Club, eleven; Columbus Architectural Sketch Club, sixteen; Rochester Architectural Sketch Club, forty-six; Chicago Architectural Sketch Club, one hundred and forty; the T Square Club, Philadelphia, fourteen; Boston Architectural Club, thirty-two; the P. C. A. I. A. 2 T Square Club, nine; Cincinnati Architectural Club, fifty-four.

The largest number from any one club was from that of Chicago, and while almost their entire exhibit seemed to be water-color sketches, a close inspection showed that over one-half were architectural subjects. A feature of the exhibit was the very handsomely printed catalogue, the frontispiece of a supplementary issue of which heads this article.

A resolution complimentary to the club was passed by the Institute convention, Mr. Alfred Stone, the mover, stating that he introduced this as a vote of thanks to the club who had decorated the opera house so beautifully and had been so successful in obtaining the choicest collection of sketches and architectural drawings that probably had ever been got together in this country, and it seemed to him eminently proper that the convention should take some official notice of it. The vote upon the resolution was unanimous.



Semicircular Wrought Iron Grille
By J. Zettel: Sec'y C.A.C.

A Toronto Competition.

THE award of the plans for the Confederation Life Insurance Company's new building, says the Toronto *Globe*, has been made to Messrs. Knox & Elliott, of this city. The company's prize of $500 for the best unsuccessful plans was given to Messrs. James & James, of New York; the second prize of $400 to Mr. James Balfour, A. R. C. A., Hamilton, and the third prize of $300 to Mr. Alfred Flockton, Montreal. The exhaustive report and recommendations of the referee, Mr. John W. Hopkins, of Montreal, were received by the manager, Mr. J. K. Macdonald, a week ago last Monday. The board of directors met a week ago yesterday and confirmed the findings of Mr. Hopkins in every particular. There were eighteen sets of plans entered in the competition, and the success of Messrs. Knox & Elliott was a surprise to everyone concerned. The members of the firm have an admirable record in Chicago, but only started in business in Toronto a short time ago, and were almost unknown. This stroke will at once put them in the first rank of architects. The firm also put in plans for the new Board of Trade Building, but so little merit was seen in them that they were never in the running. Now, however, in this last competition Mr. Hopkins reports them — and the board sustains him — very distinctly leading the same architects that a few months ago beat them out of sight. The limit of cost for the new building was placed at $300,000, and Mr. Hopkins figures that the successful plans will cost $296,300.

The plans show a building in the French Gothic style of architecture. It will be of red sandstone and terra-cotta pressed brick. It will extend from Yonge to Victoria streets, with a frontage of 60 feet on Yonge street and 100 feet on Victoria. It will be five stories high, with a basement on the ground level and a sub-basement underneath, making a total elevation of seven stories. There will be towers at each street corner, and in the center on Richmond street a tower will rise 200 feet. The Yonge street frontage, it is expected, will be devoted to stores, and the company's offices will take up all the remainder of the ground floor.

Efflorescence.

Editors Inland Architect:

The vexed question of stopping the exuding of salts upon the face of pressed brick, it appears by recent articles and letters in architectural publications, has arrived at no nearer a satisfactory solution than the airing of so many experiments and failures.

Among these are the dipping of the brick in hot tar except the side to be exposed, placing tar-paper between the pressed brick and the common with which it is backed up, mixing oils and acids in the mortar used in laying them up, and also applying a coat of linseed oil on the face of the bricks after they are set. So far, however, these and other experiments have proved failures.

We all know, chemically, what this white efflorescence is that defaces our buildings and gives pressed brick a bad name, soda, potash and magnesia; and as long as bricks are made from clay submitted to the action of heat, so long will the presence of these acids be found in brick. Submit one side of a brick to moisture, atmospheric action, and varied temperature, and sooner or later these salts or acids will be drawn to the exposed surface. There is, however, according to an English contemporary, a successful and satisfactory remedy. It is an application made on the wall, which, while it leaves the texture of the brick unimpaired, protects it from the action of the atmosphere and weather, and through which the salts cannot penetrate. This new remedy (new to this country) is called "Duresco." The exact analysis of this material is not known but it is claimed that it is a pure silica, which is indestructible, except by hydrofluoric acid. It is probably nothing more than a mixture in certain proportions of finely ground sand and caustic potassa boiled together for a certain length of time. The mixture then diluted with water, and the potassa evaporated by muriatic acid. This leaves a pure soluble silica, which can be reduced to working consistency by the addition of (hot) water, but which, when once evaporated to dryness must remain forever insoluble. Its application is perfectly simple, being made with ordinary distemper brushes like whitewash. A two-coat application insures entire success, while the cost is about the same as lead paint.

Duresco has another use for which it cannot be too highly recommended, and that is for the interior walls and ceilings of hospitals, especially where infectious diseases are treated. Its non-absorbent qualities alone need be considered.

Yours truly, CHARLES H. BEBB.

[The above letter calls attention to an excellent material that has been used in this country to a greater extent than seems to be known to the writer, but the material has such undoubted merit that the letter is published in full.— EDITORS INLAND ARCHITECT.]

ARCHITECT CHARLES H. LEE, formerly of Des Moines, Iowa, is practicing at Denver, with offices at 59 Barth Block. He will be glad to receive trade catalogues, etc., for his library.

Association Notes.

CHICAGO BUILDERS' AND TRADERS' EXCHANGE.

At a recent meeting of the Board of Directors of the Chicago Builders' and Traders' Exchange, the following members of the Exchange were elected delegates and alternates to represent the Exchange at the fourth annual convention of the National Association of Builders to be held in St. Paul, Minnesota, on January 27, 1890:

Delegates.	*Alternates.*
D. V. Purington,	E. Earnshaw,
George Tapper,	Walter T. Clark,
W. H. Iliff,	M. Benner,
J. W. Murray,	P. B. Wight,
M. B. Madden,	E. F. Gobel,
Francois Blair,	W. H. Alsip,
James A. Miller,	B. J. Moore,
Robt. Vierling,	Geo. A. Gindele,
H. J. Milligan,	W. O'Brien,
Chas. A. Moses,	A. R. Gray,
Thos. Moulding,	John F. Barney,
Joseph Eastman.	James John.

George C. Prussing, delegate at large.

Mr. Purington was elected chairman of the delegation, and delegates will be duly advised of any meetings that may be called for the purpose of consultation with the delegate at large, or for the purpose of taking such action as may be deemed necessary for the government of the body at the convention.

CHICAGO ARCHITECTURAL SKETCH CLUB.

The annual exhibit of the Chicago Architectural Sketch Club will be given together with an informal reception to friends of members, and all draftsmen not members of the club or the club rooms in the Art Institute Building, Monday evening, December 16, at eight o'clock. A short informal programme and refreshments will be provided. The draftsmen of the city not members of the club are particularly invited to enjoy the club's hospitality. Owing to the absence of most of the club drawings at the National Exhibit at Cincinnati, the exhibit was not complete upon the official date, and this is supplementary to the exhibit made at that time. The following work has been outlined for the year:

SYLLABUS.

DATE.	SUBJECT.	NAME.
1889.		
Dec. 2.	Lantern Exhibit of Parisian Views	E. J. Wagner.
" 16.	Annual Exhibition.	
" 30.	Cuba by Lantern	E. J. Wagner.
1890.		
Jan. 13.	Rambles Through New Orleans	Arthur Heun.
" 27.	Open Debate on "Colonial Architecture."	
Feb. 10.	Artistic Metal Work	H. C. Frost.
Mch. 10.	Glimpse of a Sculptor's Studio Illustrated	Lorado Taft.
" 24.	Water Color Study Applied to Architecture	W. G. Williamson.
April 7.	The Factor of Safety	D. Adler.
" 14.	Architectural Design and Fireproof Construction	John W. Root.
" 21.	Graphic Analysis	J. R. Willett.
May 5.	Specifications	J. G. McCarthy.
" 19.	Essay	Irving K. Pond.
June 2.	Origin of Moldings	F. Wagner.
" 16.	The Practice of Architecture	D. H. Burnham.
" 30.	Lantern Exhibit	Mr. Morse.
July 14.	Sketching and Social Evening.	
" 28.	Drawing From Cast.	
Aug. 11.	Brush Drawing.	
" 25.	Designing in Pencil.	
Sept. 8.	Practical Ironwork	Paul Muller.
" 22.	History of Perspective	J. Beeckmann.
Oct. 6.	Steel in Building Construction	W. L. B. Jenney.
" 20.	Interior vs. Exterior	O. C. Christian.
Nov. 3.	Annual Business Meeting.	
" 17.	Annual Banquet and Exhibit.	

