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NOTE.—The term of office of members of the above standing committees terminates in January, 1891.

Chicago Art Institute Architectural Classes.

As a result of the first year of the architectural classes at the Art Institute, the work of which may be considered experimental, it was determined to relinquish the evening classes, and to concentrate attention upon the day school. It was found that while the evening classes were largely attended by draftsmen in the early part of the year, the mathematical course had proved too laborious for men who work hard all day. It was evident that the progressive studies could not be made successful in the evening classes, since only the most resolute men would pursue geometry, descriptive geometry and higher mathematics without interruption. The hope of an architectural school, if there is to be such a thing in Chicago, is in those students who can give undivided attention to their studies. The first term of the second year opened Monday, September 29, and the instruction will cover the elements of architecture, namely, the study of drawing, architectural orders and designing, mathematics, perspective, construction, etc. The art school of the Art Institute was greatly crowded last year, and the accommodation for the architectural class proved insufficient. This year this defect is remedied, excellent class rooms being allotted to this department. Mr. Millet is the principal instructor, and Messrs. Otis, Jenney, Root, Pond, Burnham, Ewen and other practicing architects, lecturers.

World's Columbian Exposition Matters.

In another month the Committee on Buildings and Grounds of the Columbian Exposition will probably have decided definitely upon the number, size and apportioned cost of the buildings to be erected, all of which must, of course, be done before architects can begin the work of designing. We have not given space in these columns, nor do we intend to, to rumors regarding the work of the committee. Sixty or six hundred acres, for instance, may be filled on the lake front, and three or thirteen buildings erected thereon. When contracts are let for any portion of the work we will announce it, or when designs for buildings are adopted we will publish them. The latest important move made by the committee in this direction since the appointment of the consulting architects was the recommendation of the appointment of a chief of construction, who was appointed by the Board of Directors at its last meeting, November 9, under the following resolution:

Resolved, That the Committee on Grounds and Buildings is hereby authorized and directed to appoint Daniel H. Burnham chief of construction at a salary of \$12,000 per annum.

The appointment of Mr. Burnham to this office does not in any way alter his position as one of the two consulting architects, his duties as chief of construction being defined as follows:

He shall have general charge of the construction of buildings, supervision of the designs therefor, the preparation of the grounds and the engineering incident to a proper prosecution of the entire work; also have supervision of the buildings erected by outside parties, of the maintenance of all buildings belonging to the exposition company, and shall examine all bids and proposals for work under his control and recommend to the committee for approval such plans as commend themselves to his judgment. He shall organize, subject to the approval of the committee, bureaus of architecture, engineering, landscape gardening, sanitation, etc., and shall be given, subject to the approval of the committee, authority to hire and dismiss all employes in his department and fix the compensation for their services. He shall report to the committee from time to time the progress of the work, and shall perform such other duties as the committee may assign to him.

Mr. Henry G. Marquand, of New York, has been mentioned for the position of art director. If Mr. Marquand

can be induced to undertake the work, the success of the art department of the exposition is assured, as he is probably the peer of all art authorities in this country, with a reputation abroad that would be in itself a guarantee to art exhibitors in every foreign country. The next meeting of the directory will be November 18, by which date the sub-committees will be able to make definite reports.

The Art Departments of the World's Fair. Since the above was written the directory passed the following important resolution, which will become operative upon the approval of the Committee on Buildings and Grounds of the National Commission:

WHEREAS, It is understood by the state and city authorities, as well as by the citizens of Chicago generally, that in locating the exposition part should be placed on the Lake Front; and

WHEREAS, It is believed that such an occupancy by a portion of the exposition will be most conducive to its great and permanent success; now, therefore,

Resolved, That it is the sense of this Board of Directors that there should be located upon the Lake Front these items of the Exposition:

1. The Art Exhibit building, which shall contain all oil paintings, water colors, engravings and statuary that shall be exhibited at the World's Columbian Exposition.

2. The Decorative Art building, which shall contain all jewelry, diamonds, watches, gold and silver ornaments, clocks, bronzes, embroideries, tapestries, rugs, Persian carpets, china, bric-a-brac, gold and silver ware, and all other articles intended for the decoration of the person, table or house that shall be exhibited at the World's Columbian exposition.

3. The building in which shall be displayed the exhibit of electrical appliances and devices.

4. Government departmental exhibits, including exhibits from the State Department, Treasury Department, War Department, Navy Department, Interior Department, Postoffice Department, Department of Justice, Smithsonian Institution and National Museum, and Fish and Fisheries Department.

5. Musical Hall.

6. The Water Palace, if any.

7. A portion of certain miniature villages and settlements of curious nationalities, such as Indian, Egyptian, Persian, Central African, Chinese, Japanese, Armenian, Russian and others.

8. An Aquarium building.

9. An electric fountain and other exhibits analogous to the foregoing, or supplementary thereto, and necessary to make the Lake Front exhibition equal in interest and attractiveness to the other portions of the fair.

Resolved, That a special committee of four, of which the president shall be chairman, be appointed by the chair to present this resolution to the Grounds and Buildings Committee of the United States Commission, with the view of securing its concurrence in the premises.

It will be noticed that this is directly in line with the general plan as outlined in these columns months ago, and while the number and perhaps the purpose of one or two of the seven buildings recommended may be altered at the suggestion of the advisory committee to which it is referred, the general plan of placing the fine art and industrial art buildings on the Lake Front will be carried out. In regard to the designing of the different structures, it is still too soon to speak definitely, a matter to which we refer because of the many letters of inquiry we are receiving, full information regarding which will probably be given in our next issue.

Recognition of Draftsmen by World's Fair Directors. It has been suggested that the Chicago Architectural Sketch Club be recognized by the World's Fair directors by the institution of a competition among its members for some of the gates, entrances, or other minor details. This would be a graceful compliment upon the part of these gentlemen. The club ranks highest in numbers and skill among the sketch clubs of the country; they are enthusiastic, and many of them stand in the front rank of draftsmanship, as the last two competitions of the New York Architectural League, in which members of this club took the silver medal, will evidence. We would propose that the sketch club present a memorial to the Committee on Buildings and Grounds embodying this proposition. As the honor is more sought than any pecuniary benefit, the details could easily be arranged. The competition need not be confined to

club members alone, but it could be adjudicated by the regular committee on club competitions, one of which is a consulting architect for the World's Fair. It is not too soon for action to be taken, and we feel, if the request is properly made, that it will be favorably entertained.

World's Fair Architectural Exhibit Again.

Our suggestion that a separate department, if not a special building, be provided by the Columbian Exposition for the exhibit of architectural and engineering drawings and models meets with the following response from a correspondent, Mr. J. J. Murphy, who writes to the *Chicago Tribune* from Edinburgh, Scotland. He says:

I think a separate unique building should be devoted entirely to a display of the models of all the famous buildings and bridges of the world—the Taj of Agra, British India; St. Peter's, Rome; House of Parliament; the Winter Palace, St. Petersburg; St. Sophia's Mosque, Constantinople; Colosseum, Rome, etc., and such bridges as the Forth Bridge, London Bridge, the Rialto and the Bridge of Sighs, Venice; the Bridge of the Holy Trinity, Florence, and Trajan's Bridge over the Danube. The expense of making these models need not be great, as the different American consuls in the various parts of the world could be communicated with, and through them the work could be done by local architects, care of course being taken to use the same scale of measurement throughout. The external design and proportions of the great cathedrals of the world might also be reproduced in miniature. I believe an exposition of this kind would prove an instructive, impressive and gratifying spectacle to our people, and would find a fitting place in an exhibition designed to gather together the beauties and wonders of the universe. How few there are who will ever have the chance of seeing all, or even a few, of these architectural triumphs scattered over the globe, but there is a splendid opportunity of placing them in miniature before the eyes of every visitor to the Chicago World's Fair. A Temple of Architecture is therefore what I would propose as a valuable and useful attraction to the great show.

The importance of a great architectural exhibit as proposed is enhanced by the fact that the buildings, whether temporary or permanent, will be illustrative of American architecture of the period as certainly as those of Chicago are, and it is fitting that the present phases of architecture and engineering of other nations should be shown as far as possible. Placed in the hands of a special sub-committee, an immense display of models and drawings could be collected, and the exhibit would form a connecting link between art and science as illustrated in the exposition.

Death of A. B. Mullet and the Chicago Postoffice.

It is singular that at the time Mr. A. B. Mullet, formerly supervising architect of the Treasury department, died at Washington, October 20, another Washington architect, Mr. Adolph Cluss, under orders from the Treasury department, was in Chicago inspecting the postoffice, which had been mainly designed and erected by Mr. Mullet, and was reported in imminent danger of general collapse. While it is probable that Mr. Cluss will report in favor of the demolition of the present building and the erection of another, it is no reflection on Mr. Mullet, who, while not a great architect, built according to the best knowledge of Chicago soil and foundations obtainable at the time. It is not often that one of the heaviest buildings in the country becomes a comparative ruin during the lifetime of its architect.

A World's Fair Historical Architectural Exhibit.

An historical exhibit for the Columbian Exposition of all the "habitations of man," as found on this western continent, would be exceedingly interesting. A reproduction of the dwellings of all the American races, Toltec, Aztec, Mound Builders, Cliff Dwellers, etc., and chronologically following down to the tepee of the Indian and the log house of the early settler, would show how this country had an architecture when the world was young that rivaled some of the works of these latter days.

A Talk on Architectural Style.*

BY IRVING K. POND, C. E., ARCHITECT.

I WISH to talk for a little while on a subject which must be in the minds, more or less, of all who care for beautiful expression of thought, especially as the expression of which I am to speak is through visible and permanent media, and being ever before our eyes ever appeals, sensibly or insensibly, to our esthetic natures. I have a dim sort of an idea of the depth of thought with which a mind like Hegel's would surround this theme, and I can imagine rather vividly with what sentiment and passion Ruskin would endow it. To speak modestly, I am not content to be contained within the limits of either of these eminent gentlemen, and I hope to leave the impression that architecture is more than just philosophy or poetry, but that the philosophical and the poetical elements are so blended as to make a direct appeal to refined, sensitive, self-contained humanity—that is, to civilized man.

I presume architecture as an art antedates the other arts—whether it is the beginning of philosophy I hardly dare to say. Architecture began with man's need of shelter. That this need first arose in the breast of the philosopher, is a question which must be answered in the negative, if the breed of philosophers has not been affected greatly by the workings of evolution's law (as it is fair to presume it has not); for the philosopher always has been a man to receive in unbroken equanimity the visitations of the gods, whether good or evil; who has calmly bared his head to the storm; who generally cared not (or knew not) enough to come in when it rained. Hence the need of shelter could not have been felt first by him.

But the art of architecture, that is, building with the direct purpose of giving pleasure by beautiful forms, did touch men, and then they began to philosophize about it, and the more deeply they thought the more potently did the art unfold its charms. It may be said, to the credit of the philosophers, perhaps, more than to the artists themselves, that they were the first to view art in its correct relationship to the needs of the soul. That was good to the philosopher which gave him a clearer insight into truth and a firmer grasp on the laws which governed the universe. The philosopher never said, "Now, I like that: (consequently) That is good." But he says, "That is good; it gives me a view of things I never had before." Thus that which gives no evidence of inspiration governed by law, is evil to the philosopher. Now to the true artist it is much the same, and he never judges a work from the standpoint of mere whim—of personal like and dislike—but to him, that is good which suggests new motives and impulses; that which adds to but does not duplicate the literature of art; in other words, that which helps him to penetrate farther into the blue heavens of art, and to see suns heretofore unseen to him. I doubt if there is one of us who has not heard the remark, "I don't know anything about art, but I know what I like." What is the equivalent of this in the moral world? "I don't know good from bad, but I know my own sweet will." That sentiment put into practice in the moral world lands one in jail, and in the esthetic world it leads to judgments just as severe. It is in your place and in my place to know about art, or to say nothing about it. It is in your place and my place to know the right from the wrong of every matter with which we have to do, and if one can judge from the joy he experiences when he has learned one good thing at its true value, there can be no hotter hell than the final realization that through life one might have "known" if he had cared less for what he "liked."

No system can exist and remain in permanent operation which does not have law as a base. This is so in our social and political fabric, and none the less so in the esthetic world. Socialism wants everything to be based on law and wants law to be everything. Red flag anarchy wants no law, but rather an absolutely free play of individual selfishness. A reasonable being can readily perceive to what the fulfillment of either of these ideas would lead us in the realm of art; in the first place, a cold mechanical formalism, a fit subject for the speculations of the most pessimistic philosophy; and the other a jumble of discordant passions which would be the death of even the craziest of poets. There is a law in the social and moral world, which warms the cold formalism and puts heart into the mechanism, and that law is "Love." There is a law underlying the world of art, which cools the passions and makes "things work together for good," and that is "Harmony." I do not care now to discuss the moral law, but the other lies at the bottom of all I have to say.

