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Final Series of World's Fair Illustrations.

With the July issue THE INLAND ARCHITECT commenced its series of photographs of Columbian Exposition Architecture which will be continued throughout the year. At the commencement the elevations of the buildings were published, followed by perspective views. Then, as construction progressed, the different forms were presented by photograph. Now, in their complete form, with the landscape effects and sculptured accessories, the photogravure edition will present what will, it is hoped, be the most complete set of views obtainable. It will not be the aim to give to our readers a large number of general views, but rather the best of the architecture in detail, and much of this will be selected from points where the general photographer will not reach. Each view is carefully selected, the point of view and the exact hour to secure the best possible photographic effect noted, and these instructions must not only be followed by the photographer, but none but perfect negatives are accepted. Each view will be described in detail, and as much of interesting circumstance as seems appropriate will be included in the descriptions from data that have been gathered by day-to-day observation. In fact, it is probable that THE INLAND ARCHITECT will fulfill its promise of two years ago of giving to its readers from month to month an accurate and concise exposition of the World's Fair in construction and design from its beginning to its completion.

Twenty-Seventh Convention, A. I. A.

The twenty-seventh annual convention of the American Institute of Architects, which was held at Chicago, July 31 and August 1, in the Art Institute building, was in no sense a convention, as the work done was simply routine business. Though there was no discussion upon any subject, this should not be taken as an indication of inactivity, because it was the intention to devote as little time to convention and allow as much for inspection of the Exposition buildings during the week as possible. The election of D. H. Burnham as president of the Institute will be appreciated by every member. It seems particularly fitting that the foremost name in the profession now before the American people should become the head of its representative society. Mr. Burnham's work needs no eulogy. It has brought him, while yet a young man, the degree of Master of Liberal Arts from both Yale and Harvard Universities; it has given him the confidence of the engineers and architects of the world, and it is now indorsed by the Institute in his election to its presidency. Mr. Alfred Stone took the secretaryship when it was laid down by Mr. Adler, and has shown a rare adaptability for the work, and it was fitting that this should be indorsed by his election, and this in spite of his personal plea that the secretary should be a western man. The committees to whom important work was confided a year ago should see that the several subjects upon which they are supposed to be engaged should receive the necessary attention. At the convention a year ago a great many defects were pointed out in the constitution and by-laws, particularly those portions relating to the relationship of Chapters with the Institute. These should be examined

into. The life of local and state Chapters is endangered by delay, and it is this committee's duty to investigate and recommend some plan for their relief. The year will probably not be a busy one for architects, and it seems that advantage might be taken of this lull in professional work to accomplish many of those necessary reforms in the conduct of practice that heretofore have been discussed in conventions, perhaps, but have been lost sight of in the interim.

The World's Congress of Architects at Chicago. As a congress of architects that which convened in Chicago during the first week of the current month was as successful as such gatherings usually are. A large number of valuable papers were presented, representatives of all the large architectural societies of foreign countries, excepting Australia, were present, and the membership of the American Institute was as representative as usual. The gathering, however, was principally to see the Columbian Exposition and to examine constructive methods in vogue in Chicago. This each delegate was enabled to do thoroughly through the courtesy of Chicago architects, who gave their time and knowledge freely to the visitors. The Illinois Chapter entertained at the Institute of Building Arts each day with a luncheon, and on the second day of the gathering provided a coaching trip through the parks and boulevards. Mr. D. H. Burnham, chairman of the congress, gave a breakfast to the foreign visitors and included the fine art judges. This was followed throughout the stay of the visitors by special courtesies at the Fair grounds. The Committee on Entertainment of the Institute, S. A. Treat and W. W. Clay, provided a most enjoyable diversion in the shape of steamboat excursion on the lake, ending at the Fair grounds in the evening, witnessing the fireworks display and electric illumination.

Architectural School at Chicago Assured. It is now generally assured that the nucleus of an architectural and engineering school, which originated with the Chicago Art Institute two years ago in the establishment of its architectural class under the direction of Mr. Louis Millet, will grow into an institution equal in scope with the "Teck" or Columbia College School of Mines. The trustees of the Art Institute and those of the New Armour Institute have formed a union between the two schools in which will be established a full and thorough architectural course. The Armour Institute will furnish the scientific and mathematical instruction. Its entire scientific equipment with departments in mechanical engineering, electricity and civil engineering, with laboratories, shops, library, etc., will all be placed at the disposal of architectural students, while the vast collection of rare works in the Art Institute, embracing not only pictures and sculptures but many objects of art in applied design, such as Greek vases, metals, textiles, antiquities, furniture, etc., will be open to the students. Far more important than these to the architectural student will be the great Trocadero collection of casts sent to the Columbian Exposition by the French government, which will be transferred to the Art Institute at the close. The course will open September 14 under the general direction of W. M. R. French, of the Art Institute, and Rev. F. W. Gunsaulus, of the Armour Institute.

The Robert Clark Medal Competition.

The fifth annual competition for the Robert Clark medals, the subject for which was published in the July issue, presents an interesting problem, its attractiveness largely lying in the difficulty of solution. As one of the two great competitions open to draftsmen in the United States, in which honorable distinction may be earned the Clark competition should be entered by every draftsman who enjoys a serious problem, and the acquirement of knowledge in his profession. It was founded six years ago by Mr. Robert Clark, of Chicago, a Scotchman whose architectural studies and observation had prompted the wish to do something to further the study of the profession among the draftsmen of Chicago. Through the instrumentality of Mr. H. L. Gay and the then president of the Chicago Architectural Sketch Club, Mr. W. G. Williamson, Mr. Clark presented \$1,000 to the club to be controlled by trustees, but used in any way they deemed would best carry out the purpose of the gift. The club, in conjunction with the trustees, at once formed the rules by which the competitions should be governed and magnanimously threw it open to the draftsmen of the country. The problem for this year should receive a strong indorsement through a large number of draftsmen being represented, and as the committee has announced, two additional bronze medals will be presented. The competition closes October 2 and work should commence now.

Architectural Superiority of the Columbian Exposition.

While the attendance of architects at the late congress and the Columbian Exposition was large, it was not as general as those who know how great an architectural exhibition it is would expect from the profession. This may be due from several causes. The foreign journals copying from those published in the East have belittled the magnitude as well as the artistic merit of the Fair. The year has not been a prosperous one and many are waiting to visit Chicago at a later date, etc., but it is the expressed opinion of every architect who has spent a day at the Fair that no architect in the world should fail to see this great architectural triumph. In regard to the expressions, either published or otherwise, regarding the artistic completeness of the buildings, the general magnificence of the arrangement and range of perspective, there is only one class of detractors: those like the editor of the New York *Sun*, who has never seen the Fair and willfully misconstrues every report that is sent him. It is time that the profession and the artistic public should understand that the general view of the grand basin and the south lagoon has no equal in architectural composition on the face of the earth, and it is also the opinion of those who are most capable of judging and who make this statement, that nothing has ever existed that equals the general harmony and balance sustained by each part of the general composition. This is the judgment which foreign architects who cannot be suspected of bias, and whose architectural knowledge is beyond question, invariably give when speaking of this latest architectural creation. In fact, it is generally conceded that no description can portray or photograph present in any adequate degree the grand harmony of this architectural chorus. For it is not in the buildings, it is not in the sculpture, it is not in the perfection of the landscape architect's work that the spirit and distinctive superiority is found, but in the unity that exists in the general effect.

ARCHITECTURE AT THE WORLD'S COLUMBIAN EXPOSITION.

PART II.

BRITISH, FRENCH AND GERMAN ARCHITECTURE.

ARCHITECTURE as an exhibit, while it is mainly prominent in the Exposition, state, foreign and concessionary buildings, is officially classed as Department K, from groups 139 to 144. These are the groups that make up the whole department of Fine Arts except "Exhibits from Private Collections." Hence the Exposition classes architecture as having a direct relation to all the other fine arts. The heading in the catalogue is "Architecture as a Fine Art." Hence we may assume that by placing the architectural drawings and designs in the Fine Arts building they are to be regarded as works of artistic design from one point of view and drawings of artistic execution from another.

It is difficult to look over this vast array of water colors, line drawings and photographs without a feeling of doubt as to the propriety of holding a competitive exhibition of architecture as a fine art at all. Works of painting and sculpture, not architectural, are final results, while all architectural drawings made previous to the erection of the buildings they represent are only means leading to results. It is easy to judge the former on their merits. But the latter are only projects which may be good or bad in execution according to the skill used by architect and builder in carrying them out.

All architectural exhibitions heretofore held, including the present one, have been of a mixed character. Even drawings made before execution are of many varieties. They are either perspectives in color, which are intended to show most correctly the proposed work; perspectives in monochrome or line, which only show the forms of buildings; elevations and sections which never show the resultant effect, but which are only the architect's tools, which assisted by his imagination may be sufficient for his purpose, but not for that of the spectator; or they may be photographs which show correctly the results without color. None of these are properly part of an architectural exhibition, which is only a means of bringing together the best representations of buildings that are impossible to be seen in one aggregation. Hence a true competitive exhibition of architecture as a fine art, collected in a building for works of fine art only, should consist of paintings executed from buildings or parts of buildings which have been erected; or colored drawings in perspective of projects that have not been executed. Each of these could be accompanied by plans, sections and models to further elucidate the design of each building, as has been done so extensively in the German section. To admit only these two classes of drawings with their addenda would make the work of judges comparatively easy.

But in addition to all the classes of drawings and designs that have been enumerated above there is still another, consisting of the works of what are known as "architectural artists." In many cases, especially in the American exhibit, the artist is given credit in the drawings as well as the architect or designer, and the same occurs in the catalogue. But in most of those the artist is made more prominent than the designer. Meretricious effects are often introduced which have nothing to do with a proper representation of the building in question, and the impressionist method of rendering has been found to have invaded the workshops of architects, with their own consent. There are pictures in the American exhibit, which are not exhibits of architecture at all, but only of methods of rendering by the artists who made them.

Taking these things all in all as we find them, one is almost overpowered by the wilderness of human work in this department that is presented to the eye. And when it is remembered that not by any means all of the architectural drawings are in the Fine Arts building, but that they may be found scattered among the foreign exhibits in the Manufactures building, in the foreign headquarters buildings, such as that of France, and even in the Transportation building in great quantity, it is a task to anyone to only glance at the great number of works of the architects of the world that are here collected. In one isolated building, that of the New York Central and Hudson River Railroad Company, is a complete exhibit of all classes of railroad architecture, the work of only one man, Bradford L. Gilbert, of New York, which is well worthy of examination.

But the architectural journalist impelled by a sense of duty must not miss all these things, even though to give any concep-

tion of what they are would fill several numbers of THE INLAND ARCHITECT.

The architectural exhibits in the Fine Arts building are confined to Great Britain, France, Germany and the United States, though Japan contributes four models which are a complete exposition of the ancient style and methods of building of that country. Great Britain sends 144 exhibits from 40 exhibitors, France 74 from 32 exhibitors, Germany 176 from 74 exhibitors and the United States 268 from 116 exhibitors. While the United States exceed each of the others in the amount of wall space covered, number of works and number of exhibitors, France, with 74 exhibits, covers more wall space than Germany with 176, and many times more than Great Britain with 144. In fact, Great Britain occupies only two alcoves, while France has at least eleven, and Germany eight. Yet England exhibits the designs of more individual buildings than either. This is a remarkable illustration of the methods of rendering architectural drawings by different nations. It would seem that no paper is large enough for a Frenchman, and that America is rapidly following his example. There is greater variety of rendering in the German drawings which comprise the largest as well as the smallest. There is a sameness in the method of rendering with the French, showing an adherence to the lines laid down in academic teaching. The English method of drawing is just what ours used to be twenty years ago before we were subjected to a French influence, such as every school of architecture established among us has endeavored to inculcate, no less than the many students who have been educated in the French schools.

England has never had a school of architectural design, since the days of Christopher Wren and his followers. It is the only one of the four countries here on exhibition in which there is no systematic or academic instruction in the art. There the system of apprenticeship has always prevailed, and all progress has been due to the influence and example of individual practitioners. This would be the case with us if it were not for the influence of the French school which is thwarting it. The great men of England have been recognized as such, if not always by the patrons of architecture, at least by the large following of younger men. Through the influence of a few, the Gothic revival of the middle of the present century came near to being a genuine revival. But it was killed by the performances of tyros and journeymen who, under the name of "Victorian," made it about as ridiculous as did the American fools under the name of "Eastlake."

Now we hear nothing of the so-called Gothic revival, but the memory of those men who did honest work in the true mediæval spirit still lives, and some of them are still with us, notably the greatest of them all, as shown by his example and influence, Alfred Waterhouse. But the students who are on the right track still look back to the work of the Pugins, and Sir Charles Barry, with whom the latter Pugin was associated in the grandest of modern architectural compositions, the new Houses of Parliament. Of later men they revere the memory of Street and Burges, the former the greatest student of the mediæval art of England and Italy, and the latter, the master of the thirteenth century work of France. And they always will, as shown by its outcroppings in the present exhibition.

It is well, therefore, that Waterhouse is represented in this exhibit, if by only two perspective drawings. But they give us two typical designs. While being a mediævalist he has always been the most versatile of the men whose leanings have been in that direction. And it is only such versatility as enables a man to adapt himself to all the varying circumstances arising in a long professional experience that prompts us to call him the greatest of them all. He has been confined to no special line of work, as has been the case with most of his compeers. First coming into notice through his success with the Manchester Assize Courts, his design for the town hall of the same city was adopted in competition against the best talent of Great Britain some years later. It is interesting to note here that one of the competitive designs over which that of Waterhouse was selected for the latter building is in the present exhibition. It is that of J. Oldrid Scott, son of the late Sir G. G. Scott, and familiar to us from the illustrations that appeared in the English journals at the time. Mr. Waterhouse has elected to send here a modest water color of a building of later date, but erected more than twelve years ago, the Natural History Museum, South Kensington. The celebrity given him by his two great works at Manchester has distracted attention, in this country

at least, from the equally famous building of which we are now enabled to see the autograph design. But the drawing is disappointing to one who has seen the building itself first. The great length and imposing size is not brought out, for it happens to be one which looks large, imposing and dignified from a distance, as is the case with Barry's Houses of Parliament. It is one of the first great buildings in England erected almost wholly of terra cotta outside and inside, but loses none of its dignity from being in that material. It is an example of the best modern mediævalism in design and construction, by its best modern exponent. Of the many business structures to which Waterhouse has given the stamp of genius, which has made them works of fine art, as well as models of practical adaptation and good construction, none are exhibited. His other contribution, the design for the National Liberal Club, on the Thames embankment, is of recent date, and shows how the Renaissance can be handled by a master in the art. Among the wilderness of business and hotel structures that have disfigured the city of London during the last twenty years, all assuming the forms of the Renaissance, but few have risen to mediocrity. Except in the designs of a few of the clubs, this style has had no able exponents. Scott's attempt at Renaissance, through government dictation, in the Foreign Offices, was a lamentable failure, compared with which the success of Waterhouse in a new style stands in strong contrast.

The English section is noticeable for a large number of works dating even before the Philadelphia Exposition, such as was not contemplated in the invitation to American exhibitors. It also contains three autograph drawings by the late George Edmond Street, two of which are of restorations. Here may be seen many of the designs for interior decoration by Professor Aitchison, and his drawing of the exterior of the Royal Exchange Assurance Company, Pall Mall, London. Aston Webb and E. Ingress Bell, recent successful aspirants, are represented by a colored perspective of the accepted design for the completion of the South Kensington Museum; also designs for the Victoria Courts, Birmingham, and the Metropolitan Life Assurance Societies' offices. Other designs offered for the South Kensington Museum are by John Belcher. Other noted exhibitors are James Brooks, London; R. W. Edis, who designed the British Headquarters building; Herbert A. Gribble, whose interior of the Oratory Church at Brompton is an exquisite drawing in color; Sir Thomas N. Deane & Son, Dublin; John L. Pearson and R. Phrené Spiers, of London.

The British exhibit is also remarkable from the fact that most of the drawings and paintings are autographic. The busy men of England still seem able to put their own handiwork upon their drawings, and the architectural artist is not a prominent factor there as with us. The only criticism to offer on the British exhibit is that too many of the drawings in pen and ink have evidently been made for reproduction by the photo-lithographic process, and are not appropriate in an international exhibition. But colored perspectives predominate. The English method of rendering is still, as it always has been, a representation of buildings as they are to look when built, without extravagant margins, elaborate frames or attempts at meretricious scenic effects. And that is why it occupies so little space.

(To be continued.)

PAINTING AND SCULPTURE AT THE WORLD'S FAIR.

TREATED AS "ART INSTRUCTED" AND "ART INFORMED."

BY H. C. PAYNE.

I HOLD first among the benefits of the World's Columbian Fair, the opportunity afforded through a rarely comprehensive Fine Arts Exhibit to reach some more catholic conclusions as to ultimate values both of aim and method.

With the world's current art before us, we may in a measure escape the insecure judgments resulting from a too exclusive familiarity with special methods, and conform our estimates more closely to the requirements of a universal standard, for in this air we breathe in this White World's City, not only school predilections, but even those innate predispositions which inhere in race and temperament, relax their grasp upon our spirits, and, freed for the moment from their own tyranny, the universal in them, more than the Anglo-Saxon or the individual, speaks.

Awake thus to the insufficiency of those distinctions in modern art based upon the varying methods of schools and cliques, and even of those deeper ones resulting from race and temperament, I

have sought one sufficiently broad to be aptly applied for purposes of interpretation not only to the art of one school and country but to that of all. Of course the application cannot be here exhaustively made. It will remain for the individual to whom the point of view offered commends itself to apply it to conclusions in the countless instances that cannot be here reviewed.

The world asks two things of art: that it interest, or that it move. It says to the painter and sculptor: your picture, your group must hold us by the intellect. It must excite wonder, admiration, surprise; or, reaching those more intimate sources of our being from which flow delight and tears, it must be felt. I shall here briefly treat of the painting and sculpture in the Fine Arts' building as it is related to these two requirements.

There are special sensibilities acquired through practice of, or familiarity with technical art. All in painting and sculpture that is approved by this *educated* sense, I designate "Art Instructed." All that appeals to the soul—either to that rare sense in it defined as esthetic, which demands that *spirit* of beauty which is the result of the observance of the deeper harmonic law, or to its simple human feeling—I designate "Art Informed."

Accepting this definition of the two terms, I think that there exists no single picture or group among the serious art of the Fair but may be grouped—and not arbitrarily—upon one or the other side of the broad line suggested, for while many productions meet either definition but imperfectly, and others seem almost completely to satisfy both, all will, I think, be found to acknowledge as master in the character of their first appeal one or the other of these two principles. For instance, while No. 143 in the Spanish exhibit, "Flevit super Illam," when considered as painting meets the fine requirements of a completely instructed art, we do not first *think* of it. We only *feel* it. Later we find in its execution a masterly adaptation, but its *spirit* speaks first to ours.

On the other hand, "Phryne," No. 94 in the Russian group, while interpreting well the free and joyous spirit of its Pagan theme, excites in us first admiration and surprise by its tremendous accomplishment. Sunlight and space are so perfectly rendered, harmony and spontaneity of line and grouping so well found, that we feel its illusion as a scene even more than its truth as an ideal.

Again, while it would be comparatively easy to select a group of works containing nothing more than the masterly execution characterizing the modern "Art Instructed," it would be difficult to find a considerable number of works that in spiritual quality of insight and sympathy well represented the "Art Informed" that were not at the same time good illustrations of an "Art Instructed." Thus it follows that the antithesis implied in the terms will not be always strongly marked.

The works in painting noted will be taken from the groups in oil, as most representative. Those in sculpture will be taken mainly from the French for the same reason—modern French sculpture preëminently, in instances ideally meeting the two requirements suggested.

It has been a question what method of presentation to pursue, whether it would be best to treat landscape, sculpture, and the "Art Human" (in painting) separately, or to follow the grouping already made. The latter method, as lending itself best to the convenience of the reader, has been selected. It has seemed also to meet equally well with the other the special purpose of this paper. I shall, therefore, consider the art by countries, only departing from this order in those instances where its strict observance would seem to hinder interpretation.

The picture in the Holland exhibit most perfectly representative of what is meant by the "Art Informed," is No. 74, "Alone in the World," by Jozef Israëls. Its interest as color, form, arrangement—in a word, as a scene, is so entirely subordinate to its human meaning, and this is so profound and so clearly felt, that we do not think of it as painting at all.