SUBJECTS FOR COMPETITION.

Jan. 13.	A Village "Smithy." Material and rendering optional.
Feb. 24.	Novelty for the World's Fair.
May 5.	Artist's House by the Sea, with an interior sketch of the studio arrangement. To be rendered in Sepia. The interior sketch may be in brown ink with pen rendering.
June 23.	Litch Gate for a Country Cemetery. Material to be stone and timber; pen and ink.
Aug. 4.	Essay, "Expression in Form." Limited to 900 words.
Sept. 1.	Rendering from Photo in Pen and Ink. Menu Card Design. The "Robert Clark Testimonial" gold and silver medal competition to be announced on August 1, closed on October 1.
Oct. 20.	A prize of any one of the monographs of "American Architecture," by the late H. H. Richardson, will be given for the one standing highest in club competitions for the year.

Every alternate Monday evening will be devoted to drawing, sketching, brushwork and designing.

THE DENVER SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.

The last regular meeting was called to order by President Nettleton, with fourteen members and two visitors present. Professor Ihlseng, of Golden, resigned, as he was unable to attend meeting. Mr. Follett resigned the offices of secretary and treasurer, as he is away from the city most of the time. Notice was given that the vacancy would be filled at the next regular meeting.

Mr. Jackson, architect, and now building inspector of Denver, read the larger portion of the new ordinance relating to the construction of buildings. The ordinance has now passed the council and is waiting the passage of the supervisors to become a law. It is quite voluminous and carefully gotten up. Among the main points covered are the division of the city into two fire districts, one covering the business portion of the city and the other the residence portion. Parties must defend their foundations to a depth of 10 feet 6 inches on property lines; foundations for residences must be at least 2 feet 6 inches deep. Ninety days is allowed for the use of one-third of the street in front of property; no business wall in blocks to end in less than 13 feet wall; no wooden posts in business blocks over 20 feet

high; all tenement houses, flats and stores to be provided with scuttle in roof, fastened inside, but not locked. The society indorsed the ordinance and recommended a new ordinance regulating the manufacture and quality of brick, as much poor brick is now being used. Adjourned.

BUFFALO ARCHITECTURAL SKETCH CLUB.

The annual meeting of the Buffalo Architectural Sketch Club was held on the evening of November 11, at their new rooms in the American Block. The following officers were elected for the ensuing year: President, W. L. Fuchs; vice-president, U. G. Orr; secretary, John T. Jackson; treasurer, L. A. Schugens.

Several new names which had been proposed were acted upon at this meeting, and their initiation sketches being accepted they were elected members.

The club was never in a more healthy condition than at present; the all-necessary enthusiasm reigns, and the work for the winter has begun with the usual vim of the club. The first competition of the new year will be a country stable, and promises to be one of the most interesting subjects yet given to the club.

THE DETROIT ARCHITECTURAL SKETCH CLUB.

The last competition of the Detroit Architectural Sketch Club, for a newel post, hand-rail and balustrade in hardwood, known as the "Scott Competition" (for the reason that Architect John Scott offered prizes to successful competitors), was awarded as follows: Richard Mildner, first; A. Kahn, second and Max Grylls, third.

The next competition will be for a set of hardware for a door, for which Messrs. Hopkins & Dickinson offer cash prizes of $15, $10 and $5.

At the next regular meeting the subject of drainage will be discussed.

ARKANSAS SOCIETY OF ENGINEERS, ARCHITECTS AND SURVEYORS.

The third annual meeting of this society was held at Little Rock, November 12 and 13, leading members of the several professions from all parts of the state being present, and many subjects of great interest to those professions in the state were discussed.

A paper on the "Mines and Minerals of Pulaski and Saline Counties" was read by R. D'Ailly; also papers by Messrs. H. G. Martin, on "The Rights, Duties and Responsibilities of Surveyors"; E. C. Buchanan on miscellaneous subjects, and Prof. Jay M. Whitham on "Hydraulic Rams," were listened to with great interest.

A description of a difficult resurvey of a fractional section by Mr. B. S. Wise and the discussion that ensued thereon between him and Messrs. J. A. Martin, H. G. Martin and I. M. Moore, shows the great value of an interchange of ideas and experiences in such matters, not only to the members but to the public in general.

On Wednesday evening Dr. John C. Branner delivered a lecture on "The Formation of our Mountains, Hills and Valleys," to which the society invited the public, which was well attended. At this meeting many new members were admitted, among whom were Mr. H. G. Kelly, principal assistant engineer of St. Louis, Arkansas & Texas Railway; F. S. Ingreasby, assistant engineer of the Arkansas & Northwestern Railway; Mr. Edwin Cook and Mr. Williams, of Pine Bluff; Mr. Dickerson, of Conway; Mr. Dean Adams, superintendent Pulaski Gaslight Company; Mr. J. W. Bixby, superintendent of the Arkansas Water Company, and Mr. W. R. Smith, of Arkadelphia.

It may not be out of place to give a short extract from the constitution of the society, showing how the membership is open to all interested in science, as well as to the practicing engineer, architect or surveyor. The clause on associate members reads:

> An associate shall be the manager of a railroad, canal or other public work; a geologist, chemist or mathematician; a proprietor or manager of a mine or metallurgical works; a builder or manufacturer; or one who, from his scientific acquirements or practical experience, has attained eminence in his special pursuit, qualifying him to coöperate with the members of this society in the advancement of professional knowledge; but shall not himself be practicing as an engineer, architect or surveyor.

The Hon. J. K. Jones, United States senator, was elected honorary member in return for the great interest he had manifested in the society.

This most successful meeting was brought to an appropriate close by a grand reception and banquet, which was tendered by the local committee with the kind assistance of the citizens of Little Rock, to the visiting members.

The officers elected for the ensuing year are W. P. Homan, president; Fred J. H. Rickon, corresponding secretary; Frank W. Gibb, recording secretary, and Theodore Hartman, treasurer; the first three forming the board of directors.

NORTHWESTERN ASSOCIATION OF MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

The annual meeting and banquet of the Northwestern Association of the Massachusetts Institute of Technology was held at the University Club, Chicago, December 7. About fifty members were present, Frederick Greely, president of the association for the last year, acting as toastmaster.

Among the invited guests were James L. Houghtaling of the Sheffield Scientific School; George Gibbs, mechanical engineer of the Chicago, Milwaukee & St. Paul railway, a graduate of the Stevens Institute of Hoboken, New Jersey, and Dr. H. H. Belfield, director of the Chicago Manual Training School and a graduate of the Iowa State University. Prof. Charles R. Cross, Thayer Professor of Physics, of Boston, was present as the representative of the faculty. Professor Cross called attention to the fact that the school, which was organized in 1864, and graduated its first class of fourteen members in 1868, had seventy-five men in its graduating class of 1889, and 262 in its present class of 1893.

A paper on the "Applications of Electricity" was read by L. A. Ferguson, of the class of 1888, and one on "Some Notable Chemical Industries," by W. H. Low, of the class of 1886. H. B. Stone, R. H. Pierce and Architect Henry Raeder, of Chicago, responded to toasts.

The following officers were elected for the ensuing year: President, T. W. Robinson, Milwaukee; first vice-president, H. B. Stone, of Chicago; second vice-president, Arthur Winslow, State Geologist of Missouri; secretary and treasurer, Solomon Sturges, of Chicago.

ILLINOIS STATE ASSOCIATION OF ARCHITECTS.

The adjourned meeting of the Illinois State Association was held on Monday, December 16, the election of officers held and consolidation of the Local Chapter and the State Association discussed. The officers were reëlected and a resolution was passed directing the Executive Committee to confer with the Executive Committee of the Chapter, with full discretionary power, to effect a plan for consolidation which will enable the final work to be done at the next meeting of the Association. The committee was directed to urge the adoption of the State Association constitution and by-laws and that the new organization be called the Illinois Chapter of the American Institute of Architects. The next monthly meeting will be January 20. The full minutes will be given in next issue.

Our Illustrations.

Detroit Business University building; Mason & Rice, architects.

Depot at Walkerville, Ont.; Mason & Rice, architects, Detroit, Mich.

Melrose Hall, Oak Lane, Pa.; Harrison Albright, architect, Philadelphia.

Residence for Mr. R. W. Hinds, Denver, Colo.; A. M. Stuckert, architect.

Church of the Redeemer, South Park, Chicago; Alfred Smith, architect.

Epworth M. E. Church, Edgewater, Chicago, F. B. Townsend, architect.

Residence for Grosse Pointe, Mich.; Mason & Rice, architects, Detroit, Mich.

