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Index to The Inland Architect.

The index to Volumes XV and XVI, February, 1890, to January, 1891, of THE INLAND ARCHITECT will accompany the April number.

A Building for the Chicago Public Library. There is a strong prospect that a new building will be erected in the near future for the Chicago Public Library. The legislature of Illinois has passed a bill authorizing the city of Chicago to levy a tax of two mills on the dollar for a period of five years, being an increase in the revenue of the library of not less than \$1,600,000. It is expected that the bill will receive the immediate approval of the governor, and that supplementary legislation will perfect the title of the library board in the half block called Dearborn Park, a space with an area of 385 feet by 162½ feet. In the matter of surroundings there may be some esthetic objection to the proposed site, but it is probably ample in size, is conveniently located for the cars from the several divisions of the city, and the surroundings will certainly be improved in a decade. It is not likely that the building will be completed by the time that the Columbian Exhibition takes place, but the work undertaken will be in evidence to show that the future Chicago will offer to its citizens something more than the bare opportunity of making money. That the first stage of city building is giving place to a second and higher stage is already evidenced by the start made in the collections and building of the Newberry library, by the sure progress in the direction of art collections, and by the frequent rendition of music of a high order, accessible to the people at large.

Forming a Model Building Ordinance.

At the last annual convention of the National Association of Fire Engineers their executive committee was instructed to ask the coöperation of the National Association of Builders, the American Institute of Architects, the National Association of Building Inspectors, the National Board of Underwriters and the Mutual Underwriters' Association in framing a model building ordinance; and in pursuance of this purpose, committees representing the respective organizations are to convene on April 2 in the rooms of the National Board of Underwriters, in New York. To facilitate the work of the combined committee, the committee of the fire engineers has issued in pamphlet form a draft of such an ordinance. This preliminary draft embodies practically the best provisions now in use in the great cities, with such modifications as will, it is hoped, lead to still better results. The most conspicuous departure from the ordinary regulations is the making of the fire limits, so-called, co-terminous with the municipal boundaries. The area and height of frame buildings are so limited, and they are subjected to such other restrictions, that it is expected that the waste of frontage necessitated by use of such structures will practically do away with their use altogether in the business portions of cities. It is presumed that the elasticity permitted by the latitude of choice will adapt these ordinances to the use of smaller cities and towns as well as of large cities, and will afford adequate protection for

both life and property. In most places such a model ordinance unmodified would be far better than any regulations which the local authorities would be likely to frame, and where special local conditions exist that require special treatment, the changes need not be numerous. Discussion of details of the preliminary draft is unnecessary. Severe as it may seem to people who live in communities where no severe lesson has demonstrated the need, to us it seems, if anything, not rigorous enough. Our belief is that it would be wise to require slow-burning construction in all buildings four or more stories in height. The seventy-five feet limit suggested permits the great majority of hotels, apartments and tenements to be mere firetraps. The proposed limit to the height of buildings to two and one-half times the width of adjacent streets does not seem unreasonable. We commend the project of the fire engineers, and await with interest the action of the combined committee.

Commissions of Spanish Architects. The Schedule of Charges recognized by the Royal Academy of Architects at Madrid, Spain, presents various novel features. The subdivision of buildings into thirteen classes, according to cost, and the adoption of a sliding scale from five per cent on the first class down to two per cent on the thirteenth is a peculiarity for which it is not easy to account on rational grounds. With American and British architects five per cent is considered a minimum commission, and only on buildings costing from \$10,000 upward. The Spanish architects seem to consider five per cent a maximum on the cheapest class of structures, costing not over \$5,000. On a fifteen thousand dollar job they are content with four per cent, and on a seventy-five thousand dollar affair they receive only two per cent, all for full architectural service. At the first glance it would appear that architects in Spain are satisfied with very slender emoluments, although a due allowance for the cheapness of living in that country would perhaps show that the commissions named are equivalent to nearly twice as much in America. The division of services is quite different from our own, the charge for drawings and estimate of cost being uniformly one-half that for full architectural services, whence the charge for superintendence, etc., appears to be two and one-half per cent. With us it is one and one-half per cent. There is no mention in the schedule of full-size details, nor of specifications. Drawings only, without estimates of cost and without superintendence, are rated at two-fifths the charge for full service, while the charge for estimates as well as that for duplicate drawings is uniformly one-tenth the charge for full service. On the other hand, the fee for preliminary sketches is only ten per cent less than for drawings and estimate—varying, therefore from two and one-fourth per cent to about one per cent. This is an undoubted improvement on our schedule charge of one per cent for such work. The fact is patent to every architect that his distinctively architectural and personal work is very nearly completed when he has finished his preliminary sketches—his ingenuity in planning, in collocating the various departments, in allotting to each its suitable position and space, the grouping and massing of the parts and the whole in the interiors and exteriors—his design is substantially thought out when he presents his sketch, far more so than one might presume from the ratio between the one per cent he asks for it to the five per cent he charges for full service. Possibly one reason why

this inadequate charge for sketches is suffered to remain is the fact that architects never expect to collect in this way at all; they expect the work to proceed, and to include their charge for sketches within that for full service. The Spanish schedule appears to assume that the architectural service for a building will always be in direct ratio with its cost. Our own schedule is equally faulty in this regard. The labor and care imposed on the architect who designs and superintends a fifty thousand dollar theater is out of all proportion with that required for a fifty thousand dollar warehouse, but the schedules put both in the same class, oblivious alike of reason and experience.

Progress in Work on World's Fair.

Rapid progress is being made in getting the site for the Columbian Exhibition graded and in readiness for the erection of buildings. Mr. St. Gaudens proposed at a recent meeting of the committee, that an inclosed harbor should be formed by the erection of two semicircular piers, and that on a pedestal rising from the water inside this harbor should stand a statue of Columbus. This proposal will probably be adopted. The majority of the buildings will be built of staff and either iron or wood. Staff, so called, is a light, composite, fireproof material, comparatively inexpensive, capable of presenting a general appearance of stone, of being cast in ornamental molds, and of being colored in any desired manner. The cost of the buildings erected in this way will be from thirty to fifty per cent less than their cost in stone or brick. Although the designs for the more important of the exhibition buildings have been approved by the committee, they have not yet been displayed to the public. The chief of construction has prepared for the press a statement relative to the character of the several designs, the full text of which will be found elsewhere in our columns. Thirteen women responded to the invitation to send in competitive designs for the Woman's Building. The names of the designers were not known until after the awards had been made, and the best of the designs were so uniformly good that the decision was difficult. The first place, with prize of \$1,000, was awarded to Miss Sophia G. Hayden, of Boston, a graduate of the four years course at the Institute of Technology; the second place, with prize of \$500, was awarded to Miss Lois L. Howe, who has also been a student of the Massachusetts Institute of Technology; the third place, with prize of \$250, to Miss Laura Hayes, of Chicago. We are informed that no one of the competing designers is the architect of any completed building. The accepted design is in the Italian Renaissance style, simple in outline, and, with the exception of the massing of elaborate decoration at the main entrance, is simple in detail.

Electrical Experiments at Rome.

We are in receipt of a valuable pamphlet by Signor Rodolfo Buti, member of the Italian Society of Engineers and Architects, at Rome, Italy, entitled "Simultaneous Telegraphic and Telephonic Service." This is an essay included in the annual proceedings of the Italian Society, which gives at length an account of the highly ingenious and ultimately successful experiments of John Van Rysselberg, director of the meteorological observatory at Ostend, with a view to using the same wire for both telegraphic and telephonic service at the same time, without the interruption of either service by the other.

Architectural Design.*

BY NORMAND S. PATTON, ARCHITECT.

IT is difficult to treat the subject of architectural design in one lecture, but, fortunately, the fundamental principles are not difficult of comprehension. They are founded on common sense, on reason, on the nature of things. No technical training is required to appreciate them. To apply these principles in the working out of new designs requires years of study and experiment before the designer can hope to attain to any mastery, but the principles that are fundamental to the art are akin to the axioms in mathematics; they cannot be proved and do not need proof, for the statement carries with it the conviction.

Architecture is defined by Webster as the "science of building"; but architecture, as we mean to consider it, is more than building. The simple construction of an edifice to keep out the elements cannot be truly called architecture. The element of beauty must enter before we have a fine art. Architecture, according to Fergusson, is "the art of ornamental and ornamented construction." Ruskin says that "Architecture is the art which so disposes and adorns the edifices raised by man for whatsoever uses, that the sight of them contributes to his mental health, power and pleasure."

If architecture is *more* than building, it none the less *includes* building as a fundamental part. No edifice that is bad building can be good architecture. In all the great periods of architecture the buildings were designed so as to be the most suitable and convenient for the purposes required. The ornament was made to express and harmonize with the construction, and beauty was obtained without the sacrifice of utility.

I have often heard the remark that it is unfortunate that there is such an antagonism between beauty and utility in architecture. To which I reply that there is no antagonism, but quite the contrary; because, in architecture the highest beauty cannot exist except as coupled with and expressing utility. One of the most important elements of beauty in architecture is the fitness of each part for its place and purpose. Everything that goes to make up a good building must be included as a part of a good design. A building must shelter from the heat and cold; must be well lighted and ventilated; must have the various apartments arranged to meet the uses of each; good architecture will include all these and add the virtue of an artistic expression.

For convenience I will divide the principles of architectural design into those which apply to form alone and those that refer to the management of special materials.

The first and foremost principle is what Ruskin calls the lamp of Truth. Viollet-Leduc calls it Sincerity. A building, and every part of it, must be what it seems. Fergusson says, "No sham was ever permanently successful, either in morals or in art, and no falsehood ever remained long without being found out; or which, when detected, inevitably did not cease to please." This principle will have fuller treatment when we come to the subject of materials, and I will now call your attention to the reverse of this. An architectural design must be what it seems, but it should also seem to be what it is; a design must express something. That something is the character of the building. We start with the assumption that the plan has been arranged on the basis of pure utility; that every part has been disposed of in the manner to best carry out the requirements of the problem, or the special wishes of the owner. In preparing a sketch plan for a dwelling, the skillful architect arranges the rooms without regard to any preconceived idea of the exterior design. Placing this room to catch the morning sun, adding a bay to another, not from mere caprice, but because it will give a view not to be had otherwise, or catch the sunshine from a new direction. When these and other practical questions are settled, then the architect begins to consider how he can best arrange a design to fit the plan. If he is fortunate enough to have an intelligent client he finds that many novel arrangements have been developed, so that no previous design will fit the case, and therefore his inventive faculty must be exercised to find some new combination of features that will fit the plan and at the same time produce a satisfactory effect. In this way the external design is a natural growth from the ideas which have been incorporated in the plan, and therefore it expresses those ideas. Such designs are pleasing and do not lose but rather gain upon long acquaintance. Of course, there may be found features that cannot be harmonized and something must be changed, but in my experience I have never found it necessary to spoil a good plan in order to make a handsome design.

If an architect makes a church look like a club house he can hardly claim success, unless the church happens to be one where the club idea is predominant and the religion only a sufficient flavor to be an excuse for holding the club meetings on Sunday. Nor will that architect do any better who makes a modern church on the pattern of a medieval cathedral. The plan should fit the needs of a church of the nineteenth century, and the design must follow where the plan leads it.

Photography and the printing press have brought within our reach the architecture of all ages and countries, and the designer is embarrassed by the abundance of the suggestions offered him. Perhaps his greatest danger lies in that he is apt to appropriate some admired feature from another building and apply it where it is not in keeping with its surroundings.

Before taking up in detail the principles of design it will be well to return to our definition of architecture as a guide in determining what should be made most emphatic. We can hardly do better than to accept Fergusson's definition, "the art of ornamental and

ornamented construction." The term ornament is here nearly synonymous with beauty, and we might say, "Beautiful and Beautified Construction." If we stick close to this idea and all that it implies, we cannot go far astray in our adoption of architectural styles.

It is often surprising how much of a sermon can be extracted from a very short text. Let us try with our text of four words, "ornamental and ornamented construction." Notice in the first place that it is *construction*, therefore the constructive basis must be rational or the design will not be sane. The construction must be *true*, there must be no shams or deceptions and it must proceed upon some rational system. It must be expressive of the purpose of the building, but we wish to do more than this. We wish to make the structure a thing of beauty. Our definition indicates two ways of doing this: First, arrange the construction in an ornamental manner; second, add ornament to the result thus obtained. There are buildings which have no merit as designs except for the ornament lavished upon them, but they can never rank as successful works of architecture. In every true design the building should be handsome if stripped of all ornament. When a designer has succeeded in making his sketch effective without the use of ornament, then he is ready to begin his experiments with ornament to heighten the effect already obtained.

One of the most essential elements in giving a pleasing effect to the construction is *strength*. It is, of course, of the highest importance that a building should be strong. Therefore, following our principle that the design should express the qualities of the building, we find as an application of this that a building must *be* strong and *look* strong. The eye must be satisfied that there is ample strength, and in important works there should be an apparent excess and abundance of strength. Any appearance of weakness is fatal to the effect of a design, although there may be actual strength secured by some iron beam or other concealed device. Every weight must have a sufficient support to sustain it and every thrust must have a resistance to meet and balance it. This principle is so obvious that it needs no further comment, but the converse of this principle is none the less true, although often forgotten by architects, namely, every support should be proportioned to the weight to be borne, and where there is *no* weight there should be *no* support. We often see an enormous development of pedestals, columns and cornices sufficient to hold one corner of a building, but they serve only to carry a diminutive statue or ornament. If you build a *strong* foundation you must put a *heavy* weight upon it or the effect will be disappointing. A great weight sustained by a great support always produces a powerful impression upon the spectator. A weak looking foundation under a heavy weight produces an unpleasant effect, likewise a light weight placed upon a heavy foundation, for the latter is a case of "much ado about nothing."

A feature that is essential to all great effects is mass. We can achieve beauty in small objects, but the idea of sublimity cannot be attained except when the size is great. When colossal dimensions are associated with massive forms and executed in enduring materials the effect cannot be otherwise than impressive, however bad the architectural design may be. Thus many buildings rank in the popular mind as fine works of architecture simply because their size impresses the imagination; and other works of real merit because of their insignificant dimensions are passed unnoticed.

When we come to the arrangement of construction in an ornamental manner no one principle is of greater importance than that of *proportion*. All the art critics agree that *proportion* is at the basis of every good design. A vast amount of ingenuity has been expended in endeavors to discover the secret of the ancients in proportioning their buildings. No one will quarrel with the writers on art that a building should be well proportioned, but the practical question comes up in regard to this and many other principles of art, how shall we determine whether the proportions are good or bad in any given case? What shall be our rule?

How is a man to design a building with which the art critic will not find fault? Evidently by laying out his design by the same rule which the art critic will apply in criticizing it. A critic says the design is badly proportioned. The building is too high for its width.

How does the critic know it is too high for its width? Is it because the height does not bear to the width a certain arithmetical ratio? Is it because one equilateral triangle put on top of another will fall short of the cornice? No, the critic applies no such rules as these. He says the building is too high because it looks too high. And he is right. If therefore the designer makes the building so that it will not look too high, the critic will be pleased. One thing, however, must be borne in mind; it is always difficult to judge of a new object because we do not fully appreciate it at first sight. Therefore we must be wary of passing hasty judgment upon new forms of design until we have had time to become familiar with them and understand their meaning. The highest forms of music are not easily comprehended or appreciated except by expert musicians; but with each performance we discover new beauties. In the same manner works of art of so complex a nature as architectural designs improve upon acquaintance if they possess real merit. The shams and deceptions often seem to capture the public favor at first, but they do not stand the test of time. It is undeniable that certain divisions of space are unfavorable to good effect. For instance, it is seldom pleasing to divide the height of any space exactly in the center. This is because we would then fail to carry out another principle of design, namely, contrast. All effects are heightened by contrast. A tall building looks taller if next to a low one. Light is contrasted with shade. If two rooms are made of equal size the effect is monotonous. If one is made smaller than the other the larger one gains in apparent size by the contrast. So, in dividing our vertical space, we

*Lecture delivered at the Art Institute, Chicago, and revised by the author for publication in THE INLAND ARCHITECT.

would naturally make the lower half predominate over the upper, or vice versa.

Symmetry is an element of great power and one not to be neglected, especially in monumental buildings. But we all have such a natural fondness for making an exact balance in the parts of a design, that there is danger of our having too much rather than too little symmetry. It is very well to have the front of a public building exactly symmetrical, the entrance being in the center and the two halves just alike, but if we treat a dwelling house in this manner we find that it looks stiff and formal and not at all homelike. A design may be well balanced without being symmetrical. A tower at one corner may balance a gable at another. As we give up symmetry we gain in the element which we call picturesque. A picturesque design should not be a haphazard affair. You will usually find a certain balance of parts even when there is apparently great irregularity. When all buildings are symmetrical and formal like Greek temples the effect is very wearisome and it is a relief to turn to a style of design in which a proper balance between the parts is maintained, not by making the two sides duplicates but by a skillful arrangement of dissimilar features.

Time will not permit going into many other principles of the treatment of design, but I must not fail to mention one, without which we can never attain to what is called style. By style I mean that quality in a design that gives it a peculiar character of its own. We speak of a lady's dress being stylish and we speak of another as having no style, although made of expensive materials and in an elaborate manner. Thus a building in any one of the so-called "styles" of architecture may fail to possess that peculiar and invaluable quality which we call style. If a tailor knows how to give style to a garment he is possessed of a valuable secret in his art. If an architect can know how to give style to his building it will be the keynote to all success in design. I do not propose to give away the professional secret on this point but I will state one principle without which I believe it is impossible to give style to any design, namely, unity. Whether the arrangement be symmetrical or irregular and picturesque, whether it be classic or gothic, or some new invention of our own, each building should be a unit in itself. There must be one prevailing idea to which everything in the arrangement and ornamentation conforms. Variety is important but variety should never go so far as to impair the unity of a design. On important works the architect calls in the aid of artists in special lines to design decorations and stained glass, metal work, etc., but all these branches must be under the control of the one who originated the idea of the building in order that the decorations and stained glass may harmonize with the architectural forms and heighten their effect. So, in the selection of decorative forms, if we should make a Corinthian capital in one place, a Gothic capital in another, the effect would be confusing and the building would fail to produce that clean cut, definite sort of an impression which goes to make up style.

Ornament should not be applied to a building in a promiscuous manner. To put on too much ornament is to cheapen it and spoil the whole effect. Ornament should be used to emphasize the important parts of a building. The principle of contrast points to this as giving the best effect. The ornamented portions appear the richer when contrasted with plain surfaces, and plain surfaces give repose and dignity to the building which it would lack if the whole surface were ornamented.

The foregoing principles apply to all materials which may be used in the construction of a building. It now remains to consider what special treatment we should give each material; and here we enter a field where mistakes are abundant. Let us state in the first place that every building material is good in its right place. Stone and brick are excellent building materials, but they would make very poor windows; glass is much preferable for this purpose. Plaster is a material largely used, misused and abused. In our climate it makes a much better wall surface on the interior of a house than stone or brick. Wood is not as durable for external use as stone. It does not resist fire as well as iron, but for doors and interior fittings of our dwellings and for furniture, it is indispensable, for these purposes much more valuable than stone or any of the metals. Therefore the common-sense principle is to use various materials in the parts of the same building. The difficulty comes when we attempt to treat these materials in an ornamental manner. In this case the correct method is so simple and obvious that it is hard to understand why it has been so much neglected and so often abused. The principle of truth or sincerity is the one fundamental idea to be kept in mind when treating special materials. Let stone be stone, brick be brick, let plaster be plaster and wood, wood. It is not necessary that we should make public all the secrets of construction. In a well proportioned human figure the bones do not protrude themselves upon our notice and there seems to be no reason why we should not construct the skeleton of a building of iron or wood and cover it with plaster or other suitable material to give the finished form. When we recognize the plaster as a covering material there is no deception and therefore no fraud. When we see a plastered wall we know that the whole thickness is not made of plaster, but as long as the plaster is good and honest plaster it is not an inartistic material; but when we begin to paint lines on that plaster in imitation of joints and make it appear like solid stone, then the whole thing is a lie and should be treated as we treat other lies.

Galvanized iron is a very useful material, but when made into a cornice, and painted and sanded to look like stone, it is a lie and a fraud of the most vulgar and pretentious description.

Perhaps I can find no better illustration of the right and wrong use of material than in the difference between the usual treatments of galvanized iron and copper in external architecture. The architect

who uses galvanized iron expects to paint it, and he usually paints it to imitate stone. The architect who uses copper knows that it is not necessary to paint it, and that it would be a waste of money to paint a material that looks better without paint. But copper if left unpainted turns a dark color and looks very unlike stone, therefore the architect does not attempt to make it like stone and he knows that if he makes it in the form of stone then the absurdity will be apparent to everyone. Therefore he ceases to use copper in places where stone or other material will be more appropriate and instead of constructing a whole cornice of copper in imitation of stone he uses stone, brick or terra cotta for the main members, and then adds a gutter of copper.

Now copper is perfectly adapted for gutters, whereas, stone and terra-cotta are very poor materials. Therefore, when we have a terra-cotta cornice with a copper gutter we have a sensible combination, and each material being used in its proper manner the effect will be artistic. The man who uses one material to imitate another not only perpetrates a fraud which pleases no one, but he is almost certain to overlook the valuable properties of the materials he is using. The man who grains pine molasses-candy color, under the impression that he is imitating oak, forgets the fact that if he varnished the pine it would be handsome in itself, and he also forgets that he could have the genuine oak at about the same price as his imitation. Instead of imitating in one material the forms only appropriate in another we should attempt to bring out in each material those forms for which it is especially adapted. If the exterior of our house is made of coarse stone our moldings must be of bold outline, but if we finish the interior in mahogany it would be absurd to use the same kind of moldings when this wood will lend itself to the most delicate outlines. Let us rather produce on the interior woodwork effects which it will be impossible to secure with the stone. And so with each material there are forms for which it is peculiarly adapted and in which it will have a charm of its own.

(To be continued.)

Women and Architecture.*

BY LOUISE BETHUNE.

MESDAMES—Chairman and Ladies of the Educational Committee: You have requested me to speak upon "Women in Architecture." The subject might, from a masculine standpoint, at least, be disposed of with the brevity which characterized the famous chapter upon the "Snakes of Ireland." In fact, in order to have any topic at all, we must talk of women and architecture, assuming a connection which it is hardly safe to assert.

When Cain built Eros, architecture began; but its authentic history dates from the two great river courses of ancient civilization, where Menes laid the foundations for Memphis and the architect King Uruk, fell heir to the throne of Nimrod. Its earliest records are Egyptian hieroglyphics and brick inscription tablets built into the foundations of Ur, the home of Abraham. In the thousands of years since then, what influence women have exerted over this most ancient and most lasting of all the arts, it is now impossible to estimate. The power of the woman of antiquity was seldom that of pure intellect, but of intellect combined with wealth, position and ambition. Given this accidental combination, and some palace, tomb or temple is usually its enduring witness.

Queen Hetasu's obelisk is the highest in all Egypt; of her inscriptions, defaced and often obliterated by her brothers and successors, enough remain to prove that she completed the temple of Amun-ra, begun during the lifetime of her grandmother, the famous Ethiopian Nefruari. This temple is near Thebes and forms the nucleus of the celebrated El Karnak group. A full dozen dynasties earlier, Queen Nitocris built the yet unidentified pyramid "Of the Soul," believed by some to be identical with the third pyramid of Gizeh.