I will try to bring it before you clearly in a few words about a picture with which you are all familiar, "The Angelus." In what lies the artistic greatness of "The Angelus"?—a couple of square feet of valueless canvas and a few ounces of cheap paint! Surely it is not in the deep religious sentiment alone that this greatness lies. I am not speaking of the money value—of what made the stuff sell for so great a price—the expression of religious sentiment didn't do that. I have heard a poor old washerwoman utter a prayer (and, what is better, live in harmony with it, too), full to the brim with religious sentiment and feeling, and if that prayer were written out it would not bring one cent in the market, unless, perhaps, the text were illuminated by an artist. So the religious sentiment itself, or the mere expression of it, does not suffice to give artistic greatness. But what has given this quality is the fact that in the expression the law of harmony has been complied with absolutely. The color, the drawing, the composition, are all bent, in obedience to this law, to the expression of this all-pervading religious sentiment. There is mystery in the sky, in the earth, in the figures. There is sadness in the sky, in the earth, in the figures. There is a reflected light of heaven on the sky, on the earth, on the figures. In this work Millet

built better than he knew, in words. His soul was dominated by the sentiment, but he called the picture "The Potato Diggers." But as "The Potato Diggers" the picture was not a success and stood long with its face to the studio wall. There was no special fitness in the hour suggested, in the color, in the composition, to potato digging. That is best done in the dewy hours of early morn, and forms bent in labor, rather than in prayer, are more profitable potato diggers. Someone, at last, saw the picture who had imagination and also had the power to put into words the thought which had struggled up through Millet's mind and had bowed the heads; and then others beside the artist saw that the picture was in harmony with itself and was a work of art! Now the picture was no less a perfect work of art because the man for whom it was painted could not appreciate the pervading religious sentiment, and it was no more a work of art because someone at last did verbally express the religious sentiment of it. In fact, religious sentiment in itself had nothing whatever to do with the work as art. Look at those homely peasant figures. What if in their stead Millet had painted a priest and a nun; would not the religious sentiment have been as deep? Yes, but the background would have been out of harmony. Convent walls and cloister arches are wanted for these churchly people. What if two Parisian lovers had heard the bell as they walked arm in arm through the fields toward their summer boarding place? Their love would have made them sensible to the charm of the situation, and in all honesty and devotion they might have taken the humble attitude of the peasants. But the Paris cut trousers and the Felix gown would have been death to the least shade of artistic harmony. The aisles of Notre Dame are wanted for these Parisian lovers. So it is not the subject nor the universality of the sentiment that lies beneath, nor the depth of the inspiring thought that makes good art. The deeper the thought the more richly and tenderly will it be handled; but the difference is in degree, not in kind.

I dwell so strongly on this point because in architecture the underlying or inspiring idea is generally a purely intellectual one, and oftentimes of such a nature as to be incapable of expression in words, yet none the less tangible to the mind. And to apprehend at all a work of architecture, one must recognize the *motif* and be able to judge in how far the architect has succeeded in harmonizing his material with his idea and in so producing his ideal.

Now this conformity to the law of harmony in architecture we call "style," and it is of that that I now wish to speak. That we may have a common starting point, I will give another and somewhat extended definition of style. Style is that peculiar quality which invests a structure when its various masses and surfaces have been rendered harmonious among themselves, and beautiful to the eye and to the senses; these masses and surfaces being those which higher thought and the uses and necessities of the structure may have determined.

In the first place, and to free our minds of any extraneous matter, we can see by the light of this definition the utter unjustifiability of judging works of art from the standpoint of likes and dislikes. That sort of judgment has already done too much harm in laying down false rules of criticism, by which self-styled critics seek to measure all works of art of whatever quality and kind. This definition shows the unreasonableness of criticism from the outside, but rather requires that one to appreciate the work must get at the center of the thought which dictated the whole. Let a soul stand just on the confines of our planetary system, and, looking straight before him, attempt to pass judgment, and see into what illogical pits he will fall! Close by him whizzes one of the planets, in one direction; away over beyond the sun goes another planet in an opposite direction! and that soul's conclusion is that the system is no system and, being divided against itself, must fall. Now place that soul at the sun and let him watch one of the planets throughout its entire orbit, and I will warrant his preconceived notions will be changed. For that soul, let stand the untutored critic. Then, too, the mind which passes judgment in accordance with its likes and dislikes, generally likes but one sort of thing, and that, bad; for it is a narrow mind and can appreciate no expression of thought which has not struck a sympathetic chord; and even when it can distinguish dimly between thoughts, it will want them all expressed to suit itself rather than the thoughts, or will want all thoughts expressed after the same manner.

I must insist that this last is impossible in good art, but that the expression must vary with the thought to be expressed. Thus, a poetical fancy will not take the same form in words as will a logical statement of fact. Nor does each poetical thought lend itself to different forms of versification. In fact, there is to be found for each idea just that particular form which will best express it, and when one has found that form he has found an element of perfect style, whether in literature, painting or architecture; so that, generalizing broadly in the architectural field, I may say that the architecture of the Greeks took on its definite, pure forms because of the peculiarly definite philosophical cast of the Greek mind, and as this was the national type of mind, the architectural became a national type also. (Of this especial phase I wish to speak later on.) Roman architecture became lavish in its ornament, rich in its materials, and finally impure in its style, because lavishness, wealth and impurity were general characteristics during the empire. And none the less is the Gothic the fitting expression of the unstable religious imaginativeness of the centuries which produced that great style.

I shall not differentiate too closely in this short paper, but will outline as broadly as I can and still present the subject clearly. We will divide the architecture with which the western world has had to do mainly, into two general divisions, the Classic and the Romantic, the one which ended and the other which began with the dawn of the Christian era. As I said, the Greeks were of a very philosophical turn of mind, and had very simple, well defined ideas of art. They

*Read before the Saracen Club, Chicago.

had well defined ideas of life, too, and their gods were as well understood in all their relationships to each other and to men, as are paternal and maternal relationships understood in the family of today. Consequently there was a simplicity in their expressions of concrete beauty which is wonderful, and could exist only in the artistic childhood of the race. Not childhood as regards want of knowledge, but childhood as regards devotion to and belief in the ideal. Simplicity comes only with long study, and may be the crowning charm of a great work of art.

I know the Romanticists in general do not like Greek, or what is the same, the Classic architecture. To them it is cold, heartless, formal. But they are judging from the standpoint of Romanticism, which is no doubt better adapted to express the thought of today than a pure classic style would be, but that is not saying that Romantic art could have existed for a moment in Classic times. And there were some attributes of Classic architecture of which the Romanticists would better not lose sight. Classic art was never rude and never intruded itself upon the sensibilities of others. Classic art was cold, they say, and self-contained! The most refined and sensitive people rarely express their wildly romantic feelings in public, and classic architects were no exception to this rule. The Greek idea of proportions was always distasteful to the lamented Ruskin. "What good do you accomplish with your proportions," he asks of modern imitators of the Greeks, and the imitators may answer for themselves; but when he asks the question of the Greeks, who, being dead, cannot answer, I answer for them: "Why did the great Creator make a perfect man? Why are the arms so long, the legs so long and the head of such a size?" There are Quilps and Dick Deadeyes, but I prefer the Apollo. Proportion is not everything in Classic architecture, any more than proportion is everything in a man. The refinement and perfection of the parts is a great factor. The finer expression of beauty was conveyed through the refined and subtle lines which those subtle Greek hands knew so well how to draw and those subtle Greek minds knew so well how to interpret, while the simpler idea was expressed in the relative proportions of the masses. This last proposition is virtually true of Romantic architecture also, though in the highly developed styles the fundamental idea is almost as complex as that presented in the individual parts. Thus, if the wavy line of the pointed arch expressed a certain idea of beauty, that idea need not necessarily be more complex nor less complex than the idea presented by the wavy line of the leaf carving.

However, though the controlling idea in Classic architecture was simpler, or if no less complex, was expressed in simpler terms than was the case with Romantic architecture, in the elaboration and unification, it received all the attention minds peculiarly endowed with a keen appreciation of physical and intellectual beauty could bestow upon it. That, in elaborating the classic idea, natural forms were not imitated nor generally needed, does not argue that the idea is any less beautiful than in the Romantic schools, which resorted constantly and almost generally to the employment of these natural forms. It is a fundamental law of the Romantic schools that nature should be studied as the fountain head of beauty. The Greeks understood this law and did not ignore nature, but they were cognizant of an intellectual beauty or idea of beauty which the Gothic artists never grasped quite clearly. The Venetians recognized it, however, and their architecture appeals to the sentiments as well as to the intellect.

I can hardly go into a discussion of the idea of beauty and its expression in line more than to state that philosophy and esthetics agree that there is a concrete idea of beauty which finds its expression in line. That idea of beauty is less complex when it can be expressed in simple curves, the laws governing which are simple and well understood, as in the circle, for example. And the idea heightens in beauty as it rises in form of expression up through ellipse and parabola, whose laws, though understood, are more involved; up through volute and spiral, whose laws are but dimly known; up finally to the lines of the human body, whose laws are undiscoverable to the esthetic sense. So, taking the feeling which lies at the base of the Romanticist's love of natural forms, we may search among the forms which nature has spread about us with wonderful prodigality for such as will best suit the expression of a conception of beauty which is lying unexpressed in our minds. So that if we use a pointed arch in the expression of our thought, it need not be because it is a natural form, occurring as in a rose leaf, for instance, but because, happening to see it in nature, we recognize a suggestion of how to make concrete an idea which up to that time had lain useless in its abstraction in our minds.

This short discussion of line or form and the idea will make it apparent that architecture has to do with expressions of beauty entirely outside of and beyond the mere sentiment connected with the use of the building. From our definition of style, however, the use must be taken into account in the design of the building, though it be independent of the artistic *motif* which the architect is trying to express. Thus the line of the pointed arch conveys an idea of beauty neither religious nor civic, but what the line expresses may be made the *motif* of the design of either a church or a club house. But it would be as illogical as it is silly to design a church edifice to look like a club house, while the present distinctions obtain between the spiritual life of the church and the social life of the club. When the architect has once selected his *motif*, we must require at his hand a perfectly harmonious expression of it.

To study how this has been accomplished, technically, in the styles which have reached perfect development in the past, will help us the better to understand new work. We will take a few moments to it. The sculptor depends on light from the outside to furnish the proper relief to the parts of his work. The painter depends entirely upon the management of the lights in the picture. Here the arts of

the architect and sculptor are alike, and are clearly differentiated from that of the painter; for the architect and sculptor deal with mass, and though the architect oftentimes employs color to enhance the value of his work, it never is after the pictorial manner of the painter, but rather as the Greek sculptors may be supposed to have used color on their images. The architect has to do primarily with mass—a grand mass composed of lesser masses—of solids and voids. Thus we speak of "massing" the architectural features, such as the columns or the openings. In shaping these masses to their use, we have presented to us surfaces each of which must have its proper value just as a chapter or a paragraph in a literary work, and which must be ornamented by proper details just as a plot is ornamented by bits of description, or as a sentence is ornamented and rendered clear and forcible by the use of well-chosen adjectives.

To effect the balancing of parts the Greeks employed light and shadow—solids and voids—the solid being made to cast its shadow on a surface behind the void oftentimes. Light and shade were secondary, and were used in the ornamented parts, and to relieve the deadness of a broad light or of a broad shadow. The color, which undoubtedly was applied to some of the Classic structures, must have been to soften to the eye the glare of the sunlight on the white marble.

The Romans, in their adaptation of classic forms, sought to heighten the effect by the use of colored marbles in broad masses. The Romanesque, which was a transition style, retained some of the traditions of classic shadow, took a suggestion of color from the Roman—handling it in mosaics rather than in broad masses—and employed a new method of construction which soon caused it to develop into those pure styles generally known as Gothic. In the Gothic, color was employed or not, depending on the materials and on the taste of the builders in the various localities where the style reached perfection in one form or another. Color, for instance, did not enter largely into the northern Gothic types, while in the Venetian it was all important. In the Venetian Gothic the tradition of classic shadow lingered, while in the northern it was missing. In the northern, however, spaces filled in with painted glass took the place of classic voids, and the lack of shadow was atoned for by deeply accented moldings, the intense variations of shade in which would have startled a well-balanced Greek. In fact, the Gothic seemed never to get a foothold in the provinces where Greek culture flourished, nor did its influence ever reach as far south in Italy as Rome.

It was in Rome, however, that the spirit of the Renaissance awoke, and, after the dark ages, art and society turned toward the refinement of Greek culture. This spirit was pleasing to the northern architects, after the almost unrestrained exuberance of the Gothic, and they studied to bring the style of the Renaissance to perfect fullness in the north. But the Gothic spirit of aspiration (if you like), of unrest (if you will), had come to man to stay, and though many beautiful works were done in the spirit of the Renaissance, an architecture which would express the majestic calmness of the Greeks would be seen never again on this planet. The spirit of the Renaissance is alive today, and the architect of the future will reconcile the spirit of culture and restraint with the spirit of imaginativeness and unrest, and may produce a perfect style different from what either has produced. But the architect must employ shade, and shadow, and color as long as this planet swings in an atmosphere such as has forever enfolded it, or as long as the sun which gives us light retains its present physical and chemical properties; so that an architecture which does not adorn itself through the medium of shade, or shadow, or color, or two or all combined, is not to be regarded as architecture in the artistic sense of the term.

Size is not architecture, any more than a petrified Cardiff giant is an expression of manly beauty of character. That is, a building may be beautiful and at the same time grand in size—like St. Peter's with its dome, in which the curves are none the less subtle in spite of the magnitude—but magnitude does not constitute beauty.

I am asked, sometimes, "In what style is that building?" and generally, when the question is asked in reference to some modern work, I cannot answer that it is in any of the historic styles that has gained for itself a specific name. Nor is it necessary that a building to possess style should conform to the laws of past architectural work. It is enough that the building should possess style; that is all we can ask of it. That intangible essence, "the spirit of the age," acts powerfully, though, perhaps, unconsciously to the workers, through more or less all the work of a certain period; and periods which have been marked by definiteness and directness of thought in other branches, have been fruitful in perfecting general architectural styles.

But that does not absolutely preclude the possibility of a personal style, that is, a style developed by one individual, especially in an age so marked by heterogeneity of religious, philosophic and artistic thought as is this age of ours. In any age, it seems to me, exhibitions of strong personality are to be received with gratitude and as marks of genius when the thought is well directed, for it is easier to copy or to imitate work already done than it is to perfect a style along individual lines. In fact, the period of well-directed individual effort is the most vital in the life of an art.

The "race spirit" is so strong in some instances as to cause the race to act almost as an individual. The Moorish race is a good example of this, and its history is interesting to show against what adverses and over what obstacles an individual as well as a race has to struggle to be able at last to formulate his idea of beauty and to express it in a perfect style. I will give a sketch of that race's history.