Residence of Mr. H. W. Sibley, Rochester, N. Y.; James G. Cutler, architect.

PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

Residence of Mr. Frank M. Elliott, Evanston, Ill.; J. K. Cady, architect, Chicago.

Church of Society of St. Mary, Kansas City, Mo.; Halsey Wood, architect, Newark, N. J.

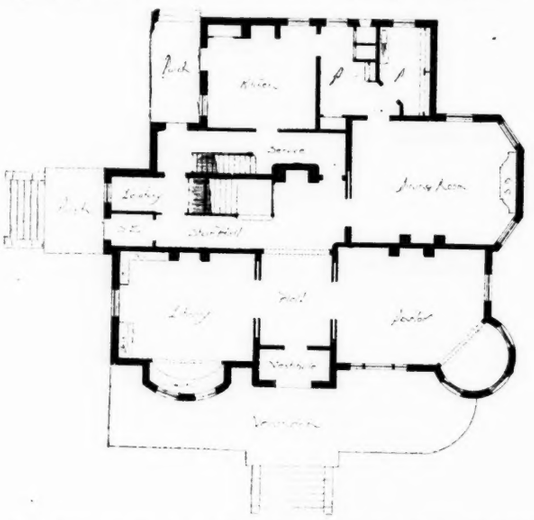
New England building, Kansas City, Mo.; Bradley, Winslow & Wetherell, architects, Boston.

Reception Hall in residence of Mr. A. T. Hubbard, Cleveland, Ohio; C. F. Schweinfurth, architect.

The New York Life Insurance Company's building, Kansas City, Mo.; McKim, Mead & White, architects, New York.

Residence of Mr. William H. Gratwick, Buffalo, N. Y.; H. H. Richardson, architect. It was the last commission received by Richardson, and was finished under the supervision of Shepley, Rutan & Coolidge, architects, Boston.

Residence of Mr. George W. Reed, Pittsburgh, Pa.; George S. Orth, architect. The house is built of gray sandstone, with slate roof, and is finished inside in hardwoods and varnished pine. The library, dining room and parlor furniture was made from special designs prepared by the architect. Below is principal floor plan.



Residence for Mr. R. N. Clark, Pittsburgh, Pa.; George S. Orth, architect. Built of a warm buffstone up to the second floor, above which it is covered with shingles dipped in Cabot's stain. The interior is finished in hardwoods in the first story and in varnished pine above.

New Publications.

THE *California Architect and Building News* comes to us for the month of September under new auspices. Being the official organ of the San Francisco Chapter of the A. I. A., the architects were not satisfied with its character, and so have taken hold of the helm themselves. The result is apparent in the enlargement and decided improvement of the letterpress matter, and it now gives evidence that it will be hereafter worthy of an enviable place in architectural journalism. We wish the new management all the success aspired for.

CARPENTERS' AND BUILDERS' ASSISTANT AND WOODWORKERS' GUIDE. By Lucius D. Gould. Sixth revised edition. New York, William T. Comstock. Price $2.50.

This work, as its title indicates, is of more value to the builder than to the architect, being intended to instruct workmen in the theory and art of construction; an object for which comparatively little has been written, which has proved of much practical value. Among other things it contains rules for springing and bending mouldings; mitering circular moldings, and planes oblique to the base at any point; a table showing the length of brace when the run is given, and *vice versa*; a system of stair building; a number of steel square problems; and a considerable amount of tabulated data and miscellaneous information—all of which is clearly and concisely written and illustrated by such plates as the author considered necessary for their explanation. While, perhaps, some of the things omitted are of as great importance as those stated, the work was probably not designed to be a complete book of reference, but a collection of rules and data for the solution of daily recurring problems met with by a builder, to whom the work will prove extremely useful.

ACADEMY ARCHITECTURE AND ANNUAL ARCHITECTURAL REVIEW, 1889. Edited by Alexander Koch and C. W. English, architects. William Mueller, 695 Broadway, publisher of American edition. Price $2.50.

The scope and purpose of this periodical are clearly indicated by the title page, which announces its contents as, first, "A selection of the most prominent architectural drawings hung at the Royal Academy Exhibition," and, second, "A review of interesting architectural subjects carried out or designed during the last few years." Of the hundred pages of this first issue about half are devoted to illustrations of the work of the immediate past,—the greater portion English, but with a slight sprinkling of recent Austrian work. The other half is devoted to a reproduction of drawings and water colors exhibited at the Academy, and takes a much wider sweep, including works old and new, at home and abroad. In general the workmanship on the plates is excellent; there is a good index to names of architects and artists, and the selection of subjects is varied and interesting, representing exteriors, interiors and sculptures. Among the architects represented are Waterhouse, Blomfield, Norman Shaw and other equally well-known names. Among the half-dozen designs by Messrs. Ernest George and Peto are several country houses, extremely happy designs, which invite a comparison with the best of the recent American work in this line. And even though our unlike conditions may not lead us to work in a similar vein in country or city houses, yet there is often more real inspiration to be found in fresh, good work in a different field than in work produced under identical conditions, wherein the very similarity rather tends to promote sameness. The contrast with first-class work for the same purpose under different conditions has rather a tendency to stimulate thought, and sometimes to suggest fresh modes; or, again, to impress us anew with the value of an older form of which we had for a time lost sight. The book is well worth publishing, and will be worth more than its cost to any American architect.

TREATISE ON MASONRY CONSTRUCTION. By Ira O. Baker, Professor of Civil Engineering, University of Illinois. New York: John Wiley & Sons.

The author states in his preface that the book in its present form has grown out of notes of his lectures before his classes and that thus it has been written and arranged primarily for engineering and architectural students; that the object has been to develop principles and methods and to give such examples as illustrate them, rather than to accumulate details or to describe individual structures; that no theories have been urged that have not been verified by experiment and experience; that a large part of the matter is new and that no existing work had covered any considerable part of the field. The scope of the book will be seen from a brief survey of the contents. The four main divisions are entitled respectively: materials, preparing and using materials, foundations, masonry structures. Among headings of chapters occur the titles: natural stone, brick, lime and cement, mortar and concrete, stonecutting, stone masonry, brick masonry ordinary foundations, pile foundations, foundations under water, retaining walls, masonry arches, etc. Diagrams, illustrations and tables are numerous and well adapted to their purposes. The style, though somewhat diffuse and easy-going, is usually clear and free from ambiguity. The author's methods are much more satisfactory to the ordinary hurried practitioner than are Rankine's ponderous formulas imbedded in a text bristling with signs and symbols. Doubtless the student and the practitioner have equal occasional need of signs, symbols and formulas; but it is pleasing for the purpose of reference to be able to find facts and results stated in quickly comprehended terms; and this, in general, is true of the work before us. The table of contents, index and lists of plates and tables, and the frequent cross-referencees in the text especially adapt the book for use as a hand-book for ready reference, and make it useful to the architect as well as the student. In some cases the author is rather peremptory in his condemnation of methods, which, for various reasons, may be used to advantage in some places. No great harm, however, is likely to be done by a rigid insistence on only the very best methods. As a whole the book is one of the most satisfactory of its class, will be found useful to architects and draftsmen, and is well worthy of publication, creditable alike to the author and to the school with which he is connected.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, December 10, 1889.

The strongest features at the present writing, in the commercial and manufacturing world, is the extraordinary demand for all kinds of manufactured products. The second interesting feature is the well-sustained demand for house, shop, factory and mill room capacity and facilities. Another favorable feature is the maintenance of an abundant supply of money to facilitate exchanges. The country never entered upon a winter season with more encouraging prospects. Prices are well sustained. Business is being done at a fair though small margin. Combinations to compass great profits are coming to grief. Trade associations designed to regulate trade interests to the advantage of all are holding together, and are establishing a healthy equality between production and demand. New enterprises are multiplying rapidly in all sections of the country and in all channels of activity. Money continues to flow without abatement into all avenues where it is needed. Bankruptcies are comparatively few in number. Business men are becoming more proficient in calculating what the country wants, and economic advantages are being reached which are helping to widen the area of demand. The iron and steel manufacturers are crowded for crude and finished products as never before. The makers of machinery, large and small, of tools and equipments, of electrical devices, of rolling stock and locomotive power, are all oversold from two to four months. The volume of traffic is estimated at twenty-five per cent greater than last year, and the earnings of upward of one hundred railroads at twelve to thirteen per cent in excess of corresponding dates last year. Rates of interest are abnormally high, but financiers think the distribution of the crops will permit a relaxation of excessive rates. There are no dangerous symptoms in the situation. Business men are for the most part keeping clear of debt. Buyers are careful and sellers are keeping in sight of their obligations. Builders have been pleased at the results of ten months' work and they do not, at present, apprehend any falling off in next year's work. Labor is contemplating a movement looking to a reduction of the hours of labor to eight per day, but, fortunately, conservative councils are employed and no rash course is, from present indications, likely to be taken. Reports from manufacturing centers, north and south, show a very healthy condition of business. A vast addition has been made to shop capacity and this expansion is likely to continue. It is even asserted that existing productive capacity in many directions is not likely to long remain equal to demand, but this is, perhaps, a groundless apprehension. True wisdom will seek to maintain the existing healthy balance as long as possible. The newer sections which enterprise, capital and labor are opening up will help to expand the markets for manufactured products, and to widen the area of opportunity for all kinds of legitimate enterprise.