This is remarkable, so completely does it dispense with that exact self-consciousness of touch which characterizes most of the art with which we are familiar, and which has determined our standards of requirement in execution. That its unique manner does not hinder its appeal, indicates how little the *way* in which a thing is done has to do with art in its real, deep conclusions. Unhindered as unhelped by an execution that meets very imperfectly the requirements we make of technical art, it reaches direct to the very human heart of us. There is a treatment of life obtaining very much in English, Russian, and also in German art that holds the interest within the moment treated, and does not

permit the fancy to go outside of it. The anecdotal momentary quality resulting from this treatment, does not so much depend upon the character of the incident considered, as in the way in which it is treated, for the slightest thread of plot may suffice in the hand of a master to connect the superficial moment with the real existences concerned in it. In No. 2930, Jozef Israels', in the United States loan collection, the simple incident of an evening meal serves as a complete introduction to the people. It is not what they are doing, but themselves, that interest and hold us. The same is true of No. 190 and No. 349 in the German art, and of all pictures that consider their subjects first in their own character as human beings.

It is not, then, because people are engaged in a particular momentary action that a picture becomes anecdotal, it is because it is painted in such a way as to make the action itself more interesting than the people engaged in it.

Thus, while the simplest moment may be full of human opportunity for the artist, there are some that hold more than others.

Such a one as is selected in "Alone in the World," when fully treated as here, holds the whole life for us as for the soul that looks out at us desolate, its day past—its falling night. This is a profoundly significant picture in the deeper sense and may well be taken as a first example of the "Art Informed."

The naïveté of treatment found in the picture just noted, and existing to a degree that calls attention to itself in No. 75, "Fishermen," by the same artist, is eminently characteristic of this whole exhibit, and may be accepted as a means well adapted to the simple, homely themes treated, though it would be least adapted to the requirements of such works as Bouguereau's "Women at the Tomb," No. 337 (French), which depend for effect upon classic purity of line and form. This trait characterizing arrangement as well as brush treatment in this exhibit is so marked that I find in it little aptly illustrative of the modern painter's art as such. The pictures that hold us at all, hold us by their sympathy with the spirit of the simple phase or incident they treat, and those of their canvases which fail to reach the intimate secrets of their simple themes, as many of them clearly do, hold little as painting to compensate for this failure; whether, when the wave of protest against the current fallacy that to *do* well is enough in art shall have subsided, and our minds have reached their level, we shall accept as altogether satisfying an inexactness and looseness of treatment so opposed to the world's best *practice* even when accompanied by such rare insight and sympathy as here, is hardly a question. No. 25, "Washing Day," holds much of the same insight into the human opportunity of the simplest incident as No. 2,930, in the United States loan collection, before referred to.

In their landscape art I would mention No. 17, "Fall on the River," as most significant. It is filled with the spirit of the time and place. Nos. 18 and 19, by the same painter, though much slighter in their demands, are in the same close touch with the phase interpreted. Anton Mauve has also rendered with intimate sympathy the alluring quality of gray skies and gray-green fields. But sunlight also is tempting, and purple evening and moonlight pale or harvest golden. So say Innes, and Tryon, too, and *they* know—but *now* we would stay in gray fields under gray skies.

No. 148, "Sunset," is to my mind one of the most delicious landscape bits in the whole Fair, full to the brim with the spirit of the golden moment.

We find in the Spanish exhibit one of the most consummate works of art in the Fair. I mean No. 143, "Flevit super Iliam."—Christ weeping over Jerusalem. He stands surrounded by disciples on an eminence to the left. His attitude and gesture are expressive of profound yearning and sorrow. On the right, ascending, are others, all hanging in rapt, eager guise upon the utterance of the Master. Above his head is the day-star, while the full moon near the horizon mingles its faint gold with the paler dawn on still wall, and olive and vine-clad hill. It is a great thing in a canvas of such requirement to paint every subordinate effect and form in such a way that, while lending itself each in its own degree to the central purpose, it is yet, when observed for its own sake, found altogether satisfying.

This rare combination of completeness with concentration is here found, and I am filled with admiration at its masterly achievement, but even more am I thrilled by the significant and touching ideal which informs this still beauty of gracious line and still low harmony of tender color.

(To be continued.)

THE ORGANIZATION OF THE WORLD'S COLUMBIAN EXPOSITION.*

BY DANIEL H. BURNHAM, DIRECTOR OF WORKS.

I DO not know who first advocated the holding of a World's Fair on the four hundredth anniversary of the discovery of America by Columbus, but by the summer of 1889, New York, Washington, St. Louis and Chicago had organizations at work, each in the interests of its city. The one in Chicago started to raise money by subscription. It sent a well-known railway manager, Mr. E. T. Jeffery, and an engineer, Mr. Chanute, to examine and report regarding the French Universal Exposition then being held in Paris. It also elected a committee to report on sites and this committee invited the writer to consult with them, which he did during the fall of 1889 and the winter following. Very little was accomplished, as the chief interest then centered in the contest before congress by the cities interested in securing from the government the location of the exposition; but on April 9, 1890, the State of Illinois licensed the corporation, since known as the "World's Columbian Exposition," and on April 25 of the same year the national congress passed an act naming this city as the one within whose limits the Fair was to be held.

The act of congress provided for a national body, to be known as the "World's Columbian Commission," to which was intrusted the custody and care of exhibits and all communications with foreigners and exhibitors, and it also provided for the local corporation I have mentioned, to which was intrusted the designing and building of the Exposition, and the custody and care of it to the end of the Fair.

The National Commission organized and elected a president, a secretary and a director-general. The Illinois corporation also organized and elected a president and secretary and appointed various committees, among them that of Grounds and Buildings.

For the rest of the spring and during the first two summer months much time was wasted over the question of a site in Chicago; various committees from the corporation, the National Commission, the city authorities and the Illinois Central Railroad being engaged in the discussions, with little hope of a settlement. On August 20, however, the first real step in the right direction was taken, and the local corporation then retained as consulting landscape architects the firm of F. L. Olmstead & Co., of Brookline, Massachusetts. On September 2, thirteen days afterward, Mr. A. Gottlieb was appointed consulting engineer, and Messrs. Burnham & Root consulting architects. In the following October Messrs. Burnham & Root resigned, Mr. Root then being elected consulting architect and the writer being made chief of construction, all at one meeting.

These officers reported to the Grounds and Buildings Committee, which had "jurisdiction in all matters pertaining to grounds, leases, engineering, designs, plans, construction of buildings and works, maintenance of buildings and grounds, organization of guards, police, detective and fire departments, gas, electric lights, water supply, medical service, application for space, telegraphy, insurance, etc." The chief of construction was made the executive officer of the committee and the consulting architect, landscape architects and engineers were ordered to report to him.

Early in the fall of 1890 the two controlling bodies selected Jackson Park and the down-town lake front as what was called "The Dual Site," it being stipulated that the Fine Arts building, the Liberal Arts building and the Music hall should be kept "down town," and all other buildings be in Jackson Park. This decision was reached after a careful report of Olmstead & Co. of all the sites tendered, and upon the advice of all the members of the consulting board.

The South Park Commission leased Jackson Park and Midway Plaisance to the World's Columbian Exposition, and it was agreed between the parties: First, that the grounds should be cleared of all buildings and turned back to the commission on or before a certain date; second, that improvements made by the Exposition were to be as far as possible in the direction of the permanent improvement of the park.

The original designs of the South Park were made by Mr. Frederick Law Olmstead and Mr. Calvert Vaux about 1870. When, therefore, we took up the study of the grounds for the purpose of devising a plan for the Exposition, Mr. Olmstead's familiarity with the site and his superior knowledge of landscape effects caused us to be guided by him in general features. Mr. Codman, his partner, was a man well trained in all matters relating to the setting and surroundings of buildings. His training, both here and in France, his extensive travel, knowledge and natural aptitude fitted him to be both adviser and executant in this important work.

The general scheme of land and water was suggested by Mr. Codman. The arrangement of the terraces, bridges and landings was suggested by Mr. Codman after the architectural board had adopted a style for the grand court. The size and number of the Exposition buildings proper was determined from the schedule made by the Classification Committee, the order of the chairman of the Building Committee being to plan for structures covering about one-third more area than those in Paris in 1889. The shape and disposition of the buildings was determined by Mr. Root and myself, the engineer, Mr. Gottlieb, being, of course, consulted as well. While I mention the particular part in which each led, it is true that all of us consulted together on questions that arose, and

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nothing was finally determined upon which did not have the approval of all. Several tentative plans were rudely drawn on the cross-sectioned lithographed maps of Jackson Park, and a final one early in December, 1890, which was then adopted by the National Commission and the Illinois corporation, as the plan of the Exposition, though it only dealt with buildings immediately around the Grand Court, the Horticultural, Fisheries, and the Government space. This plan made no provision for state, foreign or women's buildings, for the Midway Plaisance, or the structures south of Machinery hall and Agricultural building. It was a suggestion, and it was not intended by us to present more than the mere central idea for the parts of the scheme then treated of. There was nothing original in it except the introduction of the canal, the lagoons and the wooded island; the grand court being the same arrangement as at Paris, with a water basin in the center and a dome at one end, in front of which was to be the great fountain. The plan was the work of us all. It was not due to an inspiration, but was thought out logically, step by step, keeping in view the immediate purposes of the Exposition, and the final treatment of the ground as a public park. It was a crude outline without suggestion of architectural treatment or style. In fact nothing was done or said as to the architecture proper, except idly and in a desultory way, Mr. Root at that time leaning to variety in style and color for the buildings of the Fair. On December 1, 1890, therefore, the status was as follows:

The Exposition was to be built on two sites, seven miles apart, and a sketch plan for part of one of them had been officially adopted. It was necessary to take charge of nearly seven hundred acres of land, the larger part of which was swampy; to design and build the Exposition and place the exhibits in two years and five months.

For this purpose it was necessary to quickly organize a competent force of architects, sculptors, painters, engineers, police, firemen, business men and clerks. Every moment was precious. It was out of the question for the firm of Burnham & Root to think of designing all, or any part of the buildings, because of the relations its members had already assumed toward the enterprise. I therefore drew up the following memorial to the Grounds and Buildings Committee, which my conferees signed, at my request. It was sent December 9, 1890, to the Committee on Grounds and Buildings:

Preliminary work in locating buildings, in determining their general areas, and in other elementary directions necessary to proper progress in the design and erection of the structures of the Columbian Exposition has now reached a point where it becomes necessary to determine a method by which designs for these buildings shall be obtained.

We recognize that your action in the matter will be of great importance, not only in its direct effect upon the artistic and commercial success of the Exposition, but scarcely less upon the aspect presented by America to the world, and also as a precedent for future procedure in the country by the government, by corporations, and individuals.

In our advisory capacity we wish to recommend such action to you as will be productive of the best results, and will at the same time be in accord with the expressed sentiments of the architectural societies of America.

The following suggestions relate only to the central group of buildings in Jackson Park, it being the intention from time to time to designate other architects for the various important structures that are to be erected in addition thereto.

That these buildings should be in their designs, relationships, and arrangement of the highest possible architectural merit is of importance scarcely less great than the variety, richness and comprehensiveness of the various displays within them. Such success is not so much dependent upon the expenditure of money as upon the expenditure of thought, knowledge and enthusiasm by men known to be in every way endowed with these qualifications; and the results achieved by them will be the measure by which America, and especially Chicago, must expect to be judged by the world.

Several methods of procedure suggest themselves: First, the selection of one man to whom the designing of the entire work should be intrusted; second, competition made free to the whole architectural profession; third, competition among a selected few; fourth, direct selection.

The first method would possess some advantage in the coherent and logical result which would be obtained. But the objections are, that time for the preparation of designs is so short that no one man could hope to do the subject justice, even were he broad enough, to avoid, in work of such varied and colossal character, monotonous repetition of ideas. And again, such a method would invoke criticism, just or unjust, and would certainly debar the enterprise from the friendly cooperation of diversity of talent, which can be secured only by bringing together the best architectural minds of the country.

Second—The second method named has been employed in France and other European countries with success, and would probably result in the production of a certain number of plans possessing more or less merit and novelty. But in such a competition much time, even now most valuable, would be wasted, and the result would be a mass of irrelevant and almost irreconcilable material, which would demand great and extended labor to bring into coherence. It is greatly to be feared that from such a heterogeneous competition the best men of the profession would refrain, not only because the uncertainties involved in it are too great and their time too valuable, but because the societies to which they almost universally belong have so strongly pronounced on its futility.

Third—A limited and fair competition would present fewer embarrassments; but even in this case the question of time is presented, and it is most unlikely that any result derived through this means, coming as it would from necessarily partial acquaintance with the subject, and hasty, ill-considered presentation of it, could be satisfactory, and the selection of an individual would be open to the same objections made above, as to a single designer. Far better than any of the methods seems to be the last.

Fourth—This is to select a certain number of architects, choosing each man for such work as would be most nearly parallel with his best achievements. These architects to meet in conference, become masters of all the elements to be solved, and agree upon some general scheme of procedure.

The preliminary studies resulting from this to be compared and freely discussed in a subsequent conference, and, with the assistance of such suggestions as your advisers may make, be brought into a harmonious whole.

The honor conferred upon those so selected would create in their minds a disposition to place the artistic quality of their work in advance of the mere question of emoluments; while the emulation begotten in a rivalry so dignified and friendly could not fail to be productive of a result which would stand before the world as the best fruit of American civilization.

(Signed)

D. H. BURNHAM, Chief of Construction.
JOHN W. ROOT, Consulting Architect.
F. L. OLMSTEAD & Co., Consulting Landscape Architects.
A. GOTTLIEB, Chief Engineer.

This paper precipitated a heated debate. There were strong advocates for competition and the committee was solemnly warned

by some of its members against choosing by any other method; but finally, through a narrow majority, the recommendation was adopted. The committee then placed in my hands the selection of five architects to design the buildings around the great court. The rude plan I have spoken of showed two buildings where the Electrical and Mines now are, but their long axis run east and west instead of north and south, as at present. This arrangement would have left five buildings fronting on the great court instead of six, as is now the case. I selected five men, or firms, and the committee promptly confirmed them. I then sent to each of them the following letter:

The inclosed recommendation was approved last night by the Board of Directors of the World's Columbian Exposition, and in the same resolution they empowered the Grounds and Buildings Committee to secure the services of five architects to design the main group of buildings at Jackson Park.

The committee authorizes me to confer with the following gentlemen, namely: Richard M. Hunt, of New York; McKim, Mead & White, of New York; George B. Post, of New York; Peabody & Stearns, of Boston; Van Brunt & Howe, of Kansas City; with a view to your employment.

It is intended to place the problem in your hands as to the artistic aspects only—first, of the group as a whole; second, of the separate buildings.

The committee are disposed to leave the method of designing to the five architects, and you may determine among yourselves whether to make a joint design of the whole as one, or each to take up separate parts to be modified to meet such views as shall be expressed in your conferences from time to time.

This bureau will be expected to supply you with all data about materials, sizes, general disposition and cost of buildings, and it is also to have charge of the constructional features, and, finally, of the execution of the entire work, but with the understanding that the artistic parts are to be carried out with your approval, and that you are from time to time to visit the work either in a body or separately as may be determined wise. Our consulting architect, Mr. Root, would act as your interpreter when you are absent, without imparting into the work any of his own feelings.

I realize the hesitancy you may feel in assuming responsibility for design when you do not fully control the execution of it. The committee feel, however, that strict economy of the two essentials, time and money, will be best subserved by keeping the actual control of the work in the hands of one man and his bureau; and I can assure you that your intents and purposes of design, once agreed upon by the committee, shall be carried out as you wish, and that they shall not be altered or meddled with, and when exigencies arise, making any important change necessary, you shall be consulted and have the matter in charge the same as in original design.

I will be pleased to hear from you by wire, if you think favorably of this proposition. I shall be here until Monday evening, and unless detained shall be in New York city Wednesday next, stopping at the Windsor. As in a personal interview it will be possible to make matters much more plain, I hope to find a note saying that I may have the honor of seeing you. Those who accept should make a preliminary visit here together as soon as possible.

Yours very truly,

(Signed) D. H. BURNHAM,
Chief of Construction.

This brought the time up to within a week of Christmas, 1890.

On December 22 I met in New York, Messrs. Hunt, Post, Peabody and Mead, and secured an agreement from them, and by telegram from Mr. Van Brunt, that they would visit Chicago together on the 10th of January following. On my return to Chicago the Grounds and Buildings Committee authorized me to select five architects from Chicago to design the other great structures of the Exposition. The men nominated and promptly confirmed were Burling & Whitehouse, Jenney & Mundie, Henry Ives Cobb, S. S. Beman and Adler & Sullivan. I called on each of them the next morning and obtained acceptances.

The architects met in the office of Burnham & Root, on Saturday, January 10, 1891, there being present: Consulting Architects Olmstead and Codman, Consulting Engineer Gottlieb, Richard M. Hunt, of New York, Robert S. Peabody, of Boston, George B. Post, of New York, William R. Mead, of New York, Henry Van Brunt, of Kansas City, Dankmar Adler, of Chicago, Louis L. Sullivan, of Chicago, F. M. Whitehouse, of Chicago, S. S. Beman, of Chicago, Henry Ives Cobb, of Chicago, W. L. B. Jenney, of Chicago, and myself. Mr. Root was absent from the city, but arrived during the afternoon in time to meet those present and be introduced to those he was not acquainted with. An organization was effected by the selection of Mr. Hunt as chairman and of Mr. Sullivan as secretary, and an adjournment was taken until Monday. That night a banquet was given by the Grounds and Buildings Committee to the architectural board, at University Club.

On Monday the board met, but Mr. Root was missing. At noon word came of his illness, which terminated fatally on Thursday afternoon. Mr. Root possessed a mind remarkable for its artistic insight, quickness and clearness of apprehension, and deep sympathy with everything of value about him. Though filled to running over with his own suggestive thoughts he never failed to grasp another's, and it was his everyday custom to coördinate the elements of discussions with a rapidity and finish that seemed marvelous. His very visions were as real to him as the actual objects of life are to the eyes of other men. He saw comprehensively and exactly, both through his natural eyes and those of his spirit, and his power of expression to the ears, the eyes or the hearts of others kept pace with his own vivid impressions. I cannot, of course, believe that the architecture of the Exposition would have been better had he lived, but it certainly would have been modified and stamped with something of his great individuality. My own loss I cannot speak of. Our relations had been intimate and even fond, from the week when first we met. We had lived together for eighteen years without a written agreement or a quick word between us. When he died, I remained with the Exposition only in deference to the judgment and wishes of my friends among the directors.

The discussions of the board extended through the week after the death of Mr. Root, the plan being modified by important changes, and at the end of the meeting I apportioned the work among the men as follows:

F. L. Olmstead & Co., landscape architects.
Richard M. Hunt, Administration building.
Peabody & Stearns, Machinery hall.

McKim, Mead & White, Agricultural.
 George B. Post, Manufactures and Liberal Arts.
 Van Brunt & Howe, Electricity.
 S. S. Beman, Mines and Mining.
 Adler & Sullivan, Transportation.
 Henry Ives Cobb, Fisheries.
 Burling & Whitehouse, Venetian Village.
 W. L. B. Jenney, Horticultural.

This was only twenty-one months before the date set by congress for the dedication of the completed grounds and buildings of the Exposition. The work done by the board in its January meeting was: First, confirmation of general scheme; second, settling exact sizes of court and canal; third, settling exact size and location of Agricultural building, Manufactures building, Electrical building, Mines building, Fisheries building, Horticultural building, Administration building, Machinery building, Transportation building, Venetian village; fourth, the height of cornice around the main court; fifth, the approximate height of terraces above datum.

On February 20 the board met again, this time Mr. McKim coming instead of Mr. Meade, and the New York members being accompanied by Mr. Augustus St. Gaudens, the sculptor, who was retained as adviser. They then brought with them the rough sketches, each of his own building, and the landscape architects brought a full scale plan of the grounds of Jackson Park, extending from north of the Fisheries building to south of Machinery hall.

The following week was one of interest to all the conferrees. Mr. Hunt presided in the meeting. Each designer displayed his sketches upon the wall, explaining the purpose and intent of his work, and submitting to the kindly criticisms of all the others. The Grounds and Buildings Committee spent a day in a room, where every design was carefully explained to them by its author; afterward the proper officers of the National Commission also met the architects, when the same process was gone through again. The whole work was then formally passed upon and adopted by the World's Columbian Exposition and the World's Columbian Commission, and this memorable meeting came to an end late in February, 1891. One of the most eminent artists who had been present at all of the meetings, on parting, remarked: "This has been the most important artistic moment of my life." The sentiment so expressed was echoed by everyone present. Then for the first time one could commence to form an idea of the architecture which we are now familiar with. The strongest enthusiasm prevailed, and a high sense of the importance of the work dawned upon us.