Queen Artemisia built the first mausoleum, and Marc Antony met his death in another erected by his faithless queen. Voyaging up the Nile, you see the well-preserved and unincumbered temple of Athor, the Egyptian Venus, at Denderah. This and one smaller and more picturesque, near Thebes and the famous baths, were also built by Cleopatra. Even Zenobia found time to build a town on the river Euphrates.

From then to now the list might include every historic name, besides all those of the sainted women of Catholic Europe, who built and governed monasteries as well as nunneries, and who founded and endowed charities and schools.

During the reign of Queen Elizabeth the great architectural activity has given us a delightfully picturesque domestic style, transitional between the latest phase of English Gothic and the earliest of the classic revival.

A still later phase of English architecture is to be seen in the churches of Queen Anne, one of which (St. Dunstan's in the East) is thought to have been the design of the gifted and short-lived Jane Wren. The "real Queen Anne house" of the speculative builder is a serious practical joke about on a par with those perpetrated in the name of the much maligned Sir Charles Eastlake.

Architecture is seldom satisfactorily defined, perhaps never briefly and well. It is not construction in any of its various branches, nor is it arrangement of interior nor exterior, nor coloring, nor carving, nor profiling of moldings; neither is it acoustics, nor fenestration, nor sanitation, nor any one of a hundred other things. It is

* Portions of a talk before the Women's Educational and Industrial Union, Buffalo, March 6, 1891.

the arranging and adjuncting, harmonizing and contrasting of all these and many other elements into a suitable and satisfactory whole.

When wants were simpler and before construction became a science, when every building was the natural sequence of its predecessors, the architect was often an amateur, frequently of the highest ability. Musicians, poets, painters, sculptors, emperors and kings expended wealth and talent on towers and domes, bridges and aqueducts that have outlived the memory even of their other achievements. To specify the causes of their success, as contrasted with the many pitiable failures of the modern amateur, would lead too far from our subject and necessitate a lengthy treatise on the antiquity of the model as a means of architectural representation or vehicle of design; its great value in the centuries before linear perspective was understood, and its final almost total disuse upon the adoption of the more intricate varieties of mechanical drawing. In fact, the abandonment of the model may be said to mark the line of separation between the amateur and the professional architect. Its use today would spare the blushing novice much confusion, particularly in that shibboleth of all amateurs, the staircase.

The professions of medicine and law were far advanced before the much needed and highly appreciated woman physician and lawyer appeared. Women have entered the architectural profession at a much earlier stage of its existence even before it has received legislative recognition. They meet no serious opposition from the profession nor the public. Neither are they warmly welcomed. They minister to no special needs of women, and receive no special favors from them.

The great architectural societies of the country, the American Institute and its state and city Chapters are all open to them upon proof of qualification. Thank, with me, the noble hearted men whose far-seeing polity and kindly nature has laid this stepping-stone.

With few exceptions the educational facilities are the same for men and women. The architectural department of the Columbia College School of Mines is however open to men only, though in the Metropolitan Art Schools women have access to classes, lectures and the Willard collection, considered first in America. Three or four young women have availed themselves of this opportunity, and one, at least, makes practical use of her training. The advantages of a large city with its libraries, museums and opportunities for studying general structural work can hardly be overestimated.

Among foreign schools that most affected by Americans is the École des Beaux Arts in Paris. There is a prospect that this school may be open to women before long, and French papers are now canvassing the subject in a manner that would be quite impossible elsewhere.

In Boston the School of Technology Architectural Course, partially modeled upon the Paris school, offers special advantages to pupils who have received previous office training. Two young ladies have been graduated from four and two years courses respectively, but none are now entered.

Cornell graduated the first university educated young woman in 1880, and since then four have completed the course that four more are now pursuing. Two of the graduates have since died.

Miss Parker, of Philadelphia, has sent me such information and many circulars concerning local art schools, none of which, however, seem to present the requisite facilities for a thorough technical education. The School of Design for Women is noticeable in this connection because it was founded in 1847 by Mrs. Sarah Peter, to whose endeavors the Cincinnati Academy of Fine Arts is also traceable.

One Philadelphia instructor writes that he is willing to receive women, but has never done so because he has been unable to give them separate lecture rooms, etc., but women cannot pursue architectural studies to advantage in a private apartment. Co-education is a privilege as well as a necessity.

I must not forget to tell you that Philadelphia published what was probably the first architectural book written in this country by a woman. From Mrs. Tuthill in 1848 to Mrs. Van Rensselaer in 1891, is a greater stride than progress usually makes in one half-century.

The Illinois University at Champaign, has graduated one woman who is a practicing architect and civil engineer in the far West; another will complete the course this year. Professor Ricker says that in architectural history women are his brightest pupils, but he finds the majority deficient in liking for the higher mathematics. Another instructor writes that a woman pupil submitted the boldest design of the year, while the most effeminate was the work of a man.

The total number of women graduates from the various schools of the country can hardly exceed a dozen, and most of these seem to have renounced ambition with the attainment of a degree, but there are among them a few brilliant and energetic women for whom the future holds great possibilities.

There are also a few women drafting in various offices through the country, and the only respect in which they fall below their brothers is in disinclination to familiarize themselves with the practical questions of actual construction. They shirk the brick-and-mortar-rubber-boot-and-ladder-climbing period of investigative education, and as a consequence remain at the tracing stage of draftsmanship. There are hardly more successful women draftsmen than women graduates, but the next decade will doubtless give us a few thoroughly efficient architects from their number.

So much for the past and the present. If in what I say of the future your personal prejudices are offended, pray remember that you have bound me by no previous confession of faith.

The objects of the business woman are quite distinct from those of the professional agitator. Her aims are conservative rather than

aggressive; her strength lies in adaptability, not in reform, and her desire is to conciliate rather than to antagonize.

The future of woman in the architectural profession is what she herself sees fit to make it. It is often proposed that she become exclusively a dwelling house architect. Pity her, and withdraw the suggestion. A specialist should become so from intrinsic fitness, not from extrinsic influence. Furthermore, the dwelling is the most pottering and worst-paid work an architect ever does. He always dreads it, not, as someone may have told you, because he must usually deal with a woman, but because he must strive to gratify the conflicting desires of an entire household, who dig up every hatchet for his benefit and hold daily powwows in his anteroom, and because he knows he loses money nearly every time. Dwelling house architecture, as a special branch for women, should be, at the present rate of remuneration, quite out of the question.

This brings us to another all-important point. The open sesame to the favor of our compeers and the respect of the public is "Equal Remuneration for Equal Service," and a strict observance of all the honorable traditions of our profession and its amenities of practice.

In response to questions concerning the Women's Fair Building Mrs. Bethune said: "Such a building is talked of, but the idea of a separate Women's Board Exhibit, etc., expresses a sense of inferiority that business women are far from feeling. The board desires a woman architect, and the chief of construction has issued a circular inviting competition, notwithstanding the fact that competition is an evil against which the entire profession has striven for years, and has now nearly vanquished; it is unfortunate that it should be revived in its most objectionable form on this occasion, by women, and for women."

"The building will cost about \$200,000, and the prize offered to the successful competitor is \$1,000. This is all she is to receive. That is, she renders 'personal artistic service,' and also prepares her competitive drawings, all for one-tenth of the regular rate for full professional service. The extremely equitable arrangement made with the appointed architects for the ten large buildings is that each renders his personal artistic service for \$10,000, all his drawings to be made at the expense of the commission. The sum total to be expended for the ten principal buildings is in the neighborhood of \$6,000,000, making an average of \$600,000 each. Thus each architect receives about one-third his regular full commission, for which he renders about one-third his full professional service."

"The proportion of remuneration to the architect of the Women's Building is about three-tenths of the average rate paid the already appointed architects for nearly similar service. It is an unfortunate precedent to establish just now, and it may take years to live down its effects."

Notes from Foreign Exchanges.

Professor Stier, of Hanover, has recently collected the statistics of all the competitions of Germany since 1868, the results of which he is shortly to inflict upon the public in book form. *La Semaine des Constructeurs*, for December 6, gives, however, the interesting points and the cream of all these investigations in a short form.

The 258 competitions that occurred brought out 11,256 designs, which were awarded 751 prizes, of a total value of \$232,500. Prof. Stier has been able to find the actual practical results in only 214 of the competitions. In 109 of these 214 the first prize was awarded the work, while in 31 others, the second or third prizes were given the commissions. Also in 31 other cases a prize design was carried out, but not by the author; while in 43 remaining cases none of the designs offered were used. In resumé, of 9981 designs presented—at the 214 competitions—only 171 of them were ever carried out and the buildings erected.

There has been formed at Paris a society for the encouragement in France of the building, either by private individuals, corporations or societies, of houses which shall be both sanitary and economical. This society called the French Society for Cheap Homes is now in full operation and has already commenced to realize some part of its objects, which are the three following:

First: To gather together and put at the disposal of all interested parties every kind of information that can be asked upon the question of cheap homes, such as plans, leases, etc.

Second: To inaugurate courses of lectures having for their object the popularizing of the ideas of the association.

Third: To establish from time to time competitions and to encourage in every manner the construction and sanitation of cheap homes.

This society publishes a bulletin in which there is an interesting description of some tenements recently erected at Paris.

The Philanthropic Society built in 1889, on rue Jeanne d'Arc, a building approximately 70 feet front and 33 feet deep, containing three stores on the ground floor and five apartments of two and three rooms each on each of seven stories above, or a total of thirty-two tenants. The price of rent per annum of each tenement is at the amazingly small average sum of \$45.40, or at the rate of less than one cent per superficial foot per month. Even at this low rate upon the total cost of land and building of over \$35,000, there is a net income of 3 $\frac{1}{2}$ % per cent upon the investment, as shown by a very minutely detailed table. And yet all these tenements are arranged in the most satisfactory manner from a sanitary point of view. The stairway is broad and well lighted and every room has outside light. Moreover, each tenement has its own water-closet, also with light from the outside. Other buildings of the same character are now in course of construction, both at Paris and in the provinces, which promise to be equally successful, both in a financial and sanitary point of view.

Architectural Kinships.*

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

"ARCHITECTURE was born with man," a French writer has said. I propose to take this for a text and to add "And architecture has kept on being born with man ever since the first occurrence of that interesting event." The real history of a man does not begin with the man himself but with his parents, even away back to the days of primeval chaos. I shall not dwell in extended thought on that fruitful time in our world's history nor do I intend to devote any further attention to the parentage of the race than to say that certain tendencies and peculiarities inherent in each denote almost to a certainty that man and architecture are offspring of the same parent stem, and being born at the same time, according to our text, must therefore be twins, and, as twins should, they have lived in pretty close relationship for a long time. When one comes



Fig. 1

to appreciate this he is where he can appreciate, too, what philosophers and thinkers mean when they say that a nation's life can be read in its art, and architecture is a very vital phase of art. I would like to do a little in this paper toward the establishment of a general sympathetic appreciation of the near relationship existing between man and architecture, so that man may treat the good in architecture with reverence and respect, and not condemn the bad without first making a self-examination to see, if he can, what evil tendencies exist in him which may have a deleterious effect on his brother, and on his own and brother's art. How marvelously alike in their natures and how wonderfully near to each other man and architecture have been journeying down the years together, a few drawings will serve to suggest. Let us look at a few types, going back first to the days when types were pure. In Fig. 1 is the head of a rustic from an old Greek sculptured relief. The lines of the head covering are what we are to note. This covering is drawn detached just above. A fragment of Greek architecture also is shown in this figure. It does not require much of a stretch of the imagination to see that the same thought was parent to the lines of the sculptured head and the architectural dome. But we do not have to confine ourselves to types which have been preserved to us in marble. Here (in Fig. 2) is one sketched from life. A Moor from Tangier, a blood relation of the builders of the Alhambra, and at his side are fragments of the architecture of his race (taken from the Alhambra, the most beautiful specimen of Moorish art). Certainly the kinship is clearly marked here.

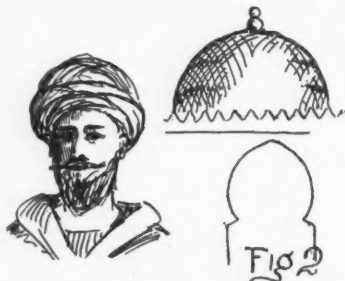


Fig. 2

In Fig. 3 a Mongolian type is shown and words could not strengthen the growing conviction of kinship. In these three examples race types have been shown; but so subtle is the relationship between man and architecture that it shows where blood is weak or wanting, where social customs have served to mark the character of the man. I will give but one instance of this and that will be a very marked one. There came a time, at the end of the seventeenth and the beginning of the eighteenth century when man's body was worthless and his soul was worth even less, so in order to be at all presentable in society the body was bedecked with frills and furbelows, and the head was buried in puffs of curls and powder. If one cares to know how soulless was the architecture of that period, he has but to look at the fragment (Fig. 4) of a Parisian church in the same style, the "Pigtail and Periwig Style" as discerning critics have named it.



Fig. 3

Now it may be urged that all this does not prove that humanity and architecture are brothers; that this only goes to prove that architecture and clothes run in the same channels of style, or better, fashion! and that clothes do not make the man. But clothes are often—generally—pretty fair exponents of the man and he shows his character in his dress. But the faces in the types just sketched are not wanting in the same character that is expressed in the clothing and in the architecture. Perhaps we may get nearer to the idea that it is character and not clothes which lies at the bottom of all this by a peep at humanity without clothes. The idea I have in mind has been worked out so admirably by M. Espérandieu, architect, in his study of the "Ethnology

of Architectural Forms," that I will reproduce his drawings as faithfully as may be (in Figs. A, B and C). If one were to take a composite spiritual and mental photograph of humanity at any particular period of time he would have a likeness



Fig. 4

of what Goethe called the *Zeit geist*, and which we, with less poetry but as much philosophy, call the "spirit of the age." This spirit has been more intense at certain periods than at others and it is at three such intense periods that we have the likenesses. In Fig. A we see the spirit of the Middle Ages, stern, if happy, certainly not joyous, with eyes not yet open to the light of culture and the arts, with the somber shadows of the night of the Dark Ages still brooding over it,—and beyond in the background is the spirit of the architecture of that time of rude awakening to incisive action. The mental camera had before it a more pleasing subject, though perhaps no more worthy of study, in the spirit of the renaissance (B). The race had lost its severity and hardness and was turning its face toward the calmness and satisfaction of classic art and culture. The eye is open to the light of truth and beauty, and the chin and lips show self-restraint. The architectural background can hardly be said to be out of harmony with the face. We could wish it might be, though, in the next exhibit (C). This is the spirit of that age which produced the "Pigtail and Periwig Style," and which, from this as well as from what we have seen of it before, might almost better be called the "fleshliness of the age" than the "spirit of the age." This evidently was a case of "high living and plain thinking." See how the porcine nose turns up. Wealth and luxury and social position do sometimes cause noses to turn up nowadays. The picture is not delightful and the spirit of the architecture is in harmony with it.



A

Having thus, at least to some extent, established the kinship of humanity and architecture, let us turn to another side of our text. The French writer says: "Architecture was born with man, for man always has had need of shelter." Now, considering architecture as art, I am free to accept the first part of the proposition, but must take issue with the second, for the two do not go together. The writer might have said:



B

"The need of shelter was born with man for man always has needed shelter," or he might have said: "Architecture was born with man, for man always has felt the need of beautifying his structures," and I could have agreed with him all around. For this marks the distinction between architecture and building, the one is for giving pleasure and the other, shelter. Of course, in architectural practice today one has to take into account the strength of materials and a thousand mechanical necessities, the laws of sanitation and healthful living, shelter and convenience and comfort and all that, but just now we are looking at architecture from the standpoint of beauty, which, after all, really is architecture, for it is the only thing about architecture which is unchanging, which lasts and is real, for comfort and convenience and such like necessities change ever with changing and developing life and environment; but who shall say that a Venetian palace had ceased to be beautiful though no one of us would care to live in it today!

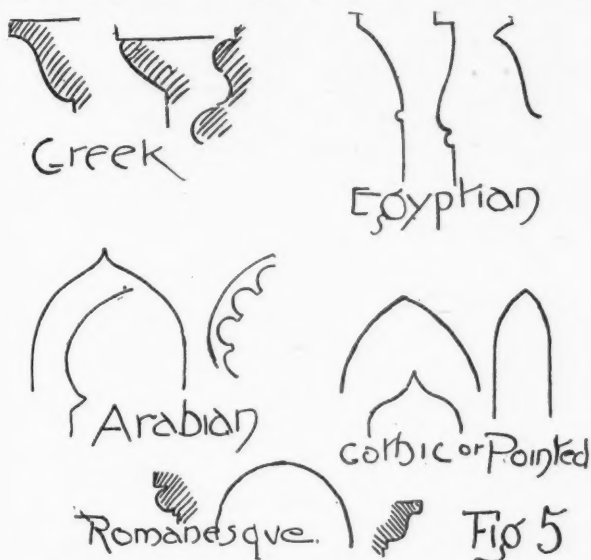
Who would say that a Greek temple or a Gothic cathedral had ceased to be beautiful, though who of us would care to sit through a seventy-five-minute sermon in either today! We must not judge beauty too critically from the standpoint of comfort and convenience, for one appeals to our spiritual and intellectual selves and the others to our physical bodies. Although the age is becoming decidedly materialistic, we have not quite unified body and spirit, however closely we may have allied them. I do not mean to say that we can ignore physical comfort in our idealization of things which have to do intimately with the physical man, but we must remember that when certain beautiful forms were evolved in ages past, physical conditions were other than they are now, and what we deem necessities now often are only affectations due to overwrought and overstrained social conditions.



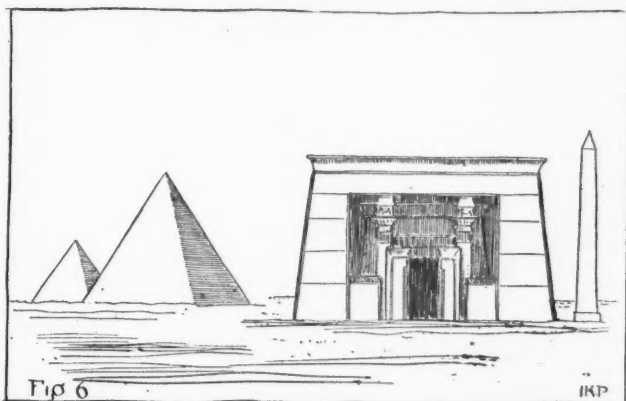
C

*From a lecture delivered in the University Extension Course at Hull House, Chicago, March 12, 1891, illustrated by charcoal sketches which are redrawn for THE INLAND ARCHITECT by the author.

We have seen how a specific idea of beauty has dominated the character of man and architecture at a certain time and locality, now we may touch upon this idea a little more in detail. In Fig. 5 is presented in simple terms, the idea of beauty as conceived by the Greek,

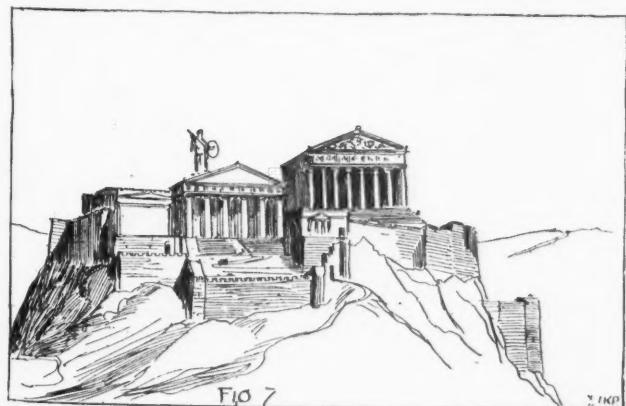


the Egyptian and the Arabian races, and the ideas which dominated the work of the Romanesque (or transition) and the Gothic schools. We can here see how they blend one into another though the types are so distinct. This makes it difficult to prove that each race was animated by a unique or original inspiration, but suggests rather the possibility that each idea will in the course of time and study be traced to that fundamental idea which was born with the first man. I do not wish to imply that man was born with any one of the forms I have set down before his physical eye, but that he was born with an



inspiring idea in his mind which, by reason of his own development and the nature of circumstance and environment, caused him at last to express his idea in one of these many lines. Material as well as esthetic conditions have contributed to the evolution of these forms and ideas, for with all his spiritual and intellectual qualities man is still a creature of the earth.

This suggests an interesting phase of our subject, which with propriety may be enlarged upon here. The student of men and man-



ners has been impressed by the fact that men are of the earth, earthy, and this in no mean sense, but that the characteristics and tendencies of men vary with the varied natural surroundings. Thus men under

clear southern skies are different in temperament from those under dull and ragged northern skies; the instincts and impulses of the mountain dwellers are not just the same as those of the dwellers in the plains.

The student of architecture has learned that the same conformability to natural conditions and physical environment is expressed in the architecture of these differently configured portions of the earth's surface. I shall illustrate by sketching a few simple types, although the law in its general application is just as far reaching and subtle as was that which differentiated the "Pigtail and Periwig Style," during the complex and changing social conditions of Europe in the period of the Renaissance. First as to types of architecture under clear southern skies we see (in Figs. 6 and 7) that the outlines are pure and simple. Fig. 6 presents various Egyptian types, while Fig. 7 is a view of the Acropolis at Athens (restored). Now, by reference to Figs. 8 and 9, we see the character of architecture under northern skies — outlines are broken and forms are not pure and simple. Fig. 8 is a distant view of the cathedral at Chartres (sketched from a salon



picture by A. Ségué). Fig. 9 is a sketch of the medieval castle of Rheinstein, in which we may notice, what already has been remarked, the frowning severity of the architecture of those times.

Now other and very peculiar characteristics due to dissimilar natural conditions are made apparent in these sketches, that is, in level countries under clear or clouded skies the forms are pyramidal (Figs. 6-8), while in mountainous districts, masses are cubiform. This diversity of form and feeling is no more of a happening in architecture than it is in man, and if studied closely will be found to hold in widely separated districts and under complicated social conditions. Undoubtedly the types sometimes will be found to be more mixed than in the instances cited, for men since the times which produced



these types have been mingling more and have been influenced more and more by each others life and art and letters.

In these examples we have made reference to the general outlines and masses only, but there are laws which apply with equal force to the details of the embellishments of the structures, a study of which will demonstrate more clearly, if possible, the wonderfully sympathetic relationship between architecture and the geographic and atmospheric conditions among which it has arisen.

So we have succeeded, not only in establishing close kinship between humanity and architecture, but we have gone so far as to indicate that the great globe itself is one of the family, and poets before our time have defined her relationship and called her Mother Earth. If she be indeed mother she must be wonderfully at one with the divine father spirit which breathed through her into us and into our arts and architecture and made us all of one family, so that where man is happy, there the earth and sky and man and art join together in the tender harmonies of one eternal symphony.

Monument of Eugene Delacroix.

THERE has just been placed upon the marble pedestal in one of the walks in the gardens of the Luxembourg, the bronze bust of Eugene Delacroix and the group which M. Dalou designed for the decoration of this monument.

Described by *La Semaine des Constructeurs*, the group represents Time forcing Renown, which it raises in its strong arms, to render homage to the creator of so many masterpieces that were formerly unappreciated, but to which posterity has at length given the recognition merited by a great genius.