Synopsis of Building News.

Albany, Ga.—Architects Bruce & Morgan, Atlanta: For Mr. Walter Muse, residence; cost $30,000.

Atlanta, Ga.—Architects Bruce & Morgan have prepared plans for the Confederate Veterans' Home; cost $25,000. For Judge J. L. Hopkins, two cottages; cost $5,000. For Mr. J. T. Hollman, a frame residence; cost $7,000.

Architect L. B. Wheeler, for Mr. Don Bain, residence; cost $4,500.

Buffalo, N. Y.—Architects Green & Wicks have drawn plans for the new First Presbyterian Church, to cost $125,000.

Chicago, Ill.—Architect J. A. Miller: For M. J. Anderson, three dwellings; cost $10,000. Collinsville pressed brick and Bedford stone fronts. For D. F. Anderson, ten dwellings, to cost $35,000. Collinsville pressed brick and Bedford stone fronts.

Architect D. S. Pentecost: For M. E. Harold, a three-story store and flat building, $8,000. St. Louis pressed brick and Michigan green buff sandstone; bathrooms, closets, stained glass. For A. Moss, a two-story frame dwelling at Melrose.

Architects Bell & Swift are now ready to receive estimates for warehouse to be built at East St. Louis for the McCormick Harvesting Machine Company. The same architects are getting out plans for a hotel; six-story, to contain sixty rooms, steam heat, elevators, electric light, etc.

Architect John Otter is making plans for a four-story store and flat building, to cost $7,000, for Mrs. M. Isakson. Pressed brick and stone front, galvanized iron bay, bathrooms, closets, stained glass.

Architect E. F. Wilcox: For Henry Richards, a two-story frame residence; cost $7,000; at Bellaire, Mich. Furnace, mantels, bathroom, closets, stained glass; making plans. For H. L. Van de Walker, a two-story frame dwelling, at South Englewood; furnace, mantels, stained glass; cost $5,000.

Architects Fred Baumann & J. K. Cady: For E. O. Russell, a four-story block of stores and flats, size 108 by 111 feet, to cost $75,000; Anderson pressed brick and terra-cotta, with copper bays.

Architect C. C. Miller: For J. P. Ketcham & Bro., two handsome blue Bedford stone front residences, to cost $40,000; steam heat, and all the improvements. Mason work will be done by Joseph Downey of 159 La Salle street.

Architect C. F. Whittlesey has just let contract for mason work for the Fourth Baptist Church to be erected at 137 to 145 Ashland avenue, to Barney & Rodatz of the Lakeside Building; Portage variegated stone front and two sides; the foundation only will be put in this year.

Architect C. M. Palmer just finished plans for residence: Bedford stone front; furnace, etc.; on Forty-third and Lake avenue, for J. E. Quincy. Also preparing plans for a block of stores and flats, 250 feet front by 125 feet; Anderson pressed brick and Bedford stone; cost about $300,000.

Architects Lutken & Thisslen: For G. T. Stoneham, a three-story store and flat building, $5,000; Anderson pressed brick and Portage stone; bathroom, closets, stained glass; making plans. For Mr. Hoban, a three-story store and flat building, $6,000; bathroom, closets, stained glass; making plans.

Architects Flanders & Zimmerman: For Miller & Chamberlain, a four-story store and apartment building; cost $60,000; St. Louis pressed brick and Bedford stone.

Architect H. P. Harned: For A. G. Leonard & Co., of Chicago, a two-story factory at De Kalb, to cost $25,000; steam heat, electric light, etc.

Architect J. F. Warner: For the Calumet Distilling Company, a one-story warehouse; cost $10,000; taking figures. For Mrs. Rowan, a two-story flat building; cost $10,000; St. Louis pressed brick and Bedford stone front, mantels, bathrooms, closets, stained glass.

Architect Thomas Wing: For Geo. F. Phegley, a residence, to cost $6,000; Bedford stone front.

Architects H. Raeder & Co.: For C. P. Mitchell, four dwellings, to cost $20,000; pressed brick and stone fronts.

Architect O. W. Marble: For Geo. C. Watts, five residences, to cost $60,000; stone fronts, hot-water heating, marble work, stained, plate and beveled glass; preparing plans. For I. S. Smith, a residence, to cost $12,000; blue Bedford stone

front; furnace, stained, plate and beveled glass, etc.; making plans. Also getting out plans for a block of four handsome dwellings to be erected on Vincennes avenue near Forty-fourth street; St. Louis pressed brick and Bedford stone; furnaces, mantels, stained, plate and beveled glass, etc.; cost $25,000.

Architects Schaub & Berlin: For J. W. Thorp, a two-story frame residence; cost $5,000; furnace, mantels, stained glass, etc.

Architect W. Ackerman: For Rev. James A. Murray, at Evansville, Wis., a two-story frame dwelling; cost $5,000; furnace, mantels, stained glass.

Architects Thiel & Lang: For John Block, a two-story livery stable; cost $10,000. For Ernst Bushner, a two-story flat building; cost $5,000; St. Louis pressed brick and Bedford stone, bathroom, closet, stained glass. For H. Johns, a two-story flat building; St. Louis pressed brick and Lemont stone.

Architect Perley Hale: For Allan McCullough, a two-story residence, Bedford stone front, copper bay window, furnace, etc.; cost $7,000. Also making plans for a three-story store and flat building, 73 by 68 feet, to be built on Seventy-ninth street, stone front.

Architect Alfred Smith: Just let contracts for residence for S. R. Moore, Bayfield, brownstone front; cost $15,000.

Architect E. E. Snyder: For H. Duston & Sons, a six-story factory; cost $25,000; pressed brick and stone front, steam heat, electric light, elevator.

Architect Julius Speyer: For James McMullen, a three-store and warehouse, 75 by 125 feet; cost $20,000; St. Louis pressed brick and Bedford stone front.

Architect F. L. Fry: For Mrs. Cook, two dwellings; cost $6,500; Meyerberg pressed brick and stone.

Architect H. S. Villere: For H. R. Buchanan, double residence; cost $7,000; Anderson pressed brick and Bedford stone front, furnaces, mantels, etc. For Wm. Humason, fourteen two-story flat buildings, to cost $5,200 each; Anderson pressed brick fronts.

J. W. Scoville and others will build a four-story hotel, to cost about $80,000, at Oak Park; pressed brick and stone front, steam heat, elevator, etc. The architect has not been selected yet.

Architect S. V. Shipman: A six-story warehouse, to cost $25,000, at 264 Clinton street. Mason work by N. Cameron & Son.

Architects Sprague & Newell: For the Colorado Coal Mine Company, a five-story hotel, 250 by 120 feet, to cost about $200,000; to be erected at Pueblo, Colo; Manitou red sandstone front, steam heat, two elevators, marble floors and vestibules, electric light, etc.; preparing plans. For Charles Kichimer, a four-story store and office building, 44 by 140 feet, to cost $50,000, at Pueblo, Colo.; red Manitou sandstone front, steam heat, elevator, marble work, electric light; making plans. For Thurlow & Williams, at Pueblo, a four-story hotel, 75 by 140 feet, to cost $75,000; pressed brick and stone front, elevator, electric light, steam heat, marble work; getting out plans. For addition to Southern Hotel at Pueblo; just got out drawings; elevator, new plumbing, etc. For J. W. Purdy, at Pueblo, a two-story residence, pressed brick first story and shingles second; furnace, mantels, stained glass, etc.; just completed plans. For Dr. Oliver, at Thornton, Ill., a two-story frame residence; cost $5,000; furnace, mantels, stained glass, etc.; finishing plans. For Dr. Richard, Forty-second and Drexel boulevard, a two-story residence, pressed brick and stone first story and shingles second. For N. F. Nickerson, a four-story warehouse, 70 by 100 feet; to cost $15,000; steam heat, elevator, etc.: letting contracts.