For a long period after the dawn of the Christian era Spain was a Roman colony, and the Roman standards were planted at the very gates of the setting sun. Everywhere justice was administered in conformity with the Roman law, and in the centers of population Roman

civilization was as advanced as upon the seven hills themselves. The Romans were not (then) a proselyting people, but they carried their religion with them wherever they went and erected temples to their gods among the conquered peoples. Their temples were not destroyed when Roman Spain was overrun by the Visigoths and the Vandals, for the religions of these barbaric races did not require a system of worship in temples made by hands. Their gods did not need a setting of beautifully polished stones and rarely carved marble capitals. Their gods smiled or frowned from a rough stone altar set up in a grove of trees. Thus the trunks of growing trees were the pillars of their temple and the great dome above was its roof. The open air quality of the religion of the invaders may well account for the fact that so many of the Roman temples remained nearly, or quite intact when the warm Arabian blood overflowed the bounds of Africa and rushed with resistless force over the peaks of the Sierras and down upon the sunny plains of Southern Spain. The barbarism of the Vandals was swept away and the civilization of the Mohammedans began to grow in its stead. These Mussulmans were a proselyting people, and as the blood of conquered races was absorbed by their richer blood, the laws, the customs, the religion as well, bore the impress of the strong Arabian stamp. The Roman temples which the Vandals had spared were so many quarries for the Arabian builders, who used the beautifully polished shafts and the delicately cut capitals for the adornment of their mosques.

At Cordova there remains in good state of preservation today a wonderful building constructed by Arabian builders of marbles from Roman temples—a wonderful building called the Marble Forest—a monument to two great civilizations. Not long after this mosque was erected, Christianity came into Spain, and the Arabians who had swept away the old barbarism felt the force of this new civilizing power. The Mussulmans were forced to the south. They took their stand where the towers of modern Seville lift their heads, and for many years the stronghold of their civilization was here. The great Giralda, or bell tower, and the Alcazar, or royal palace, remain as monuments to that time. In the Alcazar, the influence of the Roman builder is but little felt, while the work of Moorish hands becomes apparent. The cubiform capitals and slender, white marble columns are evidences of Moorish influence, as are also the interlacing traceries of the wall decoration. The color combinations, too, in the Alcazar are suggestive of what was done later in the Alhambra. But while the Moors and Arabs were at work together, setting a brilliant jewel in the crown of the civilization of the south, the Christians were pressing upon them, and again this power was victorious. The Mussulmans were pushed to the base of the Sierras, and there, on the sunny plains of Granada, they took their final stand, and there their civilization reached its most exalted plane. There their arts and letters were developed to their highest beauty, and their architecture to its rarest purity. One who has not seen, cannot understand the beauty of this last work. In architecture, the coarse elements all had vanished, and the Moorish idea of beauty showed supreme. In public and in private work alike it showed, but its highest expression was the Alhambra.

The crystallized idea of the Alhambra stands in the center of that arcaded court, so famous for its beauty—the Court of the Lions. It is a fountain with a pure white marble basin resting on the backs of twelve white marble lions. Crystal water from the heaven-kissed ice peaks of the Sierras flows from the fountain and gushes from the lions' mouths, falling and splashing on the broad, cool slabs below, whence it runs away in shallow channels to refresh the air of other courts and apartments. That, I say, is the ideal, the crystallized idea of the Alhambra; that fountain, with its pure marble and its cool, flowing crystal water, is the spirit of beauty caught and held for men's eyes to see and men's hearts to feel. This race's history is the history of everyone who is struggling to attain the ideal. Listen! Mohammedan art would never have reached the heights it did had the Arabian blood been allowed to run sluggishly through undisturbed days in Cordova. Nor were the peaceful musical days at Seville sufficient to touch the clearer chords. It took struggle and bloodshed—yes, defeat and flight to Granada, to the new standpoint—to cleanse the style and give birth to the Alhambra.

I have touched upon this particular style, not because it is the most beautiful of all architecture, for it may not be, to our modern minds, but because it is easy to trace its course from its early beginnings to the final full development. The Venetian architects designed in a spirit much more in harmony with what are now our ideas of beauty, and combined to the fullest extent the elements, shadow, shade and color. And this will be a test of great architectural skill with us as time advances, for the highest powers must be employed in combining and harmonizing these distinct elements. The difference in the effect produced by one, or by a combination of the three, may be likened to the difference in effect of a single finger exercise or a symphonic variation, where all the force and technical power of the artist is called into requisition.

To sum up: Fully and rightly to apprehend a work of architecture, we must get near enough to the thought to know what the artist was trying to express, then we must get far enough away from the object to be able to see if the thought has been expressed clearly, in general terms. Then we may come nearer and see if secondary ideas, and those which ornament and explain, all have been brought into harmonious relationship with the moving idea. But, first of all, we must put ourselves in the background so that ourselves shall not get between us and the object at which we are looking; that is, if we happen to have a natural instinct to love blue above other colors, we must not condemn an architect for using yellow, if yellow best suit the expression of the conception of beauty he had in mind. In a word, to be fair critics, and really to appreciate and enjoy beauty, we must shelve ourselves.

Thoughts on Architecture.*

BY FREDERICK BAUMANN, F. A. I. A.

OF deep interest in the history of art is the description of the ancient Tabernacle given in Exodus xxv to xxviii. Moses is commanded to take from the people an offering, gold and silver and brass, and blue linen and purple, and goats' hair, and rams' skins died red, and badgers' skins and shittim wood, oil for the light, spices for the anointing oil and for sweet incense, onyx stones and stones to be set in the ephod and in the breastplate, and to build thereof a tabernacle as minutely described. This sacred and most costly tent was, as we know, moved from place to place as occasion demanded, lastly to be supplanted by the far more splendid temple of Solomon.

What is most interesting to us is its peculiar ornamentation. Its wooden parts were of the best of that material known, yet all were wholly enveloped with plates of pure gold. It has curtains of the most artistic fabric, "a veil of purple and blue and scarlet, and fine twined linen of rare and cunning work, with cherubims, shall be made." Silver was used on the columns of the court, which were with brazen feet. The court gate had a hanging made "of blue and purple and scarlet, and fine twined linen wrought with needlework." We are left ignorant whether the gold was left plain and bright, or whether it had been covered with handiwork of any kind, or even some other material, be this wax or varnish, intended to tone down the original excessive luster of the gold. Yet the description spurs the mind to more deeper investigation, and leads speculation back to the very origin of art.

The first origin, or, if you prefer, the first invention of art must be presumed to have been the work of primitive man at an age infinitely remote and perhaps prior to the invention of speech. He found the textile products of nature and intertwined them in useful fabrics, beginning with the plainest and simplest. Follow by degrees the art of braiding, stitching, weaving, lacing, and what else there may be of the kind. The principle, the style of these arts is a simple or a more complicated flat pattern, without relief, any more than must result from the thicknesses of threads of tapes therein used. It represents a drawing of one or more geometric designs, singly or in endless repetition.

Later on, after the properties of moistened clay had been observed and fire had been utilized in the process of hardening, bodily objects were formed, soon to be dedicated to sacred use and become variously ornamented. We find that all the ornaments invented with textile products are as they were, or transformed into bodily shapes, used and incorporated upon the exterior of the vessels. Added are representations relative to the animal world, which grow into sundry forms of fiction.

Thus, probably, for many centuries existed textile and ceramic arts, before any occasion was found for the art of building. But whenever at a later time architecture came into existence it stood upon no other ground than the one cultivated prior to it. How could it stand upon any other? It results that we must seek the enigma of original forms of architecture in the sister arts prior to it, which had fruited the soil from which it originated. Thus it came upon the world as a natural child, and it is in vain for human reason to attempt the fabrication of any originally new system of it. This has been tried, and ever has been buried with the "inventor" or prior to his demise.

Architecture has its own special language. Its works narrate their history. Were this possible in a language which has not been transmitted from generation to generation?

Architectural construction, according to Semper, bases on four constituent parts: The fireside as center; the protecting roof; the circumvallation; the substruction. From these originally very modest parts the temple bases its origin. It starts with the simplest wood to become the finest marble structure. The sacredness of the purpose demanded the best material at command. And this did not suffice. Even the finest and at the time the most appreciated of wood materials, the cedar of Lebanon, had to be ornamented and wholly covered with metal, precious gold not excepted. To this fashion, which must have been at the time thousands of years old, we find the tabernacle gorgeously ornamented as related in scripture.

Its partitions were mere curtains of the most precious kind. This most original fashion of partitioning off was retained by Solomon in the gorgeous construction of his stable temple. Palaces in olden times had partitions merely fashioned in this style. The king was equal at least to a demi-god and was entitled to fashion his domicile accordingly. Even in later times we find partitions thus made. Think of Polonius stabbed by Hamlet when listening behind a partition made of cloth.

But partitions were, with the process of culture, made of solid material. Yet, wherever they thus appear, they are not artistically treated as structural parts. They are decorated in a manner to represent curtains, and at no time become an expressed mechanical element. Do we not at the present day decorate the entire within parts of an edifice exclusively in this fashion? Can our papering and fresco-painting be taken as anything but a sham of the original curtain? More correctly do we work with gobelin tapestry, the designs of which being stretched upon wooden frames, and thus secured to the wall. The partition proper, however, bears no artistic relation to the art of any such decoration.

Empaistic art, i.e., the art of covering structural wooden parts with costly metal, did by no means remain on first principles. The glare of plain gold upon large surfaces was soon found offensive to

*A lecture delivered before the American Institute of Architects at Washington, D. C., October 23, 1889.

the eye. Designs were wrought upon and into it, and its surface was covered with wax transparent enough to allow a subdued show of the metal. Precious gold covered with mean wax! Can this be possible? Can this be art? According to Ruskin, in the meaning of his doctrines, it should be called barbarism, but in accordance with the principles by which ancient art was governed, it was true art which in those times knew of no construction as such. As well might we speak of the construction of a large block of stone or marble for purposes of a large statuary work. The material is secondarily considered; was a mere matter of necessity for mechanical being.

We have a right to assume that the woodwork of the great temple at Ephesus, destroyed by Herostratus, 356 B. C., had been empaiastically treated. How could it burn without wood, and why should such wood have been left bare, contrary to the fashion of art prevailing at the time of its first construction?

Later on we find empaiastic art, with a new method, taken up by the sculptors, who, as for instance great Phidias, employed on their statuary wood, ivory and gold, the latter unquestionably deprived of its natural luster. Thus we find an art, barbaric in its origin, transformed into the highest art that ever distinguished man's ideal mastery over nature.

Greek art, however, began early to utilize building stone as a current material. The first stone quarried was a poor sort of oolitic limestone, called poros stone, which received a covering of plaster made very smooth for purposes of imitating, as must be presumed, as nearly as possible, the former covering of the wood with metal. Column, pilaster and wall thus plastered were then correspondingly tinted and waxed. Later on the celebrated Pentelion marble was quarried and used, to be tinted by the painter without the employment of stucco. For with this fine material the work could be wrought to absolute mechanical perfection, fit to afford the painter a surface more polished and more true than could formerly be obtained by plastering the poor stone. It has become evident beyond doubt that this marble at no instance remained without its due tint, probably at first the very one originally obtained by tinting and waxing the metal in various degrees and shades. The tints evidently were necessary in an esthetic sense to gratify the exquisite good taste of the ancients so generally acknowledged. Not only the temples, all statues, as it appears, were also tinted. Modern archaeologists, besides, will have it that this tinting was a universal rule also in the days of the Roman Empire.

We modern people stand here as before an insoluble enigma. We expressly leave our better buildings and all statuary with the original tints of their material. Many arguments have been had on this subject, but the decision has—universally so—ever preponderated in favor of our fashion. Possibly at a later day the true tints may be discovered which may convert our taste and ourselves.

From the above premises it would seem evident that, as already indicated in Greek architecture, the material is nothing and the form is all. The temple is a unit without parallel in the history of art. Semper says in an article, "Original Elements of Architecture and Polychromy," "Comparing the various styles of architectural history we are met by the idea that all are based on very sound principles of statics and mechanics. One of the nations, however, succeeded in imparting organic life into their architectural creations and their industrial productions. The temples and monuments of Greece are not built, they are grown; are not merely ornamented, like the temples of Egypt, with organic bywork; their forms are such as are produced by organic life in its strife against gravity and substances. Otherwise we fail to comprehend or explain the incomparable beauty of a Greek column."

The age of architecture in which we live, however, is emphatically one of construction, so that I find myself induced to give here some facts of what to the Greeks was mere bywork, the construction of the Parthenon, taken from a comparatively recent work of Adolph Boetticher, entitled "The Acropolis of Athens." According to measurements the walls were six feet thick with alternate courses of two and two feet in height. One course consisted of a solid block six feet wide; the other of two parallel blocks each two feet six inches wide, leaving a vacant space of one foot between them. They were dovetailed into another and anchored with heavy irons carefully inserted. The drums of the columns were six feet in diameter, four feet high, connected with each other by means of central stone dowels. The sacredness of the building prohibited the use of mortar and the blocks, most carefully and precisely wrought to form by the hands of skillful mechanics, were set dry one upon the other, and this was done without allowing the occurrence of any sort of spawling off. Considering the extreme difficulty of thus setting course upon course, and the high degree of perfection in which the mutilated remnants appear at the present day, we must bow deeply with respect before the mechanics who accomplish this, be this with tools even more accomplished than ours. Yet perfect, absolutely without blemish—as must be judged from remaining ruins—as this work was, the consideration of this particular quality bore no weight; it was a matter of course—of no special account. The building was a work of fine art in the widest as well as in the narrowest sense of the word. The like of it, on the scale of high art, as on the scale of mechanical art, can nowhere be found, and it must unquestionably be placed at the head of all buildings ever erected in this world in any age. This Parthenon served for 1,000 years as a Christian church till taken by the Turks.

The founding of Alexandria gave origin to the ideas subsequently followed by the Romans, whose practical genius adapted Greek architecture to the multifarious uses coming in demand. The Basilica and the Pantheon find existence, either one a prototype of subsequent Christian churches, the former for the West, the latter for the East. Constantine is credited as the author of a thousand churches with

small central domes. But not until under Justinian a new and original form was inaugurated. I refer to the Hygia Sophia at Constantinople. Its originality consists in the circular dome over a square room with adjoined extensions toward the four sides. This huge edifice, celebrated for its then originality as well as for its mechanical perfection and size, was completed in the amazingly brief space of five years, while it took 160 years to complete St. Peter and forty to build St. Paul, to say nothing of the Gothic cathedrals, most of which were left uncompleted.