The group of M. Dalou shows a strong and vigorous handling which is a pleasure to see in these days. It is like the mythology of Delacroix himself, and as he understood it, who painted the "Labors of Hercules" and the "Triumph of Light over Darkness." It is a pleasing idea to have placed below the bust of this scion of the superannuated rules of the school the figure of Renown being forced to place palm branches at the feet of the man whom the jury classed as the very lowest in the competition for the Grand Prize of Rome, where he competed.

Time has avenged their contempt, and Renown, thanks to this old Chronos, who finally puts everything in its right place, at length comes to lay the wreaths at the feet of him who will always remain one of the greatest masters of French painting.

Apropos of the unvailing of the Delacroix monument at the Luxembourg, considerable has been written of the process of bronze casting known as the *cire perdue*, employed by the artists of the Renaissance and those of the eighteenth century. We have believed that it might be interesting to our readers to know in detail this process, and therefore applied directly to M. Dalou, the sculptor of the Delacroix monument, who has furnished the following description:

This process, which is now in general use scarcely anywhere except in Japan, was formerly commonly employed in France, and M. Bingen, who cast the group of Dalou at the Luxembourg, simply renewed it. The sculptor, as is known, first makes a sketch of his work in clay. When he is satisfied with it another is made, especially if a large monument, at a half or quarter full size, and then his assistants finally render the work at its full size. Here the difficulty commences, for the object is to transform into bronze with as absolute a fidelity as possible the model first executed in clay. This is accomplished by turning over to the founder the plaster model, of which a mold is taken. Into this mold, which is also of plaster, the founder runs a special composition composed of earth, powdered brick and sometimes of cow dung. In this manner a copy of the work is obtained which, however, after having passed through this first operation has been already somewhat deformed. This copy, known as the core, is now scraped and a thickness of from $\frac{1}{16}$ to $\frac{1}{8}$ of an inch removed from the entire surface. This work finished, the core is then replaced in the mold in which it was made, and melted wax is run in to fill the space removed by the scraping. Thus is obtained a new copy, naturally even more deformed than the original, but covered with a fairly thick coating of wax, that is to say, a malleable material which the sculptor can retouch and work over, giving it the primitive character of his work. This then is the important advantage offered by this method of casting. When this copy covered with wax has been entirely retouched by the sculptor, when he has given it with all precision its final form that he wishes, it is turned over to workmen, generally women, who then commence a work infinitely fine and minute which requires weeks and weeks of care.

With very small artists' brushes the whole surface of the wax is covered with a light coating of a similar composition as that of the core. This coating is followed by a second, then a third, then a fourth, little by little, with what slowness can be imagined.

When it has obtained a thickness of about one-half inch larger, brushes are employed. Then this coating, becoming gradually more solid and more adherent to the wax, small masses of earth and then larger are employed.

Thus is obtained a mass quite without form or beauty of appearance, but the work exactly as it came from the master's hand is intact under this coat of mail. It has suffered no deformation, and no touch of the chisel; even if the artist had had the freak to make an impression with the end of his thumb, he can be sure that the trace has not been in the least effaced by the delicate and minute work of these women who have covered it with earth, and that it will eventually be faithfully cast into the bronze. It is now required to withdraw the coating of wax between the core and the coating of earth, and to replace the wax by bronze; for this, two operations are necessary. First this shapeless object of a reddish color is placed in a furnace and heated to a white heat; the action of the fire at once melts and burns the wax so that no appreciable trace of it is left around the core. When the wax has disappeared, it only remains to turn in the molten bronze into the space left vacant between the core and the walls of the earthy coating. The simple enumeration of this long series of operations will certainly explain the profound emotion with which the founder of *cire perdue* breaks the exterior envelope of his mold to see if the final operation has succeeded.

For the casting in sand the thing is quite different. Here, the casting at one single flow is almost impossible for works of large dimensions, the sand not being cohesive enough. But this casting has another and much greater inconvenience, namely, the impossibility of retouching. In fact, the sculptor who intends to have his work cast in this manner, furnishes the founder the clay model as it has left his hands. From this the manufacturer runs it in plaster; first transformation and also first change and deformation, for it is one that the artist can not remedy since plaster cannot be satisfactorily retouched.

From this plaster a mold is made directly in the sand, second transformation and second deformation more important even than the

first, since the packing of the sand, however carefully it may be done, injures the plaster model. From this mold in sand a core is made and scraped the same as in the other process, only that this core is replaced at once in the mold and the bronze when poured in occupies the space between this core and the mold. This operation is, of course, much simpler, more rapid and more sure in its results. But the work comes out in sections difficult to put together, and lacking that exquisite purity which every artist longs for in his work, and ought to require for a statue or a group destined to pass to posterity.

If the *cire perdue* was not so expensive it would evidently be preferable to the casting in sand. The statue of Louis XV, which formerly decorated the Place de la Concorde, cost for the execution of the work alone nearly \$70,000, while the bas-relief of Mirabeau and the Marquis de Brézé, cast after the originals of M. Dalou, have cost \$10,000. Thus the *cire perdue* can only be employed for masterpieces, but its fineness of execution is far superior to anything that can be done by the ordinary casting.

Progress in Columbian Exposition Work.

ON February 23 the World's Fair Commission of Architects met in Chicago and submitted sketches for the several buildings.

As a result, on February 27, Chief of Construction Burnham submitted to the National Board of Control a report on the buildings and work of the Commission of Architects as follows:

To the Honorable the Board of Reference and Control:

I hand you herewith the plan of grounds adopted by commission—with the final revised plans and an estimate of acreage in buildings. Upon more mature study it was found desirable to condense, and some of the buildings have been made smaller with the expectation that whatever additional room is needed will be secured by inexpensive annexes to be built as space is demanded. Spaces between buildings also have been somewhat reduced and the forms originally given to several of them have been changed to better utilize the area devoted to them.

The horticultural building (W. L. B. Jenney, architect) is moved from the north end of the park to a position corresponding with that of the agricultural building on the original plat (McKim, Mead & White, architects), which has been moved to a more direct relation to live stock and given a position on the grand court. Live stock (Holabird & Roche, architects) has been given a better position just south of agricultural and machinery buildings, with a main entrance into their ground between these two buildings, and has been given more room by pushing all the buildings further north and getting more compact arrangements. The most marked change is that of the railroad approach in the southwest portion of the grounds—a large loop of six parallel tracks, with platforms, etc., so arranged as to carry back and forth a large number of persons hourly. This has been accepted as a great improvement over the old arrangement. Preliminary plans for the nine principal buildings of the exposition have been prepared by the several architects, and are now being completed and conformed to the suggested modifications which further study and the added professional skill of the Commission of Architects have brought about.

Instead of the straight pier leading out of the center of the main court as originally intended, it is proposed to construct an outer basin in form of a peristyle of columns, each representing one of the states of the Union, and all surrounding a colossal and emblematic figure, probably that of the Republic. This is the great opportunity for the central and purely decorative and symbolic feature of the exposition, standing at the end of the great court on the one side, and at the landing place for all visitors by water on the other.

The north end of the park is to be given up to different state buildings, and to buildings for foreign nations. A preliminary plan has been prepared, showing a proposed disposition of those on the supposition that they will be limited in size and shall be used for headquarters buildings.

The Midway Plaisance is reserved for any additional structures for which there is not room here.

The transportation building (Adler & Sullivan, architects) is a new feature. It is in machinery building (Peabody & Stearns, architects), but now occupies extensive space by itself—competent, with its annexes, to cover all required of this department. The woman's building has been added as indicated, and the 1,000-foot steel tower will probably be built outside of Jackson Park at the head of Midway Plaisance, and by private enterprise. In general, the acreage under main roofs has been increased, and that under annexes can be extended at libitum.

The character of the buildings is as described to you personally when here, and until we can go somewhat further the specifications for them cannot be made. Indeed, the specifications will not be all finished till the buildings are nearly completed. I can say, however, that the pier is to be substantial and closed in toward the north so as to form a safe harbor; that on its water end is to be a pavilion of classic style, simple and severe, open on all sides, and containing restaurants, band stand, etc. (Burling & Whitehouse, architects).

The agricultural building is to be largely iron and stone, in a decorated style of classic work, and its annexes of simple, inexpensive form, extending along the lake and also directly back toward the stock show. In these annexes will be the brewery, the sawmill, and the dairy, the latter at the southeast corner of the park; these buildings to be designed into a picturesque mass as seen from the lake. The space between agriculture and machinery is to be closed on the south by an ornamental screen and entryway to the stock show. The Machinery Building is to be of the same type of architecture, as will all buildings surrounding the court, and it is to have annexes inclosed by the railroad loop and entered by subways.

The administration building is to be the grand feature, surmounted by a dome forming the central figure of the grand court and commanding the buildings of the fair; and through this building, at grade, the people will enter from the railroad loop. (Richard M. Hunt, architect.) Both the mines and electric buildings are to be kept in harmony with the architecture of the court, as is true of the manufacturers' building. (S. S. Beman, Van Brunt & Howe, and George B. Post, architects, respectively.)

The transportation building will be in Romanesque style, having three great doorways toward the east and one at either end. The horticultural building will be of glass and iron, with a great central dome and dome-like pavilions at the ends. The woman's building is not yet designed. The fisheries building will be a colored exterior of Spanish style. (Henry Ives Cobb, architect.) The elevated road is still undetermined, but will run around the park to shorten the great distances much as possible.

The work is now progressing, and we hope soon to exhibit rapid advancement on the grounds.

All of which is respectfully submitted,

D. H. BURNHAM, Chief of Construction.

At the same meeting of the Board of Control Chief Assistant Engineer E. C. Nourse submitted the following estimate of acreage:

For fisheries building, 1.7 acres; fisheries annex, .5; government building, 3.6; manufactures, 31.2; electrical, 5.6; mines, 5.6; agricultural, 9.2; machinery, 9.7; annex for same, 8.7; annex power (machinery), 8.3; horticultural, 5.7; woman's building, 2.3; administration, 1.4. Grand total, 102.7 acres.

After the reading of the report and after viewing the designs, the plans were formally adopted in the following resolution:

WHEREAS, The Committee on Buildings and Grounds of the World's Columbian Exposition has submitted to this board the following communication from D. H. Burnham, Chief of Construction, accompanied by a plan showing and defining certain material changes, modifications and extensions; and

WHEREAS, This board has duly investigated and carefully considered the subject; therefore

Resolved, By the Board of Reference and Control of the World's Columbian Commission, that the changes, modifications and extensions indicated, proposed, and shown by the said communication, and the plan aforesaid approved by said committee, be and the same are hereby approved in a general way, and the assent of this board is given thereto;

Provided, however, that this action shall not be so construed as giving the assent of this board to the abandonment of the buildings necessary and adequate for the exhibits allotted to Department K, and so much of the exhibits in Department L as are usually grouped therewith and the ground space properly appropriate thereto, which are specifically provided for in the plans heretofore adopted, it being understood that this board reserves the right to approve and assent to any such further modifications or extensions as may be required to meet exigencies which may be suggested and approved by said committee.

Resolved, That a certified copy of this resolution be immediately transmitted by the secretary to the chairman of said committee.

On March 6, at a meeting of the Board of Directors, the plans were finally approved.

Association Notes.

AMERICAN INSTITUTE OF ARCHITECTS.

Mr. George C. Nimmons, Chicago, is acting as secretary *pro tem* of the American Institute of Architects on the authority of President R. M. Hunt. He is to hold the position until the next meeting of the Executive Committee. He has had charge of the final work on the proceedings of the last convention, which are nearly ready for circulation.

CHICAGO ARCHITECTURAL SKETCH CLUB.

At a regular meeting of the Chicago Architectural Sketch Club, held Monday, March 23, notice was received from the Art Institute directors that the rooms occupied by the club must be vacated during the coming spring or summer, as they were wanted for school purposes. A committee consisting of three was appointed to find new quarters—Messrs. Williamson, Wagner and Youngberg. Mr. Klempel was unable to be present to read his paper on "Dormers." With his regrets he presented a liberal donation to be placed with any fund that the Executive Committee might choose. Report on piano competition was received. There was a tie for first place: (A) Emery Roth, (B) P. C. Stewart; second place, H. C. Trost; third place, E. C. Jensen. There were eighteen drawings in all. Water-color competition from photograph was also displayed, but for lack of time artists' report was deferred. Mr. Louis Muller, Jr., was elected an honorary member:

NEW YORK CHAPTER OF AMERICAN INSTITUTE OF ARCHITECTS.

Extract from minutes of the New York Chapter of the American Institute of Architects, of March 11, 1891.

The secretary then offered the following resolutions, which were unanimously adopted:

Resolved, That this Chapter feels that it has sustained a severe loss in the death, on March 4, of its president, Mr. Emile Trenchard Littell, the architect of Jefferson Market, of several business buildings, of the Church of the Incarnation, and of some charity buildings and a chapel connected with the Protestant Episcopal Church, in New York; as also of St. James Church in Philadelphia, and of churches and other buildings in Ogdensburg, Canandaigua, Palmyra and elsewhere.

Since the formation of the Chapter he has held the presidency several times, and has constantly been placed on its committees, in which, and other like positions, he has unswervingly used his influence in the interests and for the honor of his art and his profession; while as one of the three members, since its organization, of the Willard Architectural Commission, his advice and suggestions, under, occasionally, very discouraging circumstances, have been of the greatest value to his colleagues and to their responsibilities.

Resolved, That the Chapter adopts, as a fit expression of its own sentiments in relation to its departed president, the following characterization of his qualities written the day after his death by one of our divines.

In an age of self-seeking and unusual rivalry, Mr. Littell was the type of the thoughtful, sober-minded, pure, upright man of honor who pursued his profession for the love of it, and made everything he touched the better for his contact with it. The memory of such a man is a rich inheritance. The world was poorer when he left it.

Resolved, That these resolutions be spread on the minutes of this Chapter, and that a copy thereof be transmitted to his widow and family.

WISCONSIN STATE ASSOCIATION OF ARCHITECTS.

At a meeting of architects held at Milwaukee the following expression of regret was adopted, and its publication in THE INLAND ARCHITECT requested:

Feeling that by the death of John W. Root our profession has lost a member whose genius was so marked, and whose work was so full of beauty, strength and originality as to rank him as a leader in the architectural movement of today, and whose unceasing efforts toward the organization and elevation of the profession proved him to be a man of broad sympathy, great earnestness of purpose and devotion to the best interests of his fellow-workers, we, the Milwaukee members of the American Institute of Architects and of the Wisconsin State Association of Architects, desire to hereby express our profound regret and sincere sorrow that death has taken away one who, as an architect and a man, had won our respect and honest admiration; one whose influence for good will bear lasting fruit, and whose memory will always be a source of inspiration to those who look, as he did, to an ever broadening progress toward the fullest development of one of the noblest of the arts.

THE ARCHITECTURAL LEAGUE OF NEW YORK.

The regular monthly dinner and meeting of the Architectural League of New York was held at Morello's on Monday, March 2, at 6:30 p.m., President Russell Sturgis in the chair. About fifty members sat down to dinner, after which William Burnet Tuthill, of New York, read an interesting paper entitled "The Audience Hall," being an exhaustive treatise on acoustics, particularly bearing on the Carnegie music hall, of which the author, in connection with Architects Adler and Sullivan, of Chicago, was the architect.

The paper was discussed by Russell Sturgis, Frank A. Waller, A. F. D'Oench, Edward H. Kendall, George W. Keister, Warren R. Briggs, C. A. Rich and Thomas Tryon. Mr. Tryon then read the report of the committee appointed to consider the question of a suitable memorial to their late associate, Henry Ogden Avery, which should also be a recognition to the liberality of his parents in the

endowment of a library fund at Columbia College. President Sturgis stated that the gift was made to the library of Columbia College, as that was a depository which was open to all and the books could be consulted at almost all hours by the public. The committee recommended a bronze tablet to be placed on the walls of the alcove of the library which had been assigned by the college to the Avery collection; this can be removed should the authorities be enabled to devote a larger space to it, as is anticipated in the near future.

The League accepted the report and authorized the committee to order the tablet at a cost of about \$150, and have it placed in position on the anniversary of Mr. Avery's death.

Warren R. Briggs then offered the following:

WHEREAS, The Architectural League of New York, through the undersigned, who have been appointed a committee for the purpose, deplore the great loss it has sustained in the death of John Wellborn Root, one of its most honored members, therefore

Resolved, That this society, composed of his professional brethren, record his death with sorrow and regret that a career so full of brilliancy and promise has been abruptly terminated. By his untimely death, the profession has lost one of its most accomplished practitioners, and his associates, a true and genial friend.

Resolved, That the sympathy of the League as a body be extended to the bereaved family of the deceased in their great affliction.

RICHARD M. UPJOHN,

GEORGE B. POST,

WARREN R. BRIGGS, *Chairman*.

It was ordered, That these minutes be spread upon the books of the League, and copies transmitted to the family of the deceased and to the leading professional journals for publication.

Among other gentlemen present were: Messrs. Henry J. Hardenbergh, Henry F. Kilburn, F. L. V. Hoppin, William B. Tubby, Charles T. Mott, Frank E. Wallis, William A. Bates, E. P. Hapgood, Edward H. Clark, Henry W. Thayer, John Galletly, Edward Kemey, the sculptor, Vice-President William C. Coffin, and T. Hugh Boorman, of *Architecture and Building*, whose report has been made use of in the above.

CINCINNATI BUILDERS' EXCHANGE.

The annual meeting of the exchange and the annual banquet was held March 2. Arthur McAlester, President of the National Association of Builders, was present. The officers elected were as follows: President, D. W. C. Bellville; first vice-president, Thomas H. Curry; second vice-president, Simon H. Strunk; secretary, Lawrence Mendenhall; treasurer, J. M. Blair. Directors—For two years: Henry Wagner, A. Colter, G. E. Mason, C. B. Stevenson, H. E. Holzinger. For one year: M. P. Scully, J. W. Robinson, D. Flaherty, C. M. Fenner, L. B. Hancock. Board of Arbitration—W. J. Tanner, J. C. Carter, W. A. Megrue, A. F. Schuyler, F. M. Kealy. Board of Appeals—J. C. Harwood, Sam Tapping, J. Grace, S. D. Tippet, J. F. Tuttle, T. A. Murray. A. F. Schuyler and J. W. Asher were the judges, and W. Tappan and W. Foster were the tellers.

PHILADELPHIA T-SQUARE CLUB.

The first regular meeting of the Philadelphia T-Square Club for the year was held on Wednesday evening, January 21, at the office of Mr. Frank Miles Day, 927 Chestnut street. The subject of the evening's competition was "A Seal for the Club." Drawings were submitted by Messrs. Lea, Hays, Parmeter, Coates, Jamieson, Titus and Boggs, and mentions awarded as follows: First mention, Mr. Frank Hays; second mention, Mr. J. Jamieson; third mention, Mr. Crawford Coates, Jr.

The following officers were elected for the ensuing year: President, Mr. Frank Hays; vice-president, Mr. Wilson Eyre; secretary, Mr. Barton Keen; treasurer, Mr. William Bailey; executive committee, Mr. Frank Mead, Mr. Crawford Coates and Mr. John Stewardson.

The subject of the next competition is "A Forty-Foot Front for a City Club."

Required—A design in the Italian Renaissance style. A one-eighth scale elevation and section in pencil. Pure line drawings only with the openings in the elevation finished in plain washes of India ink.

ST. LOUIS ARCHITECTURAL CLUB.

After a number of unsuccessful efforts to establish an architectural sketch club in St. Louis, the draftsmen have at last a plan that may prove to be the means of giving the Fellows a successful organization. All the clubs so far started seem to have failed, because of lack of interest in work and on account of unsociability of the members.

The new scheme is to have no constitution or by-laws, simply place the affairs of the club in the hands of an executive committee of three members, whose duty for one year will be to furnish entertainment at all meetings, choose different chairmen to conduct business meetings, prepare competitions, choose judges, elect and dismiss members, etc.

The name of the club is the St. Louis Architectural Club and the first executive committee will consist of P. P. Furber, chairman; J. L. Wees treasurer, and D. D. Kearns, secretary.

The first regular meeting was held January 24, 1891, at which an instructive series of cement tests with informal discussion elicited valuable information.

Mr. Furber read a fine paper on plumbing, and with the aid of charts placed the subject in a clear manner before the members present.

The first competition was announced and promises to bring out some good work from the boys as it is novel and thoroughly practical.

It is to finish up in the same style as the structure itself the spire of a celebrated unfinished church here in St. Louis. The original structure stands in a picturesque spot and as its architectural style is a pure gothic of the early English period, it will afford abundant scope for study of history as well as sketching, drawing and rendering.

Meetings of the club will be held twice in each month and competitions will be due once each month. All communications will be attended to by D. D. Kearns, secretary, in the Turner building.

PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS.

An excellent report of the organization of the Province of Quebec Association of Architects is given in the current number of the *Canadian Architect*, of which an extract is made:

In response to a circular sent out by the Committee of Organization, Messrs. Nelson, Taylor, Hutchinson, Doran, Dunlop, Raza, J. B. Resther, Clift and Hodson, the following architects assembled in the Mechanics' Institute building, Montreal, on October 10: A. C. Hutchinson, J. Nelson, Charles Baillairge, J. F. Peachy, A. F. Dunlop, A. Raza, M. Perrault, J. W. Hopkins, V. Roy, W. T. Thomas, W. E. Doran, F. X. Berlinguet, W. McLea Walbank, Joseph Verne, A. J. Pageau, S. Lesage, J. A. Proudfoot Bulman, J. Z. Gauthier, A. J. Taylor, J. Y. Resther, Theo. Daoust, G. E. Tanguay, D. Oulette, J. H. Bernard, J. Wright, L. R. Monthault, G. G. Languedoc, J. A. Chause, R. Findlay, A. Gendron, L. C. Everest Page, H. Stavelly, J. B. Resther, Christopher Clift, W. H. Hodson.

A. C. Hutchinson was unanimously elected chairman and Christopher Clift secretary of the convention, which proceeded to discuss a draft of constitution and by-laws, which was amended and adopted section by section.

The following officers were elected: President, J. W. Hopkins, R. C. A.; first vice-president, F. X. Berlinguet; second vice-president, Victor Roy; members of council, A. C. Hutchinson, R. C. A., A. F. Dunlop, R. C. A.; A. Raza, A. T. Taylor, F. R. I. B. A.; M. Perrault, J. F. Peachy; treasurer, W. E. Doran; secretary, C. Clift.

The convention was followed by a luncheon, at which speeches were made by Architects Berlinguet, Roy, Hutchinson, Brown, Doran, Hopkins, Taylor and Dunlop, and Mr. Mortimer, representing the *Canadian Architect*.

TEXAS STATE ASSOCIATION OF ARCHITECTS.

The State Association of Architects held the second session of their sixth annual convention on January 21, at Fort Worth. The most important question discussed was as to the rights of architects under the mechanics' lien law, their status now being that they are not mechanics or artisans under the law, and therefore not entitled to its privileges. It was decided to ask the legislature to change this. The following officers were elected for the ensuing year: Geo. W. Stewart, Dallas, president; Geo. E. Dickey, Houston, first vice-president; S. B. Haggart, Fort Worth, second vice-president; A. O. Watson, Austin, secretary; S. P. Herbert, Waco, treasurer. The next meeting will be held at Galveston on the third Tuesday of January, 1892.

EDINBURGH ARCHITECTURAL ASSOCIATION.