Architect L. B. Dixon: For F. Siegel, a three-story residence, to cost $25,000; St. Lawrence marble front, hot water heating, marble vestibules, paneled ceilings, mosaic floors, elevator, dumb waiter, etc.; taking estimates.

Architects Ostling Brothers: For C. Carlson, a four-story flat building; cost $20,000; Bedford stone front, furnace, elevator, bathrooms, closets; making plans.

Architect J. J. Kouhn: For Howard & Berwin, a five-story flat building, size 85 by 150 feet, to cost $175,000; St. Louis pressed brick and Bedford stone front; mason contract let to J. W. Hersey.

Architects Fromman & Jebson: For Frochling & Heppe, residence to be made into a flat building, at 394 La Salle avenue; cost $10,000; Bedford stone front, bathrooms, closets, etc. For William Schick, a two-story residence, 28 by 50 feet; cost $8,000; Euclid gray stone front, furnace, mantels, etc.

Architect J. C. Zarbell: For Glenn Farm, Town of Bloom Industrial School building, 119 by 100 feet, two stories, common brick, steam heat, mantels, stained glass, bathrooms, closets, etc. A two-story schoolhouse, 50 by 78 feet. Three dwellings, two stories, 42 by 48 feet each. The whole to cost $45,000; letting contracts.

Architects Flanders & Zimmerman: For L. Silvermann, a five-story warehouse, 100 by 100 feet; cost $40,000; pressed brick and stone front. For Mr. Hardin, a three-story and flat building, 24 by 152 feet; cost $10,000; stone front.

Architect Oliver W. Marble: For himself, seven handsome dwellings, to cost $35,000; furnaces, wood mantels, bathrooms, plate, beveled and stained glass, pressed brick and stone fronts; estimates are now being received.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall:

The city is at present in the midst of what might be termed a "triangle conclave," for there are architects in front of you, architects at the right of you, and architects at the left of you. But unlike the charge of the "six hundred," they are bent upon a peaceful mission of good will and fraternity. The report that architects are scal(e)y fellows is, in a measure, true, and yet wrong, for a more gentlemanly convention never assembled in our city, entirely free from creed or politics.

Sharing the honors for courteousness, enterprise, and glory is our Cincinnati Architectural Club, which so successfully inaugurated the beautiful, instructive, and artistic exhibition of architectural drawings, so complete in all its details, a clear interpretation of the wise saying about the acorn and the oak.

Old Pike's Opera House has been the scene of many lyric, dramatic and social triumphs, but this exhibition will lower its colors to none, and from the stimulus thus received our club is bound to "go on conquering and to conquer." The C. A. C's members, "cacks" jocosely called, have proved themselves unworthy of that base libel, but worthy to take their stand among men. A detailed account of the works of art does not come within the province of this article.

Mr. James W. McLaughlin was the successful competitor in the Young Men's Christian Association competition, the design and plan showing that "his hand has not lost its cunning, or his eye its brightness."

All the drawings submitted showed *careful* thought in design and detail, and the unsuccessful architects have no reason to feel discouraged or ashamed of their work.

The gleaning of news in convention times is an arduous matter, but the following will, I hope, prove beneficial to advertisers.

Architect W. W. Franklin reports, among other plans, the below mentioned:

For Mr. Hubert Ferguson, a frame and slate residence, two and a half-stories, twelve rooms, pine finish, slate roof, wood mantels, stained glass, plumbing, etc.; cost $3,500. For Michael Kane, a stone residence of about twelve rooms, hardwood finish, wood mantels, stained glass, slate roof, electric work, plumbing, etc.; cost $10,000. For R. C. Price, a brick residence, ten rooms, pine finish, slate roof, wood mantels, stained glass, electric work, etc.; cost $9,500. For Julius Wilhelmsdorfer, a double frame house, with pine finish, slate roof, electric bells, wood mantels, stained glass, etc.; cost $6,500.

Architect W. Stanton Robinson reports a frame dwelling, with shingle roof, pine finish, wood mantels, etc., to cost $2,000; for V. Humbrecht, Terra Alta, Ohio.

Architect Adam J. Bast has prepared plans for two large store and flat buildings for Mr. Geo. Muhlhauser, city. They will be very complete, of pressed brick, with stone trimmings, tin roof, and architectural iron fronts, etc.; cost about $80,000.

Wm. Schuberth, Jr., has prepared plans for a seven-story, stone and iron front store building, for Wm. J. Fabian, Trustee, Chicago, Ill., 30 by 168 feet; cost $50,000.

Architect Emil G. Reuckert reports as follows: For Fred'k Achert, a brick residence, two and one-half-stories, electric bells, stained glass, furnace, slate roof, etc.; cost $9,000. August Henkel, a brick residence, two and one-half-stories, slate roof, electric bells, stained glass, etc.; cost $7,500. John H. Voss, a residence of similar description; cost $5,500.

Architect J. W. McLaughlin is busy on the plans for the Wayne County Court House at Richmond, Ind., to be of stone, three stories and tower, fireproof construction, elevators, steam heat, stained glass, furniture, etc.; cost $260,000. For Standard Publishing Company, a brick building, 50 by 80 feet, seven stories, of slow burning construction, hydraulic elevators; cost $25,000.

Denver, Colo.—Architects Lee & Liden: For the Rosenfeld Construction Company, terrace of nine houses, red sandstone; cost $60,000. For C. H. Rosenfeld, residence, pressed brick; cost $9,000. For E. J. Rosenfeld, pressed brick; cost $11,000. For The Elitch Gardens, a pavilion and theater building, frame, to seat 2,000 people; stage, 30 by 50 feet; cost $12,000.

Detroit, Mich.—The present condition and outlook for spring work are both good. There is a large increase in the permits this month over the same last year. There were 187 permits for new buildings issued during November, at an aggregated estimated value of $309,335, and thirty-two permits for alterations and additions at an aggregated value of $82,050, making a total of $391,385 for the month.

Architect J. V. Gearing: For Dr. H. C. Corus, four three-story dwellings, 108 by 40 feet, brick, with stone trimmings, slate and gravel roof; cost $10,000.

Architects Rogers & MacFarlane: For S. Robinson, two-story dwelling, 32 by 70 feet, brick, with stone trimmings; cost $6,000. For Mrs. A. Holmes, three-story store and dwelling, 20 by 60 feet, brick, with stone trimmings, gravel roof; cost $6,000.

Architect G. W. Lloyd: For Sidney D. Miller, three-story double dwelling, 48 by 100 feet, brick, with stone trimmings, slate roof; cost $17,000.

Architects Scott, Kamper & Scott: For Peninsular Car Company, one-story shop, 100 by 380 feet, brick, with stone trimmings, gravel roof; cost $6,000. For Hodges Bros., two-story addition to office block, 72 by 83 feet; cost $35,000.

Architect A. C. Varney: For Chas. Baxter, a two-story double dwelling, 54 by 67 feet, brick, with stone trimmings, slate roof; cost $10,000.

Architect A. E. French: For Mrs. Sampson, two blocks of two-story stores, brick and stone, gravel roof; cost $7,200, and a three-story planing mill, 67 by 91 feet, brick and gravel roof; cost $5,000.

Architects Donaldson & Meier: For Farrand & Votey Organ Company, three-story addition to factory, 44 by 150 feet, brick, gravel roof; cost $15,000.

Architects' names not reported: For Chicago Beef Company, two-story warehouse, 44 by 104, brick, gravel roof; cost $9,000. For the City of Detroit, a two-story sanitary crematory building, 66 by 166 feet, brick, gravel roof; cost $1,000. For Hugh S. Peoples, four two-story stores, 80 by 50 feet, brick and stone, gravel roof; cost $14,000. For Jeremiah Connor, two two-story dwellings, 24 by 45 feet, frame, shingle roof; cost $5,600. For R. J. Wilson, two-story dwelling, 36 by 58 feet, brick and stone, slate roof; cost $7,000. For The Michigan Wire and Iron Works, 28 by 28 feet, ten-story dry tower, brick, gravel roof; cost $5,500. For Wm. Luitze, six two-story dwellings, 20 by 56 feet, frame, slate roof; cost $10,800.

Dubuque, Iowa.—Architects T. Heer & Son report the present outlook for spring work is very promising. For Dubuque Packing and Provision Company, one-story packing house, 100 by 255; cost $15,000. For Dubuque Butchers Association, packing house addition; cost $7,000. For Sisters of St. Francis' Convent, addition, three stories, brick and stone trimmings, 44 by 120; cost $20,000. For Electric Light Company, a three-story brick building, 50 by 90 feet; cost $6,000. For the Duluth Cith Hall, improvements, vaults, etc.; cost $5,000.