The Basilica arch became the type of the Romanesque style, so called, samples of which are principally scattered over Germany and France.

When the Christian spirit, as then understood and reigning, had more and more alienated the human mind from this earth; when it had reached the hearts of the masses in a measure to inspire them to march to the Holy Land for the liberation of Holy Jerusalem from the yoke of infidel Mohammedans, which march they carried on and followed up in a most reckless and unwarlike manner to their own and to the ruin of millions to follow, then had arrived the time for the Christian mind to be not satisfied with the height and extent of churches as they were. Roofs and spires were to be raised up to the clouds to satisfy a most general demand. Arches were consequently made pointed to gratify this desire, and thus churches became the grandest edifices in existence. When we consider that the idea of grandeur has ever been a captivating one to the human mind—even regardless of higher considerations—we must contemplate, with due respect, the admiration and awe with which these edifices were and even are now regarded, though it is due to us to be conscious of the fact that they are productions of what we call "Dark Ages."

The cathedrals are essentially constructive in all their being, but they fail in construction, because too complicated in detail for the means then at command of man. Hence the great number of uncompleted edifices and the early decay of the comparatively few which were, at least in a measure, completed.

Mechanical art of the present day begins to be able to master buildings of this character. The central tower on the roof of the Cologne cathedral was first erected about forty years ago. It is taken down today because frail and fast decaying, to make room for the construction of a wholly new tower, of identical exterior, on approved modern principles.

The Renaissance, i. e., the period of dissolution of medieval ideas and customs, and the quickening of human thought with the fruits of ancient culture, which gradually followed the crusades, completely overthrew the architectural conceptions of the Middle Ages. Classic architecture of ancient Rome was brought to life and cultivated in higher degree.

Renaissance ideas waning, history proceeds with style and fashion after fashion, till it arrives at classic Renaissance, so called, inaugurated by Winkelman and Stewart and Revet, for a time followed by architects in all countries, of whom Schinkel at Berlin was evidently the most conspicuous and refined. He is the father of a number of celebrated buildings. They were but poorly constructed from regard for the then reigning poverty of the country. And his greatest, most original, truly classic designs of rare beauty were left unexecuted. Schinkel was one of the few architects who understood how to impart life into a Greek column, while generally the same appear like mere corpses, telling a form carefully constructed in accordance with Vitruvius' rules, yet without the spirit of true art which alone gives them life.

Thus subtle are the forms of Greek architecture, in most direct distinction from Gothic, which rests on a mechanical basis, that the positive correctness and harmony of all parts of the structure must come, as it were, like a revelation to the well-trained eye of the architect, as much, and perhaps more so, than must the true expression of a human face reveal itself to the artist painter who undertakes to cast it upon his canvas.

Greek architecture, in its true bearing and compass, is a subject which cannot be mastered by superficial study. On the continent of Europe its acquirement belongs to the necessary requisites of a student desirous of introduction into the profession. In England and in our country, however, it is treated with a sort of levity, as I believe. This should become otherwise.

Younger architects, in particular, should set at work to become acquainted with the lofty secrets of Greek architecture, not that they might be led to strictly follow it in their designs, but that through its study their minds may become elevated far enough above the common level to enable them to impart life to their designs, and thus give them a character of a higher nobility.

The spirit of Greek architecture is, and should be acknowledged as being, one of the greatest treasures of common humanity.

A myth has it that at the erection of a sacred temple at Naegara the god seated himself upon a rock, thence inspiring the workmen with the tunes of his lyre. Subsequently the rock sounded in like tunes upon the touch of a wand. Be to you, Greek architecture, this tuning rock when, with heart and spirit, you touch it!

"BLACK AND WHITE," Vol. I, No. 1, an insurance magazine issued in the interest of policy holders, has reached THE INLAND ARCHITECT table, through the courtesy of the publishers, Kellogg & Collings, Chicago. It is a handsomely gotten up magazine, filled with interesting and instructive matter, covering all lines of insurance, and has a number of novel features, among them a listing of the several states, showing the names of the companies doing business therein, together with the standing of the same. Each list is headed by the name of the insurance commissioner of the state. Its name is unique.

Influence of External Conditions on Architecture.

THIS formed the main subject of the first of a series of lectures on the History of Architecture, delivered at the Heriot-Watt College at Edinburgh on Monday last by Mr. G. S. Aitken. The following is a brief outline of the main points of the lecture as summarized by *The Builder*:

The lecturer referred to the various possible sources of the origin of architecture, such as the *tent*, the *cave* and the *burial-place*, and mentioned seven conditions which had determined its various forms. These were: 1. Climate; 2. Scenery; 3. Location; 4. Material; 5. Tools; 6. Race; 7. Religion.

A country may have the most genial climate upon earth, but if it be such that the land brings forth spontaneously, and people have only to sit under their vine and fig-tree, the ripe fruit dropping into their mouth, so to say, the mental faculties will in such too favorable circumstances remain languid; with no inducement to physical exertion there will be little or no art culture. It is quite true on the other hand that the labor required to maintain a race may be so excessive as to crush out all liking for art. We do not expect to find it fostered in the sweating dens of any of our great cities—indeed, we hardly look for it where toil is more moderate in its demands, as in the instance in Gray's elegy of the "Ploughman homeward plodding his weary way." Mental exertion is not possible to the physically weary man. If he wishes to find satisfaction in art it must be through the medium of others, who may be able to act as interpreters to him. All other things being equal, an equable climate is most conducive to the progress of art. Labor under propitious skies is necessarily less arduous for the body than toil in fitful climes. Man under such conditions has a due amount of leisure for art pursuits and is physically in a condition to follow them with pleasure.

But what if he have no stimulus to mental activity from the scenery around him? Suppose the country be as flat as a plain or as dreary as a desert. Though the climate be agreeable, yet if the scenery be unimpressive, we cannot expect to find in such a region the highest developments in architecture. It may be good, but at the same time unimaginative and ponderous.

Egypt will furnish us with an apt illustration of the truth of this—a fine rainless climate, no scenery such as we understand it, but the bare syenite and limestone cliffs of the Arabian desert to the east and the African watershed to the west; no clouds to suggest the grand forms of peak and dome; the sun rising into the intense cloudless blue and setting as he rose in a ruddy haze which makes him like a ball of fire. What is there in these physical conditions to produce the highest forms of art?

A third element is *location*. A center of civilization may be in the heart of an inland country, its influence not extending beyond that country; or it may be on the sea-coast, where by maritime intercourse it may be in touch with many lands. In the one case the art resulting may be expected to be essentially provincial; in the other, generous and eclectic, displaying variety, energy and character. As illustrating this, Indian architecture, as it was before the irruption of Islam, may be taken. Gorgeous and labored, it is an exotic in art which could thrive in no other land, because there is nothing within it with which the people of any other country can feel sympathy.

How different with the lands on the northern shores of the Mediterranean. Take which country on that coast we may, there is always something in its architecture which can bear transplanting to other lands, because its roots are down in the soil of common principle, and in this way its foliage may, in a figure, be said to be for the art healing of the nations.

Material is the next matter we take into account. We can imagine the desert of Sahara becoming by irrigation fertile enough for occupation, but we cannot see what prospect of building there could be even if the dwellers there had all the ambition and energy of a Nimrod. Tent-dwellers they must perforce be, for in so tropical a clime, and without a "boundless contiguity of shade," they could not afford to lose a single palm-tree to help in erecting so much as a solitary hut.

We see how much material had to do in the development of pointed architecture. If it had been a style depending upon large cubes of stone it would soon have reached the end of its journey, but as the principles of its construction permit, indeed, encourage, the use of blocks of moderate size, its progress was assured wherever stone and brick were available.

An abundance of *material* without *tools* to shape and weld it would avail nothing for the formation of a style of architecture. For just as the invention of type printing has developed literature, so the invention of tools has loosened the bonds of the genius of architecture. With hammer and chisel the mason can make the rough stone shapely, can revel in all the intricacies of molded work, forming here a mystic hollow and there a living line of light; he can garnish a frieze with a reminiscence of the flowers he saw in some woodland nook or on mountain side; or he can crown the shaft with the semblance of leaf and flower with "lithic" birds embowered therein. All this and much else can be done because of tools.

A more important and determining factor in architecture is that of *race*. But who can explain how it is that the art of one race shall be of a higher type than that of another; that the works of the Greeks should stand head and shoulders above, say, the art of the Hebrew race? An attempt to solve this would be like an effort to discover the principle of life in plant or man.

Our seventh formative condition is *religion*. Turn to what land we may, and survey in imagination its architectural works, its religious buildings occupy the first place, whether in point of scale, dignity or elaboration; so that it may truly be said that the history of

architecture is mainly the history of the shrines of religion. And we find the noblest works of this department of art associated with those forms of religion which are the most spiritual. The Greek temple is a masterpiece of intellect, but it clings to the earth, and is, as its horizontal lines suggest, of the earth—earthy; on the other hand, the mediæval cathedral soars heavenward, as it would claim kindred with worlds beyond, and is undoubtedly the realization of all that goes to make truly good architecture.

Chicago Hydraulic-Press Brick.

THE extensive use of St. Louis hydraulic-press brick in the Chicago market, with which Mr. J. J. Lockwood has been identified for almost twenty years, and latterly Mr. C. P. Kimbell, under the firm name of Lockwood & Kimbell, led to the recent purchase of extensive tracts of land at Porter, Indiana, and the establishment of a hydraulic plant there under the name of the Chicago Hydraulic-Press Brick Company. Upon the completion of the works, the firm chartered a special train and invited their many friends among the architects and contractors to visit them.

The invitation was responded to by some 260 representative men from among the leading Chicago architects and contractors, and proved to be not only a social, but an investigating company, thoroughly interested, and most of them, at least, not a little surprised at the unexpectedly fine equipment and extensive capacity of the brick yards.

The six coaches furnished by the Michigan Central Company were comfortably filled but not crowded, and the buffet car, where substantial and first-class refreshments were served, was liberally patronized during the latter half of the down trip. The location of the plant is at Porter, Indiana, forty-four miles southeast of Chicago.

Among the well-known architects present were Messrs. W. L. B. Jenney, Treat & Foltz, Furst & Rudolph, W. W. Clay, L. D. Cleaveland, W. W. Myers, W. F. Barnes, of Joliet, and others, and from the satisfaction they expressed, both as to the quality of the brick and the admirable way in which it is made, these gentlemen will no doubt specify many millions of these brick in future Chicago buildings. The St. Louis Hydraulic-Press Brick Company was represented by its assistant secretary, Mr. Louis Chauvenet.

The company own, close to the little village of Porter, 450 acres of the finest clay land a brick maker could desire. The clay lies almost directly at the surface and extends some nine feet deep, being, so far as examined, entirely free from stone or pebbles. The clay is first loosed by a plow resembling an old-fashioned cultivator, and is then taken up by a unique iron revolving cart so constructed that as it moves over the ground it elevates the loose clay and deposits it in a central receptacle. As soon as the box is filled the elevators are stopped by disconnecting them from the wheel, and the cart is driven to the top of the storage sheds and dumped. The clay is thus housed to dry and season, or as Mr. Kimbell expressed it, "It is full of organic matter and we leave it there three months to die." When seasoned it is taken to the crushers where the dry clay is reduced to a powder, elevated and dropped into the huge, powerful hydraulic presses. These presses are quite a marvel in their quick, silent, efficient operation. They are gauged to press 3,000 pounds to the square inch, but have a capacity of 5,000 pounds per square inch. As one surface of a brick has about thirty square inches some estimate can be formed of the pressure used in forming each brick which is pressed from above and below. All but the ornamental brick are taken directly from the press to the kilns, ready for burning. They are left in the kiln five or six days and are then subjected to an intense red heat for six days longer, when, as soon as cooled, they are ready for the market. The ornamental and irregular size brick are first taken to the dry rooms, to render the angles and corners less liable to chipping in handling, before they are burned. The capacity of each press is from 20,000 to 30,000 pressed brick per day.

The steam that furnishes power to the engines and pumps that operate the press cylinders is furnished by three 240-horse power boilers. The same steam also supplies power to the dynamo that supplies the electric light to light the buildings, heat for the drying and fuel for the fires.

The fuel was one of the most interesting sights to the visitors. The fuel is crude oil and steam. The oil is brought in pipes to the entrance of the furnaces from storage tanks located at a distance from the buildings. To start the first fire under the boilers crude oil alone must be burned. But as soon as steam is generated, the steam enters through a pocket just back of the oil flow. The force of the steam jet surrounding the oil seems to vaporize the oil, producing a fierce, steady, uniform fire and absolutely perfect combustion.

In the same way heat is supplied to all the kilns. To prove the perfect combustion, one of the kilns, which was just being emptied from its first firing, was examined with much incredulity at first. The interior walls were as clean as when new and showed no signs whatever of the six days' terrific fire to which they had been exposed. One architect was heard to ask if this kiln had been burned or had the brick been stacked in it for show.

In the kiln room are fourteen great kilns, each kiln holding 138,000 bricks. The entire absence of coal, coal dust, ashes and smoke gave an uncommonly cleanly appearance to the entire establishment.

A little east of the kiln rooms, and alongside the railroad tracks, is the storage shed, 300 feet long and 65 feet wide, capable of holding four and a half million pressed brick. Another shed of the same size is to be erected at once, making the storage capacity 9,000,000 pressed brick.

Messrs. Lockwood & Kimbell intend to be prepared to handle the largest contracts and be ready to supply at short notice a million or

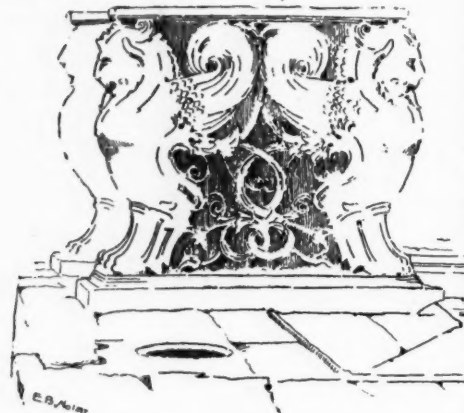
more of brick to any one who might need them. They will be in splendid trim to supply brick for any and all of the World's Fair buildings and cause no delay for lack of material.