On the afternoon of Saturday, February 23, the members of the Edinburgh Architectural Association visited Edinburgh Castle, and under the leadership of Mr. Hippolyte J. Blanc, inspected the Argyle Tower, so tastefully restored a few years ago, and the Old Parliament Hall, the restoration of which has just been completed. The visit being of an unusually interesting character, the members of the association turned out in strength, and they could not well have found a better guide than the architect of the restorations.

Mr. Blanc called his first halt on the rocky path which leads under the tower, and began by describing its external features. Prior to the reign of David II, he said, the castle had fallen into a dismantled condition, but after a sojourn in France that prince came here to reside and took upon himself its reconstruction on the then known lines of castle architecture. It was he who constructed what was known as David's Tower, and not, as was sometimes thought, David I, the "sair sanct," whose tastes lay more in the ecclesiastical sphere. Continuing, and connected with this by means of a curtain wall, was the Constable's, or Gate Tower, or the Argyle Tower so called. Both these were sufferers in the siege of 1573, David's Tower being completely demolished. Mr. Blanc, however, fancied that he has found traces of the foundation of that tower within the half-moon battery. He has seen there the remains of old masonry and of a pointed arched doorway, indicating the architectural features of the period. In the ponderous thickness of the wall of the gate tower the features of this period are not to be mistaken. On the front of the gateway there are expressions characteristic of the sixteenth century, but these are explained by the fact that after the siege referred to, the Regent Morton imposed on the old tower gate a new face with the details favored in his own time. When the workmen were engaged taking down some of the masonry above the gate, for the purpose of carrying out the work of restoring the tower, this face of hewn stone was found to be merely a veneer. On the face of the old wall then exposed there were seen what were undoubtedly the marks of bullets. The old wall was of undressed stone, as was all the masonry of the early period to which the tower belongs; and on its west, or unassailed front, this characteristic remains uncovered.

The tower takes its present name from the fact that the Marquis of Argyle was confined in it during the night before he was executed. The apartment in which Argyle lay is in the old masonry, immediately below the restored portion, and with its old damp walls of enormous thickness, its low-vaulted roof, its restricted space, its feeble light struggling through a deep and narrow recess "flecked with bars," is as gloomy a dungeon as one could well imagine, notwithstanding its altitude. Passing from the Argyle Tower, Mr. Blanc led the company to the old palace courtyard, on the very summit of the rock, and pointed out a number of interesting features on the exterior of the buildings. That portion of the palace which bounds the north side of the courtyard, with the exception of the corner joining the hall, is

of no great antiquity, and has features in common with Heriot's Hospital. The most noticeable of these is an octagon staircase projecting from the line of the wall. The Parliament Hall, Mr. Blanc assigns to the reign of James IV, but he thinks it undoubted that a similar hall occupied the same site before that period, as the inner wall of the present building rises from the arched roofs of vaults of a more ancient character. It is now perfectly certain that in this hall many meetings of the Estates of Scotland were held, though during the past two centuries its applicability for this purpose was so obscured that the fact became well-nigh forgotten. The interior is now beautifully restored, and when thrown open to the public will certainly repay more than one visit. The greatest care and research have been bestowed upon the work, with the view of making it in the truest sense a restoration; and though scarcely more than hints could be obtained of the original style these have been followed out with the happiest results.

When the work was begun the hall was found divided into three floors, and these again into apartments to serve the purposes of a garrison hospital. All this was removed and the whole interior practically reconstructed. At the west end there is a small gallery, under which a few feet of the hall are cut off by a carved screen. The roof is of oak, and the arched rafters have a noble sweep. The corbels, or stone rests from which great rafters spring, have been left as they were found, and are points of particular interest. Each is treated with a design or coat of arms in the form of a shield. On one of them are the initials of James IV, flanked by the thistle and the rose—perhaps the earliest instance of these two emblems being brought into union. The union here, no doubt, refers to the marriage of James and Margaret of England. On another is the fleur-de-lis, and it may be taken as indicative of James' position as one of the knights of the queen of France, by whose wish "that champion of the dames" went to Flodden. Another of these, on which there is an ecclesiastical device, was puzzling until it became known that James was one of the canons of Glasgow Cathedral. On the end of the smaller rafters are painted the arms of the constables of the castle. The floor of the hall is of stone, arranged in squares, which, at the upper end, where it is supposed the dais would be, are of marble. The windows are precisely in the position and of the form of the originals—points which were found indicated in the masonry outside. They are filled with stained glass bearing the arms of the Scottish kings down to James VI. Some difficulty was experienced in finding any trace of the original fireplace, but ultimately the soot-track was discovered and the location decided. The new fireplace, of the old gigantic type, set off with four graceful figures, is one of the most handsome features of the hall, with which as a whole the visitors were unanimous in expressing delight. As is well known the citizens of Edinburgh are indebted to the late Mr. William Nelson for this addition to the attractiveness of their city, and on this occasion Mr. Blanc did not neglect to make fitting reference to that gentleman's praiseworthy public spirit and liberality. Mr. Blanc himself was thanked for his services as leader, on the motion of Mr. Scott Dalgleish.

The company afterward visited the Register House, the architectural features of which were pointed out by Mr. W. W. Robertson, H. M. Board of Works.

Our Illustrations.

Pillsbury Memorial Town Hall, Sutton, New Hampshire, L. S. Buffington, architect, Minneapolis, Minnesota.

Accepted design, competition for office building for Mr. Fred Pabst, corner Wisconsin and East Water streets, Milwaukee, Wisconsin. S. S. Beman, architect, Chicago.

Sketch for United States Government Building of World's Columbian Exposition, James H. Windrim, Supervising Architect, Treasury Department. Elevations and floor plan are shown. An alternative sketch is also presented. While final selection of the design for the United States Government Building has not been made, one of the designs shown will be probably built with, possibly, modifications necessitated by cost and requirements.

Butler Gallery and Reading Room, Chicago, Pond & Pond, architects. The first story of this building is to contain a reading room and delivery station for the Chicago Public Library. The second story will be devoted to a gallery for the exhibition of painting and other works of art, and a class room for students of art. The material for the fronts is buff and red pressed brick, the ornament being done in the red. The building is being built by Mr. E. B. Butler to aid in carrying on the work at "Hull House," 335 South Halsted street.

The Groveland Apartment Building, for Howard & Berwin, Chicago. John Duncan, architect. The building presents a very substantial appearance. The massive fronts, including the bays and corners, are entirely of stone, which with the interior arrangement renders the building practically fireproof. The main entrance of polished Dakota pink jasper is the first one of its kind in Chicago, and shows the beauty of this stone to advantage. The jasper which is used for the basement and first story is so hard as to be regarded impervious to the weather, and to be fire and frost proof. The stone platforms are of blocks of unusual length and size. Above the first story Kasota pinkstone is used, and blends harmoniously with the jasper below. All the stone was furnished by R. W. Maxton, Chicago.

Design of Illinois State Building, Columbian World's Fair, Chicago, W. W. Boyington & Co., architects. Front and end elevations, perspective and floor plan are shown. The building will be located in one of the most favored spots in Jackson Park, where on the south, for nearly one mile, there will be a view of a beautiful waterway, and

on the north and east will be the buildings of other states and foreign nations. The structure is to be placed on a terrace four or five feet high, and in front of the entrances there will be stone terraces with railings, statues and stone steps leading down to the roadway. The building in the main is 160 feet wide by 450 feet long, with the school-house, about 75 by 60 feet, taken out of the east end and within the building. The dome will be 72 feet in diameter and about 200 feet high, with a lookout about 80 feet high and another in the lantern about 175 feet high. The side walls are 47 feet high, while the center wing on the south will be 72 feet high, and both ends 54 feet, with a still higher projection in the center. On the north the Memorial Hall, which is to be fireproof, will form a wing 50 by 75 feet, while on the south will be placed the executive offices in a wing 75 by 123 feet, carried up three stories with a public hall in the third story. In addition to these offices there are to be others in each of the four corners for the departmental officers. The Memorial Hall will have a gallery. There will be a gallery around inside and outside of dome piers for viewing the exhibit hall. The building is to be embellished with fine carving and statuary, the material to be cast blocks of some approved composition. It is to be thoroughly lighted, first from the side windows, which are placed about fourteen feet above the floor to permit cases to be placed against the walls; second, with skylights placed in the flat roof of the side aisles; and, third, with continuous skylights on the ridge of a pitched roof or nave. Ventilation is provided for through windows placed a story above the flat aisle roof and the foot of the sloping roof over the nave. The interior of the structure is to be appropriately ornamented. It is thought that an elevator will run up through the center of the dome. If so, it is hoped to make it circular in form.

PHOTOGRAPHURE PLATES.

(Issued only to subscribers for the Photographure edition.)

Residence at Edgewater, Illinois. J. L. Silsbee, architect, Chicago.

Residence for Mr. D. Lentz, Cleveland, Ohio. Clarence O. Arey, architect.

Residence of Mrs. H. T. Greene, Pasadena, California. F. L. Roehrig, architect.

View in residence of Mr. George H. Lewis, Buffalo, New York. Marling & Burdett, architects.

Interior views, residence of Mr. R. T. Crane, Chicago. Charles S. Frost, architect. Three full-page plates illustrate the hall, dining room, parlor and library.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT, }
CHICAGO, March 15, 1891. }

The contractors, architects, builders and manufacturers of building material are expressing more favorable opinions just now as to the season's prospects, although there are some elements of uncertainty yet to be eliminated before definite opinions can be formed as to the probable extent and volume of this year's building operations. Yet it can be pretty safely asserted on the authority of those who know, or ought to know all there is to be known on the subject, that this season's volume will not fall behind last season's in the aggregate. In some of the larger cities, but by no means all, there will probably be somewhat less building of houses, but this falling off will probably be compensated for in the increased house building in the smaller cities and towns, especially in the western and southern states. It is also probable that there will be more shop and factory building done this year than last. Railroad companies will also be heavy buyers of material, equipments and supplies. The industries are quite generally in a healthy condition. The iron and steel makers, while reducing their output for the time being, anticipate a very good year. Manufacturers of building material, lumber, planing-mill products, farm equipments and general foundry and mill work are all fairly busy. Collections are difficult, but easier financial conditions are in sight. The government has recently disbursed \$30,000,000 in pensions. Western requirements, though not fully met by eastern lenders, are measurably met. Disturbing questions on financial legislation govern for future consideration. Meanwhile, the country will study the questions involved, and its opinion will probably be expressed in some future election in a way that will not admit of evasive action. From all quarters are what appear to be encouraging evidences of a general trade improvement. The railroads are making money. The farmers, though crowded, are still able to meet obligations. The great West is opening up new markets, and the whole country is keeping pace with the spirit of enterprise which has animated it for the year past.

Synopsis of Building News.

Baltimore, Md.—Architect W. H. Marriott: For the congregation of the Fourth Baptist Church, a brick and stone church; size 50 by 100 feet; two stories; cost \$10,000.

A committee has been appointed to examine plans for the rebuilding of the Masonic Temple. They will spend about \$125,000 on the building, which will be four stories. The advisability of building on a new site, instead of remodeling, is under consideration.

Buffalo, N. Y.—The spring season opens here very favorably, and work on new buildings promises to be very brisk.

Architect W. H. Boughton: For the Rev. H. A. Adams, a frame residence, to cost \$7,000; contracts not let. For Mr. E. Anderson, a two-story frame residence; cost \$6,500. Also has prepared plans for a frame chapel for the St. Paul's Parish Church.

Architect George J. Metzger: For Mayer & Wile, is preparing plans for additions and alterations to business block of stores and offices.

Architects Roberts & Balsam: For John Hamill, a three-story store and dwelling; size 20 by 60 feet; brick; cost \$8,000.

Canton, Ohio.—Architect I. Jay Knapp: For the Reymann Brewing Company, of Wheeling, West Virginia, a Casino at Meyers Lake, Canton; size 146 by 100 feet; brick and frame; steam heat, electric light, and all modern conveniences; cost \$25,000.

Chicago, Ill.—Architect J. E. O. Pridmore has just made drawings for remodeling large frame residence at Evanston for Mrs. Ward. The exterior will be entirely changed into the Colonial style; will put in new hardwood interior finish, plumbing, etc. For J. B. Sweatt, at Western Springs, he has just finished plans for a frame residence to have hardwood finish, laundry, furnace and all improvements. He is also working on drawings for a large block of four-story and basement stores, flats, large hall and office to be built on Forty-third street. Mr. Pridmore will move in April to 123-5 La Salle street, where he has engaged a suite of offices on the eighth floor. He will still keep his south side office for the convenience of his south side clients.

Architect Clinton J. Warren: For E. A. Bachelder, of the Southern Hotel, a ten-story hotel 161 by 125 feet; to cost \$400,000. It will be erected on the northeast corner of Twenty-second street and Michigan avenue, the first story will be of stone and above of pressed brick. It will be handsomely finished in hardwoods, marble and tile work, be of steel construction and thoroughly fire-proof, have three elevators, steam heat, electric light and all the modern improvements. The Oxford office building, which was designed by Mr. Warren, will shortly be completed and he will occupy a handsome suite of offices on the top floor. They were planned specially for his use and will be fitted up in a very complete manner. He will probably move the beginning of April.

Architect H. B. Wheelock: For R. E. Evans a block of two-story stores and flats corner of Thirty-fifth and Wallace streets, size 50 by 100 feet, of pressed brick, stone, iron and glass; cost \$15,000. For the same owner at Buena Park a two-story and basement residence to cost about \$10,000; size 30 by 50, frame, stone basement, hardwood interior, hot water heating and all improvements. For W. J. Jefferson, at 175 Monroe street, alteration and two-story addition. Bedford stone, and iron, freight and passenger elevators, steam heat, electric light, marble and tile work, steel beams and columns, gravel roof; cost \$20,000. Making plans for Dr. Franklin H. Martin on Lake Park avenue near Thirtieth court two three-story residences to cost \$22,000. They will have Bedford stone fronts, hardwood interior finish, hot water heating and all the sanitary and modern improvements.

Architect William Strippelman: For D. V. Purington et al., an eight-story apartment hotel, 110 by 127 feet in size, to cost about \$400,000. It will be built on the southeast corner of Michigan avenue and Thirty-fifth street. The front will be of Anderson pink buff pressed brick with stone and terra-cotta trimmings; the interior will be elaborately finished with marble and tile work, electric light, steam heat and the very best of sanitary arrangements. It will be of steel construction and thoroughly fire-proof. For Kohl & Middleton he is making plans for a theater to seat seven hundred people; also for remodeling present building.

For M. Clarkson, on Michigan avenue and Forty-ninth street, one two-story residence and one two-story flat building, to cost \$14,000. They will have stone fronts, hardwood interiors, furnaces and all the sanitary improvements.

For G. F. Gabbitt, a three-story and basement store and flat building, 46 by 70 feet in size, to cost \$16,000; to be erected corner of Madison street and Albany avenue. It will have a buff Bedford stone front and all the modern conveniences. For John Ault, on Calumet avenue near Forty-seventh street, a two-story and basement buff Bedford stone front residence, to have hardwood finish, furnace, etc., and cost \$8,000. For Mr. Mickel, on South Halsted street near Eighteenth street, remodeling building into stores and flats. For the Union Glass Company, corner of Butler and Thirty-eighth streets, a one-story warehouse of wood and corrugated iron; size 110 by 140 feet. For the Fulton Street Wholesale Company, a one-story addition of pressed brick and stone; size 80 by 252 feet; corner of Fulton and Peoria streets.

Architect D. H. Burnham: For the Columbian Vault Company at 120 Dearborn street, a sixteen-story office building of brown brick and brown terra-cotta front; size 84 by 90 feet; cost \$350,000. Making plans.

Architect G. W. Maher: For C. S. Johnson, a three-story and basement flat building, to have Connecticut brown stone front, all sanitary improvements and cost \$15,000. For J. J. Bryant at Riverside, a two-story basement and attic frame residence, hardwood finish, furnace, etc.

Architect Wesley A. Arnold: For F. P. Elliott, a two-story basement and attic residence, frame, stone basement, hardwood finish, hot water heating, etc.; cost \$12,000; to be erected at Oak Park. For John Q. Anderson, at Council Bluffs, a two-story basement and attic residence, 34 by 72 feet, of hardwood interior, furnace, etc.; to cost \$8,000. For F. P. Friedenhausen, on Clark street, remodeling; to cost \$6,000.

Architect Henry Sierks: For Kirtz Brothers and Buhner, a two-story foundry and additional story to old building.

Architects Burnham & Root: For Colonel John Hay, at Cleveland, Ohio, an eight-story office building; to be fire-proof, have steam heat, marble and tile work, electric light, pressed brick and terra-cotta front and cost \$200,000. Plans are completed and bids all in.

Architect H. B. Seely: For Judge Galbraith, of Erie, Pennsylvania, remodeling building northeast corner of Madison and Franklin; steam heat, electric light, marble and tile work, steel columns, etc.; cost \$50,000. He is also making plans for a four-story apartment house of pressed brick, stone and copper front, hardwood finish, hot water heating, etc., to be erected on Vernon avenue and cost \$30,000.

Architect Oliver W. Marble: For Barry Brothers, five Bedford stone front houses, 105 feet front, on Forty-first street and Grand boulevard; to have hardwood finish, slate mansard, steam heat and all improvements, and cost \$60,000. For same owners, on Grand boulevard and Forty-third street, two Bedford stone front houses; to have steam heat and all improvements, and cost \$25,000.

Architect Louis Martens: For Hopkins & McKillup, a block of four three-story residences, of Bedford stone fronts, copper bays, hot water heating, etc.; to cost \$30,000. For J. Rose, at 4308 Wabash avenue, a three-story flat building; to cost \$10,000. For George Axel, on Wells street near Chicago avenue, a four-story apartment building, 34 by 100 feet; to cost about \$20,000.

Architect Oscar Cobb: Making plans for remodeling the Ninth Street Theater at Kansas City; he will build a new stage, new auditorium with chairs to accommodate 2,500 people, put in steam heat, electric light, and make it into a first-class modern theater. He also made drawings for remodeling the opera house at Rockford, Illinois; he will put in new boxes, gallery, addition to the rear, steam heat, electric light, etc.; at a cost of \$20,000.

Architects Raeder, Coffin & Crocker: For Fraser & Chalmers, at Twelfth and Rockwell streets, manufacturers of mining machinery, twelve buildings; to cost about \$300,000. For the Grant Locomotive Company, on Robinson avenue between Twelfth and Sixteenth streets, Cicero, a complete plant for the manufacture of locomotives; the buildings will cover about thirty-three acres.

Architects Frederick K. Bauman and J. K. Cady: For E. P. Baker, a six-story cold storage warehouse, on Michigan street just east of State; pressed brick and stone front, electric light, etc.; cost \$25,000. They are also preparing plans for a handsome two-story basement and attic residence; to cost \$20,000; to be erected at Sheboygan, Wisconsin.

Architects Robbins & Charpie: For Harry R. Wysor, at Muncie, Indiana, a three-story business block and opera house, to seat fifteen hundred persons; pressed brick and stone front.

Architect J. M. Van Osdel & Co.: For Thomas Eckardt, a three-story apartment house, on Hampden Place; to have a Portage brown stone front, furnace heat, and cost \$24,000.

Architect George H. Boise: For August Semmeling, at Blue Island, a two-story store and flat building. For H. L. Spangenberg, at Ravenswood, a two-story frame residence. For Miles H. Carr, at Cuyler, a frame dwelling to cost \$4,000. For George Lomax, at Fox Lake, a summer cottage. He is also working on drawings for a four-story apartment house to have pressed brick and stone front, steam heat, etc.; to cost \$20,000.

Architect A. G. Ferree: For J. Swartwout, on Sixty-ninth street, Englewood, a three-story store and flat building, to have two fronts of Bedford stone, electric and gas lighting, freight elevator, furnaces and all improvements, and cost about \$50,000.

Architects Crowen & Richards: For T. V. Day, on Clark street, near Van Buren, a four-story theater, size 50 by 100 feet, of pressed brick and stone front, and have accommodation for eighteen hundred people. They will put in electric light, steam heat and all improvements; the cost will be about \$100,000.

Architect J. C. Zarbell: For W. C. Ritchie, on the southwest corner of Green and Van Buren, a six-story factory, 150 by 118 feet, of pressed brick and stone front, have steam heat, elevators, etc., and cost \$75,000. For Arnold Bros., on the northeast corner of Randolph and Union, a seven-story warehouse,

38 by 156 feet, of Anderson pressed brick and terra-cotta front, steam heat, elevators, electric light; cost \$50,000. For Carl Curtis, on Clark street, south of Chicago avenue, a four-story store and flat building, 40 by 100 feet, of Anderson brick and iron front, steam heat, etc., to cost \$25,000.

Architect J. J. Edgar: For Ishpeming, Michigan, a Catholic church, 110 by 50 feet in size, of stone all round and slate roof, in the Gothic style of architecture, to cost \$25,000. For C. Netcher, at 77 and 79 Madison street, two additional stories, to cost \$15,000. For St. Jarlath's Catholic school, a three-story addition of pressed brick and stone; also three-story residence for the Sisters. For six-story warehouse and stables, 90 by 114 feet, to cost \$65,000, to be built on State, near Fifteenth street; pressed brick and Bedford stone, steam heat, elevators, electric light, etc.

Architects Burling & Whitehouse: For Ryerson Estate, on Water street, between Fifth avenue and Franklin street, a four-story store, 50 by 80 feet, of pressed brick and stone, to cost \$20,000.

Architects J. F. & J. P. Doerr are making plans for a six-story hotel, 66 by 94 feet, of Bedford stone front, to be erected in Hyde Park and cost \$50,000.

F. B. Marshall has prepared plans for the Ashland Club annex, to be erected corner of Washington boulevard and Wood street. It will be 58 by 84 feet and a basement, and two stories in height. In the basement will be the bowling alleys, buffet and kitchen, together with the steward's apartments, toilet rooms, etc. On the first floor will be the billiard hall accommodating twelve tables, and the banquet hall, seating 175 persons. The second floor will contain the ballroom, 56 by 82 feet. It will have a stage at one end and a balcony supported from the roof trusses at the other. Over the entrance will be the musicians' gallery. The building will be constructed of stone and brick, with terra-cotta trimmings, and be heated by steam. It will cost \$25,000.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall:

The favorable indications for a busy season still continue. Never within the last five years in the opinion of, not only the writer, but of the profession, and trade also, such a prospective boom showed itself in the proportions of the one for this year. Architects are jubilant over the prospect of enjoying incomes never before realized, such as were mentioned in another journal a few months since. Tall stores will displace the atmosphere to the extent of eight and nine stories in height, while in the suburbs and on hill tops will be erected many truly beautiful residences. Cincinnati has the money to put into fine structures, but her people, until lately, have been satisfied in jingling the money from rents received from inferior tenements. Cincinnatians can be justly proud of their architects and builders, and they are beginning to appreciate their ability.

This list only partially tells the tale:

Architect James W. McLaughlin has drawn the plans for a magnificent stone mansion for Gen. A. T. Goshorn; materials, stone, slate roof, hardwood finish, mantels, furnace, plumbing, stained glass, and in fact all modern improvements; cost \$35,000.

Architect W. W. Franklin reports: For Mr. Henry Barth, Cincinnati, a residence; materials, pressed brick, stone, slate roof, pine finish, stained glass, plumbing, gas, mantels, electric bells, etc.; cost \$11,000.

Architect Theodore Richter, Jr., reports: For Mr. James Dalton, Price Hill, Cincinnati, two houses; materials, brick, slate roof, pine finish, plumbing, stained glass, etc.; cost \$6,000.