Freeport, Ill.—Architect G. S. Mansfield: For St. Mary's Parish, church, 60 by 120 feet, brick and stone; cost $25,000.

Gothamburg, Neb.—Architects Foster & Schoule, Kearney: For W. H. Van Volkenburg, hotel, with all modern conveniences; cost $13,000.

Graceville, Minn.—Architects Herman Kretz & Co., St. Paul: Catholic church; cost $12,000.

Kansas City, Mo.—Architect W. F. Schrage: For R. H. La Moyne, four-story apartment house, 120 by 64 feet, brick with stone foundations and trimmings; cost $69,000.

Architect A. B. Cross: For Thos. Carpenter, residence, 22 by 40 feet, two stories, pressed brick and stone; cost $9,000.

Architect E. F. Owles: For Miss M. J. Neumaw, residence, 30 by 32 feet, two stories, brick and stone; cost $5,000.

Architect L. Levering: For J. P. Ryan, dwelling, 22 by 37 feet, two-story brick and stone; cost $9,000.

Architect A. Van Brunt: For J. A. Hays, residence, 35 by 47 feet, two-story brick and stone, slate roof; cost $6,000.

Little Rock, Ark.—Architects Orlopp & Kuesner: For M. A. Orlopp, Jr., a frame residence; cost $3,000. Also Pulaski County Hospital; cost $30,000.

Architect F. J. H. Ruben: For Fred Kramer, two stores, 50 by 140 feet, two stories, brick; $25,000.

Architect Thos. Harding: For Z. Ward, three brick residences; $10,000. For J. Katzenstein, brick residence, two stories; $10,000. For C. M. Butler, brick residence; $10,000.

Louisville, Ky.—Architect J. S. Frazer: For the Chesapeake, Ohio & Southwestern Railway Company, union depot; cost $500,000.

Manitou, Colo.—Architects Lee & Liden: For Mr. Frank J. M. Smith, a club house, frame, one-story and attic, to cost $10,500.

Milwaukee, Wis.—Architect H. P. Schnetzey: For the Blatz Brewing Company, offices, 60 by 54 feet, three stories; cost $25,000.

Minneapolis, Minn.—The following permits were issued during the month of November:

F. T. Dahl, two-story frame dwelling, $5,000; St. Mary's Hospital, two and one-half-story brick addition, $15,000; Mohn & Townsend, two double two-story frame dwellings, $9,000; D. E. Jones, five two-story frame dwellings, $23,500; H. B. Wood and W. W. Morse, six-story brick warehouse, $51,000; Henry Parsons, two-story frame dwelling, $5,500; C. C. Whitney, two and one-half-story frame dwelling $5,500; F. E. Sprague, alterations in building, $1,600; A. J. Blethen and Century Investment Company, foundation, office building, $7,500; F. G. McMillan, two-story frame dwelling, $1,000; State University of Minnesota, three-story brick and stone chemical and physical laboratory buildings and three-story brick and stone law school, and boiler and engine house, $150,000; C. Marchessault, brick wholesale building, $10,500; N. & V. Cambell, brick wholesale building, $10,000; R. P. Russell, brick commission store, $6,000; P. J. Tostevin, dwelling, $3,000; Standard Oil Company, brick barn, $3,050; John F. Peterson, dwelling, $5,900; J. E. Hare, seven dwellings, $16,400; M. L. Gable, dwelling, $7,000; Mary Dahl, foundation, $1,000; A. Friel, dwelling, $6,000; L. Groff, dwelling, $10,000; H. G. Darrow, dwelling, $4,000; A. F. Shearer, dwelling, $3,500; Chas. Peterson, dwelling, $3,000; Erick Lund, brick veneer block of dwellings, $30,000; Jacob Barge, dwelling, $10,000.

Pittsburgh, Pa.—Architect W. S. Fraser: For Chas. A. Wolff, a brick two-story and attic dwelling; cost $9,700.

Architect J. W. Offerman is preparing plans for four brick residences for Ed House, Jr.

San Francisco, Cal.—Architect H. Fielfuss: For Louis Deiser, a three-story frame building; cost $6,000.

Architects Acton & Stone: For R. R. Hurd, four-story frame building; cost $12,000.

Architects Percy & Hamilton: For Mrs. M. M. Latson, three two-story houses; cost $15,000. For Academy of Sciences, building, to cost $19,400.

Architect Samuel Newsom: For Mrs. Rose Radgesky, residence; cost $10,000.

Architect P. R. Schmidt: For D. Block & Co., two-story factory building; cost $15,000.

Architects Pisses & Moore: For Mrs. Bertha Greznberg, a frame residence; cost $6,200.

Architect F. T. Doolan: For T. Doolan, three-story frame building; cost $17,000.

Architect J. H. Dittlefield: For the Concordia Club, modern building, elevators, electric lighting, etc.; cost $14,000.

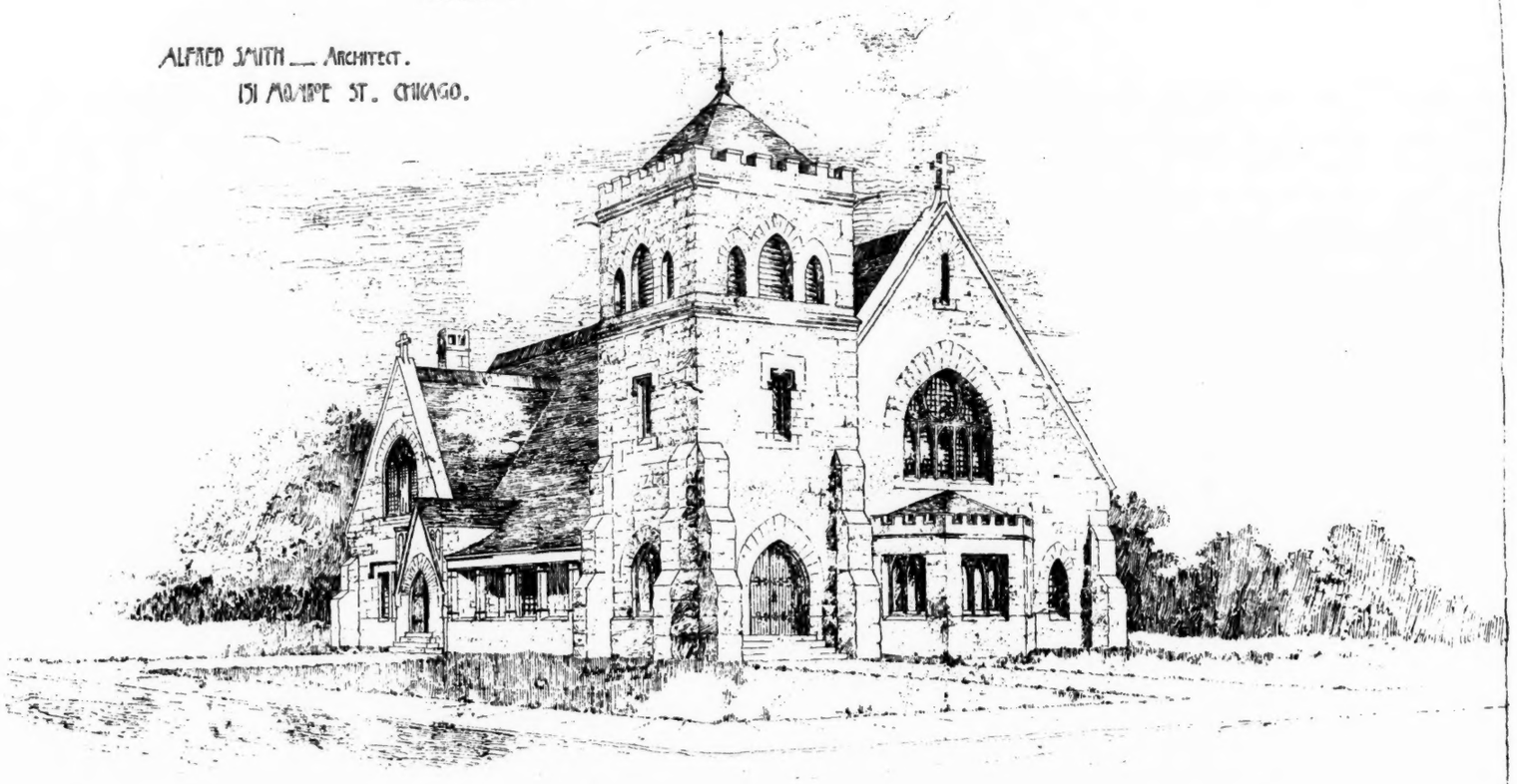
Sheffield, Ala.—Architects Bruce & Morgan, Atlanta, Ga., have plans for Dr. A. G. Haygood's new residence; cost about $500,000.