The total capacity of the works is 210,000 bricks a day, of which 130,000 are pressed brick and 80,000 common brick. When running at full capacity they employ 230 men at the works. The works represent a cash investment of about \$200,000.

The immense impetus that will be given to building operations the next year or two, on account of the location of the World's Fair, adds interest and importance to such a plant as Messrs. Lockwood & Kimbell have established and they are deserving of credit for their enterprise.

Chicago Architectural Sketch Club.

THE two closing meetings of the club year were important. That upon October 6 was largely devoted to the reading and discussion of a paper upon the manufacture and use of steel in building construction, by architect W. L. B. Jenney, of Chicago. The announcement of the close of the competition "Rendering from Photograph," the report of the Adjudicating Committee and the exhibition of the fourteen drawings followed the reading of the paper. The contestants were "Sir X" by Oscar Enders, "A" by W. R. Gibb, "Sandy" by E. C. Jensen, "O. K." by Emery Roth, "Vater" by A. Y. Robertson, "McKinley" by P. Parmentier, "Titus" by Arthur Heun, "Boz" by F. L. Linden, "Bobolink" by C. B. Schaefer, "Stone" by H. J. Ross, "Fac Simile" by H. F. Swanson, "Felix" by P. C. Stewart, "Hurricane" by G. M. Russeque, "Maiden Effort" by J. E. Youngberg.



The report of the Adjudicating Committee is as follows:

"RENDERING FROM PHOTOGRAPH" COMPETITION—CHICAGO ARCHITECTURAL SKETCH CLUB.

First. "Sir X." Broad, and reproducing more nearly the tones of the photograph than any other submitted. We like the reticence he has used in rendering this, and some of the unusual methods of handling the penwork. He has wandered too far from his copy in his trees and foreground, in not giving proper relations of trees between these and buildings.

Second. "Sandy" and "A" in a "square." Designs submitted by "Sandy" and "A" in a "square" we consider of equal merit for different reasons, and place them both second. The design marked "A" is in some respects a more faithful rendering of the photograph, but the faults in photograph are exaggerated in the spots on the building. The design by "Sandy" shows better penmanship and better treatment of the building, but the relative value of the trees, water and buildings is not maintained as in photograph. His tree work is very good, though not like photograph.

Third. "O. K." would have had an earlier mention had he adhered more closely to his copy. He has produced a very pleasing "Albert Durer" effect, giving almost the character of a wood engraving.

Fourth. "Vater." Design by "Vater" is too black and smoothy. The foliage at foot of the walls is completely divorced from shadows.

W. L. B. JENNEY,
J. L. SILSBEE.

I entirely agree with Messrs. Silsbee and Jenney. Upon the whole it seems to me that the drawings reflect great credit upon the sketch club.

JOHN W. ROOT.

(Signed)
OCTOBER 16, 1890.

The sixth annual meeting of the Chicago Architectural Sketch Club was held at the club rooms November 3, about thirty of the sixty-two active members being present.

President William Bryce Mundie occupied the chair, and opened the meeting with a short address in which the work of the year was reviewed.

Secretary William R. Gibb submitted his report in which the general events of the year were commented upon. He spoke highly of the work of the Adjudicating Committee, Architects Root, Jenney and Silsbee, and their interest in the welfare and progress of the club. The secretary recommended that the club take a vacation during the months of July and August.

In the competitions of the year, in that for "A Village Smithy" (fourteen drawings) and "Artist's Home by the Sea" (twelve drawings), W. B. Mundie took first place; that for "Litch Gate for a Country Church" (thirteen drawings) and "Rendering from Photograph" (thirteen drawings) Oscar R. Enders took first place; in that for "Menu Card for Annual Banquet" (three drawings) Arthur Heun took first place; and "Essay on Expression in Form" (six papers) Peter C. Stewart took first place. Although Messrs. Mundie and Enders tied, the secretary was inclined to give Mr. Enders the majority of points because of the fact that in the Litch Gate competition he took first, second and third prizes. The club prize for the highest average in the competitions of the year is any one of the Richardson monographs of American architecture.

In membership the year commenced with fifty seven names on the roll, of which four senior members resigned and one, Mr. William Henderson, died. There has been admitted during the year seven

senior, twelve junior and one honorary member, making a present total membership of seventy-seven.

The secretary spoke with much feeling, which was shared by every member present, of the affliction of one of the club's most active members and second vice-president, Mr. O. C. Christian, who became insane through overwork some months ago. One of the charter members, he was always first to lend his assistance in any club work, always kind and warm hearted and ready to encourage and help members in their work. The walls of the club rooms bear many evidences of his skill as a draftsman, and his artistic feeling for nature.

Following the secretary's report, the treasurer reported a balance in the treasury of \$410.47. Messrs. Russeque and Stewart were appointed an auditing committee, and reported the treasurer's accounts correct as given.

The election of officers for the ensuing year being next in order, Messrs. Seman and Hefner were appointed tellers, the election being as follows:

President, W. G. Williamson; first vice-president, T. O. Fraenkel; second vice-president, W. B. Mundie; secretary, W. R. Gibb; treasurer, E. J. Wagner; executive committee, the officers and Messrs. Arthur Heun and F. L. Linden.

After the appointment of committees to prepare for the annual exhibit and banquet of the club on November 17, the meeting adjourned.

The names of the competitors in the essay competition "Expression in Form," the papers of which were published in the October edition, page 28, are as follows: First place, "Jason," by Peter C. Stewart; second place, "Henry," by C. B. Schaefer; third place, "Pessimist, Jr.," by J. C. Youngberg; fourth place, "Brethren, Let Us Hope," by A. Beatty Orth (of Pittsburgh); fifth place, "X. Y. Z.," by J. A. Miller; sixth place, "Z., Jr.," by H. J. Ross. The signature of the author of the admirable criticism upon the papers, Mr. J. W. Root, was unintentionally omitted.

Association Notes.

NEW YORK ARCHITECTURAL LEAGUE.

The conditions of the fourth annual competition for the gold and silver medals of the Architectural League, in connection with the sixth annual exhibition of the Architectural League of New York, are as follows:

First. The competitors must be residents of the United States, and under the age of twenty-five; and

Second. The drawings shall be made in conformity with the following programme, and, in all parts and portions, entirely by the hand of the competitor.

The drawings will be judged by the jury appointed for that purpose. The successful drawings, and such others as may be thought worthy, will be hung at the exhibition, the first and second prize drawings being so indicated, and these latter shall thereupon become the property of the League.

PROGRAMME.

A heroic statue of Zeus, standing nine feet high, has been secured by an American citizen from one of the excavations now going on among the ruins of Greece, and presented to one of our large cities.

The municipal government, fully appreciating the value of the gift, propose erecting a loggia for its reception and protection.

This pavilion is to be located upon a plot of ground formed by the conjunction of two avenues with a boulevard, the form and size of which is shown on the accompanying plot.

The structure should be of marble and must be classic in treatment.

Each contributor is required to exhibit two sheets of drawings: one to contain the front elevation, drawn to a scale of $\frac{1}{4}$ of an inch to the foot and rendered at will; and the other to contain the ground plan, section and such other drawings as may be necessary to explain the design and construction, and drawn to the most convenient scale for the purpose, and rendered at will.

A small perspective sketch—rendered fully at will and taken from a point marked "A" on the plot—six feet high, can be shown upon either of the two sheets.

Each sheet to be cut to the uniform size of 24 by 32 inches, and to be white card or Bristol board, or Whatman paper mounted on stretcher. No colored borders, frames or glazing will be allowed.

Each sheet must be distinguished by a motto or cipher. A sealed envelope, bearing the same motto or cipher, must contain the name, full address, place and date of birth of the author, and must be mailed to the Medal Committee, No. 47 West Forty-second street, New York, on or before December 10, 1890.

Drawings are to be delivered flat, carriage paid, at the same time and place. They will be returned at the close of the exhibition at the expense of the contributor.

BRUCE PRICE,
CHARLES I. BERG,
THOMAS HASTINGS, } Medal Committee.

A copy of the plot plan can be obtained upon application to the Medal Committee. Though the time given is brief a good representation of drawings should be made.

CHICAGO BUILDERS' AND TRADERS' EXCHANGE.

A special meeting was called by the president of the Chicago Builders' and Traders' Exchange for the purpose of receiving the final report of the committee on the organization of a trade school in connection with the Exchange, of which J. G. McCarthy was chairman.

In the absence of President Ketcham, Mr. C. B. Kimbell was made chairman. Mr. Alsip reported for the committee that while \$3,930 had been subscribed for the project, it would take at least \$10,000 to maintain such a school for one year, and as the balance was not forthcoming, and that as the Chicago Polytechnic Institute had started a trade department, he suggested that the matter be turned over to that institution. Mr. Harkins, the president of the Chicago Polytechnic Institute, gave an outline of what was proposed in the direction of establishing a trade school. It was to follow the general system of that of Colonel Auchmuty of New York, with perhaps some improvements, and at first would have classes in carpentry, plumbing, bricklaying and plastering. He proposed that the department be started under the auspices of the Exchange, and that a standing committee of the Exchange should direct it, each association in the Exchange contributing to its support.

Before adjournment, it was ordered that the Board of Directors of the Exchange procure the best legal opinion regarding the constitutionality of the Illinois lien law and its abolition or amendment.

THE MILWAUKEE ART LEAGUE.

The "Art League," the only sketch club of its kind in Milwaukee, although not generally known, has been flourishing for a year past. It started out with a membership of thirteen good workers for the cause, and has, as most clubs of this kind had, its difficulties to contend with, but has now become a permanent institution with newly fitted rooms at No. 29 Iron Block, where the regular meetings are held, working from models twice each week. A peculiar feature of this club is that of the thirty-nine members, about one-half are architectural draftsmen, who, besides enjoying the privileges of the life class, have their own special meetings at which to perform the work of the architectural part of the club. This makes the Art League practically two organizations in one, thereby giving the League greater strength than it could have were it dependent on draftsmen alone.

The officers are: President, John J. Baumgartner; first vice-president, O. E. Benner; second vice-president, A. C. Eschweiler; secretary, Paul Hammersmith; treasurer, Elmer Grey; and an Executive Committee, consisting of all the officers and two members, C. H. Keeney and H. Lammers.

Our Illustrations.

Beloit College Chapel, Beloit, Wisconsin; Patton & Fisher, architects, Chicago.

United Presbyterian Church, Kearney, Nebraska; W. Z. Foster and W. Pell Pulis, architects.

Two views in reception hall, residence at Kennebunk, Maine, of Charles Parsons, Jr., of New York; interior by William Morgan Peters, Chicago; finished in oak; mantel of rockfaced brownstone.

Four pages are devoted to the Chicago Architectural Sketch Club competition in pen and ink rendering from a photograph. First place, Oscar Enders; second place was awarded to two, W. R. Gibb and E. C. Jensen. The photograph chosen as the subject is also reproduced.

PHOTOGRAPHURE PLATES.

(Issued only to subscribers for the Photographure edition.)

Residences, Philadelphia; Frank Miles Day, architect.
Eutaw Savings Bank Building, Baltimore, Maryland; C. L. Carson, architect.

City Hall, Philadelphia; John McArthur, architect. Girard Building, Philadelphia; Addison Hutton, architect.

Residence of J. L. Silsbee, Edgewater, Chicago; J. L. Silsbee, architect. Four full-page plates are given as follows: exterior, hall, sitting room, dining room.

Correspondence.

Editors Inland Architect: WASHINGTON, D. C., Nov. 7, 1890.

If the convention of the American Institute of Architects recently held in Washington is "the second annual convention, as the new organization dates from last year," as you state so positively in your Intermediate News Number, October, 1890, then a new charter must have been obtained in 1889 from the State of Ohio—of which fact I have not been informed.

If you will turn to page 36 Journal of Proceedings Consolidation Convention, you will find the opinion of Hon. Jacob D. Cox, of Cincinnati, on this subject, which is as follows: "If an entirely new corporation is formed here and now, it can only be done under the laws of Ohio, and the new corporation would be an Ohio corporation. In this case both the old corporations should be dissolved and their old charters would become defunct."

With this opinion before you, can you repeat that the American Institute of Architects held its second annual convention this year?

You attended the Consolidation Convention, and know very well that the old American Institute of Architects is not defunct, but that it had new and vigorous blood infused into it at the convention held in Cincinnati November 20-21, 1889. I remain sincerely yours,

ROBERT STEAD.

There is nothing in the above that alters our opinion, which is borne out by the facts except that a typographical error made us say that the last convention was the second *morally and legally* instead of *morally if not legally*. Legally it was the twenty-fourth, as the action of the convention made it so in preserving the old charter; but we still hold that the vote upon consolidation taken prior to the convention was the real expression of the members of both bodies and it should have stood as such, and the action of the convention the simple ratification thereof. It is a small matter however, and as a rose by any other name would probably be imbued with the same initial fragrance, the main thing now is to make the aroma of the association work pleasant to professional nostrils and not allow it, by neglect and ill-advised legislation, to smell to heaven. It will be as it is made, whatever the name may be or whether it respects tradition or not. The future benefit to the profession will not be gauged by the traditions of the Institute, but by the active and continuous work performed from year to year.—EDITORS INLAND ARCHITECT.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, ILL., November 10, 1890.