Architect Louis Pickett reports: For Mr. Leonard K. Beahr a store and flat building; materials, pressed brick, stone trimmings, elevator, iron work, hardwood finish, tin roof, mantels, plumbing, etc.; cost \$15,000. Also for the Catholic congregation at Madisonville, Ohio, a church edifice; cost \$11,000.

Messrs. Hannaford & Sons report: For the First German M. E. Church, a church edifice; materials, pressed brick, slate roof, hardwood finish, etc. For James M. Glenn addition to the office building Fifth and Rose streets, Cincinnati, six stories high; materials, pressed brick, tin roof, elevators, pine finish, steam heat, mantels, etc. Also plans for the Holroy flower market. Materials: brick, glass front, slate roof, etc.

Also busy on the working plans for the new I. O. O. F. Temple. Ground will be broken in April.

Architect Adam J. Bast reports: For Mr. Henry Fischer, two houses; materials, pressed brick, pine finish, tin roof, iron mantels, etc.; cost \$7,000.

Architect Jacob Rueckert reports: For St. John's German Protestant Church, Cincinnati, a parsonage; pressed brick, pine finish, blinds, stained glass, mantels, etc.; cost \$6,000.

Architect Joseph G. Steinkamp reports: For Thomas Emery's Sons, a flat building; materials, pressed brick, furnace, tin roof; gas fixtures, mantels, plumbing; cost \$10,000.

Architect L. B. Plympton reports: For James B. Daniels, Fifth and Race streets; materials, pressed brick, hardwood finish, slate roof, wood mantels, stained glass, plumbing, gas, etc.; cost \$12,000.

Architects Crapney & Brown report: Business good, the following being among the new plans being prepared by them: A large opera house and Masonic Temple, to cost \$25,000, at Richmond, Kentucky; materials, brick, tin roof, furnace heat, scenery, chairs, iron work, pine finish. At Georgetown, Kentucky, the Baptist congregation will build a handsome brick church, with slate roof, pine finish, etc.; cost \$15,000.

Architects Des Jardins & Hayward are engaged on the plans for an addition to Miss Bauer's Conservatory of Music; size 32 by 88 feet, five stories high; materials, brick, terra-cotta, stone, tin roof, pine finish, etc.; cost \$15,000.

Besides the plans above named, are several for houses costing from \$2,000 to \$4,000.

Cleveland, Ohio.—Architect A. Koehler: For H. H. Reves, a four-story dwelling, stone and frame; size 34 by 63 feet; cost \$6,000; J. F. Gill, builder.

Architect W. H. Dunn: For the Board of Education, three three-story school buildings; size 76 by 32 feet, 76 by 110 feet and 76 by 32 feet respectively; brick and stone, at a cost of \$54,000, \$65,000 and \$54,000.

Architect W. P. Rice: For the Cleveland League Base Ball Association, grand stand; size 90 by 40 feet, to cost \$5,000; M. Moore, builder.

Mr. J. A. Lannett will erect a two-story residence; size 40 by 53 feet; stone and frame; cost \$4,000.

Three hundred permits issued during February; \$407,946.

Detroit, Mich.—Architects A. C. Varney & Co.: For Bernard Wilds, a block of four three-story brick residences, stone trimmings, slate and tar roof, size 75 by 64 feet, furnace heated; cost \$140,000. Also for E. G. Brewer, Marshall, Michigan, a two-story brick residence, stone trimmings, slate roof, cost \$5,000.

Architect Peter Dedericks: For Thomas Zoltowsky, a two-story brick brewery on Hastings street; size 55 by 44 feet; cost \$10,000. For Messrs. Ekhard & Becker, additions to brewery of brick with stone trimmings, size 40 by 50 feet; cost \$10,000. For Conrad Clippert, at Debray, Michigan, three two-story brick stores and flats; cost \$8,000. For Henry W. Rickel, a double residence block on Montcalm street; pressed brick and artificial stone trimmings; cost \$8,000.

Architect H. J. Rill, who has moved into his new office rooms, 49 and 50 Buhl Block: For Our Lady of Help Roman Catholic Church, additions to school on Elmwood avenue; three stories, brick, at a cost of \$10,000.

Architect Joseph E. Mills: For L. M. Brackett, at Rochester, Indiana, a two-story frame residence; cost \$5,000.

Architects Malcombson & Higginbotham: For the Central Church of Christ, rebuilding church burnt about a month ago, at a cost of \$250,000. For Lennam Brothers, a saloon building; pressed brick with stone trimmings, at a cost of \$10,000. For William A. Pungs, a three-story brick residence on Park street with cut stone trimmings, to cost \$6,500. For Mrs. Agnes Inglis, a two-story brick residence on Garfield avenue; to cost \$5,000.

Architects Hess & Raseman: For the Detroit Gas Light Company, additions and alterations to building on Congress street; pressed brick and cut stone trimming; to cost \$10,000.

Architect George W. Meyer: For William Huston, a two-story residence on Congress street; cost \$6,500.

Architects Mason & Rice are preparing plans for Scripps Brothers for an eight-story office building to be occupied by the Detroit Evening News, Tribune and Dime Savings Bank, etc., to cost about \$350,000.

Architects E. C. Van Leyen and J. A. Haskett: For Robert Cousin, a two-story double frame residence on Baltimore avenue; size 26 by 60 feet; to cost \$5,000. For John Bilger, a three-story store and flat building on Grand River

avenue; size 20 by 60 feet; cost \$8,000. For George W. Chase, a three-story double brick residence; size 40 by 64 feet, slate roof; cost \$9,000. For Mrs. E. J. Watkins, a two-story residence; size 28 by 50 feet; cost \$5,000.

Kansas City, Mo.—Architect James Bannon: For Mrs. Mary Lick, brick dwelling, on Jefferson between Seventeenth and Eighteenth streets; cost \$7,000. Also for Messrs. Oglebey & Jones, a brick store and office building bounded by Independence and Missouri avenues and Walnut street, 72 by 125 by 127 feet, seven stories; cost \$125,000; all latest improvements. This building will contain 125 rooms, stairs, wainscoting and floors of marble; there will be a court in the center of the building 26 by 60 feet in size.

Architect J. J. Squire: For himself, brick business block at 1228 and 1230 Union avenue, 48 by 120 feet, two stories, all modern improvements; cost \$14,000.

Architect H. J. Simms: For P. S. Giddy, brick apartment house at Twelfth and Jefferson streets, four stories, 84 by 120 feet; cost \$65,000; all the latest modern improvements.

Architects' names not reported: For W. E. Minor, frame residence, 2504 Harrison street, 33 by 52 feet, two stories; cost \$4,000. For J. A. Cosby, a brick residence, Twenty-eighth and Penn streets, 22 by 54 feet, one story; cost \$2,500. For B. F. Dukes, brick business block at southwest corner Fifteenth and Olive streets, 22 by 60 feet, three stories; cost \$2,500.

The Husted Investment Company of Kansas City, Kansas, will soon let a number of contracts for brick and frame residences in the suburbs of Kansas City, Kansas, and in Chelsea Park in particular. All information will be supplied by W. W. Woods, architect, Husted building, Kansas City, Kansas.

Little Rock, Ark.—Architects Rickon & Thompson have prepared plans for a slate factory for the Southern Slate and Lumber Company, to cost \$25,000. For the Capital Street Railway, a new power house, to cost \$25,000. For J. W. Taylor, at Pine Bluff, a residence, to cost \$3,500.

Louisville, Ky.—Architects Clark & Lumas: For Mr. J. F. Krieger, a three-story residence, size 35 by 56 feet, on Third street; brick with stone trimmings, metal roof; cost \$11,500. For Mr. James Badge, a two-story residence on Oak street near Second street; size 23 by 46 feet; brick with stone trimmings; cost \$3,600.

Architects Drach & Thomas: For Mr. Ed. Kessler, a two-and-one-half-story residence on Jefferson street near Sixteenth street, brick; to cost \$8,500. For Thomas Graff, a store and flat building, to cost \$7,000. For Thomas Conrad, rebuilding residence on Broadway; cost \$3,500.

Architects Maury & Dodd: For St. John's Episcopal Church, a brick and redstone church on Twelfth and Jefferson streets; seating capacity 500; slate roof; cost \$18,000. For the congregation of the Presbyterian church, a stone and brick church and Sunday-school with class rooms; cost \$30,000.

For Miss Mary Lahn, a three-story brick residence, size 40 by 65 feet, slate roof, stone trimmings, to cost \$14,000. For the Nelson County Commissioners, a brick and stone court house at Bardstown, Kentucky; size 65 by 70 feet, fireproof throughout; to cost \$30,000. For George Newman, a three-story residence, size 39 by 60 feet, blue limestone front, slate roof; cost \$13,000. For C. L. Robinson, a three-story brick and stone residence, size 35 by 70 feet, slate roof; cost \$15,000. For Cabell Hall, a two-and-one-half-story brick and stone house, size 30 by 50 feet, slate roof; cost \$7,500. For J. F. Bullett, Jr., at Big Stone Gap, Virginia, a two-story frame house, shingle roof; cost \$5,000. For S. Carl Ashbrook, a three-story residence, brick and stone, slate roof; cost \$14,000. For T. A. Lyons, a two-story brick residence and stone trimmings, size 30 by 40 feet, slate roof; cost \$5,000. For the California Fig Syrup Company, a five-story brick building, size 65 by 65 feet, slow burning construction, asphalt roof; cost \$18,000.

Meriden, Conn.—Architects Tolan & Riedel, of Fort Wayne, Indiana, have prepared plans for the Evangelical Lutheran Congregation for a brick and stone church to cost about \$30,000. Contracts not let.

Minneapolis, Minn.—Architect H. G. Carter: For Mr. L. Hayes a five-story block of stores; cost \$25,000.

Architect C. F. Struck: For Mr. Erick Lund, a three-story apartment house, brick and stone; cost \$25,000.

Architect F. A. Clark: For Messrs. Peterson & Lofgren, a three-story apartment house; cost \$20,000.

Milwaukee, Wis.—Architects H. C. Koch & Co. are preparing plans for the new government building subject to the approval of the supervising architect's office. The building will cost about \$2,000,000.

The Builders' and Traders' Exchange have organized a distinct company to push their new building project ahead which they expect to put up this year.

Architect F. Velguth: For Mr. H. G. Tess a two-story business block; cost \$9,000.

Architects Ferry & Clas: For Mr. Frank Beals, a two-story brick residence; cost \$10,500. For Mr. A. C. Zinn, an \$18,000 residence. For the Unitarian Congregation, a \$30,000 church.

Omaha, Neb.—The Omaha Club will erect a large new club house at a cost of about \$100,000. Work to be begun at once.

Pittsburgh, Pa.—Architect George S. Orth has prepared plans for the Memorial Public Hospital at Johnstown, Pennsylvania. The building will be of brick and stone; cost \$50,000.

Architect Fred Sauer is preparing plans for a residence for Mr. Oswald Werner, stone and two stories, with all modern conveniences.

Architect Charles Bickel: For Messrs. Davis & Watson a four-story flat building.

St. Paul, Minn.—Architect A. H. Haas has prepared plans for a three-story store and office building 25 by 100 feet; cost \$20,000.

Architect John H. Coxhead: For Prof. D. F. Colville, a residence, Colonial style, hardwood finish, mahogany, sycamore, birdseye maple and oak; cost \$10,000. For Mr. Brand, at Highwood, Minnesota, a \$5,000 residence; also a college building for the Northwest German Conference, at Charles City, Iowa; pressed brick, white stone trimmings; cost \$30,000.

St. Louis, Mo.—Plans are being prepared for a monastery and academy building. It is to be of brick, four stories, and to cost about \$150,000.

J. T. Lowergan is erecting a one-story brick kindergarten; cost \$5,000.

Miss S. Stephen will erect this spring a two-story flat building, brick; cost \$6,500.

Mr. E. Gemeide will build a \$11,000 brick church; contractor, J. H. Remmers.

Mr. L. A. Bowlin will erect a two-story brick dwelling on Ewing avenue, at a cost of \$7,000.

Salt Lake City, Utah.—Architects Thompson & Weigh: For O. L. Davis, the Teluride block; cost \$50,000.

Architect M. Monheim: For A. B. Alexander, three stores; cost \$25,000. For E. M. Briggs, business block; cost \$50,000.

Architects Carroll & Kern: For the Jennings Estate, remodeling storehouses; cost \$20,000. For Warm Springs Improvement Company, remodeling sanitarium, with all latest improvements in baths, etc.; cost \$25,000. For J. S. Brexten, residence, brick and stone; cost \$10,000.

Architect R. Kletting: For N. W. Clayton, residence, pressed brick and stone; cost \$14,000. For L. Mathews, American Fork, Utah, residence; cost \$5,000. For B. Mathews, Provo, Utah, two residences; cost \$8,000. For G. L. Dusenbury, Provo, Utah, residence; cost \$6,000. For R. Kletting, residence, pressed brick and stone; cost \$6,500.

Architect F. A. Hale: For Mr. Davis, residence, pressed brick and stone, complete with all modern improvements; cost \$14,000.

Architects Dallas & Hedges: For A. B. Brooks, store and office building, with all modern improvements; cost \$45,000.

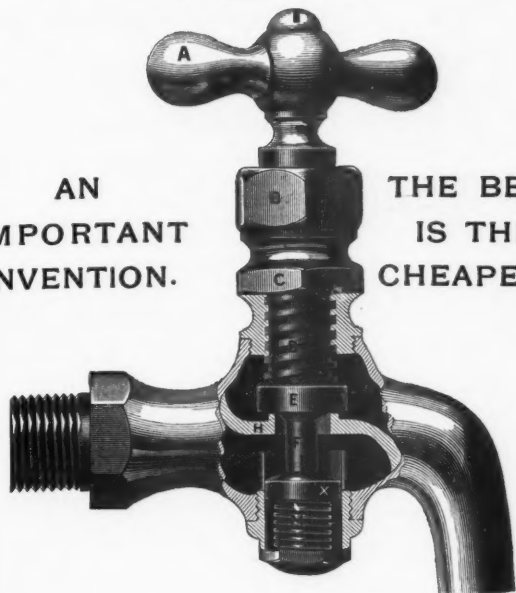
Architect Keiler: For B. C. Burke, four stores, brick and stone; cost \$40,000.

Owing to the uncertain weather little work has been done for the past two months, but there are evidences of "genial spring" now, and building materials are again beginning to line the streets. Although great improvements have been made here within the past year in the matter of facilities for building operations, there yet remains a number of items required in building not represented, and which would find a good field here.

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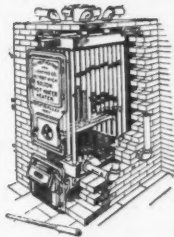
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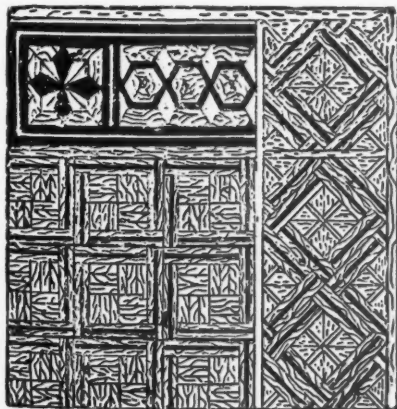
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BRANCHES: } ST. LOUIS, KANSAS CITY,
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A SHORT

HISTORY OF ARCHITECTURE.

By ARTHUR LYMAN TUCKERMAN.

Conveying in concise form the history of the great
distinctive styles, in their origins and growth, and in
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Illustrations by the Author.

Price, - \$1.50.

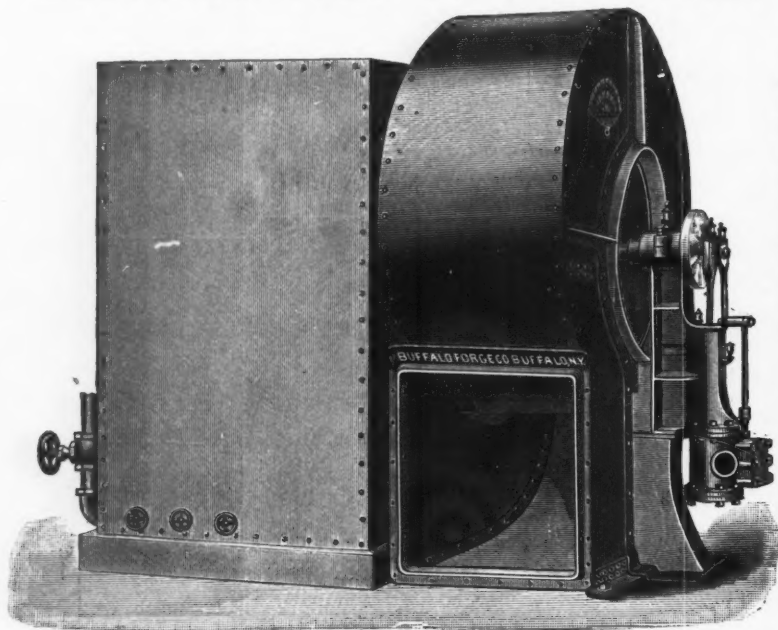
INLAND PUBLISHING COMPANY,

19 Tribune Building,

CHICAGO, ILL.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

BUFFALO HOT BLAST APPARATUS.



For Heating, Drying, Ventilating and Cooling.
Steam Fans, Ventilating Fans, Exhaust Fans, Steel Plate Fans,
Blowers of all Descriptions.

SPECIAL CATALOGUE AND FULL INFORMATION ON APPLICATION.

BUFFALO FORGE CO., BUFFALO, N. Y.
Chicago Office, Room 1306 Auditorium Tower, CHICAGO, ILL.

PATENT IMPROVED VENETIAN BLINDS

ARE THE MOST

ELEGANT AND ECONOMICAL

Ever brought before the public. Have been put in the following buildings with

MARKED SUCCESS:

The Chicago Auditorium Building, Chicago.
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The Morton Apartment Building, Chicago.
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Board of Education,
And other Buildings.

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510 & 512 Tacoma Building, CHICAGO, ILL.

DE GOLYER'S ROCK FINISH,



FOR FINISHING AND PRESERVING NATURAL WOOD.

Presenting a very hard surface of **PERMANENT ELASTICITY**, impervious to moisture or Alkali. The **ONLY** material suitable for varnishing hardwood floors.

No. 1 EXTERIOR. For Outside Doors, Vestibules and Store Fronts, in rubbed or polished finish.

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THE WATTS De GOLYER COMPANY, CHICAGO.

The Gardner Steel Ribbon Pulleys and Attachments

FOR SASH HANGING.

ABSOLUTELY THE BEST AND MOST ECONOMICAL METHOD IN HANGING WINDOW SASH IN THE MARKET.

GARDNER PATENTS.

The Steel Ribbon used is expressly manufactured for Hanging Window Sash, and is especially prepared to prevent rust.

It is attached to the Sash and Weights the same as a Cord or Chain.

It cannot get out of order or wear out, and being a perfect balance, heavy windows can be raised or lowered with the greatest ease.

It presents a neat appearance and can be painted same color as woodwork of the window.

With it any window or door weighing from 5 to 5,000 lbs. can be hung in the most perfect manner.

IN USE IN THE FOLLOWING BUILDINGS IN NEW YORK, CHICAGO, ST. LOUIS AND BOSTON:

New New York Edison Building, J. L. Mott Iron Works, New York Evening Mail and Express, New York Public Schools, New Astor Hotel, Harlem, New York; New Municipal Buildings. First National Bank, Chicago; Adams Express Building, American Express Building, Rialto Building, C. B. & O. Railroad Office Building, J. V. Farwell's Buildings, New Depot Wisconsin Central, Illinois Steel Co's, Leiter Building, and a large number of others.

THE GARDNER SASH BALANCE CO., 311 First National Bank Building, CHICAGO, ILL., Aug. 19, 1890.

GENTLEMEN,—After a careful study of the qualities of your Sash Pulley and Steel Ribbon, and comparing the same with other methods of hanging sash, preference was given to your pulley and ribbon for the sash of the Leiter Building, State, Van Buren and Congress Streets. This building is over 400 feet long, eight stories high, and being designed for a retail store or stores, the windows are exceedingly large, mostly from 6 to 8 feet wide, and those of the second story some 12 feet high. The sash for such openings require the very best cord and pulleys. Good pulleys can be obtained by paying for them, but I was unable to find as good a pulley as yours at the price you charged us. The question of cord, chain or ribbon is a serious one where windows are as heavy as those in the Leiter Building, and it was only after the most thorough examination, with the assistance of an expert to visit the place where the ribbon was in use, that the question was decided and the contract was awarded to you.

Very respectfully,

W. L. B. JENNEY, Architect, Home Insurance Building, Chicago.

SAMPLES SENT ON APPLICATION.

GARDNER SASH BALANCE COMPANY, . . . 311 First National Bank Building, CHICAGO, ILL.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

THE INLAND ARCHITECT AND NEWS RECORD.

Vol. XVII.

ADVERTISERS' TRADE DEPARTMENT.

No. 2

The Sturtevant System of Heating and Ventilating.

The necessity of mechanical ventilation in all cases where positive action is required is becoming more keenly felt every day, and the fan is accepted as the only economic means of ventilating. If, in conjunction with the ventilating system, the heating system can also be operated, there is not only a marked saving in expense, but the combination gives a maximum efficiency of both.

To meet the requirements, and at the same time reduce the cost to a minimum, the B. F. Sturtevant Company has for years manufactured what is known as the Sturtevant Steam Hot Blast Apparatus, consisting of a steel pipe steam heater and a fan and engine. The heater is constructed upon a series of cast-iron sectional bases into which are screwed vertical rows of steel pipe connected at the top by cross pipes. The fan is specially designed for handling large volumes of air at a minimum expense of power; the engine is of the best type and capable of continuous running.

The outlet of the fan may be connected with ducts communicating through flues with the various rooms, the general practice being to deliver the air through registers in the inner partition walls of buildings at about eight feet above the floor, whence it passes to the outer wall, is slightly cooled, falls, and returns along the floor escaping through ventilating registers at the floor level. The peculiar advantages of the system consist in the much reduced amount of heating surface required, the positive ventilation and heating of the apartments, the removal of all steam pipes from the rooms, and placing the entire system under the control of a single person. As the air is delivered to the room under a slight pressure, a similar pressure is created within the room, causing the leakage to be outward, and making the circulation of the air positive and not dependent upon the direction of the wind or the condition of the weather. The entire heating surface is inclosed in a steel plate jacket, connected with the fan so as to render it fireproof, and the steam piping is so arranged that a single valve controls the admission of steam for the heating of the entire building.

As great economy can be obtained in the case of brick flues, by building these directly into the walls, instead of constructing them of tin or galvanized iron, it is very desirable that the introduction of this system be decided upon before the building is erected.

The above named company is always ready to submit its estimates upon the heating and ventilating of buildings, before the contracts for their erection are made. It is then possible to work in conjunction with the architect so as to secure a simple arrangement of the flues, and have them appear in the original plans and form a part of the original builder's contract. Any information regarding this system will be cheerfully given by the B. F. Sturtevant Company, Boston, Massachusetts.

Gaining in Popularity.