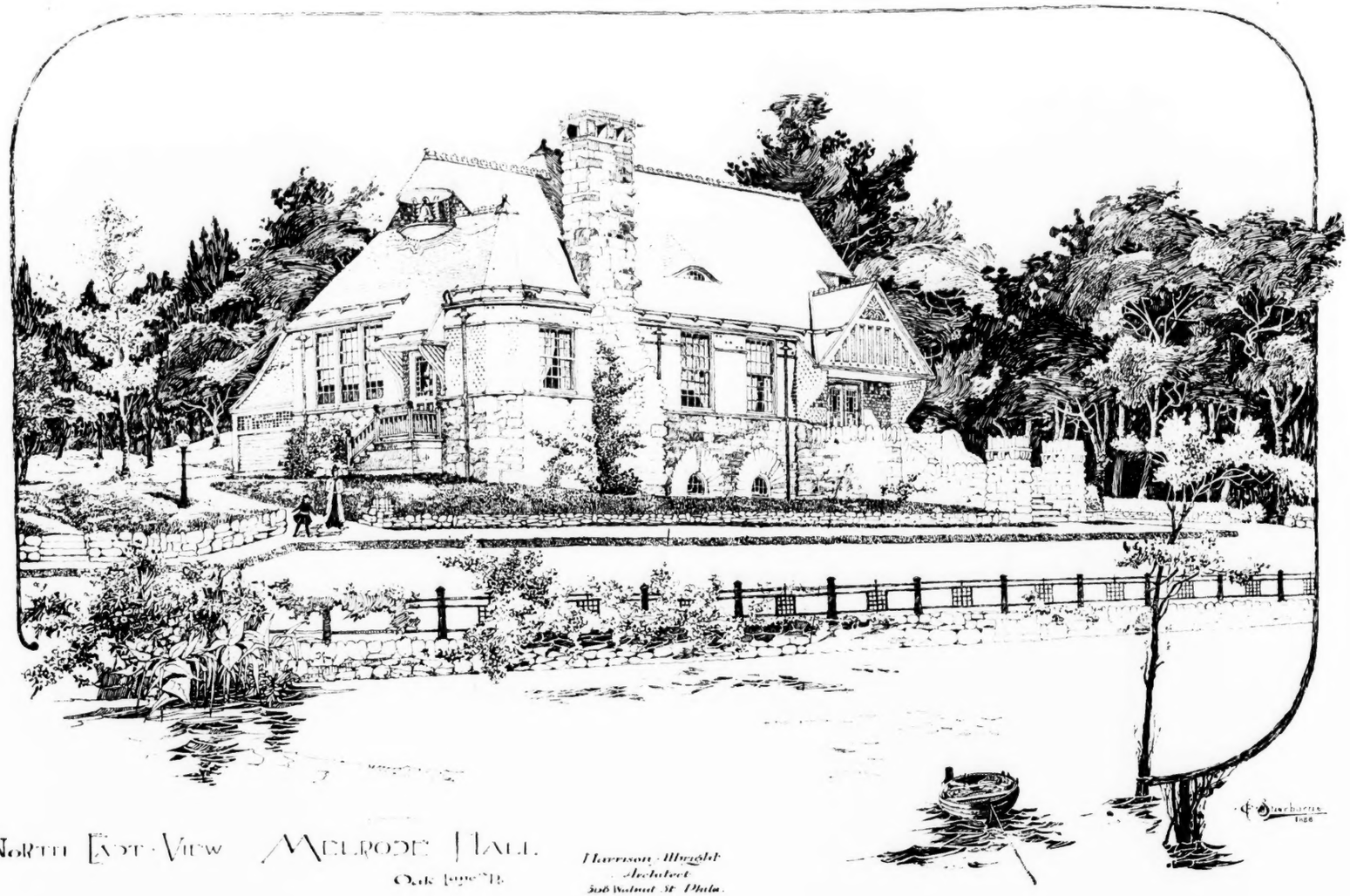
Spencer, Iowa.—Architects T. Heer & Son: For A. Koch, store and office building, 21 by 90 feet; cost $6,000.

Tomahawk, Wis.—Architects E. V. Koch & Co.: For the Tomahawk Opera Company, opera house building, 54 by 150 feet, electric light and iron beams; cost $20,000. Also a hotel, three-story; cost $25,000.

CHURCH OF THE REDEEMER.
SOUTH PARK CHICAGO.

ALFRED SMITH — ARCHITECT.
151 MONROE ST. CHICAGO.