During January, when the main plan of the work had been approved, the chief engineer let a contract for the excavation of the basin, lagoons and inlets, and while the architects were here in February the work commenced.

After the adjournment, it was determined by the Grounds and Buildings Committee to select an architect for the Woman's building by competition, to be confined strictly to women. Twelve sets of sketches were submitted for the day appointed, and three prizes were given; the first to Miss Sophia G. Hayden, of Boston, the second to Miss Lois Howe, of Boston, and the third to Miss Laura Hayes, of Chicago. Miss Hayden was at once employed as the architect of the building, and since then has made the designs and overlooked the construction of the building. Examination of the facts show that this woman had no help whatever. The design was made by herself in her own home.

This brings the history of the enterprise down to about March 1, 1891. At this point, for the first time, the chief of construction was enabled to form an estimate of the work to be done. Roughly speaking, it consisted of reclaiming nearly seven hundred acres of ground, only a small portion of which was improved, the remainder being in a state of nature, and covered with water and wild-oak ridges, and in twenty months converting it into a site suitable in substance and decoration for an exposition of the industries and the entertainment of representatives of all the nations of the world. On its stately terraces a dozen palaces were to be built—all of great extent and highest architectural importance—these to be supplemented by two hundred other structures, some of which were to be almost the size of the Exposition buildings themselves; great canals, basins, lagoons and islands were to be formed; extensive docks, bridges and towers to be constructed. The standard of the entire work was to be kept up to a degree of excellence which should place it upon a level with the monuments of other ages. The opportunity for gaining honorable distinction, however, made the duty of choosing men for the force comparatively easy, and in a very short time after the plans were finally adopted the following were on the field of action, working with one object—the welfare of the great enterprise:

Charles B. Atwood, designer-in-chief.
 William Pretymann, director of color.
 E. G. Nourse, general engineer.
 Frederick Sargent, electrical engineer.
 J. C. Slocum, mechanical engineer.
 Wm. S. MacHarg, sanitary and water engineer.
 John W. Alvord, engineer of grades and surveys.
 Ernest R. Graham, assistant chief of construction.
 Rudolph Ulrich, landscape superintendent.
 Dion Geraldine, general superintendent.

Later the following changes occurred: Mr. Frederick Sargent assumed entire charge of all mechanical plants, Mr. Slocum going out and Mr. R. H. Pierce becoming electrical engineer, and in March of this year Mr. Sargent withdrew, leaving Mr. Charles F.

Foster in charge as mechanical engineer, where he still remains. Mr. Gottlieb, the chief engineer, withdrew in the summer of 1891 and Mr. Edward C. Shankland took his place. Mr. W. H. Holcomb has since joined the force as general manager of Transportation. Mr. Pretymann resigned in May, 1892, and Mr. Frank D. Millet took his place. Col. Edmund Rice of the United States Army assumed control of the Guard in May, 1892. Marshall Edward Murphy took charge of the entire fire department in December, 1892, taking the place of Mr. A. C. Speed, who had been in charge until then. Mr. C. D. Arnold was made official photographer. Dr. John E. Owens was made medical director. Mr. Atwood came out to join me in my private practice in the spring of 1891. The needs of the Fair were so great he assumed the place of designer-in-chief instead.

The Venetian Village being abandoned, and it having been concluded to place the Music and Fine Arts buildings in Jackson instead of in the down-town park, Mr. Whitehouse was urged to design the Fine Arts Palace, but severe illness at the time prevented him from doing it. This building then went to Mr. Atwood. When the Venetian Village on the end of the pier in front of the Grand Court was abandoned, Mr. St. Gaudens suggested the thirteen columns as shown on the earlier plans of the work; but this being finally deemed to be inadequate, the Music hall, Peristyle and Casino, as one composition, was entrusted to Mr. Atwood, and then Mr. Whitehouse also took up the very important work of designing the Festival hall.

The following buildings have been erected in Jackson Park and Midway Plaisance. Those built by the Exposition, as follows: Administration, Machinery hall and Boiler house, Pumping station, South Colonnade, Agricultural building, Forestry building, Dairy building, Freight houses, Convent of La Rabida, Stock ring, Company's shops, Company's barn, Sewage Cleansing works, Landscape Propagating house, Tank house, Sawmill, Peristyle, Music hall and Casino, Manufactures and Liberal Arts building, Electricity building, Mines and Mining building, Transportation building and Annex, Terminal station, Grounds and Buildings headquarters, Photographic building, Horticultural building, Horticultural greenhouses, Woman's building, Fire and Police houses, Fisheries building, Mechanical offices, Art building, City Police stations, Woodlawn and Hyde Park, Art Institute (downtown), Leather building, Silos, Model building, Stock barn, Customhouse, Choral Music building, Entrances, Music stands, Perron and sheds, Sheds for empty cases, Children's building, Public Comfort building. These buildings aggregate 6,500,000 square feet.

The following states have built headquarters: Illinois, California, Colorado, Washington, South Dakota, Nebraska, North Dakota, Kansas, Texas, Utah, Iowa, Montana, Kentucky, Florida, Arkansas, Minnesota, Missouri, Louisiana, West Virginia, Pennsylvania, New York, Maryland, Delaware, New Jersey, Rhode Island, Massachusetts, Vermont, Connecticut, New Hampshire, Maine. The state buildings occupy over 40,000 square feet.

The following foreign governments have built: Great Britain, Canada, Russia, Germany, Ceylon, France, Turkey, Hayti, Norway, Sweden, Brazil, Nicaragua, Colombia, Guatemala, Costa Rica, Japan, Venezuela, New South Wales, Spain and East India, covering an area of over 300,000 square feet.

The following concessionaires have built: Bedouin Encampment, Lapland Village, Ostrich Farm, Dahomey Village, Brazilian Concert Hall, Chinese Village and Theater, Algerian and Tunisian Bazaar, Japanese Bazaar, Dutch Settlement, German Village, Street in Cairo, Ferris Wheel, Volcano of Kilauea, Captive Balloon, East Indian Village, American Indian Village, Hungarian Café, Austrian Village, Persian Concession, French Cider Press, Ice Railway, Eiffel Tower, Natatorium and Vienna Bakery, Japanese Bazaar, Irish Village, Irish Industries Village, United States Submarine Diving Company, Log Cabin, Reproduction of St. Peter's, Moorish Palace, Libby Glass Company, Turkish Village, Hagenbeck's Animal Show, Panorama of Bernese Alps, Venice-Murano Glass Company, Merck Drug Exhibit, Café de Paris, Electric Scenic Theater, Adams Express Company, International Dress and Costume Company, Workingman's Home, Diamond Match Company, Clam Bake, Walter Lowney Chocolates, Walter Baker Cocoa, Van Houten Cocoa, Japanese Tea House, Great White Horse Inn, Puck Building, White Star Steamship Company.

They will aggregate over 1,100,000 square feet. The total grand area of the buildings in the Fair is something less than two hundred acres.

The artists engaged on the decorations are: Melchers, McEwen, Blashfield, Reinhardt, Simmonds, Reid, Shirlaw, Cox, Beckwith, F. D. Millet, Earle, Garnsey, Maynard, Sullivan, Dodge, Armstrong, Turner, Weir, Coleman, Louis Millet and others.

The sculptors are: French, Potter, Mead, Martiny, Waagen, Bitter, Rohl-Smith, Proctor, Taft, Yandell, Rideout, Boyle, Bock, Pratt, Baur, Blankenship, McNeill, Momys, Kraus, Galert, Warner, St. Gaudens.

I cannot, in this paper, describe the works, or tell you the amounts of material which have gone into construction. This must be done in an official report, which will take many months to prepare. I can, however, tell you how, during the storms of summer, the frosts of winter, all day, all night, week in and week out, for two years, the little band of American boys ran the race for victory with Father Time and won it. Without looking for, or expecting compensation at all equal to the services they have rendered, without jealousy, with ready willingness, these men have been ever to the front, emulating each other in the amount and quality of the services to be rendered. Though I cannot now

pick individuals to be praised, I can congratulate all on the glory they have won through constancy and self-sacrifice, such as no other country ever gained from her sons in time of peace. They have showed, what to me is the greatest heroism, that of forbearance and constant helpfulness. I am most proud of having been associated with them.

THE CONSTRUCTION OF THE BUILDINGS, BRIDGES, ETC., AT THE WORLD'S COLUMBIAN EXPOSITION.*

BY E. C. SHANKLAND, CHIEF ENGINEER.

WHEN Mr. Burnham, in March, 1891, ordered the construction plans of the Exposition buildings to be made, the nature of the soil of Jackson Park as regards its bearing capacity was practically an unknown quantity. The first step therefore was to determine by borings and loading tests the nature and capacity of the soil.

Borings.—Over two hundred borings were made on the site of the main Exhibition buildings, and the soil was found to be as follows:

	Fill.	Black soil.	Sand.	Soft Sand.	Clay.	Hard Pan.
Art building .....	.....	0.5	1.0	13.0	15.5	27.0
Fisheries .....	.....	3.7	.....	12.0	.....	14.5
Government .....	.....	1.9	1.6	13.0	16.0	28.0
Manufactures, north half	1.0	1.0	1.2	13.0	13.0	25.2
Manufactures, south half	1.4	2.7	1.3	10.4	11.0	22.8
Agricultural, northeast half	1.5	2.1	2.0	5.0	23.0	28.0
Agricultural, southwest half	2.2	3.1	1.1	12.6	13.5	27.0
Machinery hall	2.2	1.0	1.8	10.0	16.0	27.2
Administration .....	.....	.....	3.0	12.0	9.0	20.0
Electricity and Mines .....	.....	0.5	5.5	11.0	13.0	25.2
Transportation .....	.....	0.5	4.5	11.0	8.5	17.5
Woman's building .....	.....	3.0	0.5	13.5	3.0	12.0

Or, to put it concisely, this was an average of 1 foot of black soil, 2 feet of sand, 11 feet of what was called in the reports quicksand, but which is not a true quicksand, but simply sand saturated, or partly saturated, 13 feet of clay, generally soft, and then hard pan at an average depth of 27 feet.

Loading Tests.—Loading tests were made to determine how much it was safe to put upon the soil per square foot, also whether the soil would squeeze out under pressure, as most of the large buildings were designed to stand close to the lagoons.

Under a load of one ton per foot for forty-eight to sixty-four hours the settlement was found to be from $\frac{1}{8}$ inch to $1\frac{1}{4}$ inches, everywhere, except in the swale spoken of below. A test was made twelve feet from the lagoon at what is now the northeast corner of Electricity building. A platform four feet square was laid on natural ground, simply leveled off. On this platform twenty-two tons were placed a load of 2,750 pounds per square foot. It remained fifteen days, with a settlement in that time of $\frac{1}{4}$ inch. On the fifteenth day a trench four feet away from the platform was dug 3 feet wide and down to the soft sand. In forty-eight hours the platform went down $\frac{1}{8}$ inch, but no further settlement was detected after that.

Loading tests which were made later in the summer showed as follows: At the north end of Manufactures building, under a test of seventeen tons on nine square feet the first forty-eight hours the ground settled $\frac{3}{4}$ inch; in seventy-two hours, $\frac{1}{2}$ inch; no change after this.

The soil at the south end of Manufactures building, in the swale spoken of below, with 3,161 pounds per square foot, on a base 3 feet by 3 feet 1 inch, showed a settlement of 8 inches while loading, and in ninety hours had settled 38 inches. It was still settling, but the test was stopped at this point.

In the Agricultural building, in this same swale, with approximately the same load per square foot, a settlement of 14 inches in 144 hours was found.

At the south end of Stock Pavilion the settlement in 144 hours was 8 inches.

In the south end of Transportation building in 120 hours, with the same load per square foot, the greatest settlement was $2\frac{1}{4}$ inches.

At the south end of Government building, with a load of 3,700 pounds per square foot, the settlement in twenty-four hours was $\frac{1}{2}$ inch. Load was kept on ninety hours, but no further settlement occurred.

Spread vs. Pile Foundations.—It was considered safe from this showing to use spread foundations, which made a saving of about \$6,000 per acre over using piles. These spread foundations were made of a cribwork of timber resting on plank and supporting the posts of the building.

Muck Swale.—A crescent-shaped swale of muck, spoken of above, probably the bed of an old creek, was found with one arm extending from the east center of the Manufactures building, running southwest and crossing the present basin a little in front of McMonnies' fountain, then turning southeast and running through the northeast portion of the Agricultural building. This made it necessary to pile practically the south half of the Manufactures building and the northeast portion of the Agricultural building.

Foundations, Manufactures Trusses.—When the trusses over the court in the Manufactures and Liberal Arts building were designed their foundations were made of piles with a timber grillage on top. These pile foundations were designed to take care of

the extra thrust of the arches due to wind, the tie rods between the feet of the arches being designed to only take care of the thrust from dead load.

Foundations, Art Building. Other Foundations.—The foundations of the Art building were made of concrete. All the other foundations of the buildings, including Machinery hall, were made spread.

Construction Designed in Mr. Burnham's Office.—It was understood that the architects furnishing plans of the buildings should not be made responsible for the construction, and should not be called upon to make any constructional plans; accordingly all the construction, both in wood and iron, was designed in Mr. Burnham's office. The only exception was in the Mines building, when Mr. Beman showed the cantilever trusses, and they were built in compliance with his desire. They are interesting as adding another type to the variety of trusses in the park, although they are not at all economical.

Economy in Construction.—The object sought in the construction of the buildings was the greatest economy consistent with perfect safety. To this end the buildings, as at first designed, were almost entirely wood. The trusses, with the exception of the Mines building, were wood, or combination.

The domes in the Manufactures building, as then designed; in the Horticultural and Administration buildings, were steel from the ground up, and in the Agricultural and Fisheries were steel tops, the lower portion being of wood. Later it became evident that true economy demanded the use of more iron in the construction, and when, from the desire to get more space, and other reasons, it was determined to roof over the court in the Manufactures building, thus doing away with the dome first talked of, it was decided to make this of one span. The court of the Electricity building was also roofed over with steel trusses. The trusses and domes of Machinery hall, the construction plans of which were begun about this time, were also made of steel.

Variety of Trusses and Details.—The very different buildings of necessity brought out a great variety of trusses, and a multitude of new details. Some of the trusses, while theoretically correct, were found to be practically bad. For instance, the bowstring trusses in the curtain of the Horticultural building were designed with the upper chord made of boards nailed together. The drawings called for them to be extra nailed, and the contractor claimed he took extra precautions, but when he came to adjust them it was found that the boards would slip past each other, and the chord flattened under the pull of each rod.

In the Forestry building the trusses were all made of wood, wooden pins being used instead of nails. In many cases it was found impossible to properly brace against wind pressure without making use of the sheathing on which the staff was to be nailed. It was, therefore, laid diagonally. This was notably the case in the towers of the Electricity building, where 2-inch sheathing was laid diagonally, and the number of nails in the ends of each plank was specified.

Loads on Soil.—The maximum load placed on the soil in all the buildings throughout the park was 2,500 pounds per square foot. This included live and dead load, and the vertical component of the wind pressure. When piles were used, the load per pile was from 10 to 15 tons, the latter being the maximum used. The contractors were not required to put foundations below frost line; simply to remove whatever black soil or fill there might be, and get a level bed on the sand.

Floor Loads.—The main floors of all the buildings, except Machinery Hall and Mines building, and those parts of the roofs used for gardens or restaurants, were figured for 100 pounds per square foot, live and dead. Machinery hall floor was figured for 250 pounds per square foot, and Mines building for 150 pounds. The galleries of all the buildings were figured for 80 pounds per square foot. Roofs were figured for 40 pounds per horizontal square foot, or 25 pounds vertical load, and 20 to 30 pounds with pressure, depending on the exposure of the building. The method giving the greatest result was used. Purlins and jack rafters, 30 pounds per square foot.

Unit Strains.—The bridge builders' standard specifications were used for all the ironwork, except the Manufactures' trusses. At first 1,500 to 1,800 pounds fiber strain was used for white pine, tension up to 2,000; bearing perpendicular to fiber, up to 800 pounds. It was decided during the progress of the work that these strains were all too high, inasmuch as they called for a quality and an inspection of lumber which could not be obtained. The matter was gone into exhaustively, and a careful study made of the recent tests on timber made by the United States government at Watertown; also those made by Professor Ianza, of the Massachusetts Institute of Technology, and the following unit strains were adopted for white pine, yellow pine and oak being allowed thirty-three to fifty per cent more: Fiber strain, 1,200 pounds; this not to be exceeded in any case. Bearing perpendicular to fiber, 300 pounds, shear with grain, 100 pounds; bearing on end of timber, 800 pounds; compression, when ratio of length to least side of cross-section did not exceed 10,800 pounds; 10 to 35, 600 pounds; over 35, 400 pounds.

Experience has proved that these strains are not too low. In the case of the large tanks of the Sewage Cleansing works, the assistant engineer who figured out the sizes of timber to be used disregarded the standard unit strains, and allowed a pressure of nearly five hundred pounds on the 8 by 10 inch white pine ring supporting the whole weight of the tank. This 8 by 10 inches has crushed in over $\frac{3}{4}$ of an inch. In two cases in Machinery hall foundations the wood was indented about $\frac{1}{4}$ of an inch under a

*Paper read before the World's Congress of Architects at Chicago, August 1, 1893.

load of less than three hundred pounds. These are the only instances which have been noted.

The arches over the court of the Manufactures and Liberal Arts building were figured for a vertical load of 42 pounds, made up as follows: iron 20, roof 10, snow 12. A recalculation made after the roof was completed, taking shipped weight of iron, showed weight of iron on straight part of roof to be 22½ pounds; roof 8 pounds, leaving 11½ pounds for snow. The arches were also figured to withstand a wind pressure of thirty pounds per square foot, acting horizontally against the wooden structure which surrounds the court, concentrated at that point of the arch where the combination truss is connected to it. It amounted to 90,000 pounds at this point, seventy-six feet above the bottom pin. In addition to this a wind pressure of thirty pounds per square foot was taken, acting at an angle of twenty degrees with the horizon, extending over the whole roof. For the combined strain from wind, dead and snow load, the unit strain was taken at 30,000 pounds per square inch. The connections, however, were made fifty per cent stronger than this. The specifications sent to bidders on these arches called for either Bessemer or open-hearth steel not to contain over .08 of 1 per cent of phosphorus; to have an ultimate strength of not less than 66,000 nor more than 74,000 pounds, with an elastic limit of not less than 37,000 pounds; an elongation of not less than sixteen per cent in eight inches, and a reduction of not less than twenty-five per cent at point of fracture.

Over 3,500 tests of this material were made by Messrs. Estrada, Kenyon & Gray, the inspectors, with the following average results: Elastic limit, 40,000 pounds; elongation in eight inches, twenty-seven per cent; reduction at point of fracture, fifty-seven per cent. The unit strain of 30,000 pounds is higher than has been used before, and it was severely criticised in the early stages of the construction; however, it was put at that figure after a thorough study of all the conditions involved, and as it represented a saving of \$75,000 to \$80,000 over the strains used heretofore, the writer feels that he was justified in adopting it.

Bridges.—The only difficulty found in designing the bridges was the fact that the fire boat had to go under, and the fire engines, and in two cases a railroad track, over them. The clearance demanded for the fire boat and launches made the floors steeper than they otherwise would have been. The three canal bridges—that is the ones at the northeast and southeast corners of the Electricity building, and the one from Machinery hall to Agricultural building—are plate girder cantilevers, with three openings, center opening fifty-four feet, and two side openings thirty-one feet. This system was made necessary by the shallow depth allowed for the ironwork and the floor. Each bridge is sixty feet wide, and is made of seven plate girders, connected by bracing, having the joists resting on shelf angles just below the top flange of each girder. The two south bridges carry railroad tracks, and the two plate girders under each track were made heavier, and ties used instead of joists. The two bridges at the Peristyle are wood; all the balance are iron, made of three or four (depending on width of bridge) curved lattice girders. The floor was constructed similarly to the canal bridges.

Interior Docking.—The docking around the interior waterways was made, where the banks were high, of a row of piles faced with a sheet piling made of two thicknesses of 2-inch plank. This row of piles was tied back by iron rods to a row of anchor piles. The piles and lumber used in this docking, as well as the piers, were all soft wood, the only requirements in the piling specifications being that the piles should be 10 inches in diameter at center, and be able to withstand the blows of the hammer.

Piers.—The first pier built at Jackson Park was a T-shaped pier, with a breakwater some distance away on the north and east, on the site of the present Casino Pier. This was afterward taken out, and the present pier, 2,400 feet long and 250 feet wide, built. The breakwater of this pier was made part of the pier, extending along north side and east end. The breakwater was made of two rows of close-driven piles, held together with iron rods and filled with stone, increasing in width with the depth of water. The balance of the pier was made of piles, fourteen to sixteen feet centers each way, capped with 12 by 12 timber; these caps carrying the joists and floor. Mooring piles are placed about three feet inside from the edge of the pier, securely braced, but not carrying caps or joists. The Fifty-ninth street pier is similar in all respects to the Casino, as is the Van Buren street, with the exception that the latter has no stone breakwater.