There are a number of meritorious plumbing devices on the market somewhat if not wholly familiar to the architectural profession, not all of which have been tested in their practice. Of course where there are so many it cannot be expected any architect will go out of his way to experiment on their claimed merits, but it would seem that such as carry the credentials of worth on their face, as it were, ought to receive proper consideration and undoubtedly they do. It is with this thought in mind we without disparagement of others, call attention to the Broughton self-closing cock made by the E. Stebbins Manufacturing Company of Springfield, Massachusetts, a specialty that has been steadily gaining in popularity since its introduction five years ago, that those who have not considered it in their specifications may do so. The name implies the peculiarity of the device as well as the convenience such an arrangement must be wherever water is used from piping.

The Bailey Reflector.

Architects who have to specify the lighting apparatus for churches, halls, opera houses, etc., will be interested in the advertisement,



which appears in this number, of "Bailey's Compound Light-Spreading Reflector." It is designed on the cone principle common to good reflectors, with the addition of a light-spreader adjusted on an angle with the cone that is said to double the volume of light and to distribute it to the farthest corners of the room. The cut accompanying the advertisement

shows this apparatus to be highly ornamental as well as useful. One of the chief claims, supported by abundant testimonials, of this device, is the permanency of the silvering back of the glass which is proof against the action of heat or water.

A New Spring Hinge.

Van Wagoner & Williams Company, of New York City, are putting on the market for



this season, a new spring hinge, "The Hero No. 6," of the holdback variety, as illustrated herewith. It is claimed for this hinge that it is neat in appearance, easily applied and is stronger than any other hinge of this class in the market. Besides the Hero, they manufacture several other styles of hold-back and plain

spring hinges for screen doors, and illustrate them in an eight-page circular which they will send on request.

In these columns we have on several occasions called attention to the Gardner steel sash ribbon, pulleys and attachments, and commended them to the favorable notice of architects, builders and house owners, for the reason that they provide a neat, simple, stable and perfect way to hang window sashes and doors. It is unnecessary at this time to describe the peculiarity of this hanging compared with cord hangings, other than to say it is a ribbon made of steel of a tensile strength equal to 100,000 pounds to the square inch, running on a pulley made expressly to receive it and provided with a simple weight attachment. A good idea of the hanging may be had by referring to the cut in the advertisement of the manufacturers, which appears in this journal. The object of this reference is to state the fact that it is being introduced into quite a number of notable buildings by prominent architects in Chicago, New York, St. Louis, Minneapolis, Kansas City and most of the other cities of the Union as well as by office and house owners who are substituting it for other methods that have failed to give satisfaction. It appears to meet with general approval among architects wherever it has been presented and all the indications are that the manufacturers have a good thing, not only in the hanger itself, but in the very large demand being made upon them for supplies. The company have just issued a neat catalogue illustrating and describing their improvements and giving some of the many testimonials they have received. Send for a copy.

De Golyer's Rock Finish.

This is a valuable article for all wood. Inside or outside finishing. Superior in hardness and toughness; which dries on wood like a cement and will produce a smooth and very durable surface. It may be said with confidence that this is a finish that is impervious to the action of the atmosphere or moisture of any kind and will stand the influence of alkali. It has been adopted by architects throughout the western country and from all reports this varnish does all that is claimed and fills all requisites to perfection. Several buildings in Chicago have been finished with the Rock Finish and it has stood the test and proved satisfactory.

It has also lately been largely adopted in New York City, Philadelphia and the East and all who once use it commend its permanent qualities. The trade in the finish extends throughout the country and is of much magnitude and importance. The success of the Watts De Golyer Company has been achieved by adherence to the principle of commercial honor and integrity in all their transactions. From the inception of this enterprise down to the present time this house has been consistent in its determination to excel in every detail of manufacture, and to this fact may be ascribed the prominence this Rock Finish has attained; and the name De Golyer has become recognized as synonymous with the highest excellence in varnish. Architects will do well to specify this finish in their contracts. The company will send their new album of finished woods and price list on application.

Trade Notes.

SAMSON CORDAGE WORKS are to remove on April 1, next, to new offices at 115 Congress street, Boston.

ON April 1, the Joseph Dixon Crucible Company, of Jersey City, New Jersey, will begin the erection of new and handsome offices three stories high on a newly purchased lot 100 by 25 feet. They are in the market for improved equipments that will increase office convenience and generally facilitate their enormous and rapidly growing business. Their present offices will be used for factory purposes together with a new addition 100 by 100 feet, four stories high.

THOSE interested in vitrified sewer and water piping, vitrified paving brick, fire brick and all fire clay products may not be aware that one of the most extensive establishments in the United States, where all these products are turned out in almost unlimited quantities, has its headquarters located at Pittsburgh, Pennsylvania, under the unified name of The United States Fire Clay Company and Ohio Sewer Pipe Company. The standing of these companies' great plant, located in Columbiana county, Ohio, and the appreciation of its product, is epitomized in the fact that it takes nearly 7,000 cars to carry away the output of a year.

THE Shields & Brown Company, New York and Chicago, manufacturers of non-radiating, sectional boiler and pipe coverings, etc., have just issued a neat descriptive pamphlet of their goods that ought to be read by all steam users and house owners who have piping of any kind subjected to and affected by heat or cold. These coverings are made of felted wool, and of confirmations to suit all sizes of piping, elbows, ties, valvings, etc. Wool is known to be a non-radiant and as well a good safeguard against the penetration of cold, hence the wide field of usefulness that has been found for this peculiar adaptation of its established properties. The many users of these goods by their testimonials, confirm all the company claims for them, i. e., easy of application, non-charring, non-expansive, non-conducting, non-disintegrating, durable and comparatively inexpensive as to first cost and a money saver in every instance. The company cautions against worthless imitations.

ADVERTISERS' TRADE DEPARTMENT—Continued.

Fireclay and Terra-Cotta Tiling.

The introduction of fireclay and terra-cotta tiling in building construction marked an important departure from old-time methods and may be said to be the most noteworthy that has occurred in the domain of architecture within the last decade. Undoubtedly it has given an impetus to steel and iron construction that could not have existed without its joint copartnership, since it comes to the rescue as a protector of those materials at their only vulnerable point as building materials—their defenselessness against the action of fire, and thus makes possible what architects before had been hopelessly striving for—a fireproof building. That the use of this invaluable material is only at the incipient stage is obvious. The fact that it affords the opportunity to make the homes of the people more wholesome by insuring dry walls, not to speak of its non-combustible nature, is sure to extend the area of its adoption, so that ere long it will be an odd sight to see any building under process of erection where hollow tiling does not have a respectable representation among the materials for its construction. There are already a number of extensive manufactories of these tilings, each doing a large business, which shows how rapidly this era is approaching. To what extent progress in the manufacture has reached, one has only to take up a descriptive catalogue of a company like, for instance, the Empire Fireproofing Company. Reference to such a source will show these hollow tilings are now made for flat and segmental arches of different lengths, partitions of various thicknesses, wall furrings, girder coverings, column coverings, ceilings, roofs, chimney linings, etc., while among other concomitant fireproof material is listed fireclay stove piping, including elbows, chimney tops, ventilators and similar wares. That these may be added to as experience discloses the necessity for them, note is made that the facilities are of a character to meet whatever the architect may send his designs for.

This all goes to show the stay of this important discovery is not ephemeral but permanent.

Model Motive Power.

The Baltimore & Ohio Railroad Company has recently placed in service on its fast trains between New York, Philadelphia, Baltimore and Washington, three new engines which are doubtless the finest and fastest ever built in this country. These new flyers have driving wheels 6 feet 6 inches high and cylinders 20 by 24 inches. The large cylinders give them tremendous power and the high drivers protect the machinery from the rack and strain incident to driving smaller engines at great speed. There is practically no limit to the speed to which these new marvels may be driven and they skim over the rails as smoothly as a swallow over a lake.

Another recent addition to the motive power of the company is a consignment of eight powerful, ten-wheel passenger engines, designed for service on the mountain divisions. These are the heaviest ten-wheel engines ever constructed, weighing 67½ tons. They have driving wheels 6 feet 2 inches high and cylinders 21 by 26 inches. One of these machines performs the work heretofore requiring two of the ordinary class and they take the heavy through express trains up the mountain grades quickly and with perfect ease.

The Mount Clare shops of the company have recently completed an order for ten switch engines of the highest type, and sufficiently powerful to make up a train equal to the full drawing power of a consolidation freight engine; also three new heavy eight-wheel passenger engines, having driving wheels 5 feet 8 inches, and cylinders 20 by 24 inches. These engines are now doing excellent work; they are very powerful and susceptible of great speed.

In addition to the foregoing the company has now under construction at its Mount Clare shops ten powerful ten-wheel engines designed for fast freight service and for heavy passenger trains on occasion, also twelve consolidation freight engines of great power.

These additions to its motive power are in line with the other great improvements constantly being made in the general betterment of the Baltimore & Ohio property by its present management, which have been noted by the press from time to time, and the rapid augmentation of the passenger traffic of the company indicates that the public is quick to recognize the present and constantly increasing efficiency of its train service.

Trade Notes.

THE contract for the three Georgia marble fronts of the Equitable Insurance Building, erecting at Atlanta, Georgia, Burnham & Root, architects, has been awarded to Bagley & Nason, of this city.

A FINELY illustrated 200-page general catalogue of blowers, heating and drying apparatus, portable forges, engines, etc., has just been issued by the B. F. Sturtevant Company, Boston, Massachusetts.

THE National Hot Water Heater Company announce that they have secured commodious quarters at 94-96 Centre street, New York, where they will have on exhibition a full line of the celebrated "Spence" hot water heaters. Steamfitters, architects, and all interested in the subject of heating by this system are invited to call. Competent engineers will cheerfully furnish estimates and working drawings of the complete apparatus to steamfitters regularly established in trade.

THE American Art Marble Manufacturing Company have been succeeded by the Art Marble Company, with office at No. 717 Phenix building, Chicago. The officers of the new company are W. P. Williams, president; Samuel W. Allerton, vice-president; W. C. Bowman, secretary; Hermann C. Leichsenring, superintendent. The growing demand for scagliola made it necessary for the old company to enlarge its facilities and resources. The present company is strong enough to carry out any contract.

At a meeting of the stockholders of the Multiple Speed and Traction Company, held in the Rookery Building, Chicago, March 9, the following officers and Board of Directors were elected to serve for the term of one year: President, A. P. Gilmore; first vice-president, O. Chanute; second vice-president, J. L. Silsbee; secretary, Max E. Schmidt; treasurer, F. W. Gookin; directors, A. P. Gilmore, O. Chanute, J. L. Silsbee, Max E. Schmidt, W. F. White, W. E. Furness, D. L. Barnes, Max E. Schmidt was appointed manager and chief engineer, and J. L. Silsbee registrar of stock.

RECENTLY the Chicago dailies in their court reports mentioned the fact that the business and plant of the "Wight Fireproofing Company" had been placed in the hands of a receiver. A wrong impression may get abroad from this circumstance and the idea obtain that all operations have been stopped. This is not the case, and the object of this notice is to afford the former patrons and public generally the information that the receiver is carrying on the business in every respect as if there had been no occasion for his being in charge, consequently orders will be as promptly filled as heretofore and customers requiring fireproofing materials of any characters need not hesitate to make them. By reference to an advertisement in this number the above statement will be found sustained.

ATTENTION is called to the new face in this number. James B. Scott & Co., the well-known Pittsburgh importers of tin plate, have put on their advertisement. In a few words of unmistakable meaning it epitomizes the whole story of the excellence, superiority and distinctive difference of the "Scott" brands of roofing tin. It is an old and truthful saying that the lowest priced things are often the dearest, and Messrs. Scott & Co., emphasize the "saw" by the declaration, in regard to their special wares, that "the highest priced is the best." However opinions may differ as to the quality and character of the several brands of roofing tin on the market, one thing is certain, none have higher testimonials from experts, builders and architects, than this firm.

It does no harm to jog a man's memory once in a while, even if it is in calling up a familiar matter. Most architects are posted and can locate the leading stained and art glass manufacturers, but to refresh their memories are obliged to refer to their catalogues and price-lists to get at their standing and specialties when certain needs are to be filled. For this reason we remark that one of the most complete illustrated and descriptive catalogues that has reached THE INLAND ARCHITECT table is from the well-known Philadelphia house of R. S. Groves & Steil, and as their lines cover the whole field of art stained glass, including groups, figures, ornamental and geometric windows for churches, public buildings and dwellings, it is a good thing to have for ready reference in every architect's office. Make a note of it.

It may not be uninteresting to the patrons of this journal, who cannot have failed to notice the uniform excellence and beauty of the paper on which it is printed, that it has been supplied by the well-known paper firm, Geo. H. Taylor & Co., Chicago, who have unsurpassed facilities in that particular line of business. They have, through an increased pressure of patronage, been compelled to move from their old quarters, No. 184 Monroe street, to a more commodious warehouse, Nos. 207 and 209 Monroe street—nearly opposite the old stand—which gives them not only greatly increased storage room, but we are inclined to think one of the handsomest paper warehouses in the country. To meet their rapidly growing trade they will materially increase the size of their stock, which will be equal to any in quality and variety.

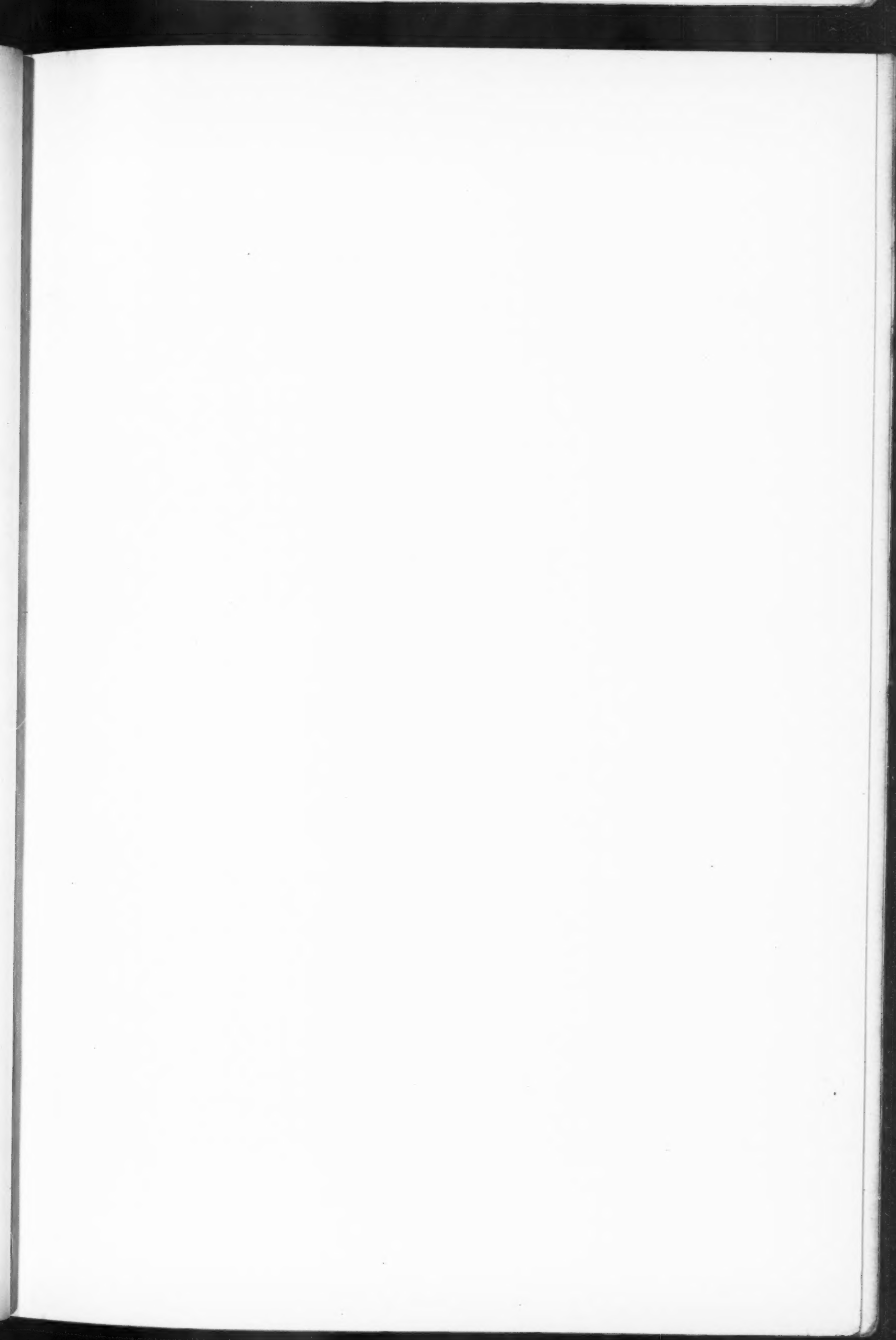
THE following announcement is noteworthy: **DISSOLUTION—THE COPARTNERSHIP** heretofore existing between Fred Adee and Benj. C. Smith, under the firm name of Fred Adee & Co., and doing business at No. 90 Beekman street, New York City, is this day dissolved by mutual consent, Benj. C. Smith retiring. The business will be continued under the same firm name by Fred Adee, who alone is authorized to sign in liquidation.

FRED ADEE.
BENJ. C. SMITH.

March 2, 1891.

It gives us great pleasure to note the fact that in the dissolution of copartnership between Fred Adee & Co., Mr. Adee, the senior member of the firm, will continue the business and remain in the field of his active usefulness. Mr. Adee is one of the foremost pioneers, both as manufacturer and dealer in the general sanitary goods line. More than that, he is the inventor and patentee of some of the most improved devices in sanitary specialties. He has been a great many years established in his special line and his business has grown and prospered until his goods are known and used in every part of the Union. We hope his name may long remain in the merited prominence it has always held among his worthy competitors, and that whatever changes, by their own election, may come to the firm, as a firm the name of Fred Adee will be always on top.

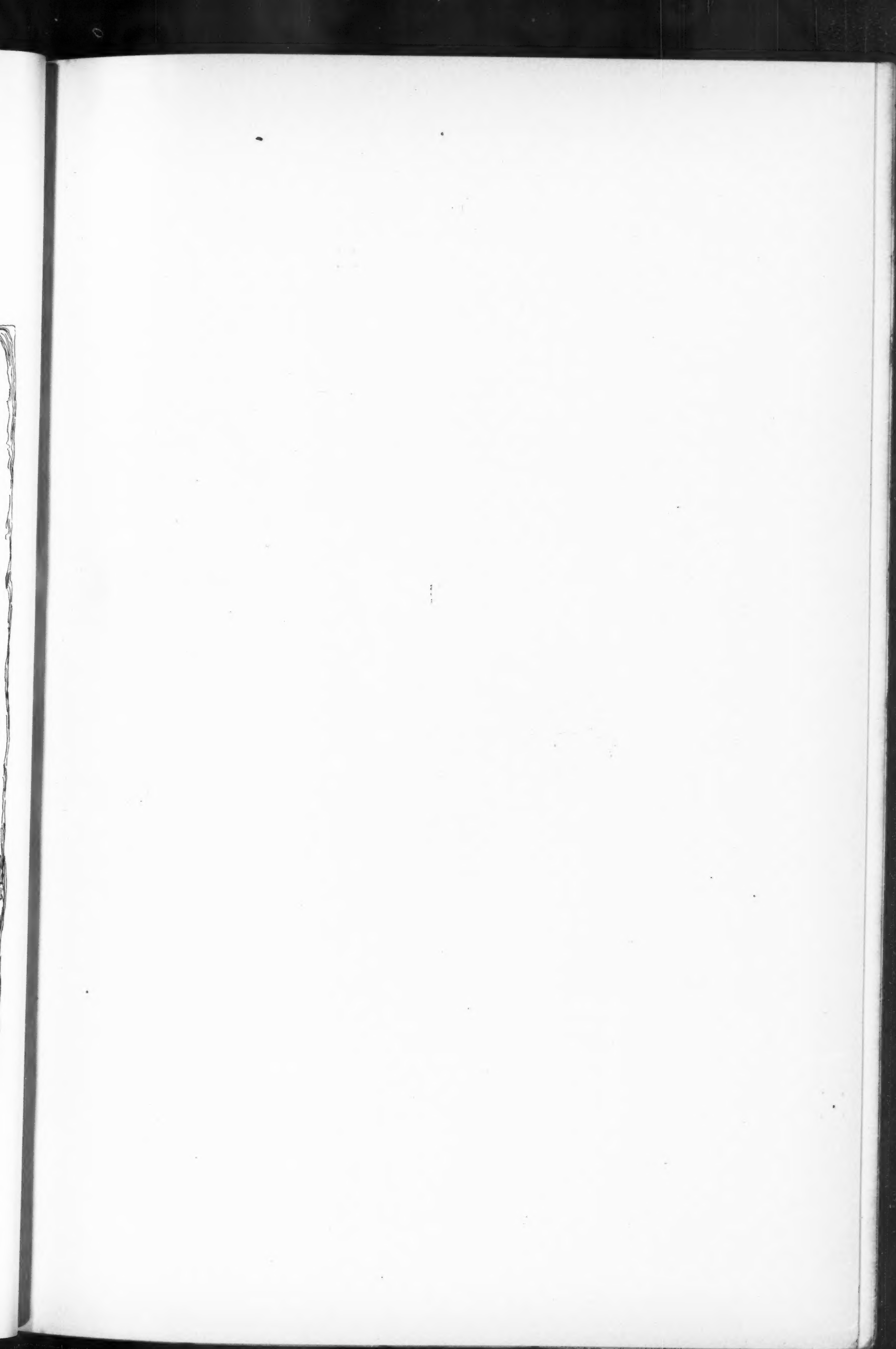
THE Willer Manufacturing Company of Milwaukee has just issued from the press a timely illustrated catalogue and price list of the celebrated Willer sliding window screens, and screen doors, for the spring of 1891. The desirability of having a good, easily managed window screen rather than one that is a non-fitting concern which neither screens nor does anything else outside of affording a world of trouble, is a matter beyond controversy. The Willer screen is the highest type of the first named, and the very antipodes of the latter. It is neatly and substantially made, adjusted to position by a spring that, through the aid of convenient "lifts" or handles, permits the setting or removal of them a matter of no annoyance whatever. They are constructed either for inside or outside setting, and for either upper or lower sashes, and as well for entire window coverings. The Willer screen door is a counterpart of excellence with the Willer window screen, and made in various comely styles. As in these latter days it has become the practice in house planning to consider every minor convenience, including the window screens, it seems as if it would be the proper thing to do in this instance to follow Cap'n Cuttle's advice, "Make a note on't."