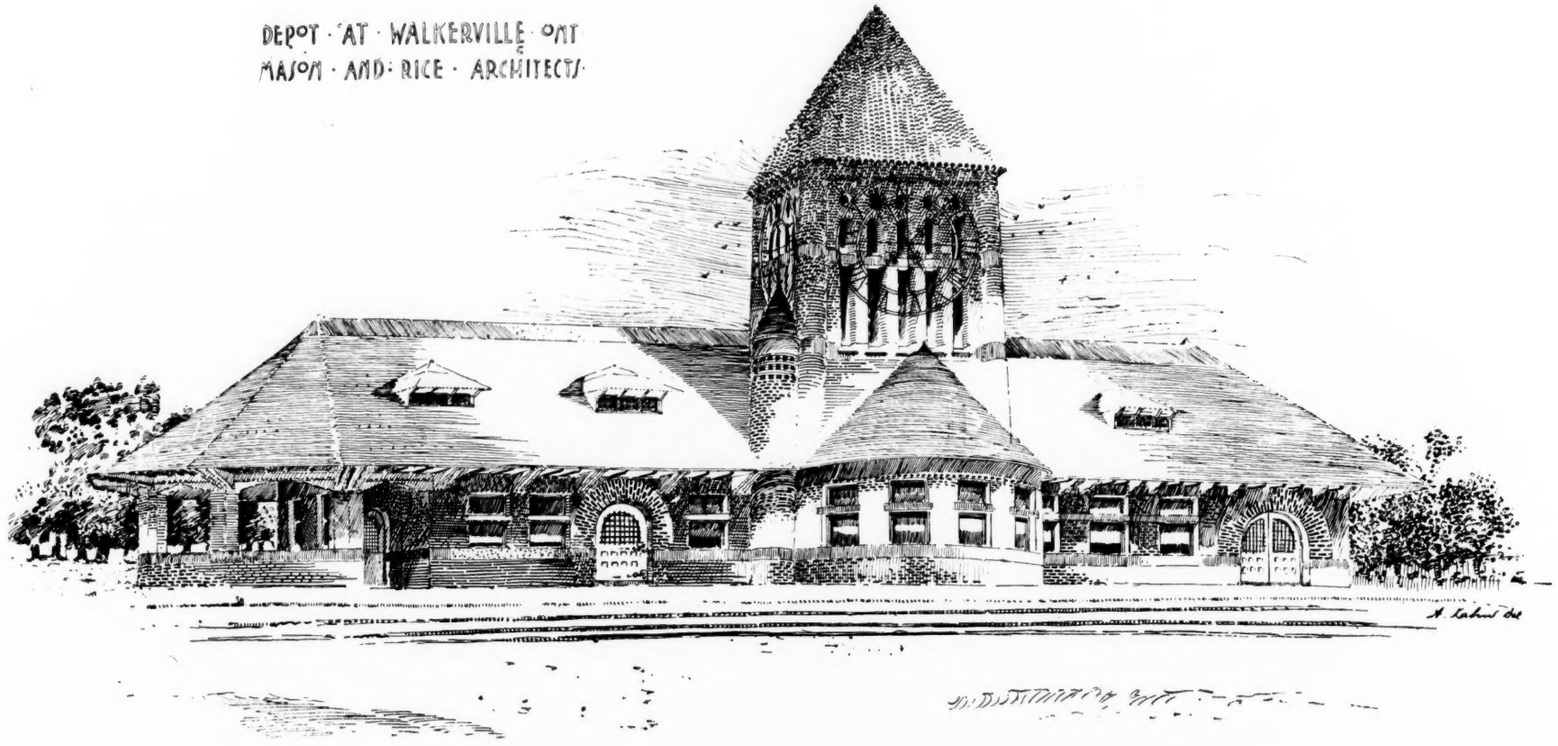


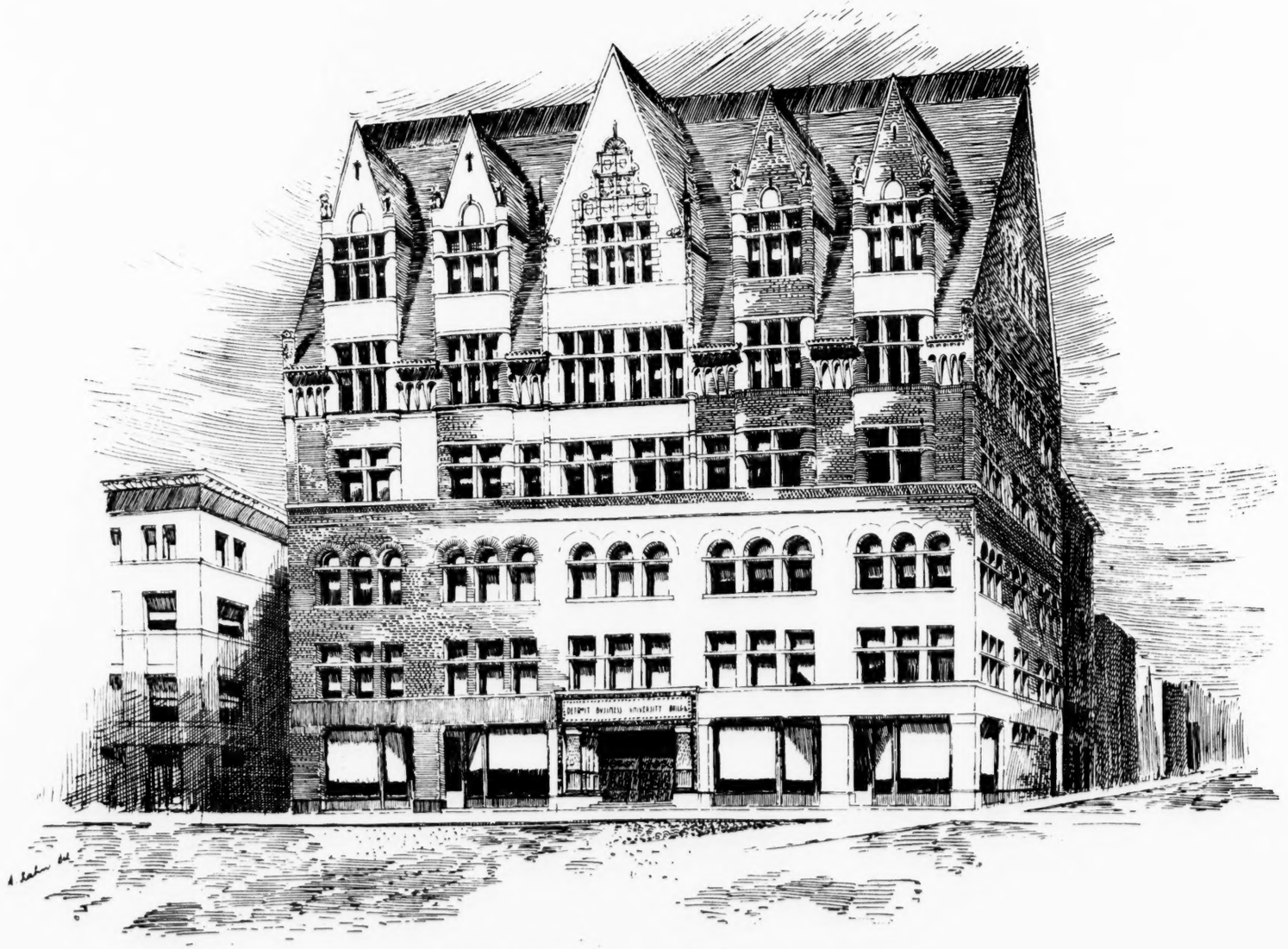
NORTH EAST VIEW MELRODE HALL
Oak Lane P.O.

Harrison Wright
Architect
508 Walnut St. Phila.

· RESIDENCE · FOR · GROSSE · POINTE · MICH ·
MASON · & · RICE · ARCH'TS · DETROIT · MICH ·

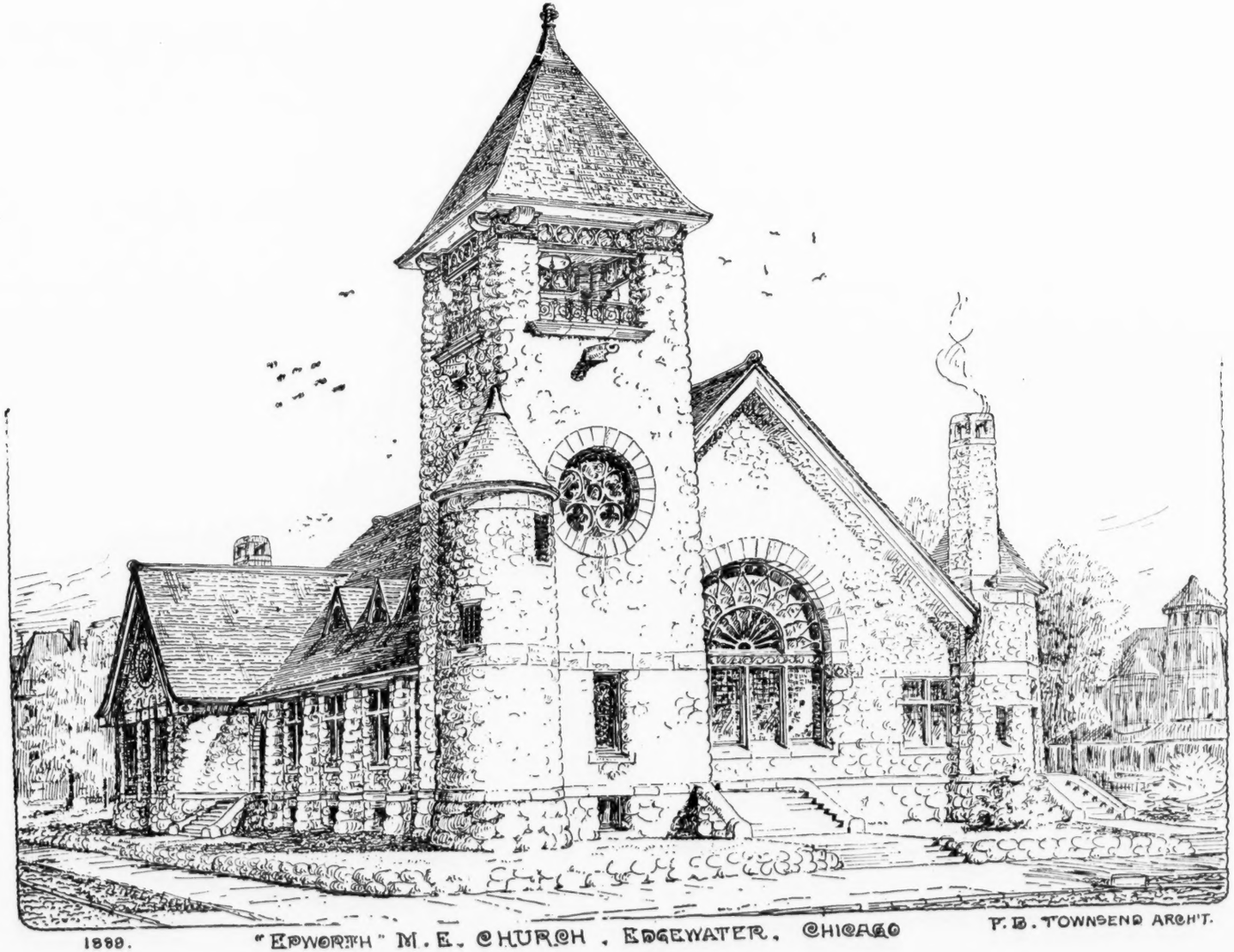
DEPOT · AT · WALKERVILLE · ONT
MASON · AND · RICE · ARCHITECTS ·





DETROIT BUSINESS UNIVERSITY BUILDING.

MASON & RICE, ARCHITECTS.



1888. "EPWORTH" M. E. CHURCH, EDGEWATER, CHICAGO P. B. TOWNSEND ARCH'T.

RESIDENCE FOR H. W. SIBLEY, ROCHESTER, N. Y.

JAMES G. CUTLER, ARCHITECT.


Residence for H. W. Mertz Esqr.
Denver, Colorado
J. M. Huckert.
Architect Denver Col.