Costs.—The cost of the arches over the court of the Manufactures and Liberal Arts building was \$1.10 per square foot of ground covered. The cost per square foot of the whole building, including decoration, was \$1.39; Transportation building, including sculpture and decoration, \$1.08; Electricity building, \$1.69; Machinery hall, \$2.12; Agricultural, \$1.44; Administration, \$9.18; Van Buren street pier, 21 cents; Casino Pier, 21 cents; Breakwater, Casino Pier, \$1.80; Horticultural, \$1.41; Mines and Mining, \$1.04; Fisheries, \$2.35; Forestry, 75 cents.

As one of Mr. Burnham's staff I cannot close this paper without paying a tribute to our chief.

You all know of the personal sacrifices he has made for this work; of his untiring energy, and his constant devotion to the interests of the Exposition, and you also know of his masterly executive ability. But you may not recognize what a tower of strength he has been to those who have been associated with him as members of his staff. His grand courage has always been an inspiration to us. If we had doubts; if we were discouraged; if, as often happens in any great enterprise we felt like throwing up

the sponge, we had only to turn our eyes to him and gain new strength and new encouragement from his undaunted spirit. He always led as a true leader should. If he asked us to work until two in the morning he was sure to be at work with us, and worked longer and harder. His loyalty to his staff was so consistent and so unchanging that each of us felt he had the perfect trust and confidence of the chief. This loyalty has been our greatest stimulus and our greatest support at all times and in all difficulties. He is indeed the man who built the Fair.

TWENTY-SEVENTH ANNUAL CONVENTION AMERICAN INSTITUTE OF ARCHITECTS.

THE twenty-seventh annual convention of the American Institute of Architects was, like the meeting of last year, held in Chicago, and, like it, very little except the usual routine business was transacted, it being deemed more important that the architects should spend as much time as possible at the Fair.

The convention opened on Monday, July 31, at 10 o'clock, in the Art Institute building, Chicago, President Edward H. Kendall, of New York, in the chair.

After an address of unusual elegance and merit by the president, in which the work of the year and particularly that in which the president and the New York Chapter had participated, had been delivered, Secretary Alfred Stone, of Providence, Rhode Island, read the report of the board of directors, as follows:

REPORT OF BOARD OF DIRECTORS.

The meeting of the Institute in annual convention in midsummer, for the purpose of conforming to the date fixed for the Auxiliary Congress of Architects from all parts of the world, in connection with the World's Columbian Exposition, makes our year a very short one, and prevents as full an attendance of its members as could be desired.

At the first meeting of the Board of Directors the resignation of our former secretary, Mr. Dankmar Adler, who had brought to the work that energy and insight for which he is distinguished, made it necessary for the Board of Directors to elect someone in his place, and it was not until a month after the opening of the year that his successor was able to assume the duties of the office.

There has been, during the year, no marked events to chronicle, except that crowning event in the architectural history of this country, which has brought us to this city at this time, and which will be properly noticed in fitting terms at another stage of our proceedings. No new Chapters have been formed and there has been no marked increase in the membership. In fact the increase is less than we ought to look for, in view of the importance to every member of the profession of the work which the Institute has done in the thirty years of its existence to promote the best interests of the profession and to elevate its tone and the standard of professional practice. Seven members have been elected and five names are to be at once balloted for, having been approved by the Board at its meeting held here in Chicago on the 30th inst.

To what is it due that we do not attract a larger constituency? Why are so many of the strong men in the profession outside of our organization? Is it the independent spirit of Americans? Is it because of the not wholly satisfactory relation of the Chapters to the Institute? Or is it simply the indifference which comes from absorption in a most engrossing profession, and which allows itself to reap the advantages of the conditions without any effort to shape them?

The question of the relation of the Chapters to the Institute requires your attention as well as that of the Board of Directors, but before any changes are made great care should be taken to make sure that the changes proposed are likely to be beneficial or otherwise. It is undoubtedly true that the condition requiring a person to be a member of a Chapter before he can be a member of the Institute has its drawbacks, but it is respectfully suggested that the matter of dues to the Chapters be so arranged that those who cannot partake of all its benefits should be required to pay less than those who do. It seems to the Board of Directors that the dues of the Institute are not burdensome compared to the benefits which every member indirectly receives, even if he fails to see its direct value.

The matter of the bill to regulate procuring designs for buildings to be erected under the Treasury Department of the United States Government has been so fully treated by the President in his annual address that it is unnecessary for the Board to say more than that it looks to the Secretary of the Treasury and the present incumbent of the office of Supervising Architect to see that the bill is faithfully carried out, and from the assurances of the latter we do not believe that we shall be disappointed, unless there is some radical defect in the law. If that is the case, the near approach of a session of congress will give opportunity to amend it. In order to preserve a complete history of the Institute it is recommended by the Board of Directors that its Executive Committee be empowered to arrange with Mr. A. J. Bloor, who was for so many years its secretary, and who is more familiar with its history than any other person, to compile and write the same and to pay him such sum of money as may be agreed upon, not exceeding \$1,500.

Since the last annual meeting the Institute has lost by death three of its active members and four of its honorary members. The deceased Fellows were: J. H. Kirby, who died January 28, 1893; J. B. Woodworth, Worcester, Massachusetts, and Pierce P. Furber, member of the Board of Directors for three years, and of the St. Louis Chapter, who died April 6, 1893—within a few weeks of his fortieth birthday. Mr. Furber brought to the practice of his profession a strong and active body, a well-poised mind, a keen intellect and uprightness of purpose, and large professional attainments, which won for him many firm friends, the confidence of his partners and clients and the good will of all who were brought in contact with him.

Of the honorary members Henry Sargent Codman was so closely allied by his practice, his friendship and his connection with the architectural treatment of the grounds of the Columbian Exposition that we all regarded him more as a fellow member of our own profession than as one outside of it, and it was a delight and an honor to the American Institute of Architects at its last convention to make him an honorary member. Young in years, mature in judgment, by his death the profession of landscape architects has lost one whom, had he lived, would have been a fitting successor to his friend and business associate, Frederick Law Olmsted.

Of the honorary members Eugene Letang, Professor of Architecture in the Massachusetts Institute of Technology, and Richard Auchmuty, of New York, have left their indelible impress upon hundreds of men in two different walks in life; the former on the numerous graduates of an institution which has done so much for the profession of architecture throughout the country, and the latter on the graduates of the trade schools which were founded and maintained by his individual efforts. The fourth honorary member, Henry White-stone, deceased but a few days ago, at the ripe old age of three-score years and fourteen, at his home in Louisville, Kentucky, where, forty years ago, in the prime of life, he was in the active practice of his profession, erecting buildings in that perennial style of Italian Renaissance of which he was master, and from which he was never lured by passing fashion.

The number of Chapters of the A. I. A. is 23; number of Fellows, 475; number of honorary members, 52; number of corresponding members, 55.

The directors would respectfully nominate for honorary members of the A. I. A. the following persons: Halsey C. Ives, St. Louis; Frank D. Millet, New

York; Lyman J. Gage, Chicago; and for corresponding members: Prof. F. W. Putnam, Curator Peabody Museum, Harvard College, Cambridge, Massachusetts; Professor Goode, Smithsonian Institution, Washington, D. C.; Theodore Cooper, New York, and Lathan Anderson, Cincinnati.

The treasurer, S. A. Treat, submitted his report, which was audited by W. W. Carlin and A. F. Pashley and reported correct, a balance of about \$2,000 being found in the treasury.

The secretary submitted an abstract of the Chapter reports.

No report of the Committee on Foreign Correspondence was submitted, the chairman, Mr. R. M. Hunt, being absent in Europe. S. A. Treat, for the Committee on Uniform Contract, submitted the following report:

REPORT OF COMMITTEE ON UNIFORM CONTRACT.

Your Committee on Uniform Contract beg leave to report that the last meeting of the Joint Committee of the American Institute of Architects and of the National Association of Builders was held at the office of Messrs. Adler & Sullivan, October 19, 1892.

At that time numerous communications were read in which suggestions were made as to changes in the form. In accordance therewith several important changes were made. The form was considerably shortened—about five hundred words having been eliminated. The paragraphs were rearranged, grouping the requirements of either party by themselves, and in both cases the singular number was substituted for the plural. Attention was called to the omission of the clause referring to the penalty for the non-completion of the work at the specified time. So many conflicting views were presented regarding this portion of the form that it was deemed best to omit it, leaving it to the judgment of the parties in interest to draft such a clause as they should agree upon.

Your committee suggest that for the information of the Institute the secretary be requested to cause to be printed such information as will be of value (in circular form) and mailed from time to time to each member. This circular to contain information not only as to the revision of the form, but the name of its publishers, price, etc.

S. A. TREAT, Chairman.

No reports were received from committees on Education, Conservation of Public Buildings, or Competitions, and only a slight change in the Schedule of Charges was presented by the special committee, the Committee on Revision of the By-Laws not being ready to report at this convention.

The two Nominating Committees appointed by the chair, consisted of three members each: S. I. Nickerson, of Providence, Levi T. Schofield, of Cleveland, and W. W. Carlin, of Buffalo; and E. S. Eames, of St. Louis, W. W. Clay, of Chicago, and George B. Ferry, of Milwaukee.

The convention then adjourned to convene again at 10 A.M., August 1.

The second session opened with the report of the committee appointed to report upon the Report of the Board of Directors, S. V. Shipman, of Chicago, chairman, in which it recommended that special means be employed to increase the membership of the Institute in the several states. On the subject of historian of the Institute, it was, in the opinion of the committee, the duty of the secretary to collect such data in connection with his office. The committee also recommended the appointment of the honorary and corresponding members mentioned in the report.

In the adoption of an official badge, which was executed in white and black enamel representing the seal of the Institute, little interest was manifested in the matter, three or four members only voting in the affirmative and none negative. The pin is handsomely executed, and costs each member \$2.50.

The reports of the Nominating Committees were as follows:

Ticket No. 1.—F. S. Eames, Chairman. For president, D. H. Burnham, Chicago; first vice-president, George B. Post, New York; second vice-president, Levi T. Schofield, Cleveland. Secretary, George B. Ferry, Milwaukee. Treasurer, Glenn Brown, Washington. Directors for three years—E. H. Kendall, New York; S. A. Treat, Chicago; Alfred Stone, Providence; Cass Gilbert, St. Paul; Thomas Hastings, New York; A. Page Brown, San Francisco; C. F. Schweinfurth, Cleveland; Robert Stead, Washington. Director for two years—A. F. Rosenheim, St. Louis.

Ticket No. 2.—S. I. Nickerson, chairman. For president, D. Adler, Chicago; first vice-president, Stanford White, New York; second vice-president, George B. Ferry, Milwaukee. Treasurer, S. A. Treat, Chicago. Secretary, Alfred Stone, Providence. Directors for three years—E. G. Lind, Atlanta; G. A. Frederick, Baltimore; Henry Van Brunt, Kansas City; Oliver G. Traphagen, Duluth; Jeremiah O'Rourke, Washington, D. C.; Edward H. Kendall, New York; James F. Alexander, La Fayette; Joseph H. Pierce, Elmira. Director for two years—G. S. Orth, Pittsburgh.

The result of the election was as follows, forty-five votes being cast: President, Daniel H. Burnham, of Chicago; first vice-president, George B. Post, of New York; second vice-president, Levi T. Schofield, of Cleveland; treasurer, Samuel A. Treat, of Chicago; secretary, Alfred Stone, of Providence. Directors for three years—E. H. Kendall, of New York; Cass Gilbert, of St. Paul; Thomas Hastings, of New York; C. F. Schweinfurth, of Cleveland; George A. Frederick, of Baltimore; Henry Van Brunt, of Kansas City; Jeremiah O'Rourke, of Orange, New Jersey. Director for two years, to fill vacancy of P. P. Furber, deceased—A. F. Rosenheim, of St. Louis.

The secretary having announced the result of the ballot President Kendall said: "You have heard the result of the election, and in anticipation of laying down the cares of this office upon the 1st of January, I have to thank you most cordially for my two terms of service as president. It has been agreeable service; it has been interesting service; above all things it has been service and work. It was a great pleasure to go several times to Washington to appear with you before the House and Senate Committees and before Secretary Carlisle. The office in New York is a place of high dignity and responsibility. At the time when there was much discussion about the preservation of the old City Hall, committees were formed in all parts of the city and it was a great

honor to this Institute that its president was made chairman of all the committees—of the City Club, of the Century Club, of the Historical Society, representing some of the oldest societies in New York—and was delegated to present a memorial address to the mayor of the city. In the formation of the Municipal Art Society, which was spoken of in my opening address, your president was called upon to take active part and to again address the mayor in behalf of the society. So you see the work has been interesting, which it could not have been, had there been little to do. I congratulate you upon having elected as my successor Mr. Daniel H. Burnham."

A vote of thanks to the Illinois Chapter was passed and the convention adjourned.

WORLD'S CONGRESS OF ARCHITECTS AT CHICAGO.

THE World's Congress of Architects, held under the auspices of the World's Congress Auxiliary of the World's Columbian Exposition in the general division of architecture of the department of art, convened at Chicago, July 31, 1893.

The Auxiliary Committee of the congress consisted of Daniel H. Burnham, chairman; William L. B. Jenney, Solon S. Beman, and Robert Craik McLean, editor of THE INLAND ARCHITECT, of Chicago, secretary. The Advisory Council of the congress was as follows:

ADVISORY COUNCIL OF THE WORLD'S CONGRESS OF ARCHITECTS, AT CHICAGO, 1893.

FOREIGN MEMBERS.

Charles Garnier, Member of the Institute of France.
George Soudon Bridgman, M.S.A., Delegate from the Society of Architects, London.
M. Daumet, President of the Central Society of France, Member of the Institute of France.
E. Salomons, F.R.I.B.A., President Manchester Society of Architects, England.
M. Guadet, First Vice-President of the Central Society of Architects of France, Professor at School of Fine Arts.
Charles Lucas, Member of the Central Society of Architects of France.
W. Arthur Heazell, President Nottingham Architectural Society, England.
F. Adolphe Bocage, Member Central Society of Architects of France.
Special delegate representing the Central Society, the Society of Fine Arts and the Mutual Defense Association of France.
J. Macivar Anderson, President Royal Institute of British Architects.
William Emerson, Hon. Sec. R.I.B.A., London.
Josiah Conder, F.R.I.B.A., Member of the Society of Japanese Architects, Tokio, Japan.
Mariano Belmas, Director of the Department of Public Works, Madrid, Spain.
Tatsuzo Soné, Lecturer upon Architecture in the Imperial University, Member of Council and Special Representative of the Society of Japanese Architects, Tokio, Japan.
Leone Massimiliano Di Minerbi, representing the Italian Society of Engineers and Architects, Rome.
M. Pangoy, President; M. De Foucault, First Vice-President; M. Buyron, Second Vice-President; M. Reybaud, Secretary, of the Society of Architects of Marseilles, France.
Robert Walker, President of the Society of Architects, London.
C. O. Klein, Member of the Association of German Architects.
Herr Hinkeldey, Chief Government Architect, Berlin.
John Bobula, jor., Delegate of the Hungarian Government and Commerce.
H. Ende, Government Architect, Berlin, Germany.
Giuseppe Toggi, Italy.
The Presidents of the Architectural Societies.

UNITED STATES MEMBERS.

Edward H. Kendall, President of the American Institute of Architects.
Alfred Stone, Secretary of the American Institute of Architects.
The Members of the Committee on Foreign Correspondence of the American Institute of Architects: Richard M. Hunt, chairman.
The Presidents of State and Local Chapters of the American Institute of Architects.

The sessions of the congress occupied the week following July 31 and the general programme was as follows:

THE WORLD'S CONGRESS OF ARCHITECTS.

Monday, July 31, 10 A.M. Hall 22.—First Session.—The Twenty-seventh Annual Convention of the American Institute of Architects. President, Edward H. Kendall, New York; Secretary, Alfred Stone, Providence, Rhode Island. (For details of convention see special programme issued by the American Institute of Architects.)

Monday evening, 8 P.M. Hall of Columbus.—Formal Opening of the Congresses in the Department of Art.

Tuesday, August 1, 10 A.M. Hall 22.—Second Session.—The Twenty-seventh Annual Convention of the American Institute of Architects.

Tuesday, August 1, 2 P.M. Hall 22.—Formal Opening of the Congress of Architects. D. H. Burnham, Chairman. Paper: The Organization of the World's Columbian Exposition. D. H. Burnham, Chicago.* Paper: The General Scheme and Plans of the World's Columbian Exposition. Frederick Law Olmstead.* Paper: The Construction of Buildings, Docks, Piers, Bridges, etc. E. C. Shankland, Chief Engineer, World's Columbian Exposition.*

Wednesday, August 2, 10 A.M. Hall 22.—Paper: Conditions of Architecture in Japan. Josiah Conder, F.R.I.B.A., Tokio, Japan. (Read by Tatsuzo Soné, Member of the Society of Japanese Architects.)† Paper: Public Competitions. J. Guadet, First Vice-President of the Central Society of Architects of France, Paris.† Paper: On the Use, for Transportation, of the Lagoons, of Lake Michigan, of the Intramural Railway, of the Alley Railway, of the Great Trunk Lines, of the Terminal Facilities, of the Chair System, etc., on the World's Columbian Exposition. W. H. Holcomb, Chief of Transportation, World's Columbian Exposition.* Paper: The Mechanical Power Plant of the World's Columbian Exposition. Charles F. Foster.* Paper: The Electrical Plant, etc., of the World's Columbian Exposition. R. H. Pierce, Chief Electrical Engineer, World's Columbian Exposition.* Paper: Acoustics in Relation to Architecture. Alex. F. Oakey, San Francisco, California.† Paper: Comparison of Paris and Columbian Expositions. Bannister F. Fletcher, Honorable Secretary, Architectural Association of Great Britain, London.†

Thursday, August 3, 10 A.M., Hall 22.—Paper: Architecture in Apartment Buildings. F. Adolphe Bocage, Member of the Central Society of Architects of France, Paris.† Paper: Sculpture in its Relations to Architecture. William Emerson, Honorable Secretary, R.I.B.A., London.† Paper: Economic Conditions of Architecture in America. Barr Ferree, New York.† Paper: Some Considerations Affecting the Development of Characteristic Style in the United States. Henry Van Brunt, F.A.I.A., Kansas City.* Paper: Ethics in Architecture. A. J. Bloor, F.A.I.A., New York. Paper: A Review of Recent Plumbing Practiced in the United States. Glenn Brown, F.A.I.A., Washington, D. C.*

* Prepared for the American Institute of Architects, and read before the congress by their courtesy.

† Prepared for the Congress of Architects.

Friday, August 4, 10 A.M., Hall 22.—Paper: Government Practice. Jeremiah O'Rourke, F.A.I.A., Washington, D. C. Supervising Architect U. S. Treasury.* Paper: The Use of Color in Architecture. H. Langford Warren, F.A.I.A., Boston, Mass.* Paper: Foundations of Buildings. William R. Hutton, F.A.I.A.* Paper: Fireproof Construction and the Practice of American Architects. P. B. Wight, F.A.I.A., Chicago.* Paper: Statutory Regulations. William Worth Carlin, F.A.I.A., Buffalo, N. Y. Paper: The Aeration of Cities and their Buildings. Everett T. Potter, F.A.I.A., New York.* Paper: Architectural Engineering. Thomas C. Clarke, F.A.I.A.* Paper: A Review of Chicago Architecture. Frederick Baumann, F.A.I.A., Chicago.*

Saturday, August 5, 10 A.M., Hall 22.—Paper: Polychromatic Treatment of Architecture. Louis H. Sullivan, F.A.I.A., Chicago.† Paper: Library Buildings. J. L. Smithmeyer, F.A.I.A., Washington, D. C.* Paper: The Influence of Building Laws upon Architectural Development. Charles H. Blackall, F.A.I.A., Boston.* Paper: Association for Mutual Defense. T. M. Clarke, F.A.I.A., Boston.* Paper: Cohesive Construction, Past, Present and Future. R. Guastavino, Chicago. Paper: Superintendence in Architecture. R. W. Gibson, F.A.I.A., New York.* Paper: Engineering in Architecture. Louis de Coppet Berg, F.A.I.A., New York.*

The formal opening of the congress was attended by representatives of the general divisions in the department of art, including architecture, painting and sculpture, decorative art and photography, and was addressed by Mr. Charles C. Bonney, president of the auxiliary, and Walter C. Larned, of department of painting and sculpture. Among the distinguished foreign architects present were Mr. Tatsuzo Soné, of Japan, Mr. George Soudon Bridgeman and Mr. William Emerson, of England, Mr. F. Adolphe Bocage, of France, Dr. L. M. Minerbi, of Italy, John Bobula, of Hungary and others.