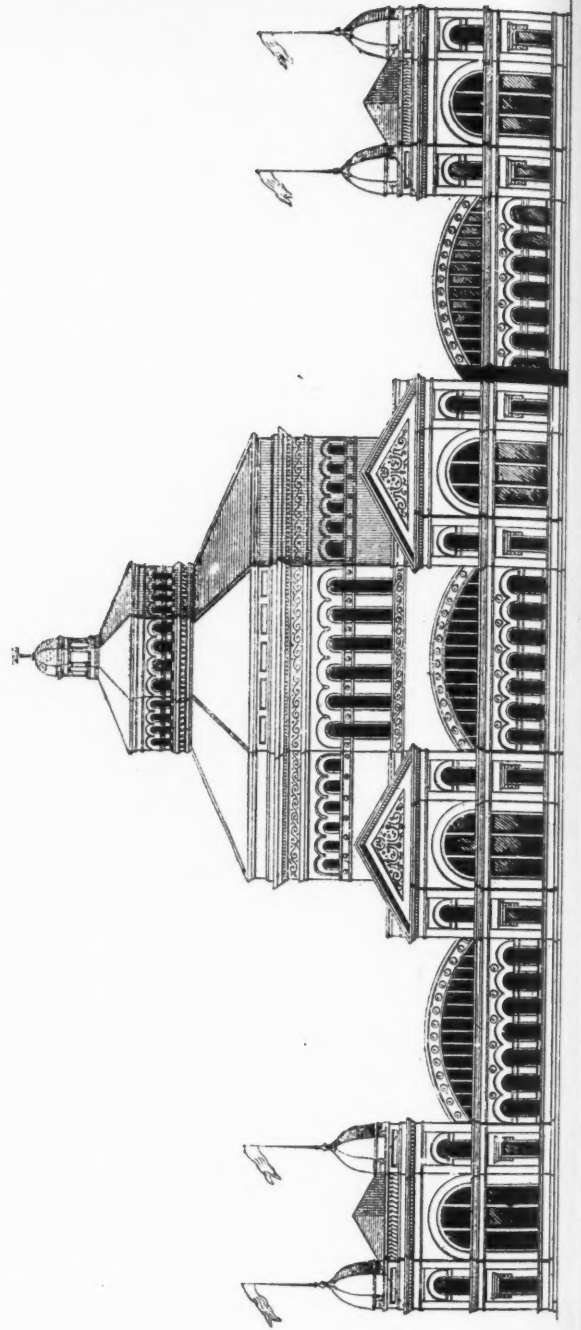
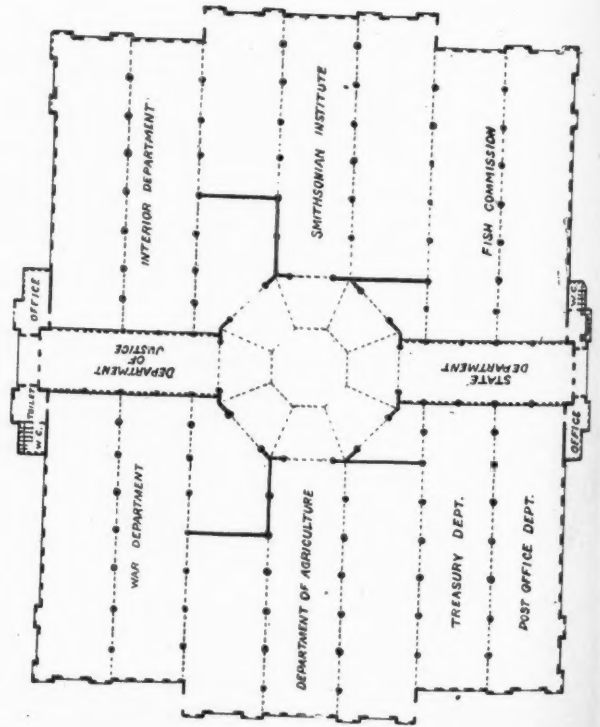
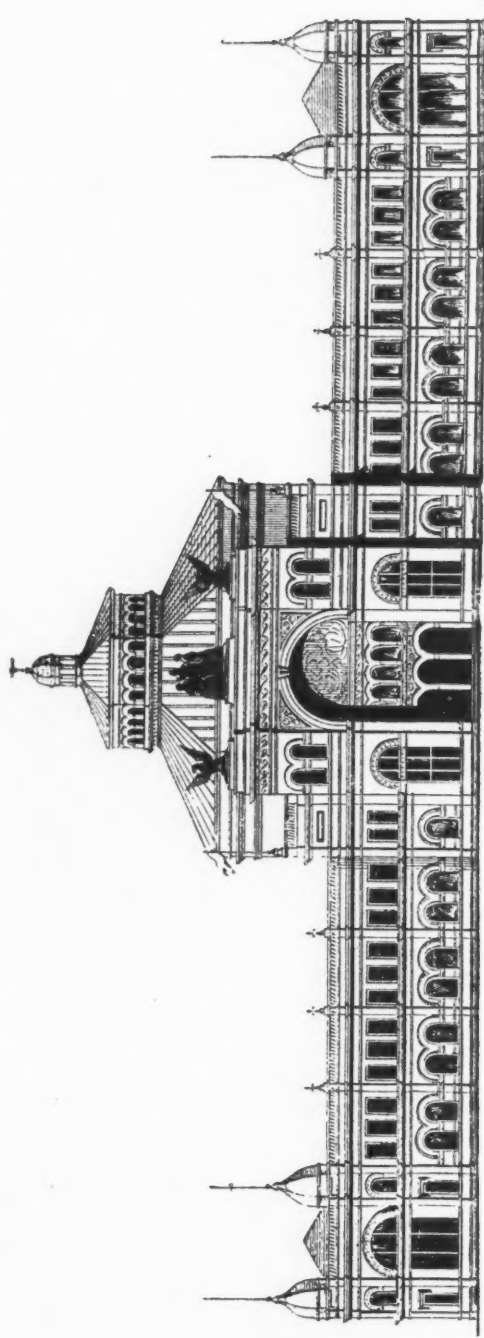


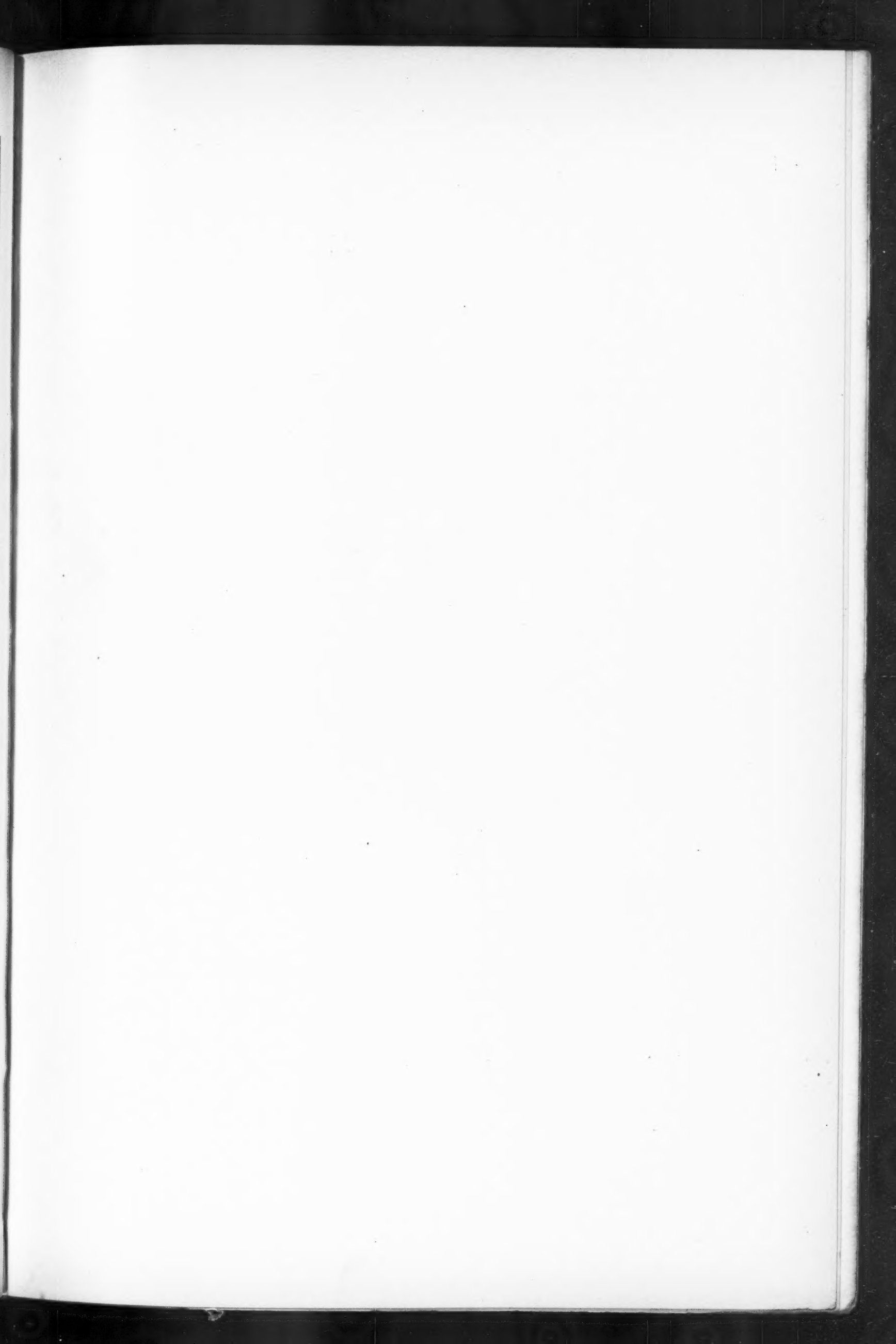


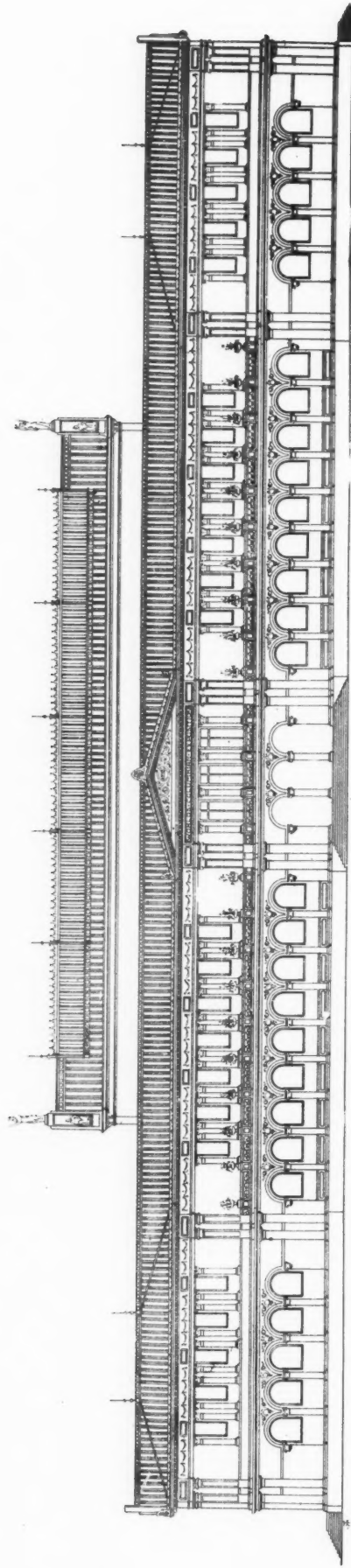
PILLSBURY MEMORIAL TOWN HALL, SUTTON, NEW HAMPSHIRE.

L. S. BUFFINGTON, ARCHITECT, MINNEAPOLIS, MINNESOTA.



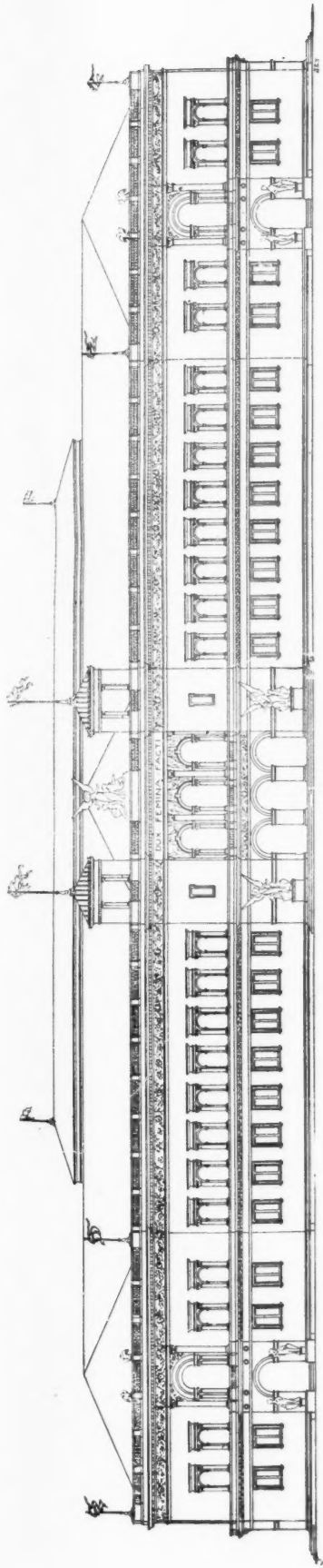




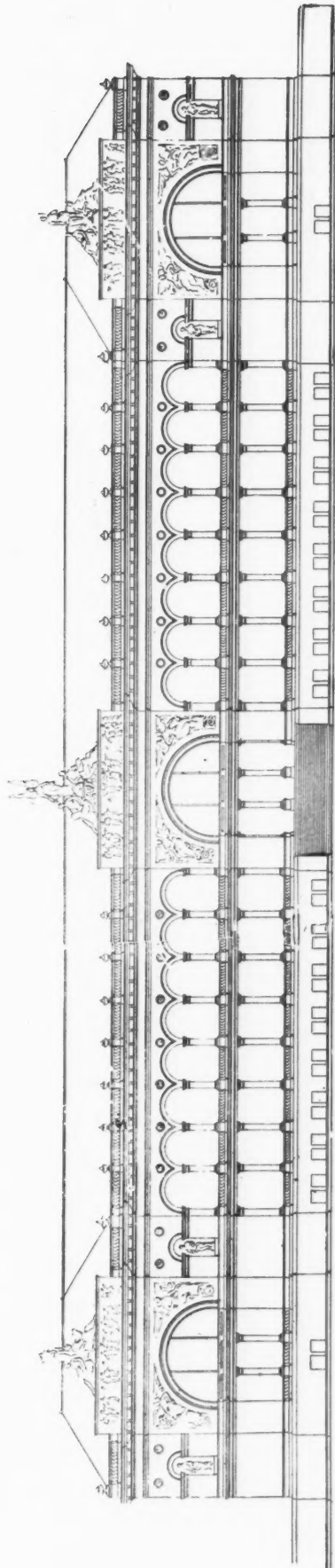


- FIRST PRIZE DESIGN FOR WOMAN'S BUILDING - WORLD'S COLUMBIAN EXPOSITION -

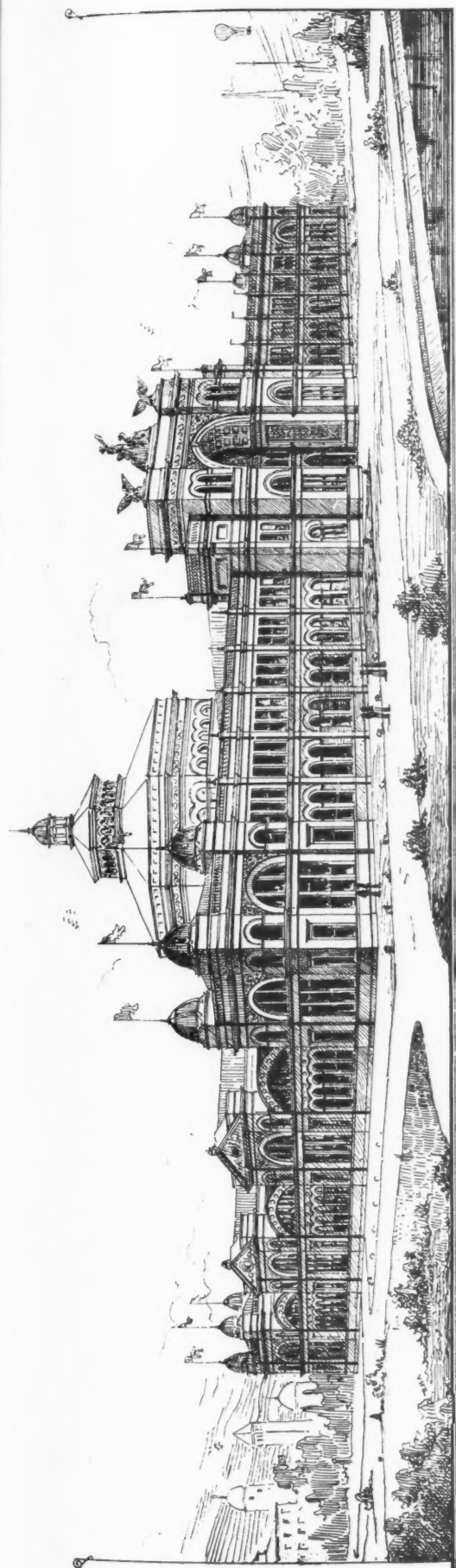
• SOPHIA G. MAYDEN, ARCHITECT •



SECOND PRIZE. DESIGN FOR WOMAN'S BUILDING - WORLD'S COLUMBIAN EXPOSITION -
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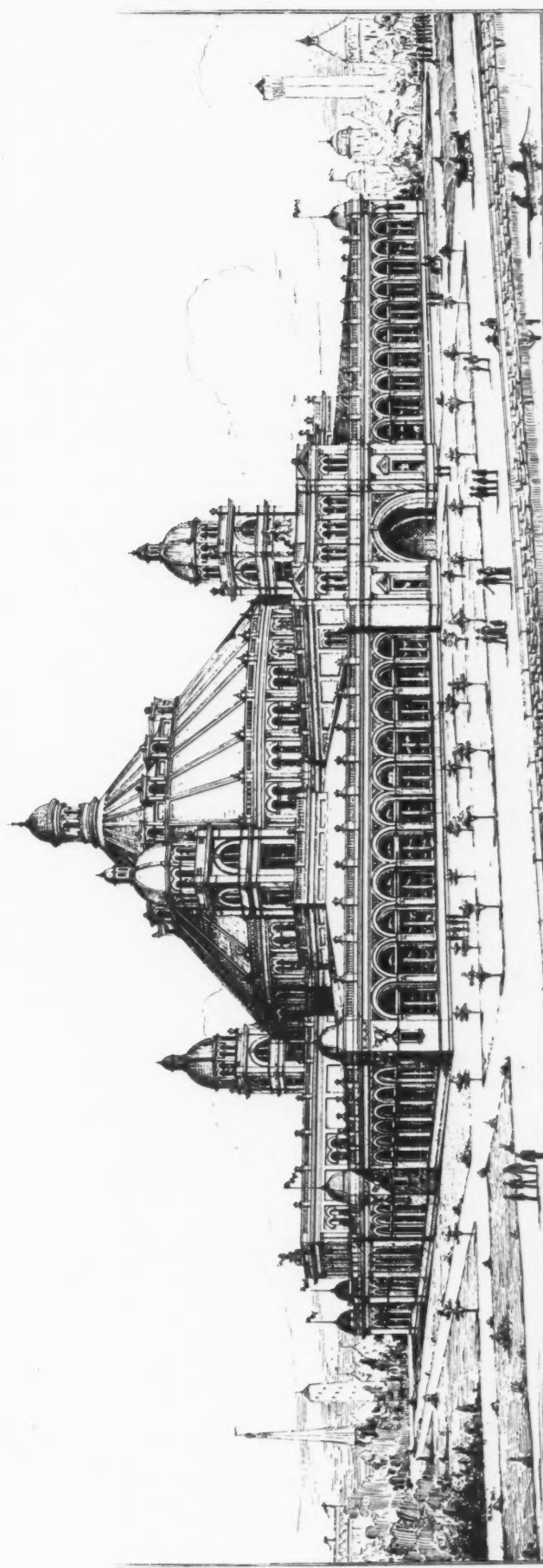


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LAURA HAYES ARCHITECT.



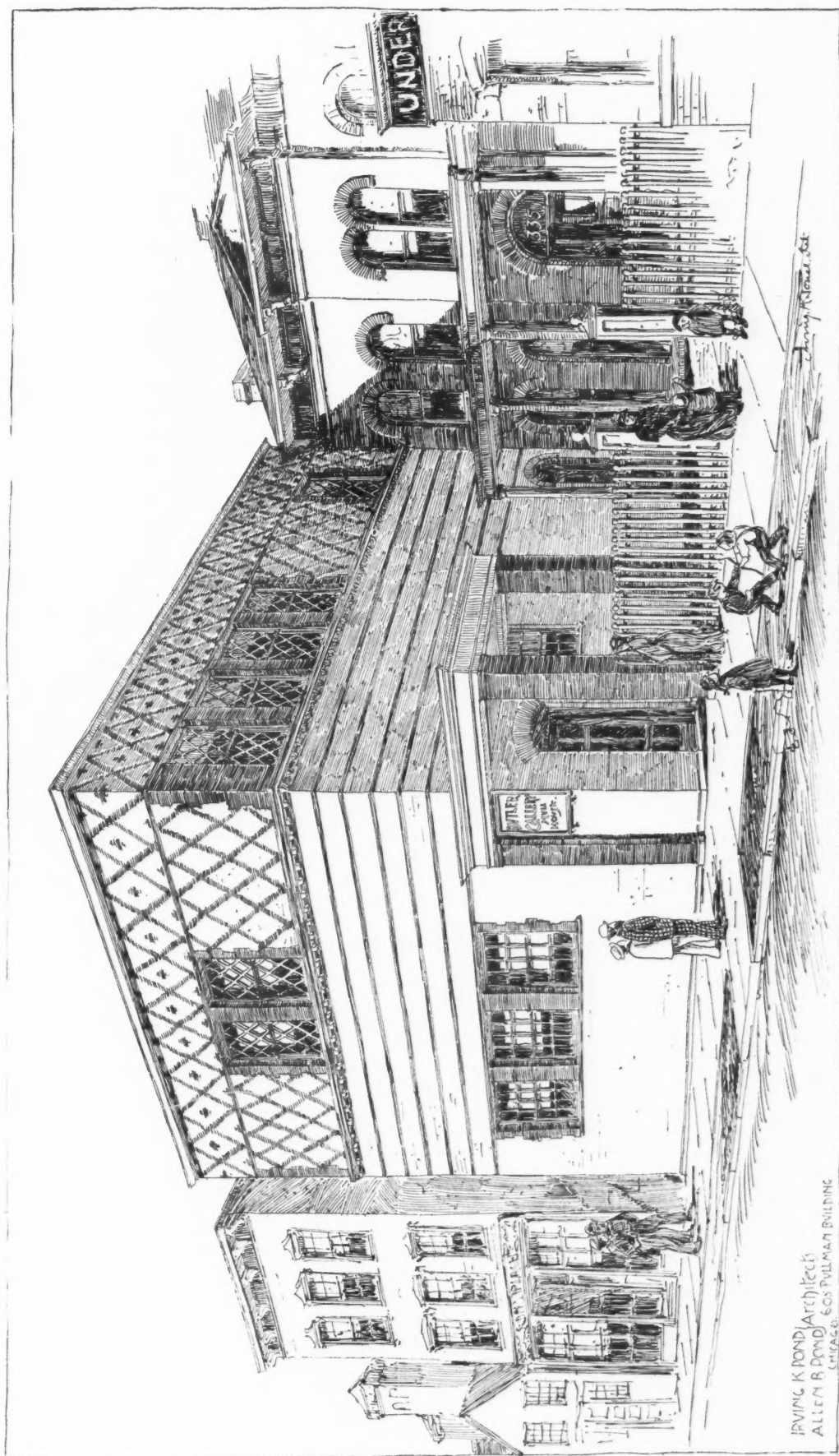
For Exhibition
 SUPERVISING ARCHITECT,
 TREASURY DEPT.