The architects, builders, contractors and consulting engineers who have recently spoken upon the business situation and probabilities seem to agree pretty well, and their conclusions are gratifying to building, manufacturing and commercial interests. All conditions are favorable to a continuance of activity. It is generally understood that the leading railway systems will advance freights before long. It is known that a basis has at last been laid for greater though not perfect harmony. Manufacturing interests are exceptionally prosperous, even though margins are close. Agricultural interests are thriving, and although they are heavily indebted to money-lenders, it is gratifying to know that the large crops are profitably marketed. The lumbermen have had a good season and are preparing for another. Mill and shop people have had no time to waste, and all have made money. Builders recognize that the year 1890 has been an exceptional one East, West and South. The engineering profession has opened up more new work and new projects than ever before in a single year. The greater or less stringency in the money markets acts as a check against rash undertakings and speculation. Monopolistic tendencies have been checked through wise judicial decisions, and promoters of grasping schemes have had notice served upon them that their doings will be closely watched. Organization of all kinds is making steady progress and all agencies for production and exchange are more wisely managed than during their growth to their present proportions. The iron and steel makers are expanding capacity rapidly. Mining interests are thriving in all sections, and makers of machinery are overcrowded with work. This progress is due to natural rather than artificial causes, and has its basis in the wants and necessities of the people. Economics are being developed in all directions, and on the other hand habits of thrift are more general among the people. Preparations are being made among the capitalists, investors and managers of great interests and enterprises to enter upon even greater activity next year in many departments of activity, from the establishment of ocean and coastwise ship lines to the construction of additional railroad mileage when it is found to be needed, and to the building up of industries and the prosecution of work of all kinds wherein profit is to be made. Panics and depressions are still possible, but every month's progress renders them more improbable and remote. The development of markets all over the country for products of the soil is the secret source of the phenomenal progress and activity everywhere visible.

Synopsis of Building News.

Baltimore, Md.—The Phoenix Club are contemplating a new building, four stories, brick and stone. The congregation of the Grace Baptist Church will erect a new church in the spring. A company of Baltimore and New York capitalists, with a capital stock of \$7,000,000, will erect a tin plate manufactory, which will cover several acres of land. The buildings will be erected as soon as the arrangements can be made. About \$5,000,000 will be put in the plant.

Buffalo, N. Y.—Architect W. H. Archer, of 9 German Insurance Building, reports for trustees of the Y. M. C. A., Tonawanda, New York: Association building, 112 by 134 feet; with auditorium, baths, gymnasium, society rooms, and four stores, three stories and basement, tin roof, iron columns, stairs and fire escapes, steel girders, plate glass, copper bays, electric light, etc.; cost \$40,000. For George P. Smith, Esq., Tonawanda, New York, brick and stone business block, apartments, hall and offices, three stories, 78 by 86 feet, tin roof, iron columns, fire escapes, steel girders, copper bay windows, plate glass, elevators, etc.; cost \$26,000.

Chicago, Ill.—Architect F. Koenig: For M. Portz, eight two-story flat buildings on Rebecca street near Douglas Park; to be of St. Louis pressed brick with Bedford stone trimmings and galvanized iron bay windows, and all the sanitary improvements; cost \$60,000. For A. Geissler, nine two-story flat buildings on 14th street near Douglas Park, of St. Louis pressed brick and stone; the cost will be about \$60,000.

Architect F. L. Fry: For W. H. Thomas & Son, a three-story store and flat building, size 30 by 100 feet, to be erected at 945 W. Lake street; the front will be of galvanized iron and plate glass and they will put in the modern improvements; cost about \$18,000. Working on plans.

Architects Hetherington & Warner: For J. J. Coughlan, just finished plans for a two-story and basement residence of pressed brick and stone, with furnace and all the improvements; to be built on Walnut street near Sacramento avenue. For D. J. Murphy, at Ravenswood, four two-story and basement frame dwellings, with brick basements, bath rooms, closets, mantels, furnaces, etc.; the cost will be \$15,000.

Architect Julius H. Huber: For B. and P. Mahon, a four-story store and flat building, size 52 by 48 feet, to be built on the corner of 22d and Dearborn streets; it will have a front of rockfaced blue Bedford stone and cost \$15,000. For S. H. Harris, a two-story basement and attic residence of pressed brick and stone, with furnace, hardwood interior, to cost \$7,000, on Monroe street near Kedzie avenue. For B. Weber, two two-story and basement frame residences at High Ridge, to have stone basements, furnaces, stained and plate glass, and the sanitary improvements; cost \$10,000.

Architect George Grussing: For John Collins, on Troy street near Huron, a two-story flat building of Tiffany pressed brick and brownstone. For Thomas Foster, on Forty-first street, a two-story flat building of Tiffany pressed brick and stone. For Eugene R. Maunder, at 1506 Lake street, a three-story flat building, to be of Tiffany pressed brick and Bedford stone.

Architects Ostling Brothers: For C. N. Smith, working on plans for a six-story apartment building, size 70 by 105 feet, to cost \$100,000, to be erected on the corner of Thirty-sixth street and Indiana avenue. It will have a Bedford stone front, hardwood interior finish, hot water heating, marble wainscoting, elevator, electric light, stained, plate and beveled glass and all the improvements. The same architects have completed plans for an eight-story office building, to be erected on Quincy street near La Salle. It will be 60 by 55 feet in size, with Tiffany pressed brick and Portage brownstone front. They will put in steam heat, elevator, electric light, and all the conveniences. The cost will be about \$100,000.

Architect C. M. Palmer: For William H. Moore, a three-story and basement residence at 4119 Grand boulevard, to have a Bedford stone front, hot water heating, and cost \$14,000. For C. C. Landt, a three-story and basement residence on Drexel boulevard south of Forty-third street. It will have a rockfaced Bedford stone front, hardwood interior finish, hot water heating, etc., and cost \$15,000. For James Von Vezey, three three-story Bedford stone front residences on Forty-sixth street near Vincennes avenue, to have furnaces and all the sanitary improvements, and cost \$15,000.

Architect Louis Martens: For Thomas J. Leonard, at 648 to 652 Polk street, a three-story flat building, to cost \$12,000. For Martin Schaefer, a four-story store and flat building, of Findlay pressed brick and buff Bedford stone with galvanized iron bays and tower, to cost \$15,000, on the north-east corner of Twelfth street and California avenue. For A. L. Jones, on Langley avenue near Forty-eighth street, three two-story dwellings, to have buff Bedford stone fronts, furnaces and all the improvements, and cost \$15,000.

Architect Frederick W. Perkins: For Mrs. Moses Gunn, making plans for a seven-story apartment building, to be erected on the south-east corner of Twenty-first street and Calumet avenue. It will have a front of pressed brick and terracotta, tile and marble work, elevator, steam heat and all the improvements; the

cost will be about \$70,000. He is also working on plans for a four-story apartment house, to be built on the corner of Thirty-first street and Calumet avenue, to have a front of Findlay pressed brick and Bedford stone, steam heat, electric light, marble work and all the improvements, and cost about \$55,000.

Architect W. L. B. Jenney: For Messrs. Speed and Henning, at 299 to 303 Clark street, an eight-story addition, to be of pressed brick and terra-cotta, of steel construction and fireproof. It will be made into a first-class modern twelve-story building, well adapted for offices or hotel purposes.

Architects Patton & Fisher: For W. A. Dunshee, a six-story basement and attic apartment building, size 51 by 110 feet; to cost \$70,000; to be erected at 283 Oakwood boulevard; it will be of granite, first story and above of rockfaced and smooth Roman brick with terra cotta trimmings; they will put in steam heat, electric light, and all the improvements.

Architect Henry Sierks: For Edward Uihlein, a four-story and basement store and flat building on the corner of Forty-seventh street and Center avenue; to be of Indiana pressed brick and Bedford stone; cost \$16,000.

Architects Flanders & Zimmerman: For C. L. Lawton, a two-story basement and attic, pressed brick, stone and frame residence to be erected on Greenwood avenue between Forty-fourth and Forty-fifth streets; it will have steam heat, electric light, and all the sanitary improvements; cost \$15,000. For J. R. Towle, six four-story store and flat buildings, to have a frontage of 150 feet and cost \$75,000; they will be erected on Sixty-third street near Madison avenue and have pressed brick and stone fronts with copper bays, hardwood finish throughout, porcelain bath tubs, marble entrance, tile floors, dumb waiters, speaking tubes, etc. For B. Callaghan, three three-story stores and flats, size 60 by 85 feet, to cost \$25,000; to be erected on Thirty-fifth street near Rhodes avenue; to be of pressed brick and stone with copper bays, marble tile and electric work.

Architect D. S. Pentecost: For A. L. Lundgren, a two-story basement and attic frame residence to be built at Prospect Park; to be of stone basement, have hardwood finish, hot water heating; will put in gas machine and gas engine, bath rooms, closets, mantels, billiard room, etc.; cost \$15,000. For J. F. Pratt, on Jackson street, a two-story flat building, and on Whipple street two two-story flat buildings, to be of pressed brick and stone and have all the sanitary arrangements; the cost will be about \$12,000.

Architect Wesley A. Arnold: For the Columbian Pyrotechnic Company, on Cottage Grove avenue between Sixtieth and Sixty-first streets, a platform to seat 15,000 persons, a stage 150 by 300 feet, an artificial lake 100 by 300, dressing-rooms, work rooms, magazines for powder and fireworks, a pavilion 100 by 100 feet, a promenade 50 by 300, music stand, etc.; the cost of these buildings will be about \$50,000. The president of the company, H. Burkholder, can be found in the Gaff building.

Architect Oliver W. Marble: For George W. Park, two three-story and basement residences on Thirty-ninth street and Grand boulevard; they will have fronts of Portage red sandstone and be finished in mahogany, bird's eye maple, cherry, etc.; have hot water heating, electric light, dumb waiters, plate and beveled glass and all the best of sanitary improvements, and cost \$50,000.

Architect Clinton J. Warren: For Frank Aldrich, a seven-story hotel on the corner of Lake avenue and Forty-seventh street; to be of pressed brick, stone and terra-cotta on four sides; have four elevators, steam heat, electric light, marble floors and wainscoting, etc.; cost about \$300,000.

Architect George W. Maher: For A. F. Shuman, on Cornell avenue, a four-story apartment building (may be changed into hotel during World's Fair). The front will be of Michigan green buff sandstone; will put in steam heat, elevator, dumb waiters and all improvements; cost \$30,000.

Architect J. E. O. Pridmore: For J. W. McFarlane and others, a ten-story apartment building, to be erected on the South side. It will be of steel construction, and thoroughly fireproof; have hot water heating, six elevators, electric light and all the best of improvements and cost \$100,000. The same architect will also make plans for a fifteen-story hotel, to be erected near Washington Park and the main entrance to the World's Fair. It will be absolutely fireproof, and finished in magnificent style, and cost upward of \$800,000.

Architect Otto H. Matz: For Mr. James Lynch, three-story and basement apartment house 25 by 80 feet, on Oak street near Lake Shore drive; St. Louis brick and Portage stone; cost \$12,000. Also preparing plans for Mrs. Hanka Ohm, Belden avenue, two-story, basement and attic residence; blue Bedford stone, with French roof; cost \$10,000. For Mrs. Amberg, four-story and basement store and flat building, 65 by 100 feet, on Dayton street; iron and plate-glass and Bedford stone fronts; cost \$30,000.

Cheyenne, Wyo.—Architect J. S. Matthews: For Mr. Christopher O'Brien, a two-story frame hotel; size 32 by 60 feet; cost \$5,000. For Mr. Robert Robinson, a stone residence; size 75 by 86 feet; slate roof, conservatory; cost \$40,000. For the city corporation, a two-story hose-house; size 22 by 66 feet; pressed brick, and red stone trimmings; cost \$6,500. For the Laramie county district, a two-story and basement high school with tower; size 80 by 82 feet; cost \$38,000; pressed brick, with red mortar and stone trimmings.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall: A story is current about a farmer who bragged concerning his abilities. He was "rawther peert on guessin'," as he said, and one day, picking up an egg freshly laid by a Plymouth Rock, said he, "I'll wager as that ere egg will hatch out a cock." The egg was marked and set, and in due season the "cock" turned out to be a pullet. When confronted with his mistake, he said, "by gosh, I'm wrong! I'll never read the almanack again." With the farmer's mistake in view, I feel like being a "leetle keerful" in prophesying as to the outlook of trade. I don't know whether politicians will claim that the McKinley bill will affect building, or not, but as for me, I can't see how. No doubt, should our next season's work fall below our expectations, but that some such foolish howl will be made. I have found that it is very easy to blame others for our own shortcomings. Of course, it is too early to foretell what the spring will bring forth, but our architects and builders are inclined to look upon the bright side, and think that we will have a good trade.

Notwithstanding the strikes, Cincinnati will make a better showing this year than she did last, as the following report will show. For the nine months there have been 1,710 permits issued. Reported value as follows: Repairs, \$384,795.00; frame, \$749,494.00; brick, \$2,476,238.00; moving buildings, \$396.00, with a total of \$3,610,923.00. This does not include the \$2,000,000.00 represented by the suburban trade, outside the corporation, which, by the by, is exceedingly active.

Architects S. Hannaford & Sons have prepared plans for a large tobacco factory at Middletown, Ohio, for Mr. P. J. Sorg, size 68 by 275 feet, and five stories high; materials, brick, architectural iron; steam heat, fire escape, plumbing, tin roof, etc. Also, a residence for Capt. George N. Stone, city; materials, stone, slate roof, furnace, plate and stained glass; hardwood finish, wood mantels, gas, plumbing, etc.; cost \$20,000.

Architect Levi P. Hazen has the plans ready for a brass foundry for Lunkenheimer Brass Co.; materials, brick, architectural iron, steam heat, elevators, tin roof, gas, plumbing, etc.; size 250 by 136 feet; cost \$60,000.

Architect John H. Boll has prepared the plans for a residence for John Rahe; materials, brick, stone trimmings, plumbing, stained glass, slate roof, wood mantels, etc.; cost \$6,000.

Architect G. W. Drach has prepared plans for Mr. Fred Davenport; materials for residence, frame, slate roof, pine finish, plumbing, stained glass, etc.; cost \$5,000.

Architects Crapsey & Brown report for Messrs. Graf, Mersbach & Co., a saddlery factory; materials, brick, architectural iron, steam heat, elevators, tin roof, fire escape, plumbing, etc.; cost \$20,000.

Architect Edwin Anderson reports for the Mosler Safe & Lock Co., at Hamilton, Ohio (present offices at Cincinnati), an extensive safe plant; materials, brick, slate roof, ironwork, elevators, gas fixtures, plumbing, etc.; cost about \$85,000.

Architect Charles Diss reports for Mr. George Eickert, a residence; materials, brick, slate roof, pine finish, wood mantels, plumbing, furnace, blinds, etc.; cost \$8,000.