The Congress of Architects opened with a short address by President C. C. Bonney, who introduced the chairman of the congress, Mr. Daniel H. Burnham.

Mr. Burnham addressed the congress, stating the objects for which it was called, dwelling upon the increased enlightenment prevailing in the art world and the hope for the future, and then called upon Mr. E. H. Kendall, president of the American Institute of Architects, to preside during the remainder of the session, Mr. Alfred Stone acting as secretary.

Mr. Kendall made a brief address and at its conclusion announced the first paper upon the programme, "The Organization of the World's Columbian Exposition," by Mr. D. H. Burnham, director of works (printed on page 5).

Mr. E. C. Shankland, chief engineer, read a paper upon the Exposition construction, docks, bridges, etc. (printed on page 8). At the conclusion of Mr. Shankland's paper the session adjourned.

The second session opened August 2, with the reading by the secretary of a paper upon the general scheme and plans of the Exposition, contributed by Mr. Frederick Law Olmstead, landscape architect of the Exposition. (This paper with others will be printed in full in a subsequent number.) Papers upon the transportation by land and water were read by Mr. W. H. Holcomb, chief of transportation of the Exposition, and upon the electric plant of the Exposition by R. H. Pierce, chief of electricity. The remainder of the papers for this session were read by title.

The third session of the congress was held August 3, Mr. George Soudon Bridgeman occupying the chair.

The session opened with a paper upon "Public Competitions," written by J. Guadet, first vice-president of the Central Society of Architects of France, and read by the special delegate from the central society to the congress, Mr. F. Adolphe Bocage. Mr. Bocage prefaced the reading of the paper by a few remarks in which he said: "I wish to express the great honor I consider having been chosen by my confrères of the Central Society of French Architects and the Ministry of Fine Arts to represent them at this congress and take the opportunity to thank you for the cordial reception that has been accorded me. I will now with your permission read a paper prepared by one of our masters, M. Guadet, architect of the French government, professor at the school of fine arts and vice-president of the Central Society. The subject is 'Public Competitions.'" In brief, M. Guadet said that after establishing the principle that in forming a competition it is always prudent to take counsel with approved advisers, the speaker said that in general the placing of projects in competition can scarcely be objectionable when the character of the work is to be above all artistic, comprising an original conception, an effort of imagination. It is less practicable when the object is a utilitarian construction requiring patience and successive combinations, continuous elaborations, numerous conferences and the incessant retouching not only of the plan but also of the programme itself; in fine, the proper course may depend even upon questions of persons. Three phases or conditions should be established: First, preparation by the administration interested; second, execution by artists; third, judgment by a competent jury. Giving as a striking illustration of illogical confusion between competition and adjudication, Mr. Guadet cites a recent competition in the department of Aube, in which the contractor who made estimate on the cost of the competition should give guarantees of solvency.

M. Guadet reviewed the conditions of competitions in France, as usually open to all French architects, and was of the opinion that competitions of two degrees were preferable, but were more costly. In regard to signed and anonymous competitions there is a difference of opinion, as the secret competition is never a complete secret, and surely entire publicity is better than imperfect secret, though the signed competition prevents many good artists from entering and encourages the production of projects which are only the work of an agency under the signature of a simple money lender. Under these difficulties, perhaps the wisest course is to give entire liberty to competitors. Leaving the premiums

dependent upon the jury is not admissible. For the judges to deviate from programme is dishonest. A competition is a bi-lateral contract when the programme is the law of the parties. In the selection of juries, that method which raises the least objection is their appointment by architectural societies and deserves to be recommended. In conclusion, Mr. Guadet called attention to how little in reality the question had been studied, that one method should be decided upon and practiced and be projected by the government as a code to govern all public competitions.

Mr. Henry Van Brunt, of Kansas City, followed with a paper upon "Some Considerations Affecting the Development of Characteristic Style in the United States," and Mr. A. J. Bloor, of New York, read a paper upon "Ethics in Architecture." Other papers upon the programme of this session were read by title.

The fourth session of the congress was opened August 4, by Vice-chairman W. L. B. Jenney, of Chicago. Mr. Jenney introduced Mr. Jeremiah O'Rourke, supervising architect of the United States. Mr. O'Rourke reviewed the history of the office and its present organization. This includes ten divisions. The engineering and drafting division is charged with the making of all designs, plans and detail drawings required for all the buildings erected and with the correspondence relating thereto. Fifty to sixty draftsmen are employed, and salaries range from \$3 to \$8 a day. The salary of the supervising architect is \$4,500 a year.

Mr. Levi T. Scofield, of Cleveland, was called to the chair and presided through the remainder of the session. Mr. Frederick Baumann, of Chicago, read "A Review of Chicago Architecture."

The Secretary read a paper prepared by H. Langford Warren, of Boston, upon "The Use of Color in Architecture." This was followed by an interesting paper by Mr. P. B. Wight, of Chicago, upon "Fireproof Construction," and Mr. William Worth Carlin, of Buffalo, entertained the congress with a well written and delivered opinion upon "Statutory Regulations." Other papers were read by title and ordered printed in proceedings.

The concluding session of the congress, August 5, was perhaps the most interesting of the series and largely attended, great interest being manifested in the several papers, some of which had been postponed during the preceding sessions. M. Bocage, of the Central Society of Architects of France, occupied the chair, and the session opened by the introduction of Mr. Louis H. Sullivan, of Chicago, who read a paper upon "Polychromatic Treatment of Architecture." Mr. Sullivan's successful coloring of the Transportation building at the Exposition made the development of his theory of intense interest. It was illustrated by black and white and colored diagrams. Mr. Sullivan's paper was rather in the nature of an oration, and though a sudden indisposition compelled him to read it and somewhat abridged the remarks which he intended should more fully explain the diagrams, the effect was in no wise lost. Commencing with a general proposition of the psychological aspect of polychromatics the speaker said in effect: "Remember we are not Greeks. We do not speak their language, nor even in the most isolated cases can we speak their language as they spoke it. We are Americans, and to attempt to substitute ourselves for Greeks is clear perversion. Each architect must have his own individual system. Polychrome is not architecture, but the building must be designed for polychrome and become a part of it." Showing a diagram the speaker said he would show the genealogy of forms as he understood it. The diagram showed a very complex form in order to show the process from a simple idea to the most complex expression of it. The basis was two straight lines and two circles, and from stiff geometric forms they gradually take on sentiment, and pushing forward as the sap of the tree pushes into branches, there is in ornament this outward blending movement. The chief idea is to establish the parentage and descent of form and that all comes from the general idea. Taking up the subject of color the speaker laid down the principle that color, however, varied must be balanced in series. One color after another is not polychrome. It is anachronism. As fixed rules are always dangerous when we have learned our grammar we had best forget it. Mr. Sullivan's paper was received with applause. It will be revised by the author and printed with the black and white explanatory diagrams.

The chairman next introduced Mr. Tatsuzo Soné, of Tokio Japan, lecturer upon architecture in the Imperial University, member of the Council of the Society of Japanese Architects, and special delegate to the congress. Mr. Soné presented a paper written by Mr. Josiah Conder, government architect at Tokio, member of the Royal Institute of British Architects, upon the "Conditions of Architecture in Japan." Mr. Soné was welcomed by applause by the entire audience, and his reading was listened to with great attention.

Mr. Bocage read a paper upon "Architecture in Apartment Buildings." Mr. R. Guastavino, of Chicago, followed with an exhaustive account of "Cohesive Construction." In defining the term "cohesive construction," the speaker separated the subject of construction into "gravity" and "cohesive," the first founded upon resistance and the second upon the property of cohesion. Mr. Guastavino reviewed the construction of domes, etc., from Achæmenides to the present, and showed a vast knowledge of the different types of construction used by the ancients, the paper being full of valuable data relating to ancient dynasties and their constructive methods, and classed our present methods with the Byzantine, which is one of transition. In conclusion Mr. Guastavino eulogized the new Spanish school of architecture. The paper was listened to with profound interest, and its publication will be looked for by architects generally.

The remainder of the papers were ordered printed in the proceedings. At the conclusion Vice-chairman Jenney in a few words

*Prepared for the American Institute of Architects, and read before the congress by their courtesy.

†Prepared for the Congress of Architects.

thanked the delegates for the earnest manner in which they had responded to the request for papers, some of them having traveled many thousands of miles to attend the congress, and announced that the congress stood adjourned.

OUR ILLUSTRATIONS.

East Nashville School House. Thompson & Gibel, architects. Grotesques, sketched 1880, by L. F. Plympton, Cincinnati, Ohio.

High School Building, Cedar Rapids, Iowa. Joselyn & Taylor Company, architects.

Store Building for James Hollihan, Detroit, Michigan. E. C. Van Leyen, architect.

Residence for E. F. Burnham, Hartford, Connecticut. Hapgood & Hapgood, architects.

Residence of Dr. C. D. Palmer, Avondale, Ohio. George W. Rapp, architect, Cincinnati, Ohio.

Study for University of Chicago, founded by John D. Rockefeller. Henry Ives Cobb, architect.

Residence of Mrs. Fenton Lawson, East Walnut Hills, Cincinnati, Ohio. A. O. Elzner, architect.

Dickson Normal College, Dickson, Tennessee. Thompson & Gibel, architects, Nashville, Tennessee.

Mausoleum for the Forest Hill Cemetery Company, Kansas City, Missouri. Hogg & Rose, architects.

Madison School House, South Bend, Indiana. Wing & Mahurin, architects, Fort Wayne, Indiana.

Warehouse for the Whitman & Barnes Manufacturing Company, Cincinnati, Ohio. A. O. Elzner, architect.

Residence for J. A. Cunningham, Winnetka, Illinois. This design was the one taking the prize for owner, of a 100-foot lot at Winnetka Park Bluffs, in accordance with a competition opened by W. H. Cairnduff & Co. W. A. Otis, architect, Chicago.

World's Columbian Exhibition Views, Chicago: Grand Basin looking toward Agricultural Building; Peristyle and Statue of Columbia; Court of Honor, Electricity Building, McMonnies Fountain, Manufactures Building and Grand Basin; interior of Terminal Station; Maine State Building; Castle in German Village on Midway; entrance to Horticultural Building; South Basin, Administration and Electricity Buildings. From photographs by F. Dundas Todd.

Photogravure Plate: Memorial Arch of Peristyle, World's Columbian Exposition. Architect, Charles B. Atwood. Sculptors for quadriga of Columbus, Daniel C. French and E. C. Potter; sculptor for groups, Bela L. Pratt; sculptor for single figures, Theodor Bauer. The view here given is taken from the Court of Honor, and shows in the foreground the upper part of the bridge that spans the entrance to the grand basin. The Peristyle itself has four rows of Corinthian columns, so that it does not have a weak appearance from any point of view. A small bridge in the center of the arch, equal in width to the space between the two inside rows of columns, connects the two halves of the Peristyle proper. The entire work is executed in staff on a wooden framework, which is built on piles driven through the water. Mr. Atwood had the advantage of designing the Peristyle after all the other designs had been published. The same is the case with his main entrances to the Fine Arts Palace, published in the July number. In the Peristyle arch he has embodied none of the ideas of his predecessors, but has rather adhered to the classic precedents of the memorial arches of ancient Rome, with what success our readers may judge by a comparison of the illustrations now given.

PHOTOGRAVURE PLATES.

Published only with the Photogravure edition.

West Entrance to Manufactures and Liberal Arts Building, World's Columbian Exposition. Architect, George B. Post.

East Entrance to Transportation Building — the Golden Arch — World's Columbian Exposition. Architects, Adler & Sullivan. Sculptor, John J. Boyle.

Façade of French Court, Manufactures and Liberal Arts Building, World's Columbian Exposition. Architect, René Dubuisson. Decorator, Henri P. Motte; statue of France, by J. A. J. Falguière.

North Entrance to Agricultural Building, World's Columbian Exposition. Architects, McKim, Mead & White. Sculptor for pediment, Larkin G. Mead; sculptor for figure of Diana, A. St. Gaudens; sculptor for all other work, Philip Martiny.

Homeopathic Headquarters and Hospital, World's Columbian Exposition. P. B. Wight, architect. This building is located between the Woman's building and the entrance to the Midway Plaisance. It is a sample of some of the smaller buildings that have been erected by private enterprise, and is an exhibit of the homeopathic physicians of Cook county, Illinois. It is a complete model hospital. It is also an illustration of the construction of a building the foundation and framework of which are entirely of wood, and the entire exterior covered with cast staff. The roof is of steel Spanish tiles. It was built in two months, and could easily be moved away and used as a permanent residence.

Headquarters and Exhibition Building, Sweden, World's Columbian Exposition. This building is a complete illustration of the method of building used in Sweden for the last four hundred years and still employed, especially for churches in the rural districts. Nearly all of the materials were manufactured and

worked in Sweden. The first story and the two semi-circular towers on the front are of brick and terra cotta. The superstructure is all of wood framing, and the roofs are covered with shingles. The ground plan is a triangle with hexagonal corner towers. The first stage of the roof construction is hexagonal and the upper stage with open belfry is twelve sided. The entrance staircases are of artificial granite. These are introduced as exhibits. To the right of the building may be seen part of the East India pavilion, designed by Henry Ives Cobb, of Chicago, and the beautiful southwest turret of the German building, which could not be photographed from a nearer point on account of the trees.

South Entrance to Fisheries Building. Architect, Henry Ives Cobb. The whole exterior is covered with staff on a framework of wood. The roof is covered with steel tiles painted red. Nothing has attracted more attention in connection with the decorations of the Exposition buildings than the ornamental modeling of the Fisheries building, and it may be of interest to know how it was accomplished. It is well known that all the ornamentation is derived from forms of fish and aquatic animals; yet the whole effect is that of Norman or Romanesque carving. Mr. Cobb devoted many months of untiring and enthusiastic work to this. He first had all the carving drawn out in faint outline from conventional Romanesque ornament. Then he drew over these lines roughly, in charcoal, sketches of the kinds of animal life he wished to introduce, keeping strictly to the proportions of mediæval ornament. He procured the services of several skillful stonecarvers, among whom were Richter and Hurley, secured examples of the actual living things, and had them model all the ornament from these. After repeated corrections by Mr. Cobb, the models were then turned over to the staffmen, who cast the work for the building.

MOSAICS.

THE chairman of the trustees of the Robert Clark Testimonial annual competition, the programme for which was published in the July issue of THE INLAND ARCHITECT, makes the announcement that in addition to the gold, silver and bronze medals mentioned in the programme there will be two additional bronze medals given, a first and second mention, making five medals in all to be competed for.

THE Department of Health of the city of Chicago notifies architects, plumbers, contractors and all others whom it may concern, that on and after November 1, 1893, Section 12 of the ordinance relating to plumbing and drainage will be enforced in the following manner: When the soil, waste, vent, revent and all other pipes (within building) connected or to be connected with sewer, are placed in position, they shall be tested by water in the presence of an inspector of this department, and upon completion of building a second test by peppermint shall be applied before work will be accepted by this office. Certificates of tests and inspection will be issued by this department. Architects and other interested parties are advised to demand said certificates before acceptance of said plumbing and drainage work.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, August 10, 1893.

Reports from the principal cities and towns of the country show a slight falling off in construction work. The opinion of architects is, that the falling off will be only temporary, and that later in the season a revival will take place. Without stopping to pass judgment upon this opinion, it may be said with safety that the volume of work now in sight is greater than at this time last year, but the danger is that much of this contemplated work may be postponed until next season. The industries are depressed. A great many workmen have been unemployed, and employers are not inclined to take any risks. Manufacturing establishments are now being run only to the extent necessary to meet the orders in hand, the accumulation of stock not being deemed wise at this time. The unsatisfactory financial condition is a matter of much concern. The country is looking to congress for the settlement of one or two vexed questions; when these are settled in accordance with the public conception of what is right, confidence will be reestablished, in part at least, and work will go on better. Prices are in most lines stationary; in a few, declining. In building material very little fluctuation has been observed for some months past. Probabilities are in favor of steady prices for the remainder of the year. Iron, steel and hardware are low in price. Brick, lumber, cements, and material for inside finishing, particularly planing mill supplies, are firm in price, but the margin of profit to the manufacturers is very narrow. The situation might be much worse than it is. Capital is not frightened, but simply on guard. New enterprises are falling off, as to actual work doing, but not as to contemplated activity. The people have every confidence in reviving demand, in better conditions, in wider margins, and a general improvement in trade and industry. The labor question occupies but little public attention, and we will probably pass through the year without agitations. It is possible that the spirit of agitation which has caused such a great upheaval in foreign countries, may, like the cholera, spread to this country next year; the signs of the times point that way. The agitation of the future will most likely be for shorter hours of labor, rather than for increased pay. While there is much to regret in the condition at present surrounding us, it takes no prophet's eye to see that we possess the elements for future expansion and growth, and that the momentum which has been attained in recent years of prosperity will carry the country over the present depression into an era of greater activity, as soon as some of the disturbing factors are removed.

SYNOPSIS OF BUILDING NEWS.

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

Chicago, Ill.—Architect Frederick Foehringer: For Charles H. Rathmann, on Deming court, a four-story and basement flat building; size 50 by 70 feet; to be of stone front with stone bay windows, have hardwood finish and mantels, the best of sanitary improvements, heating, etc. For John R. Devine, on Dearborn avenue, a four-story and basement flat building; size 25 by 70 feet; to have a front of stone with stone bays, plate and stained glass, modern plumbing, etc. For M. J. Teehan, a two-story and basement flat building; to be erected at 201 Dearborn avenue (in the rear); to be of brick, have plumbing, etc.

Architect James Burns: Making plans for a two-story basement and attic seminary; size 150 by 150 feet; to be erected at McCook, Nebraska; it will be of rock-faced stone basement, and above of light-colored pressed brick, with stone trimmings and slate roof; will put in all the sanitary and modern improvements. For J. P. Nelson, on the corner of Erie street and Western avenue, a three-story flat building; size 48 by 48 feet; to be of stone front, have the modern sanitary plumbing, hardwood finish, mantels, furnaces, electric bells, etc. For J. H. Hinder, corner of Kedzie avenue and Ohio street, a three-story and basement flat building; size 43 by 70 feet; to be of stone front, have hardwood finish and mantels, all the sanitary and modern improvements.

Architects I. K. & A. B. Pond: For Miss Helen Culver, on Warren avenue, near Paulina street, a four-story flat building; size 30 by 73 feet; to be of pressed brick and terra cotta front.

Architects Lietz & Fuller: Have completed drawings and are now taking estimates for the Rose Dispensary, to be erected at Terre Haute; it will be 50 by 130 feet in size, five stories and basement, with tile roof and copper cornice; will put in all the sanitary improvements, heating, electric light, etc.; it will be fireproof of steel and iron construction; there will be stores on the ground floor, offices above, and lodgeroom in the attic.

Architects Shepley, Rutan & Coolidge: For G. H. Mitchell, at Hinsdale, a two-story basement and attic residence; size 40 by 68 feet; to be of frame with stone basement, have hardwood interior finish and mantels, hot-water heating, the best of sanitary and modern improvements, electric light, etc.

Architect F. L. Wright: For O. S. Goan, at La Grange, a two-story basement and attic residence; size 38 by 38 feet; to be of frame construction with basement of bowlders; the interior to be finished in hardwoods, have wood mantels, all the sanitary and modern improvements. Also, making drawings for two bathhouses for the city of Madison, Wisconsin; one will be on pile foundations with frame superstructure, and the other on stone foundations; will put in natural wood finish, electric light, etc.; one will cost \$10,000 and the other \$6,000.

Architects Patton & Fisher: Have completed drawings for the Park Ridge grammar school; it will be 98 by 57 feet in size, of pressed brick and stone front, have plumbing, heating, etc.

Architect De Witt T. Kennard: For R. N. Baylies, on the southwest corner of Grand boulevard and Forty-eighth street, a two-story basement and attic residence; size 32 by 65 feet; to be of stone front and sides, have hardwood finish and mantels, hot-water heating, electric light and all improvements.

Architect C. C. Scott: For A. E. Stahl, at Lawndale avenue, Lawndale, a three-story flat building; size 22 by 60 feet in size; to be of stone on two stories, and above this of pressed brick and stone with terra cotta gables; will put in the best of modern improvements, hardwood finish, mantels, etc.

Architect T. C. Goudie: For Frank Thompson, on Sulzer street just east of Lincoln avenue, a two-story attic and basement residence; to be of frame construction with stone basement, have oak interior finish and mantels, the modern sanitary arrangements, etc.

Architect Julius H. Huber: For B. D. Heeb, at Edgewater, a two-story basement and attic residence; to be of stone basement and frame above; will put in hardwood finish and mantels, furnace, electric light, etc. For H. Cohn, at Union and Twelfth streets, a three-story and basement flat building; size 25 by 52 feet in size; to be of pressed brick and stone front, have the sanitary plumbing, mantels, etc.

Architects Schroeder & Koster: For Mrs. Fritz, at Sixty-fifth street and Vincennes avenue, a two-story flat building; size 23 by 55 feet in size; to be of pressed brick and stone front, have all the sanitary plumbing, mantels, etc. For T. Foltz, on Thirty-fifth street near Western avenue, a three-story flat building; size 23 by 65 feet, and two 23 by 50 feet each; to be of pressed brick and stone, have all improvements, mantels, etc. For Mr. Uthorn, corner of Sixty-third street and Center avenue, a three-story store and flat building; size 25 by 90 feet in size; to be of stone front on one side and pressed brick and stone on the other; will put in all sanitary improvements, mantels, electric light, etc.

Architect John P. Hettlinger: For W. J. Burns, on Sacramento avenue near Twelfth street, a two-story and basement flat building; size 22 by 54 feet in size; to be of stone front, have all modern improvements, mantels, furnace, etc. Also preparing plans for a four-story and basement apartment building; 50 feet front; to be of Roman pressed brick and stone front; have all the sanitary plumbing, mantels, electric wiring, steam heating, etc. For Mrs. Mary Foster, on the corner of Cornelia street and Crawford avenue, a two-story frame house.

Architects Osterling Brothers: For S. Johnson, on Seminary avenue near Cornelia street, a two-story and basement flat building; size 22 by 50 feet in size.

Architect Frederick Ahlschlager: For Reverend Zahf, at Melrose Park, a frame church; 40 by 70 feet in size; to have stone basement, stained glass windows, pews to seat four hundred people, furnace, plumbing, etc. For Henry Dreier, at Fifty-fourth and Carpenter streets, a three-story and basement flat building; size 22 by 70 feet in size; to be of stone front, have hardwood finish, sanitary plumbing, mantels, laundry tubs, bells, speaking tubes, etc. For Mrs. Clouthier, at Blue Island avenue near Leavitt street, a three-story and basement flat building; size 25 by 80 feet in size; to be of stone front, have hardwood finish and mantels, the modern conveniences; cost \$10,000.

Architect W. J. Van Keuren: For J. D. Caldwell, at Oak Park, a two-story flat building; size 26 by 56 feet in size; to have a front of pressed brick and stone, all the sanitary plumbing, hardwood interior finish and mantels, electric light, furnace, etc. For M. Snider, at Oak Park, a two-story frame residence; to have a stone basement, plumbing, electric light, hardwood finish and mantels, laundry tubs, furnace, etc. For M. Price, at Morgan Park, a two-story residence; to be of frame construction with stone basement, hardwood interior finish and mantels, gas fixtures, furnace.

Architects Marston & Hotchkiss: For Mrs. Abigail Lazenby, at Sheridan Park, a two-story basement and attic residence; to be of frame construction with stone basement, hardwood interior finish and mantels, all the modern improvements, gas and electric fixtures, furnace, laundry tubs. Same firm have been appointed architects to put in interior finish in residence, at Dowagiac, Michigan, for Frederick E. Lee; it will be something very elaborate, consisting of onyx, Virginian marble, quarter-sawn oak, birch, mahogany, white enamel, etc.; the cost of the residence will be \$70,000. Also made plans for a two-story basement and attic residence; 30 by 50 feet in size; to be erected at Sheridan Park, for Thomas Ryan; to be of pressed brick and stone front, have hardwood finish, mantels, all the sanitary conveniences, electric wiring, heating, etc.

Architect John T. Hetherington is letting contracts for the First Reformed Holland church; 60 by 80 feet in size; to be erected at Ashland avenue and Hastings street; it will be constructed of pressed brick and stone, have interior finish in Georgia pine, stained glass windows and pews to accommodate a congregation of seven hundred.

Architect Simeon B. Eisendrath: For the Gottfried Brewing Company, at Sangamon and Front streets, a one-story hall; 58 by 25 feet in size; to be of pressed brick and stone. For Henry Wittekind, at 235 Twenty-fourth place, a three-story flat building; size 22 by 71 feet in size; to be of pressed brick and stone, have the sanitary improvements, hardwood finish, mantels, etc.

Architect Henry Elliott: For K. M. McMillan, at Jacksonville, a two-story basement and attic residence; 65 by 80 feet in size; to be of stone all round,

have handsome interior finish and mantels, electric light, steam heating, etc.; cost \$60,000.

Architect D. A. Lapointe: For Mrs. J. Kenney, at Washington boulevard near Clarkson court, a three-story residence; 24 by 68 feet in size; to be of Raindrop stone front with tile roof; the interior will be finished in hardwoods, specially designed mantels, paneled oak ceilings, electric wiring, open nickel-plated plumbing, etc. Also making plans for a two-story basement and attic residence, to be erected on Washington boulevard; it will have a handsome stone front, hardwood finish, electric light, wood mantels, heating, etc. For J. Reese, at Lexington street near California avenue, a two-story flat building; size 26 by 55 feet in size; to be of stone front, have all the sanitary improvements, mantels and furnace. For R. J. Thomason, on Wilcox avenue, a two-story flat building; size 22 by 55 feet in size; to have a stone front, hardwood finish and mantels, all the sanitary improvements, furnaces, etc.

Architect R. C. Berlin: For F. Sherman, on Calumet avenue near Forty-fourth street, a two-story flat building; size 24 by 64 feet in size; to be of stone front, have the sanitary conveniences, mantels, etc.

Architects Lamson & Newman: For F. P. Finegan, on Harrison street, a three-story store and flat building; size 25 by 32 feet in size; to cost about \$8,000; it will have a stone front, hardwood interior, bathrooms, closets, mantels, laundry tubs, electric wiring, etc. For F. K. Stevens, on Washington boulevard, a three-story and basement flat building; size 27 by 80 feet in size; to have a stone front, quarter-sawn oak interior finish, mantels; the best of sanitary plumbing, electric wiring, heating apparatus, etc.

Architect J. M. Hoskins: For James Arthurs, on Warren avenue, a three-story flat building; size 30 by 70 feet in size; to have a handsome stone front, all the modern improvements, mantels, heating, electric wiring, etc. For W. H. Birmingham, on Spaulding avenue near Jackson street, a two-story flat building; size 25 by 56 feet in size; to be of stone front, have bathrooms, closets, mantels, furnaces, bells and speaking tubes. For H. Pendergast, on Homan avenue near Madison street, a two-story double flat building; size 50 feet front by 70 feet deep; it will have a neatly designed stone front with stone porch; hardwood interior and mantels, the best of plumbing, electric wiring, etc. For Frank Smith, on Adams street, near Homan avenue, a two-story flat building; size 25 by 70 feet in size; to be of stone front, have hardwood mantels, the sanitary plumbing, electric wiring, laundry tubs, furnaces, etc. For P. D. Hogan, at 1360 Congress street, a two-story and basement flat building; size 25 by 57 feet in size; to be of pressed brick and stone front; have hardwood finish and mantels, all the sanitary accommodations, laundry tubs, furnaces, etc. For M. Walsh, on Albany avenue near Madison street, a two-story flat building; size 25 by 58 feet in size; to be of stone front, have the sanitary plumbing, mantels and furnaces.

Architects Hallstrom & Peterson: For M. J. Scanlan, at 184 Racine avenue, a three-story and basement flat building; size 22 by 54 feet in size; to be of pressed brick and stone front, have hardwood finish and mantels, bathrooms, closets, mantels, furnaces, etc. For Andrew Newberg, at Cuyler avenue and Hoyne street, a two-story flat building; size 22 by 52 feet in size; to be of pressed brick and stone front, have all the improvements, mantels, bells, speaking tubes, etc. For Albert Peterson, at Belleplaine avenue near Clark street, a two-story flat building; size 30 by 70 feet in size; to be of frame construction with stone basement, have interior finish in hardwoods and mantels, the best of sanitary and modern conveniences, heating, etc. For Mrs. Ellen C. Adams, at Buena Park, a two-story basement and attic residence; to be of Anderson pressed brick for the first story and above of frame; will put in hardwood finish, the best of modern improvements, electric light, etc.

Architect C. C. Miller: For S. J. Artlingstall, on Colorado avenue, a three-story store and flat building; size 27 by 60 feet in size; to be of pressed brick and stone front, have hardwood finish and mantels, bathrooms, closets, mantels, etc. For M. Powers, a three-story double flat building; size 75 feet front; to be of pressed brick and stone, have all the improvements and cost about \$20,000. Architect F. B. Townsend: For A. Wilson, at Morris, Illinois, a two-story basement and attic residence; size 30 by 50 feet in size; to be of frame construction with stone basement, have interior finish in hardwoods and mantels, the best of sanitary and modern conveniences, heating, etc. For Mrs. Ellen C. Adams, at Buena Park, a two-story basement and attic residence; to be of Anderson pressed brick for the first story and above of frame; will put in hardwood finish, the best of modern improvements, electric light, etc.

Architect E. M. Newman: For W. Hafner, at Washington boulevard and Scoville avenue, a two-story basement and attic residence; size 28 by 50 feet in size; to have hardwood finish, mantels, etc. For J. M. Rawlings, at Riverside, a two-story basement and attic residence; to be of frame with stone basement, have hardwood finish and mantels, sanitary plumbing, furnace, etc. Architects Turnbull & Postle: For M. Sherman, at Woodstock, a two-story store and flat building; size 48 by 60 feet in size; to be of pressed brick and stone front. For D. Pring, a two-story store and flat building; size 36 by 70 feet in size; to be of pressed brick and stone. Also, made plans for a three-story storage building; size 24 by 150 feet in size; to be of pressed brick and stone front, have plumbing, steam heating, electric light, etc.; to be erected at Elgin for McArthur & Shipton.

Architect J. L. Merriam: For B. S. Allen, at 223 South Leavitt street, a two-story and basement flat building; size 25 by 54 feet in size; to have a pressed brick and stone front, all improvements, mantels, heating, etc. Architects Mayo & Curry: Preparing plans for four-story and basement building; size 165 by 234 feet in size; to be erected on the northeast corner of Thirty-fifth street and South Park avenue, for the Chicago Hussars; it will have two fronts of pressed brick and stone, steam heating, electric light, etc. For J. W. Lanehart, on Wilcox street west of Campbell avenue, a three-story flat building; size 40 by 65 feet in size; to be of pressed brick and stone front, have all sanitary improvements, steam heating, etc.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall. With such a saying as "With nothing to say, say nothing," staring me in the face, and such being the fact, I will not tire the readers of THE INLAND ARCHITECT by a preface to my building report. There has, however, been no improvement in building since my last report, and prophets have stopped prophesying. We have this much to be truly thankful for, namely, the absence of strikes in the building trades, which would only bring one result, that of making the money market still tighter.

Architect S. S. Godley has prepared plans for a residence for H. L. Early, Cincinnati; materials: pressed brick, slate roof, furnace, stained glass, gas, plumbing, grates, wood mantels, blinds, etc.; cost not given. Architect James W. McLaughlin reports: For A. T. Sanders, a private hospital; materials: pressed brick, terra cotta, tin roof, steam heat, gas, plumbing, blinds, etc.; cost not given.

Architects Dittoe & Wisenall report: For Walker C. Hall, Covington, Kentucky, a residence; materials: stone and brick, tin roof, stained glass, gas, plumbing, grates, mantels, etc.; cost \$9,000.

Architects Crapsey & Brown report: For Henderson, Kentucky, a school-house; materials: brick, slate roof, furnace, blinds, desks, etc.; house contains eight rooms; cost \$15,000. Also a temple for I. O. F. at Flemingsburg, Kentucky; materials: brick, stone, iron, tin roof, furnace, blinds, stained glass, etc.; bids to be opened in August.

Architect William Martin Aiken reports: For J. C. Caldwell, Danville, Kentucky, the remodeling and an addition to his residence; the alterations are quite extensive and will cost \$10,000. Also a college building for the colored college at Paris, Kentucky; address architects for fuller particulars.

The F. J. Meyers Manufacturing Company, Covington, Kentucky, are about to build an extensive wire and iron shop at Hamilton, Ohio; size 120 by 190 feet; four stories in part; cost not given.

Architect G. W. Drach reports: A house for Louis Levi; materials: buff brick, slate roof, furnace, gas, mantels, blinds, hardwood, plumbing, etc.; cost \$25,000.

Architect W. W. Franklin reports: For Charles A. Geiffus, Cumminsville, Cincinnati, a dwelling; materials: pressed brick, slate roof, furnace, blinds, stained glass, grates, mantels, etc.; cost \$5,500.

Architects Samuel Hannaford & Sons report as follows: For the Cincinnati Water Works, on Price Hill, a tank and tower, 80 by 80 feet and 70 feet high; materials will be brick and stone. This firm is also engaged on plans for the

Queen City Club addition; materials: pressed brick, slate roof, furnace, grates, mantels, stained glass, etc.; cost not given. Also prepared plans for J. Bicohaus, Vincennes, Indiana; materials: pressed brick, slate roof, furnace, stained glass, hardwood, mantels, grates, etc.; cost about \$20,000.

Architects Des Jardins & Hayward have prepared plans for a sanitarium at College Hill, Ohio; this building is to take the place of one recently destroyed by fire; cost not given.

Architect George W. Rapp is preparing plans for remodeling of Mrs. Lauretta B. Gibson's residence; they will be quite extensive, but cost cannot be stated now.

Architect H. E. Siter reports: A fine residence for M. A. McVeigh, Covington, Kentucky; materials: pressed brick, stone, slate roof, furnace, hardwood finish, grates, mantels, stained glass, etc.; cost \$10,000.

Architects Nash, Plympton & Albright are busy on plans for Empire Opera House, Indianapolis, Indiana; materials: brick, stone, scenery, gas, plumbing, frescoing, etc.; cost \$10,000; address Messrs. Henck & Fennessey, Cincinnati.

Architect George W. Vogel, Cincinnati, reports: A dwelling for E. E. Abbett, Warsaw, Kentucky; materials: brick and stone, plumbing, grates, mantels, etc.; cost \$5,000.

Cleveland, Ohio.—The work of many of the architects of the city is nearly at a standstill, owing to the financial depression, and they find it necessary to release their draftsmen.

Architects French & Chapman report: A frame residence for F. C. Park, at Ravenna, Ohio; 28 by 44 feet; slate roof, furnace, plumbing and hardwood. For W. H. Morse, a frame residence; 26 by 45 feet; finished as above. The same of a residence for William Schnerer, on Woodland avenue; 26 by 40 feet. An oil refinery for the Commercial Oil Company; 60 by 80 feet; two stories and basement, wood, gravel roof, elevator; cost about \$4,000.

Architect S. R. Badgley reports: Plans under way for an apartment house, to be built at the corner of Willson avenue and Outhwaite street; 90 by 70 feet; pressed brick and stone trimmings, gravel roof, ornamental fire escape balconies, front and rear; three stories and basement, to accommodate twelve families; dumb waiters, bathrooms, mantels and all modern improvements; estimated cost \$20,000 to \$22,000. For the First German M. E. Church, at the corner of Scovill and Stirling avenues, a frame church; 42 by 90 feet; slate, furnace, seating capacity 400 to 500; cost \$6,000.

Architect John W. Russell reports: A brick addition to the residence of Prosser & Paige, slate roof.

Architect of Board of Education Dunn reports: Additions to school buildings as follows: Hough school, twelve rooms; Stanard school, eight rooms; Dunham school, eight rooms; East Madison Avenue school, eight rooms; all to be two stories, with basements, brick, stone trimmings, slate, fitted with inside sanitary closets in basement rooms, and heated and ventilated respectively by the Sinead system, steam, Fuller and Warren, and the Bennett and Peck systems. He has also just completed plans for the Cleveland Manual Training School, to be built on Cedar avenue near Willson avenue, bids to be opened August 28. The building will be 104 feet 8 inches by 73 feet 10 inches, two 12 feet 6 inches in clerestories, with basement of same height, stone, elaborately carved, built on mill construction plan, with posts 12 inches on center; floor of 2 by 6 joists, spiked tight, covered with two thicknesses of inch stuff with felt between; the middle front will be broken by a tower 69 feet high; the whole to be built with the intention of making additions in future; especial care has been taken to use every available particle of light, by using posts and piers in place of walls; there will be no plaster, but the walls will be faced with stock brick; the fan air-blast blower system of heating and ventilation will be used; the approximated cost of building alone, exclusive of the manual training outfit, is \$25,000.

Denver, Colo.—Building never was so flat and reports from here are not over-estimated.

Architect Robert S. Roeschlaub: For School District No. 1, an addition to building; to cost \$43,000. Also a three-story manual training school, brick; size 59 by 278 feet; cost \$80,000.

M. D. Clifford is having plans prepared for a two-story brick business block; size 75 by 125 feet; cost \$20,000. Messrs. Giddis and Seirie are having plans prepared for a two-story brick dwelling house; size 32 by 56 feet; cost \$8,000.

Detroit, Mich.—Architects Donaldson & Meir: For George Hanley, a two-story double brick residence on John street, near Adelaide street; to cost \$8,000. For the Detroit Fire Commission, a two-story brick hook and ladder house, on River avenue; size 33 by 73 feet; cost \$12,000.

Architects Spier & Rohms: For St. Luke's German Society, a frame church building; size 43 by 73 feet; cost \$5,000. For Gebhard Booms, a three-story brick store on east side of Market square; cost \$5,000. For Masonic Hall at Plymouth, Michigan, a two-story brick masonic building; cost \$5,000. For Michigan University, Ann Arbor, Michigan, a two-story recitation building; size 75 by 110 feet; brick and stone; cost \$30,000.

Architect E. W. Arnold: For Michigan University, Ann Arbor, Michigan, a three-story administration building; brick and stone; size 80 by 126 feet; cost \$45,000.

Architects Malcombson & Higginbotham: For the Detroit Art Museum, a large addition to present building; to cost \$30,000. For the Plymouth National Bank, a two-story brick banking building in Plymouth, Michigan; to cost \$5,000. For Mr. Tafford, in Plymouth, Michigan, a two-story residence, brick and stone; to cost \$5,000. For the Church of Christ Society, a brick church building, in Toledo, Ohio; to cost \$15,000. For the Pennington estate, Plymouth estate, Plymouth, Michigan, a two-story brick double store; to cost \$7,000.

Architect William I. Joy: For William H. Campan, a two and one-half story brick residence; to cost \$8,000.

Architect A. E. French: For W. Larkins, a two-story residence, brick and stone; to cost \$6,000. For the Roman Catholic Society, a frame church, at Charlotte, Michigan; to cost \$5,000.

Milwaukee, Wis.—The Board of Public Works are having plans prepared for a natatorium; the building to cost, complete, \$20,000.

Pittsburgh, Pa.—Architect F. J. Osterling is preparing plans for the Thaddeus Stevens School Board for a public school building on Main street, in the thirty-sixth ward.

The Reformed Presbyterian Church are having plans prepared for a new building, to be erected on Euclid avenue near Raum street.

St. Louis, Mo.—Architect M. J. Brennan: For the Wells Fargo Company, a one-story brick freight house; size 50 by 100 feet; cost \$12,000.

Architects Peabody & Stearns: For the Collier estate, a seven-story store building, brick and stone; size 90 by 150 feet; cost \$150,000.

Architect M. Bret: For Public School Board, a one-story brick schoolhouse; size 81 by 65 feet; on Euclid avenue near Fountain street; cost, complete, \$22,000.

Architects P. F. Meagher & Son: For Phillip Schmitt, a three-story dwelling; to cost \$6,400.

Architects Bienenke & Wees: For H. Rippe, a three-story flat building; to cost \$5,000.

Architect William Daman: For E. F. Kraushaar, a three-story factory building; size 40 by 85 feet; brick and stone; to cost \$10,000.