Architects G. & A. Brink report for Mr. Moses Goldsmith, 45 Elder street, three residences; materials, brick, slate roof, iron, pine finish, wood mantels, plumbing, blinds, grates, etc.; cost \$10,000.

Architect Louis Picket reports for Dr. Louis Metz, Madisonville, Ohio, a residence; brick, slate roof, furnace, stained glass, hardwood finish and mantels, gas and plumbing; cost \$7,000.

Architect S. S. Godley reports for F. Rockhold, Esq., Hillsboro, Ohio, a residence; materials, frame, galvanized iron, slate roof, plate and stained glass,

hardwood finish, gas, plumbing, etc.; cost \$6,000. For Mr. John Mauss, Pearl near Race, Cincinnati, a residence; materials, frame, slate roof, furnace, stained glass, hardwood finish, gas, plumbing, wood mantels, etc.; cost \$5,000. For E. G. Howard, Price Hill, Cincinnati, a residence; materials, frame, slate roof, plumbing, stained glass, mantels, grates, pine finish, gas, etc.; cost \$5,000.

Denver, Colo.—The New York Cracker Company contemplate building a large new factory to cost about \$100,000. The building will be 100 by 150 feet and four stories high and will be one of the largest of the kind in the United States.

W. B. Worcester will erect a large office building; cost about \$16,000.

J. F. Roberts has plans prepared for a two and one-half story brick residence, size 22 by 44 feet; cost, \$9,000.

Architect F. J. Miller has prepared plans for Mr. W. H. Crawford, for a five-story flat building, brick with stone fronts, size 26 by 91 feet; cost, \$25,000.

Detroit, Mich.—Architects A. C. Varney & Co.: For John H. Johnston and Robert Leadley, a three-story double brick residence, size 37 by 40 feet, Findlay pressed brick, stone trimmings and slate roof; cost \$7,000. For William J. Wray, a two-story brick residence, pressed brick, slate roof; cost \$5,000. For Edward Chope, a two-story double brick residence; cost \$7,000. For Herbert Snow, a three-story double brick livery stable, to have elevator, size 43 by 80 feet; cost \$9,000.

Architects John Scott & Co.: For Charles L. Freer, a two-story residence, stone with slate roof; cost \$45,000.

Architects Van Leyen & Hackett: For D. W. Simons, a three-story double brick residence, slate and composition roof, furnace heated, size 42 by 65 feet; cost \$10,000. For the Forrester Lawn Cemetery Company, a gate lodge, 28 by 45 feet; cost \$5,000; also a Fieldstone receiving vault, size 27 by 31 feet; cost \$6,000.

Architect P. Sederick: For the City Brewing Company, a four-story brick building, size 148 by 105 feet; cost \$48,000.

Architect H. J. Rill: For W. H. Holcombe, a three-story double brick residence, stone trimmings, slate roof; cost \$9,000.

Architect W. P. Clark has prepared plans for a four-story summer frame hotel at Port Dover, Ontario; cost \$50,000.

Architects E. A. Walshe & Son: For James H. Pound, four three-story store and flat buildings; cost \$16,000. For Robert J. Wilson, a two-story brick residence; cost \$8,500.

Architect Gordon W. Lloyd: For J. E. Bolles & Co., a four-story manufacturing building, stone trimmings, elevators, size 80 by 64 feet; cost \$30,000.

Architect Albert E. French has plans for two-story brick school building at Lemington, Ontario; cost \$8,000. Also a two-story frame hotel at Petite Cote, Ontario; cost \$8,000. For R. S. Webb, a two-story brick refrigerator; cost \$5,000.

Architects Gearing & Stratton: For Mr. S. P. Peabody, at Columbus, Ohio, a two and one-half story brick house, stone trimmings, slate roof; cost \$12,000.

Kansas City, Mo.—Plans for the following buildings are being prepared: Business block on Tenth and Walnut streets, 48 by 113 feet, six stories, to cost \$30,000; L. G. Middaugh, 516 and 517 Massachusetts building, architect, and Capt. J. T. Blake, owner; building to be built of brick and stone, with all modern conveniences.

Business block 615 Delaware street; brick and stone, three stories; \$4,000. Joseph C. Ford, owner. James & James, architects, 505 Mercantile building.

Brick business, block on Union avenue and Mulberry street, 31 by 40 feet; two stories; cost \$4,000. J. J. Squires, owner. J. T. Baxter, 500 Mercantile building, architect.

Brick business block Twelfth and Cherry streets, 47 by 76 feet, four stories; cost \$15,000. Bellemer Brothers, owner. J. T. Baxter, architect.

Brick warehouse, 50 by 100 feet, three stories; cost \$12,000; Tenth and Hickory streets. S. E. Stranathan, owner. H. B. Prudden, 616 and 617 Massachusetts building, architect.

Frame sale stable, 125 by 250 feet, two stories; cost \$8,000; on Bell between Eighteenth and Nineteenth streets. Kansas City Stock Yards, owner; E. S. W. Draught, architect and builder.

Brick barn, 38 by 84 feet; cost \$3,000; near northwest corner Sixth street and Wabash avenue. Robert Keith Furniture Company, owner. J. T. Baxter, architect.

The Husted Investment Company, of Kansas City, Kansas, will build ten residences, five brick and five frame, in Chelsea Park Addition, ranging in cost from \$3,000 to \$5,000. William Wood, 502 Husted building, is preparing plans.

Kenney, Neb.—Architects Foster & Pulsis: For Messrs. Downing & Bartlett, a store and office building, stone and pressed brick; cost \$25,000.

Architect I. Hodgson, Jr.: For J. L. Keck, a large brick and stone hotel; cost \$100,000.

Minneapolis, Minn.—W. L. Wolford has added a \$7,000 addition, with alterations, to his residence.

O. Royal will erect a two-story frame residence at a cost of \$6,000.

Architect S. Sedgwick: For the Westminster Presbyterian Church, a one-story brick church, size 64 by 100 feet; cost \$10,000.

The Minneapolis Club propose building a new brick club house; to cost about \$75,000.

Messrs. Willis & Dunham have plans drawn up for a five-story brick and stone store building; cost \$60,000.

Ogden, Utah.—Architect J. S. Matthews, Cheyenne, Wyoming: For the First Presbyterian Church Society, a brick church with red stone trimmings; size 75 by 97 feet; cost \$37,500.

Pittsburgh, Pa.—Architect F. C. Sauer has prepared plans for two brick residences for Mr. Edward Skees; cost \$7,800. Also a stone residence for G. W. Morris.

The contract for the Lyceum theater has been given to Messrs. R. C. Balinger & Co., of Philadelphia, for \$240,000.

Mr. J. S. Brown is having plans prepared for a thirteen-story apartment house, to be erected at Allegheny. The building is to cost \$150,000.

The Union Hotel Company will erect a five-story brick hotel at Charleroi; to have all modern conveniences; cost \$70,000.

Architect Edward Stotz: For Mrs. C. L. Dawes, a two-story frame residence; cost \$7,000.

There are very few new plans on the boards here now.

Rochester, N. Y.—Architects Thomas Nolan and E. B. Nolan have prepared plans for a five-story brick and iron building for the Rochester Electric Light Company; 100 feet front by 66 feet deep; heavy freight elevator; hot blast or steam heating; molded brick, terra-cotta and stone trimmings; to cost \$36,000. For a frame house for Professor Latimore; to cost \$6,000.

Architect Otto Block has prepared plans for a brick block of two stores and four flats; 40 feet front by 70 feet deep; three stories high; owner George Klem; cost \$12,000. For G. W. and F. W. Crouch, a brick block, to contain one store and nine flats; two stories high; 135 feet front; to be fitted up for first-class flats in every way; to cost \$16,000.

Architect W. Foster Kelly: A frame dwelling house for Dr. Spencer on Union street; to cost \$7,000. Double frame house for A. E. Dewey; to cost \$4,000. Dwelling house for Walter North; to cost \$3,000. Frame house for Levi Sherman; to cost \$4,000.

Seattle, Wash.—The Trinity Church congregation will erect a church and parsonage; the buildings are to be of brick and stone; work to commence at once; estimated cost \$60,000.

St. Louis, Mo.—The Mission Church society will erect a brick church; to cost about \$7,000.

C. F. Hoyle has plans for a four-story store and office building; to cost \$22,000.

Architect H. E. Roach: For the Butler Tobacco Company, a seven-story brick building; steam heated; cost \$50,000.

Architect John A. Quinn: For J. Cantwell, a brick and stone residence; to cost \$15,000. For C. F. Warner, a brick residence; cost \$8,000.

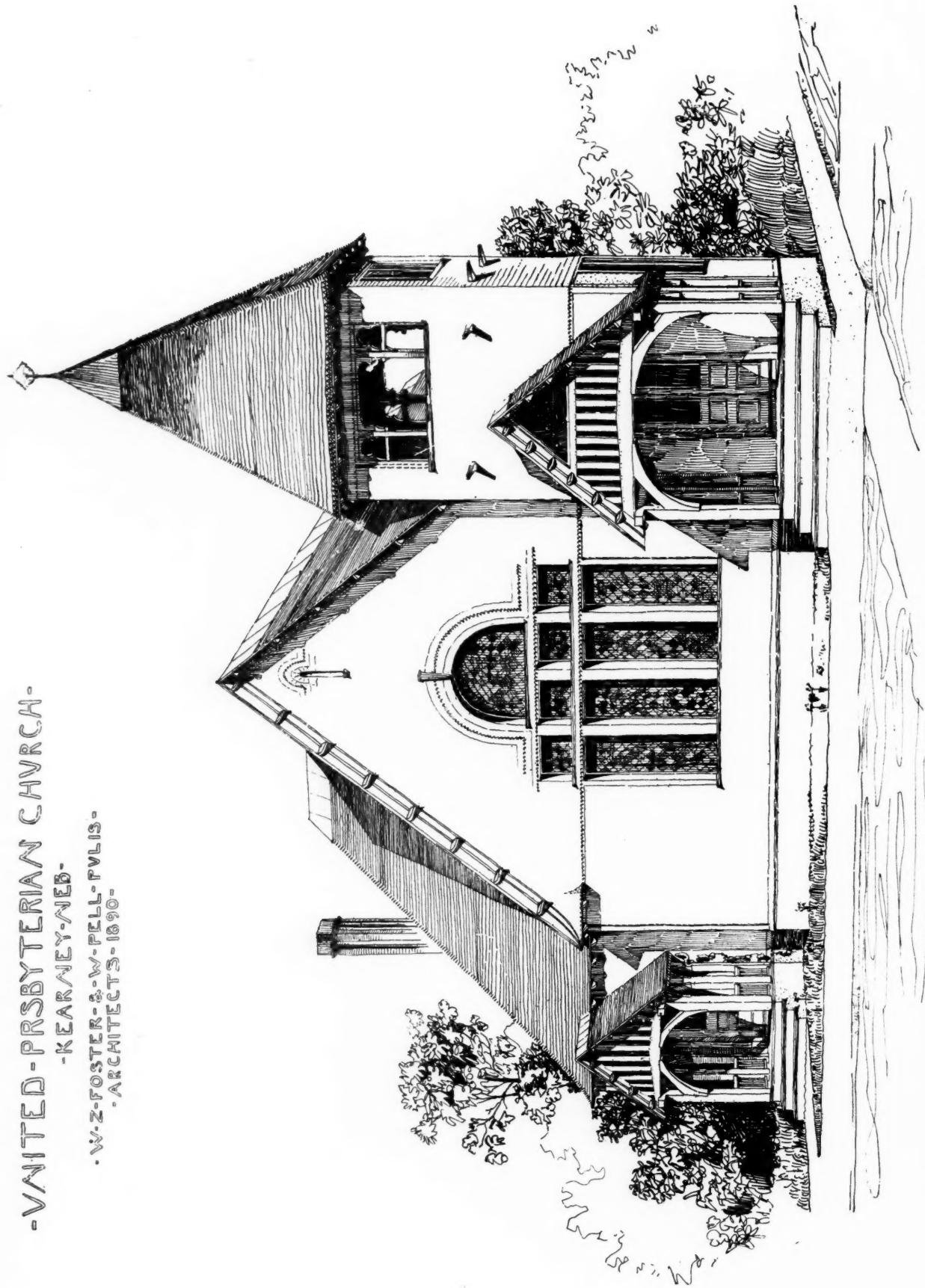
The Pastime Gymnasium will erect a three-story brick club house; to cost about \$5,500. Goesse & Remmer, contractors.