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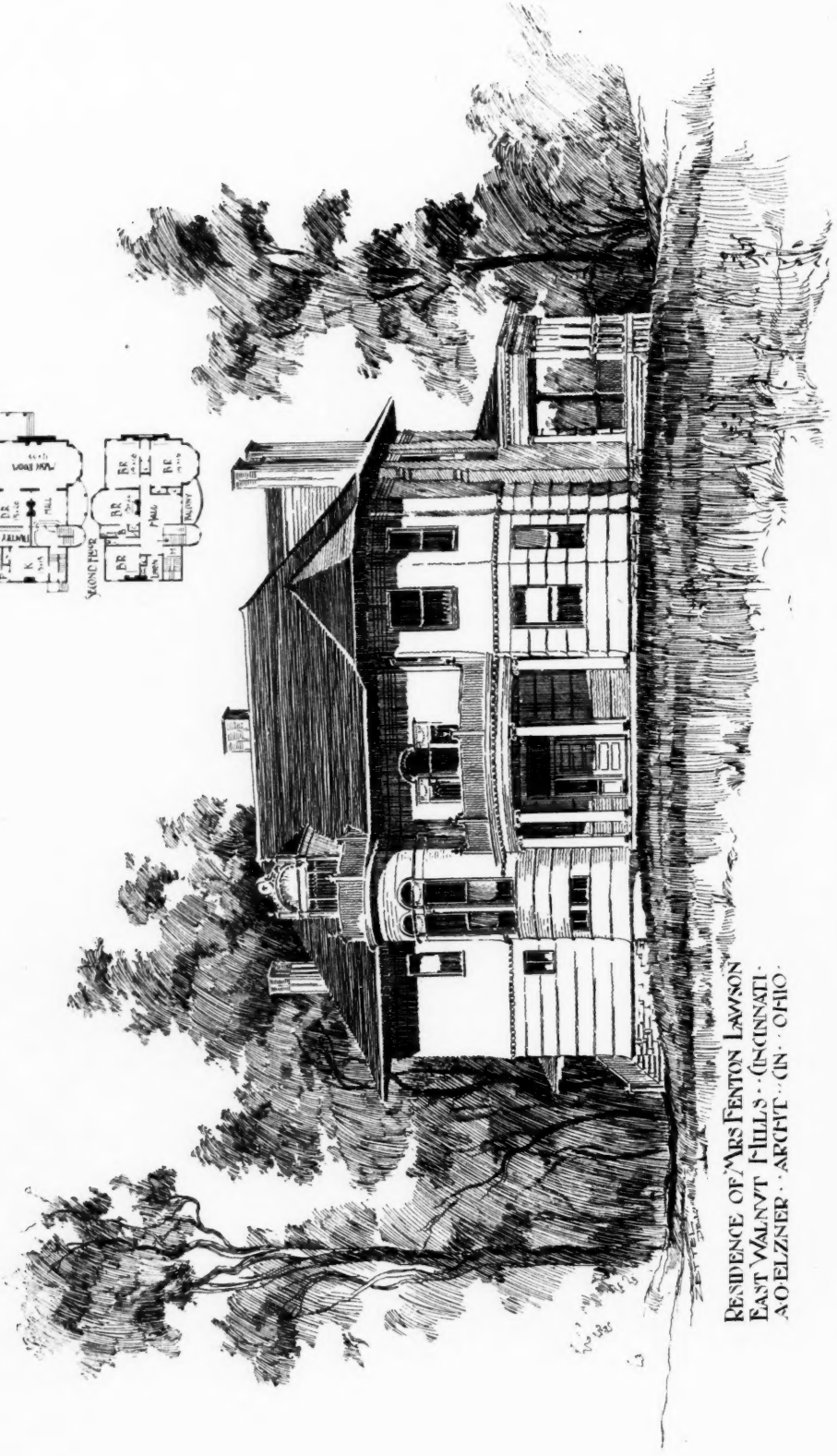
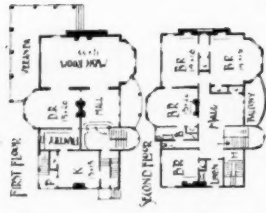


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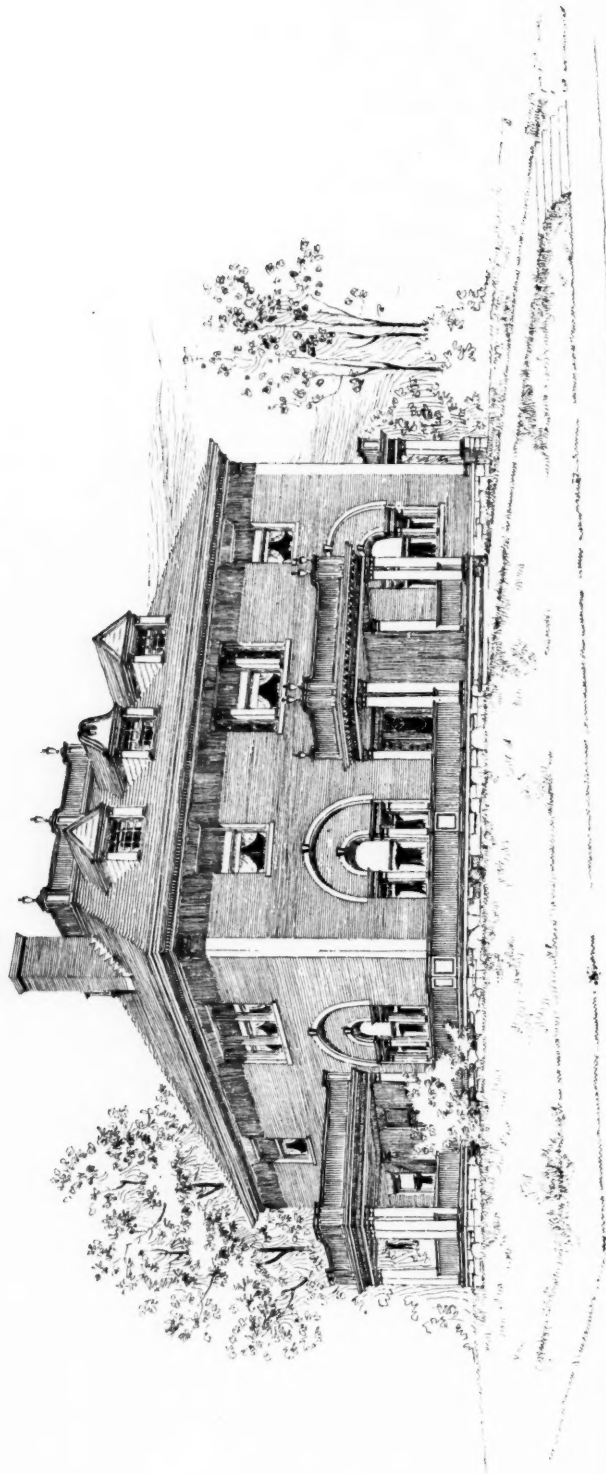
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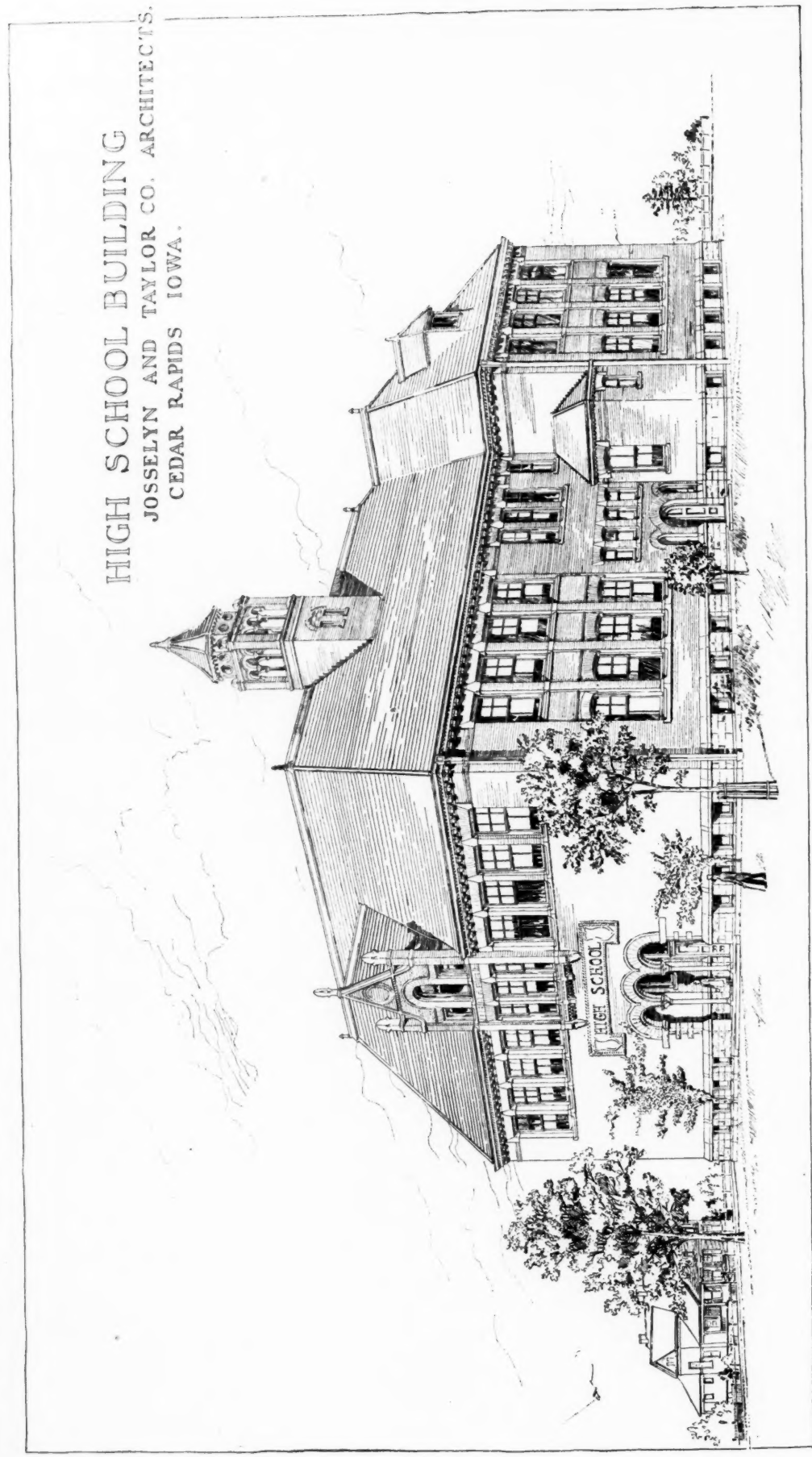


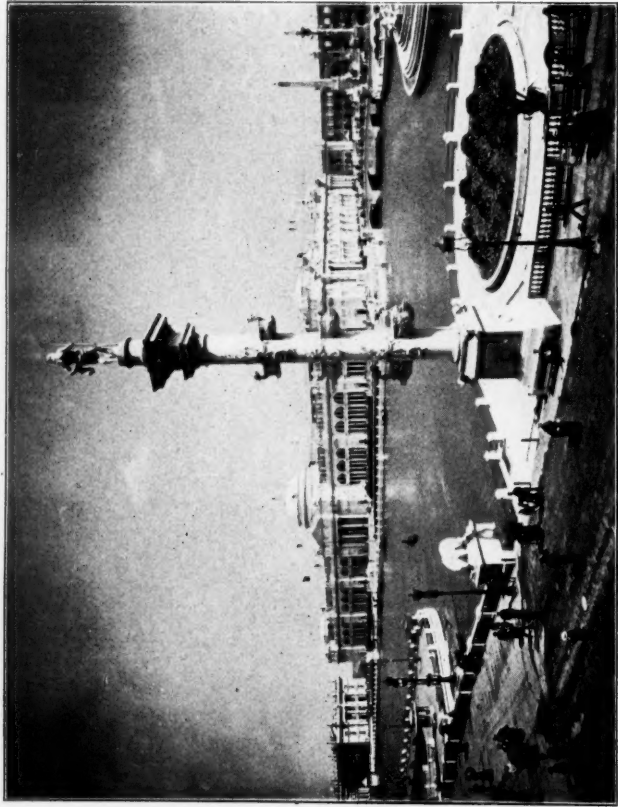
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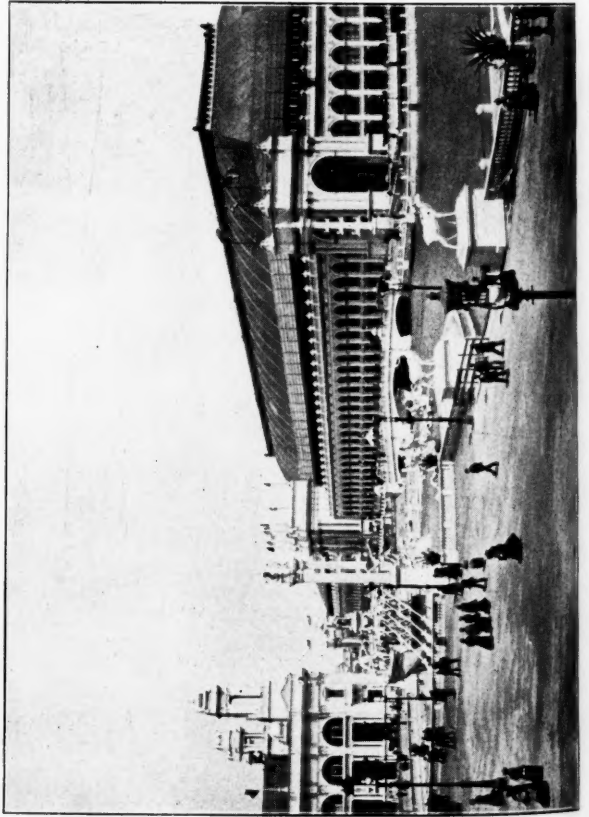




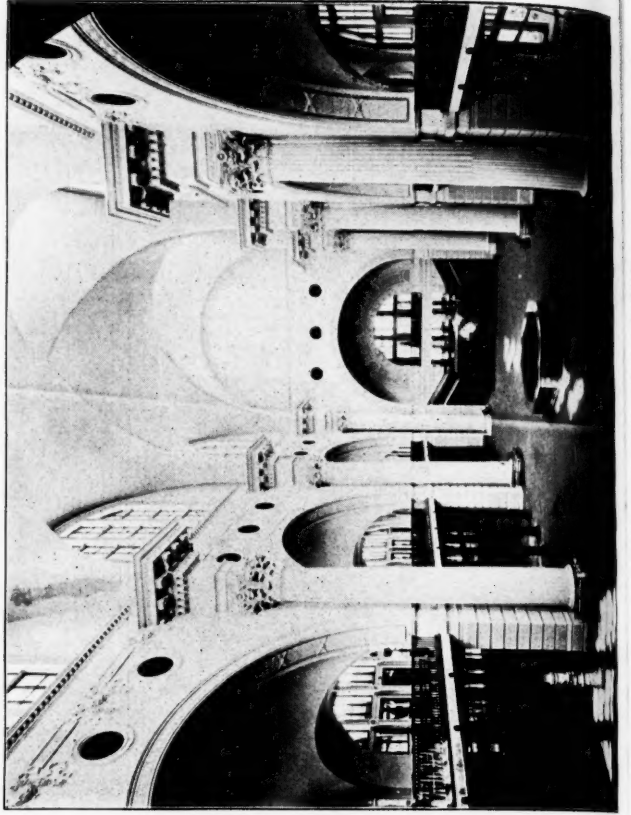
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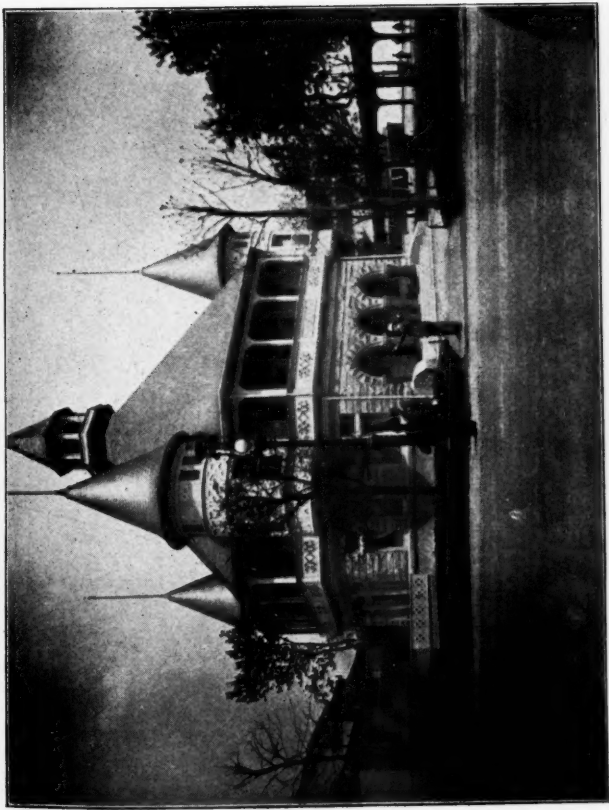


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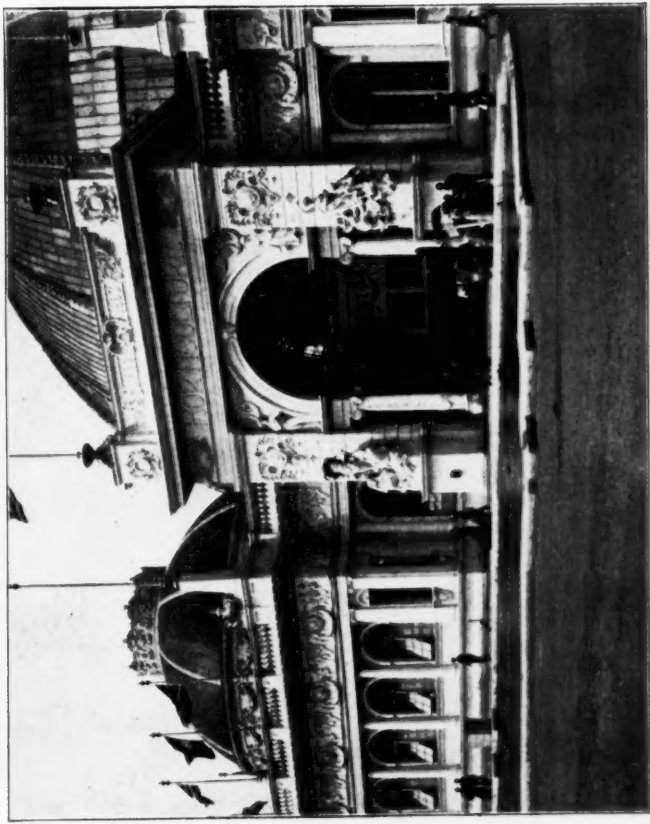


INTERIOR OF TERMINAL STATION.