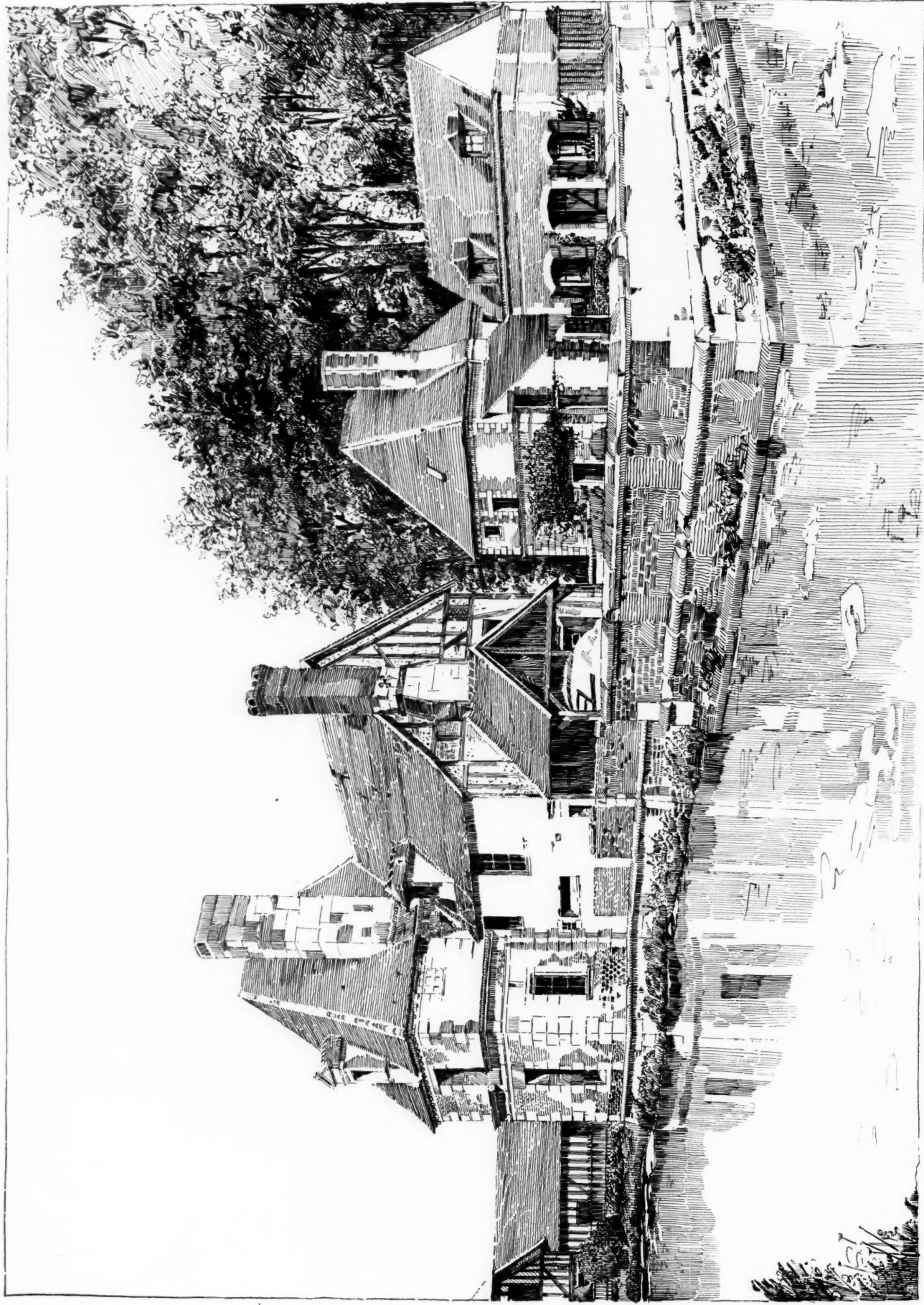
Pechman Brothers will erect a three-story dwelling house; brick with slate roof. Rievre & Son, contractors.

UNITED-PRESBYTERIAN CHURCH-

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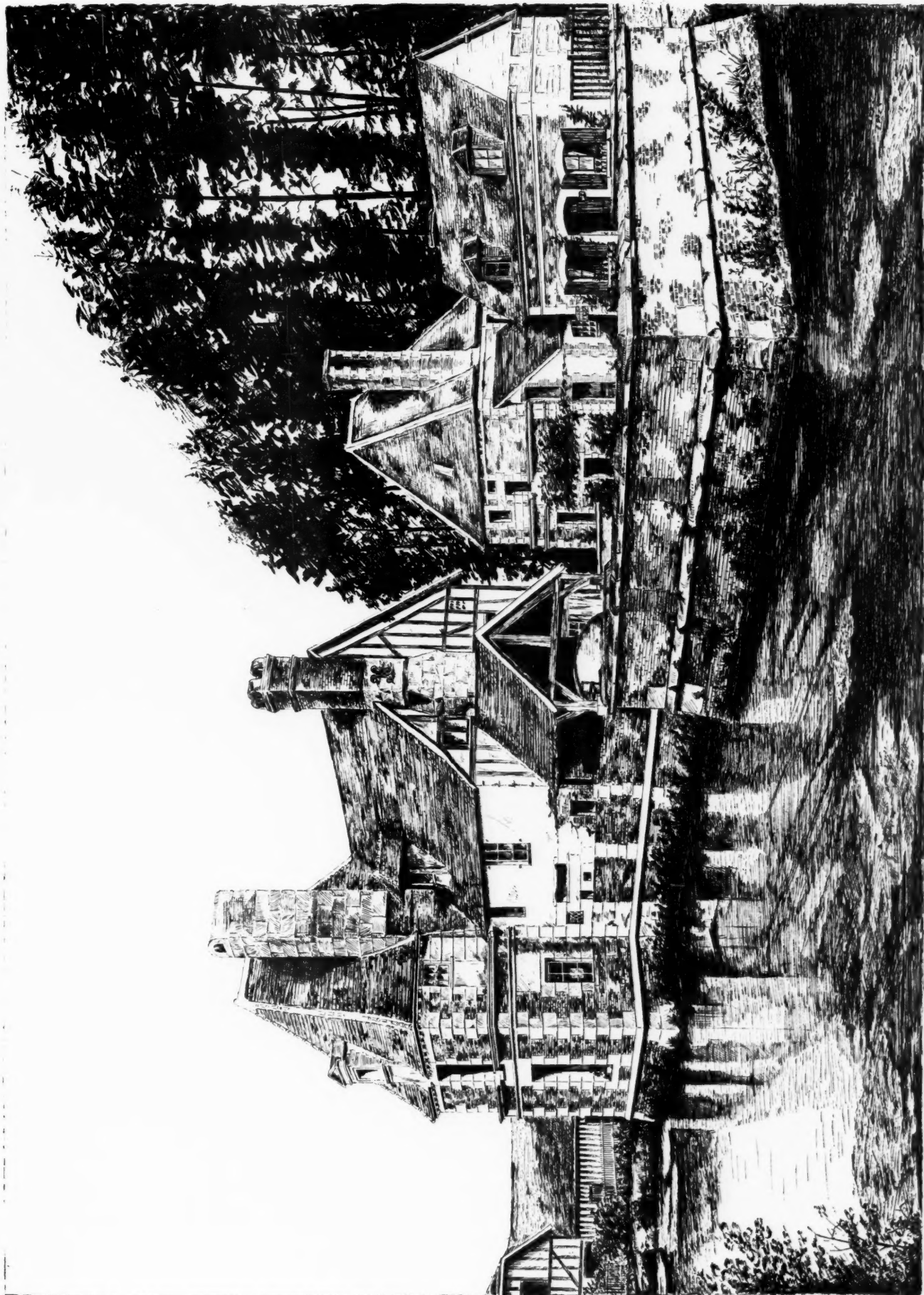
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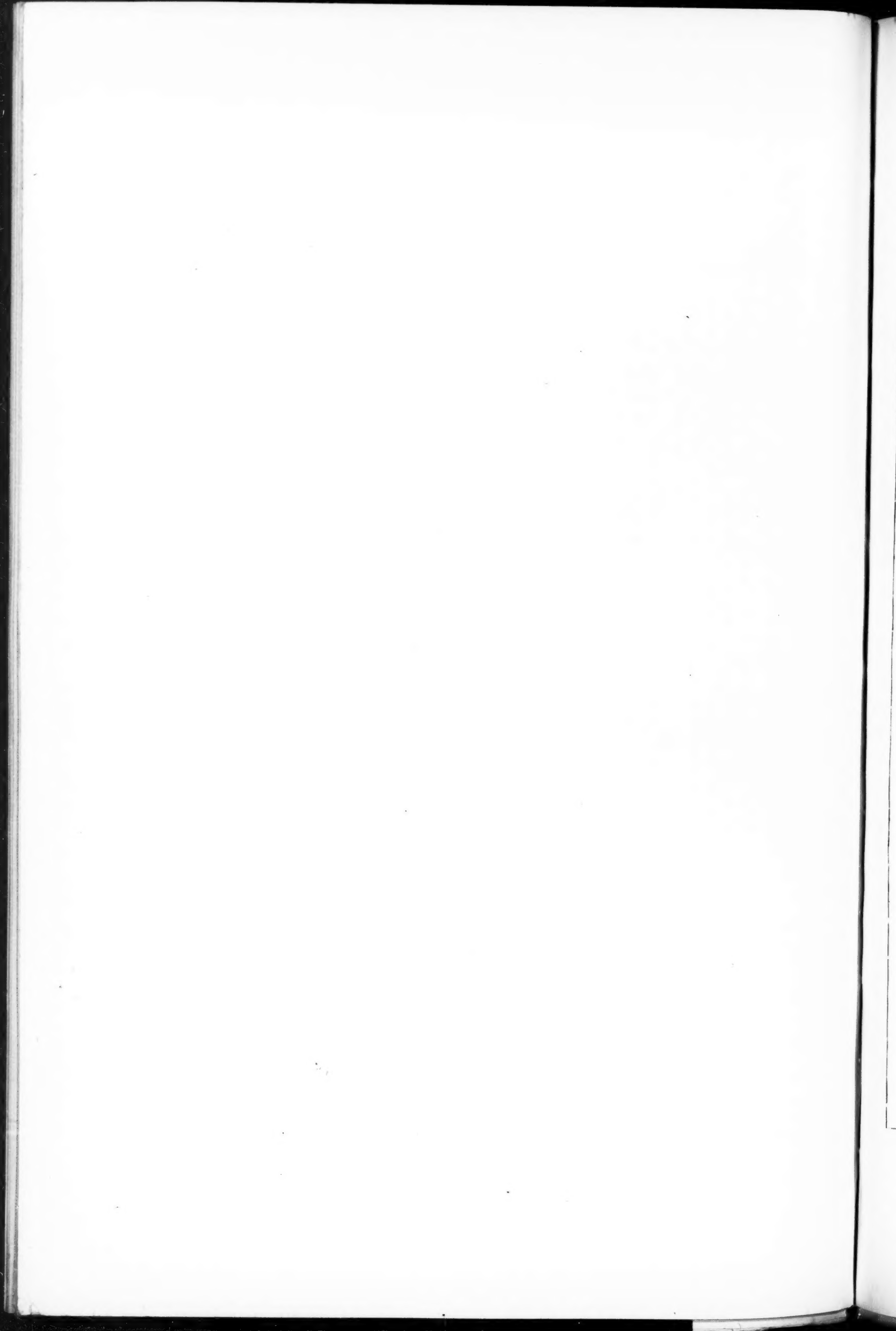
CHICAGO ARCHITECTURAL SKETCH CLUB COMPETITION IN PEN AND INK RENDERING FROM A PHOTOGRAPH.

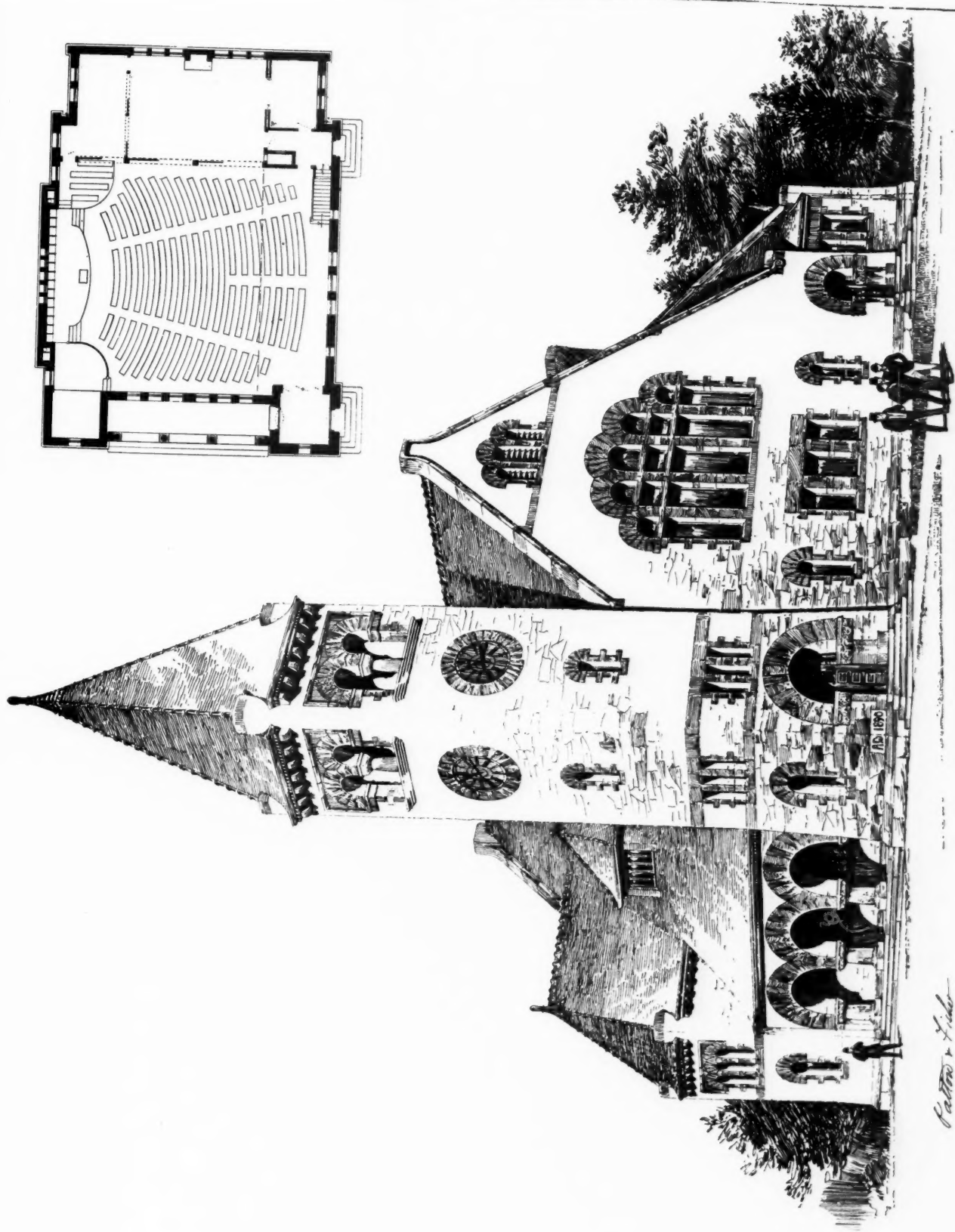
AWARDED THE FOR SECOND PLACE—E. C. JENSEN.



CHICAGO ARCHITECTURAL SKETCH CLUB COMPETITION IN PEN AND INK RENDERING FROM A PHOTOGRAPH.

AWARDED TIE FOR SECOND PLACE—W. R. GIBB.





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