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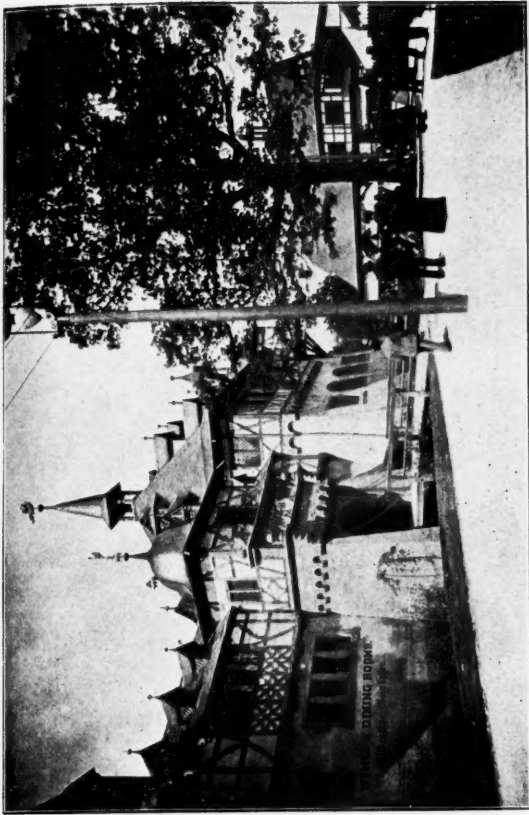


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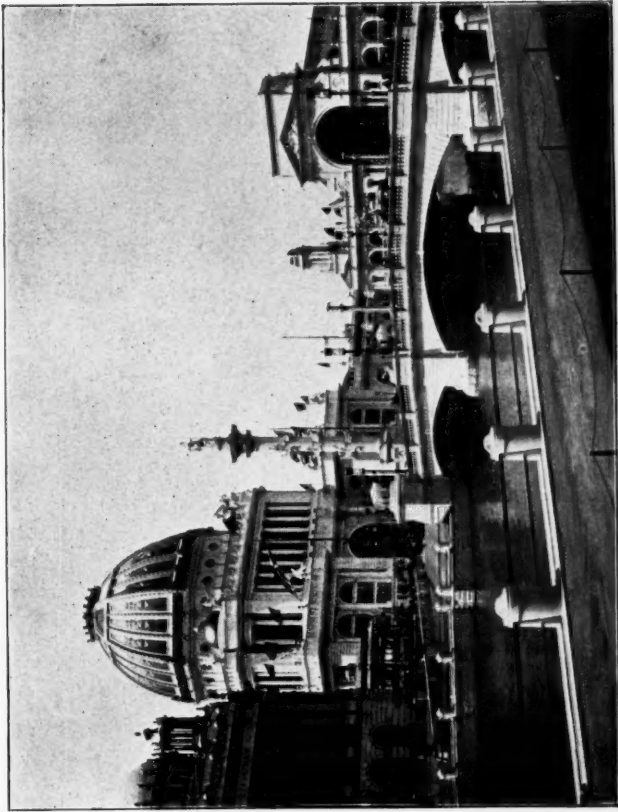
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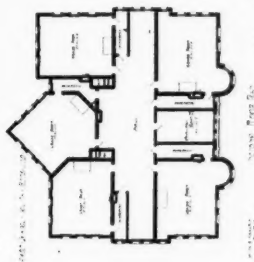
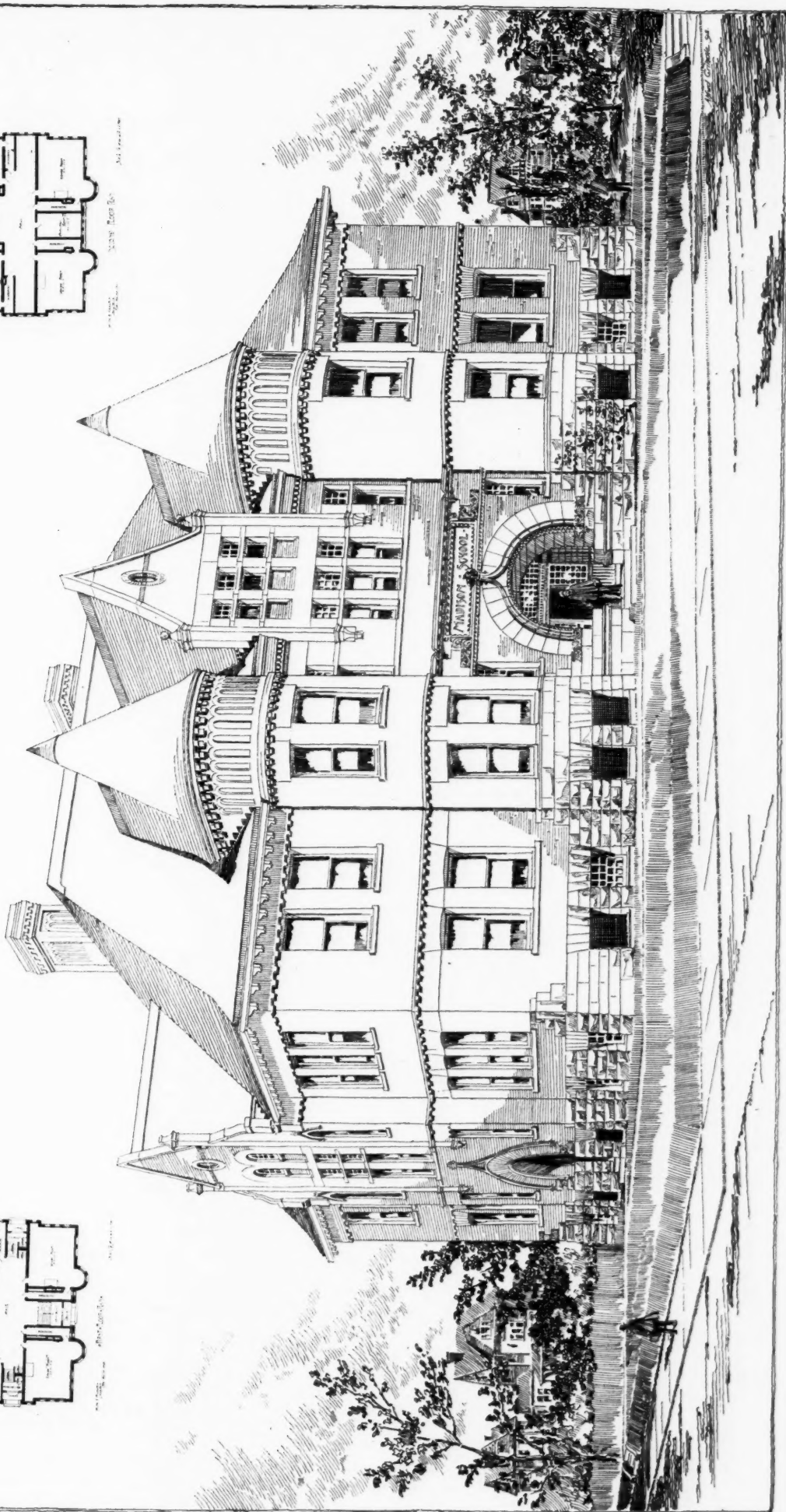
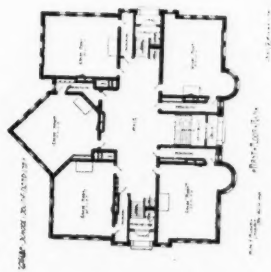


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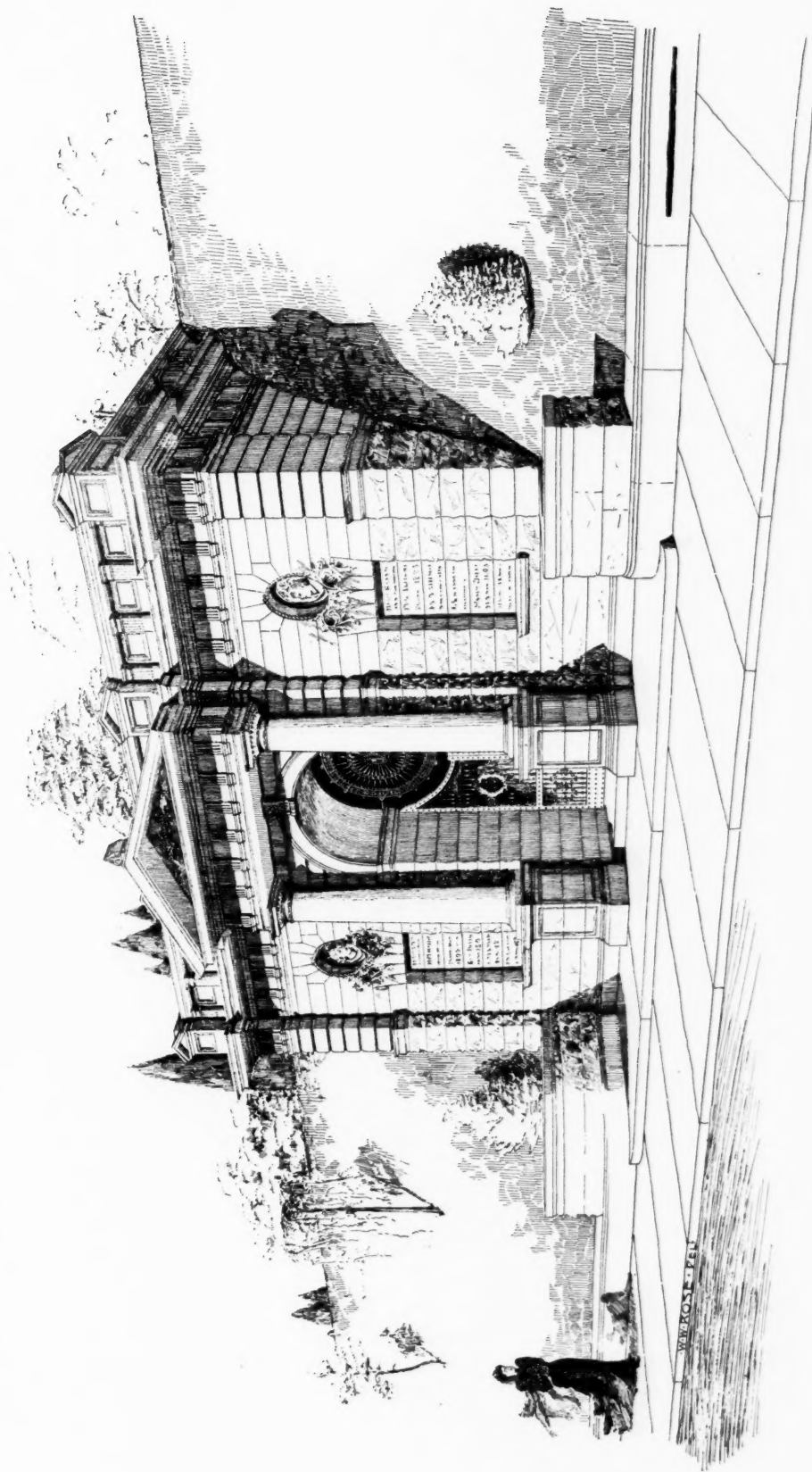
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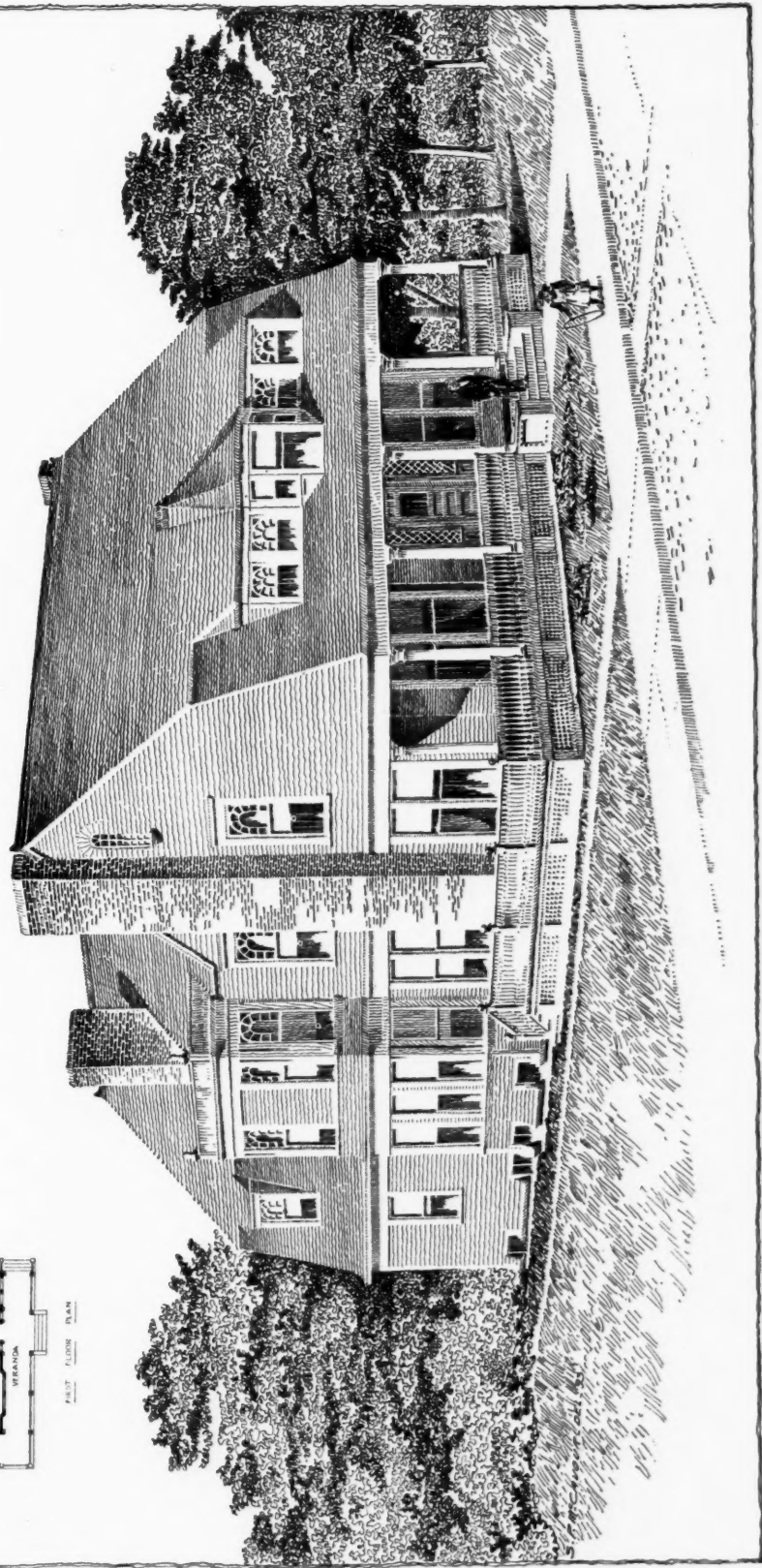
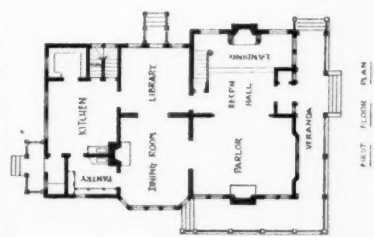
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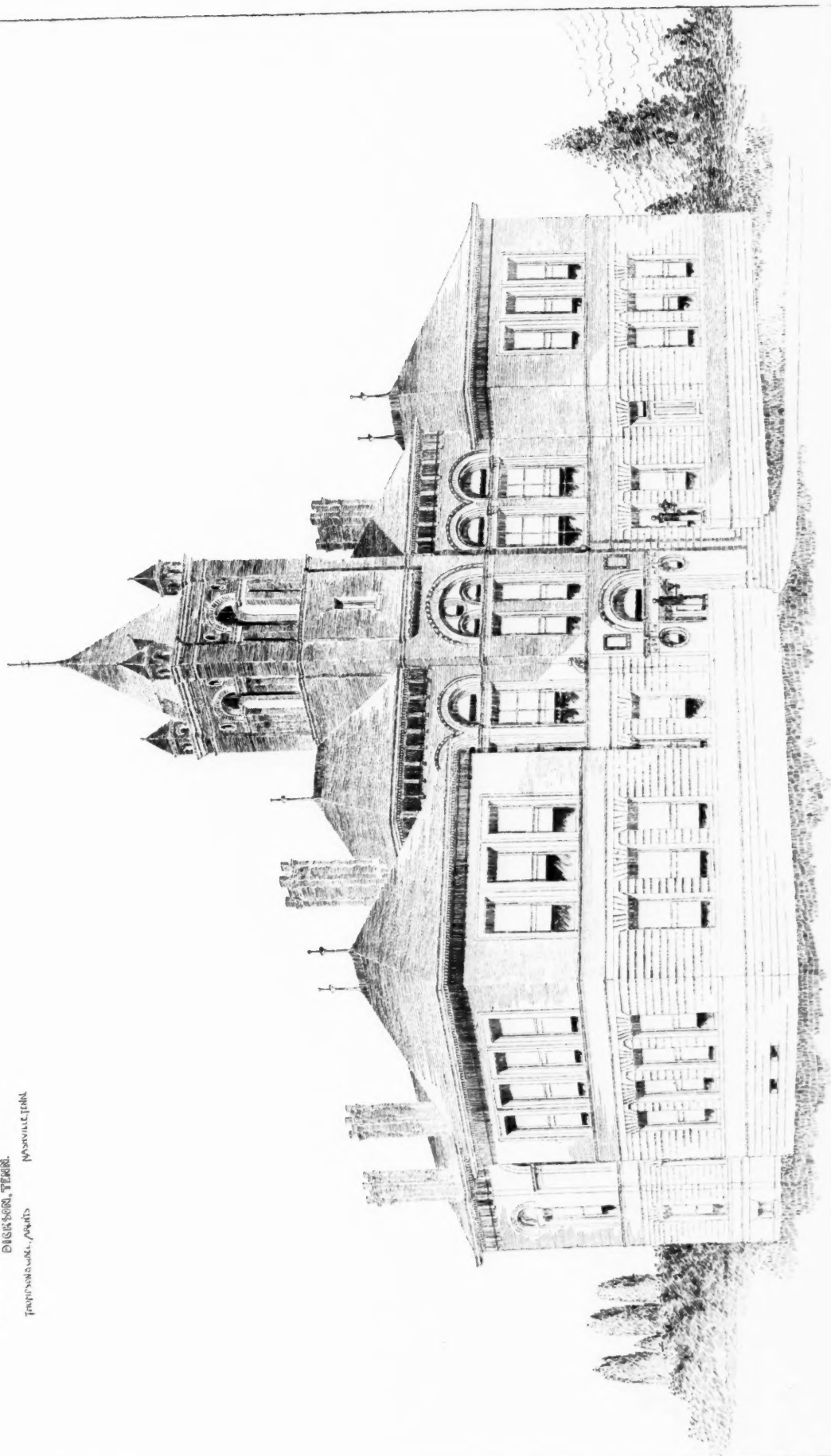
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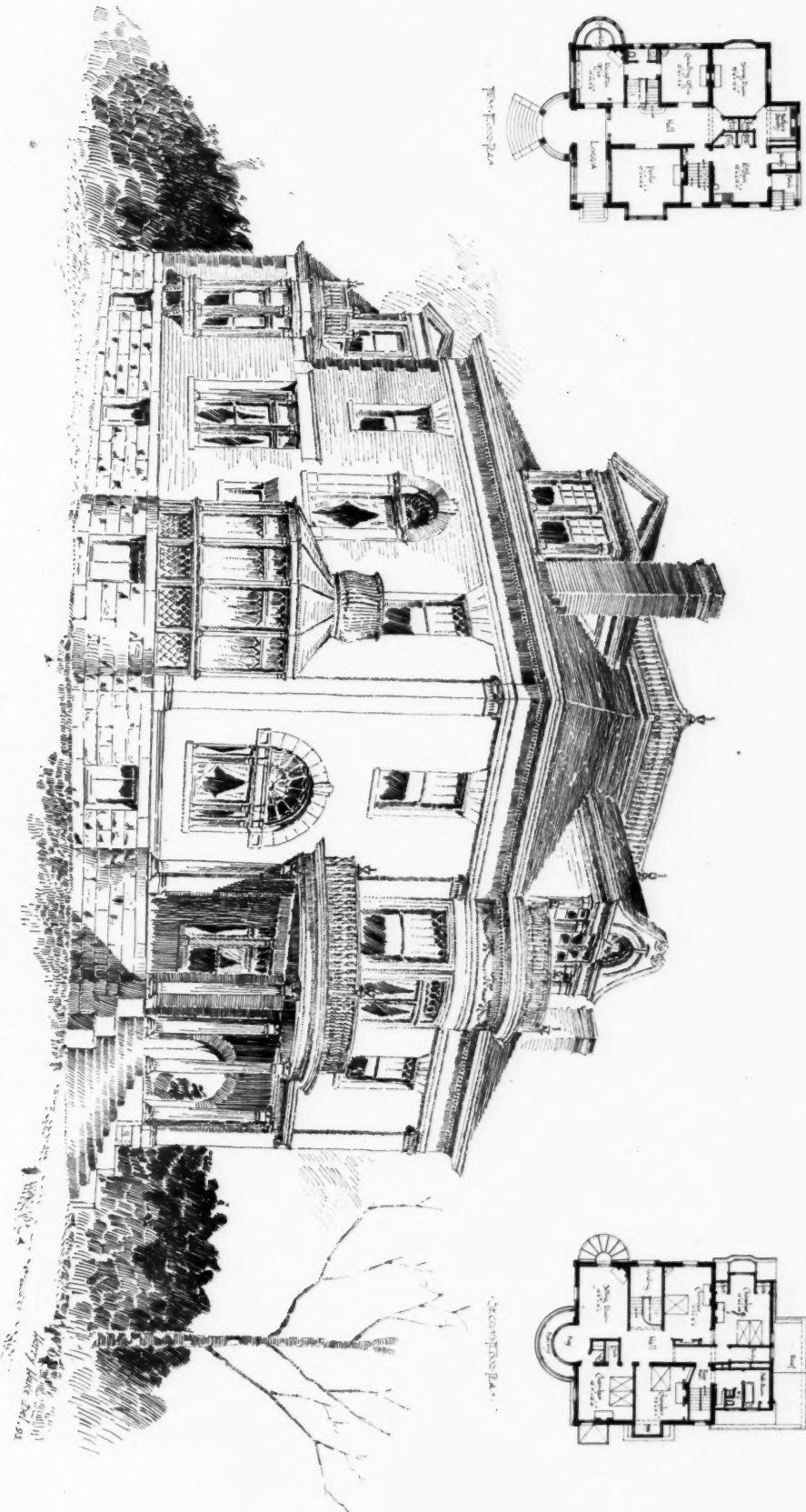


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