SKETCH FOR
 U.S. GOVERNMENT BUILDING
 --OO-- WORLD'S COLUMBIAN EXPOSITION --OO--



For Exhibition
 SUPERVISING ARCHITECT,
 TREASURY DEPARTMENT.

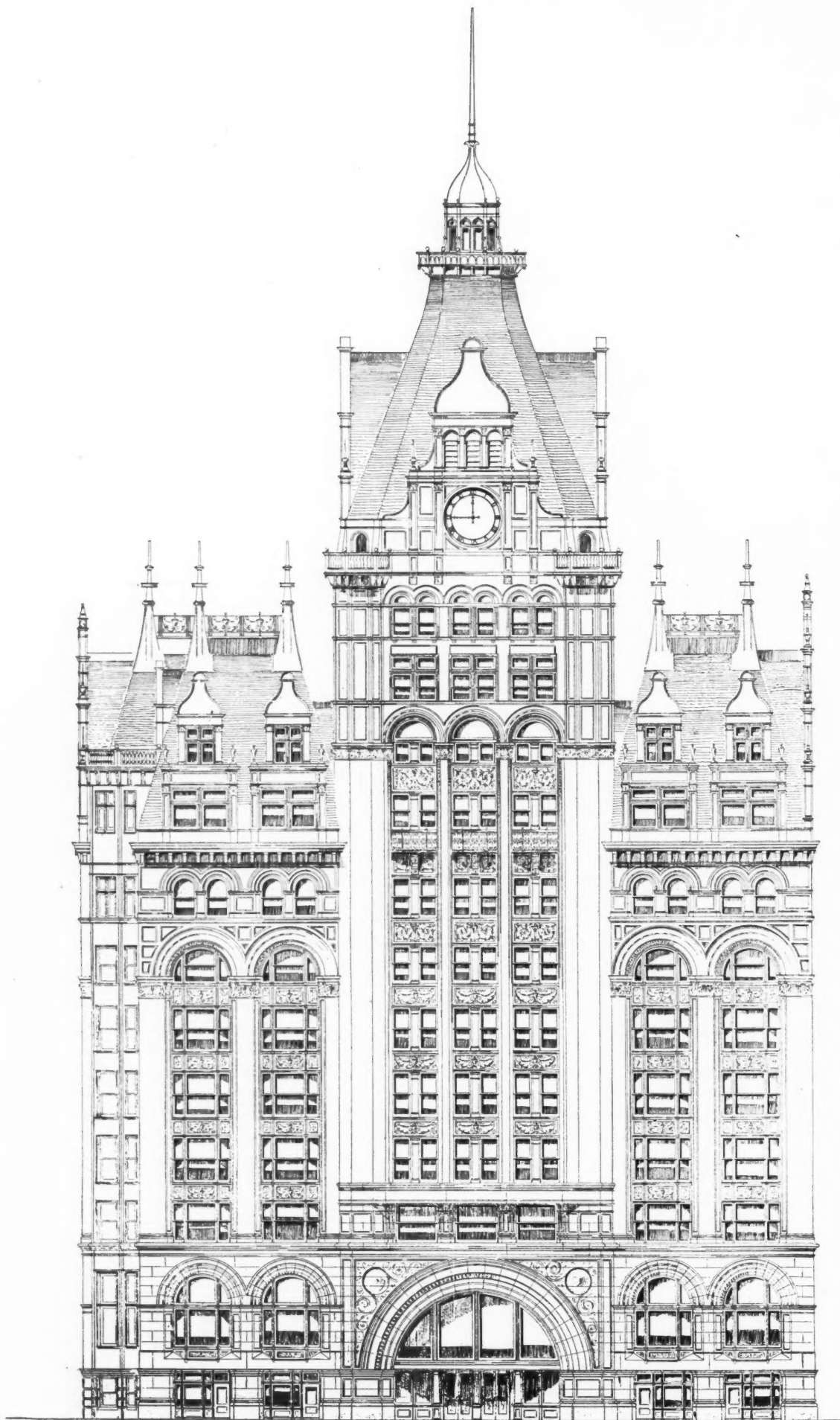
ALTERNATE SKETCH
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 U.S. GOVERNMENT BUILDING
 WORLD'S COLUMBIAN EXPOSITION.



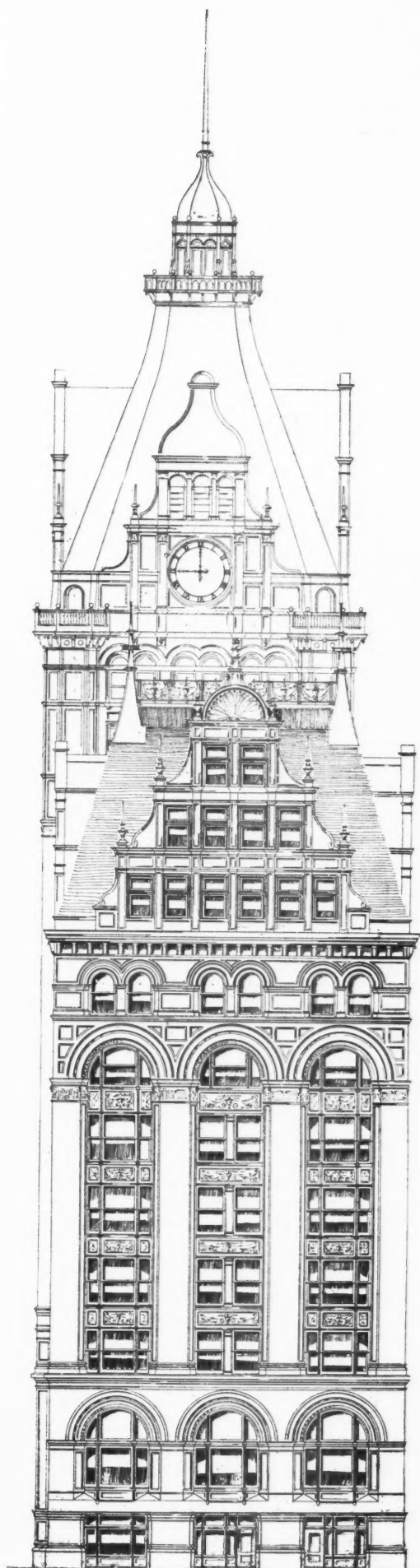
BUTLER GALLERY AND READING ROOM, CHICAGO.

POND & POND, ARCHITECTS.

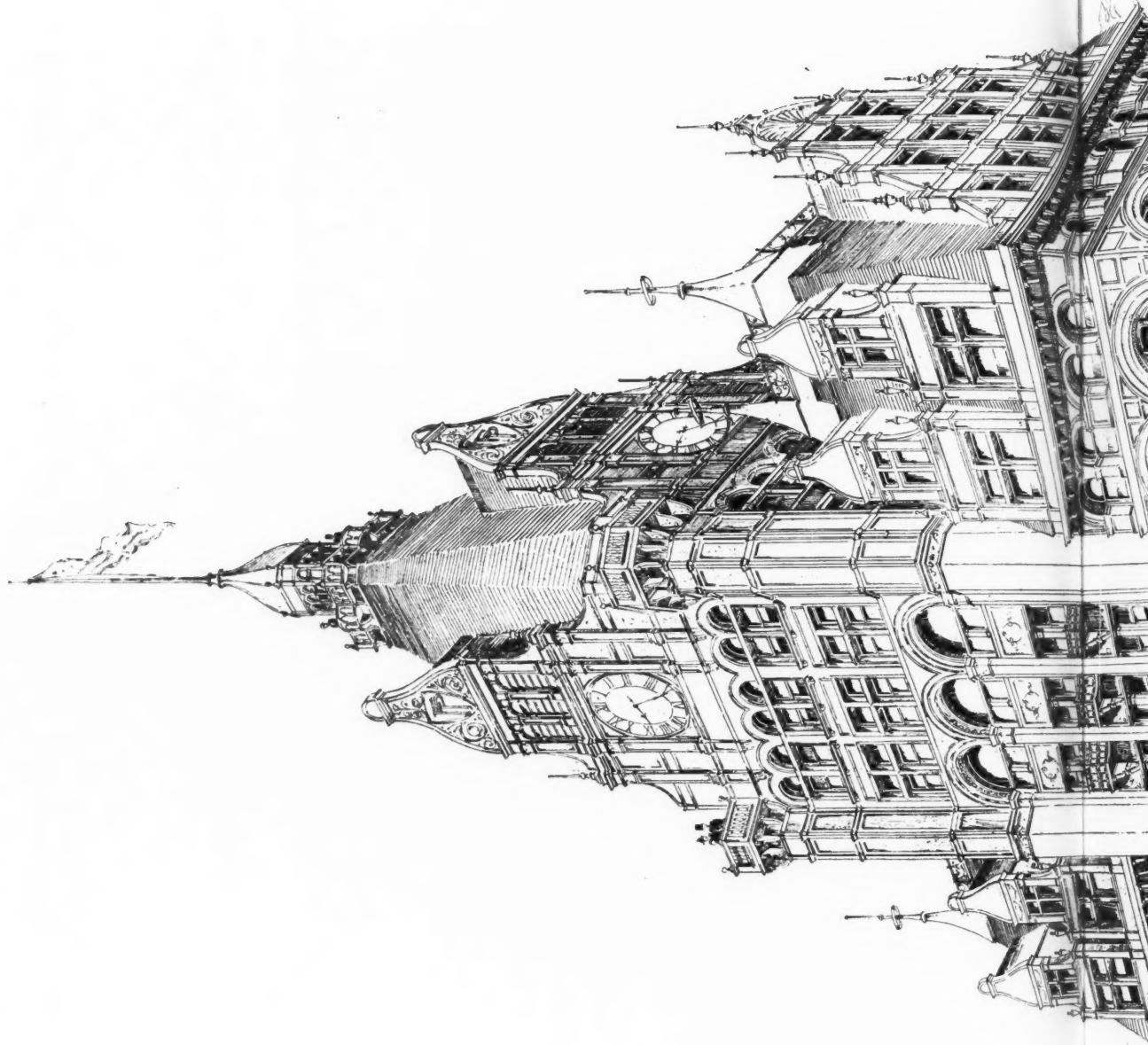
IRVING K. POND, ARCHITECT,
ALLEN B. POND, 605 PULLMAN BUILDING
CHICAGO.

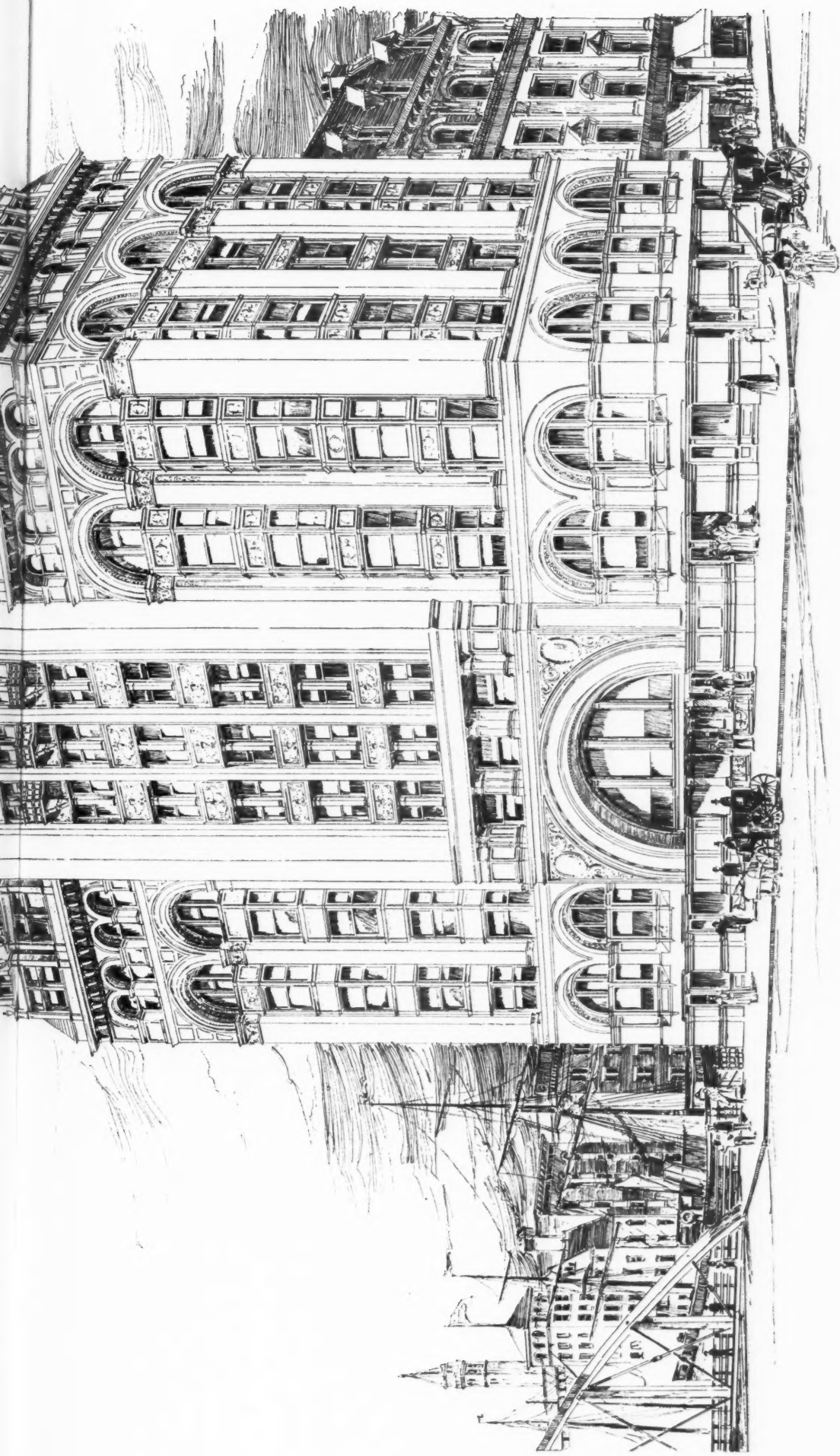


ELEVATIONS OF ACCEPTED DESIGN, COMPETITION FOR OFFICE
S. S. BENT ARCHITECT



OFFICE BUILDING FOR FRED. PABST, MILWAUKEE, WISCONSIN.
ARCHITECT, CHICAGO





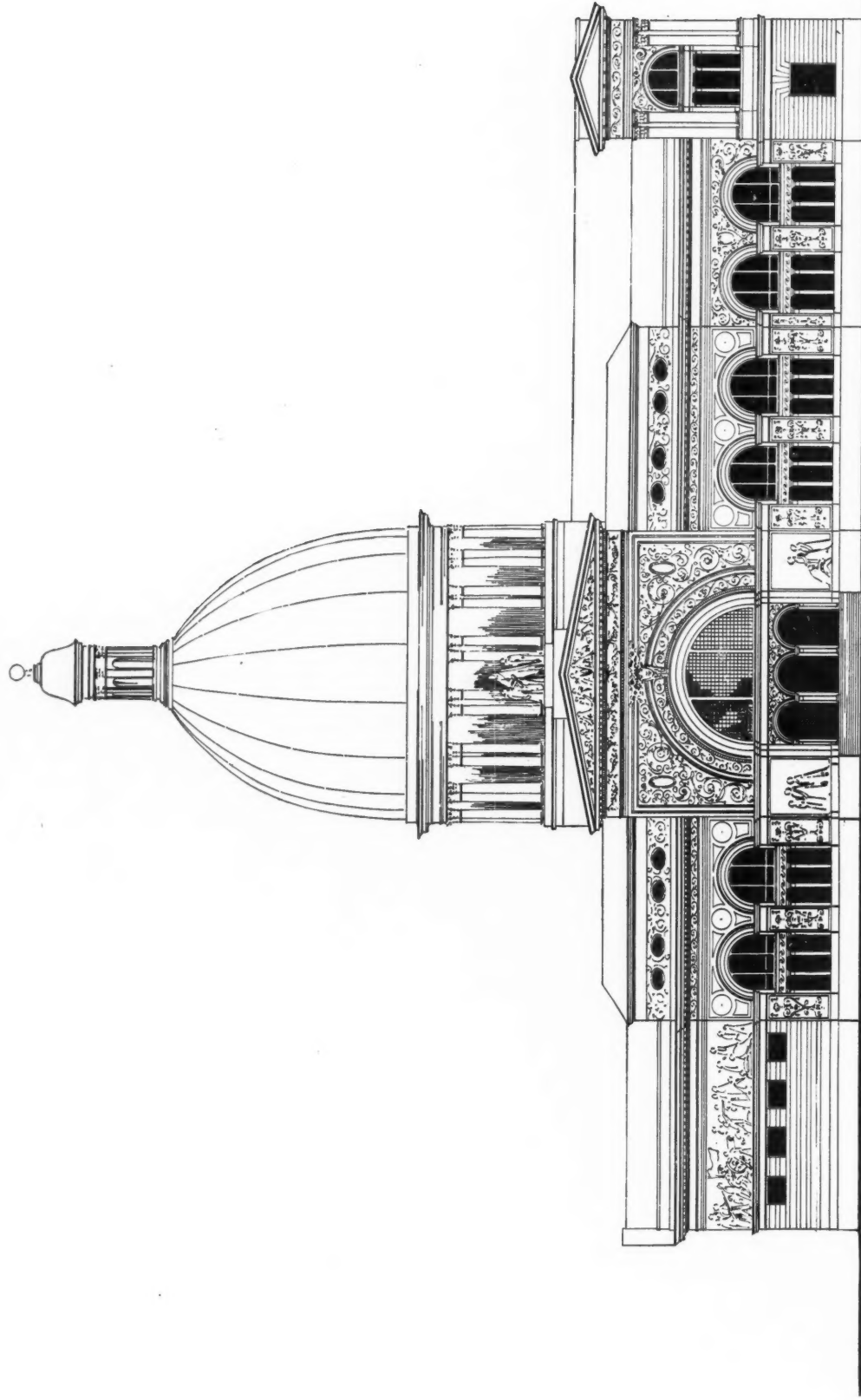
ACCEPTED DESIGN, COMPETITION FOR OFFICE BUILDING FOR FRED. PABST, MILWAUKEE, WISCONSIN.

S. S. BEMAN, ARCHITECT, CHICAGO.



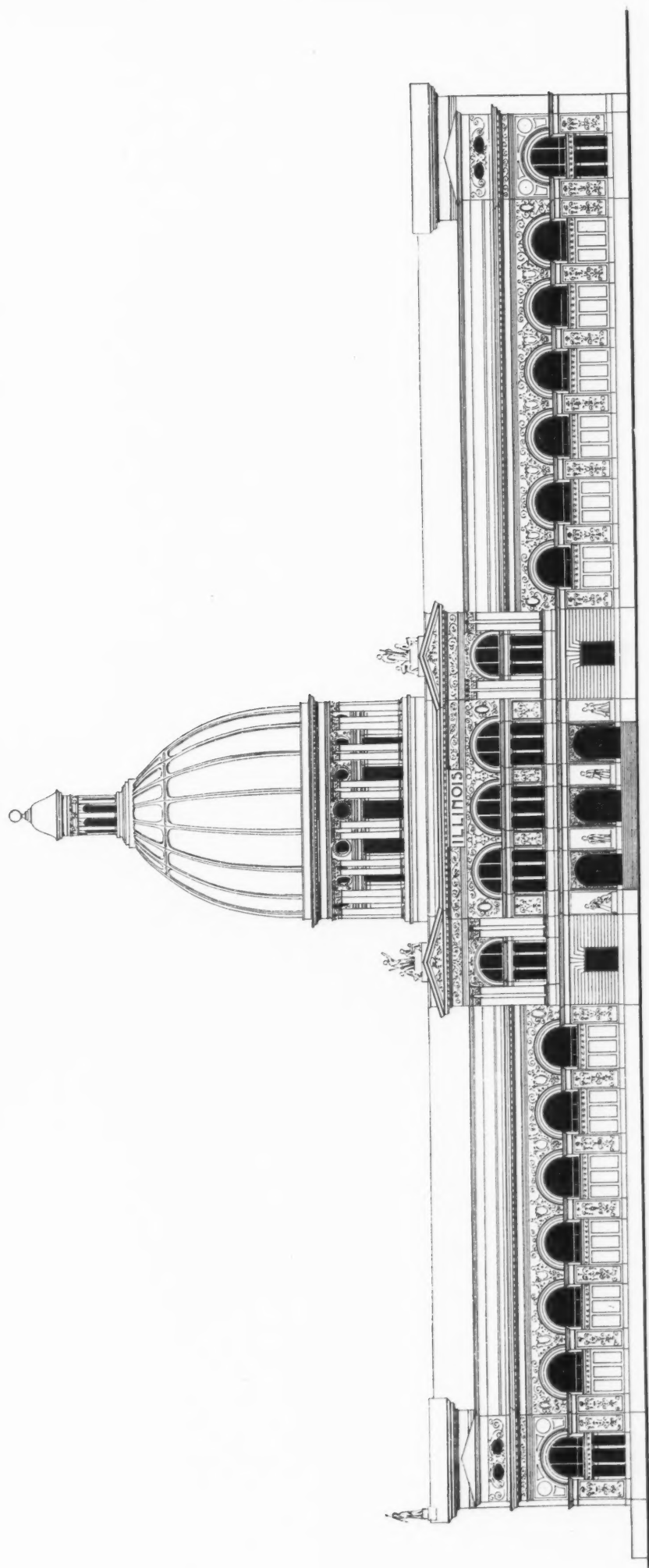
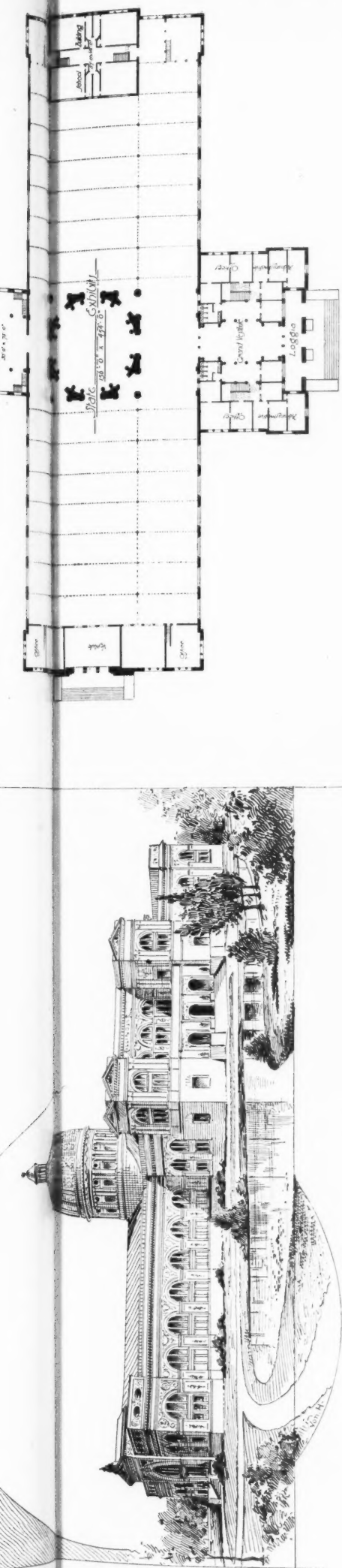
GROVELAND APARTMENT BUILDING, FOR HOWARD & BERWIN, CHICAGO.

JOHN DUNCAN, ARCHITECT.

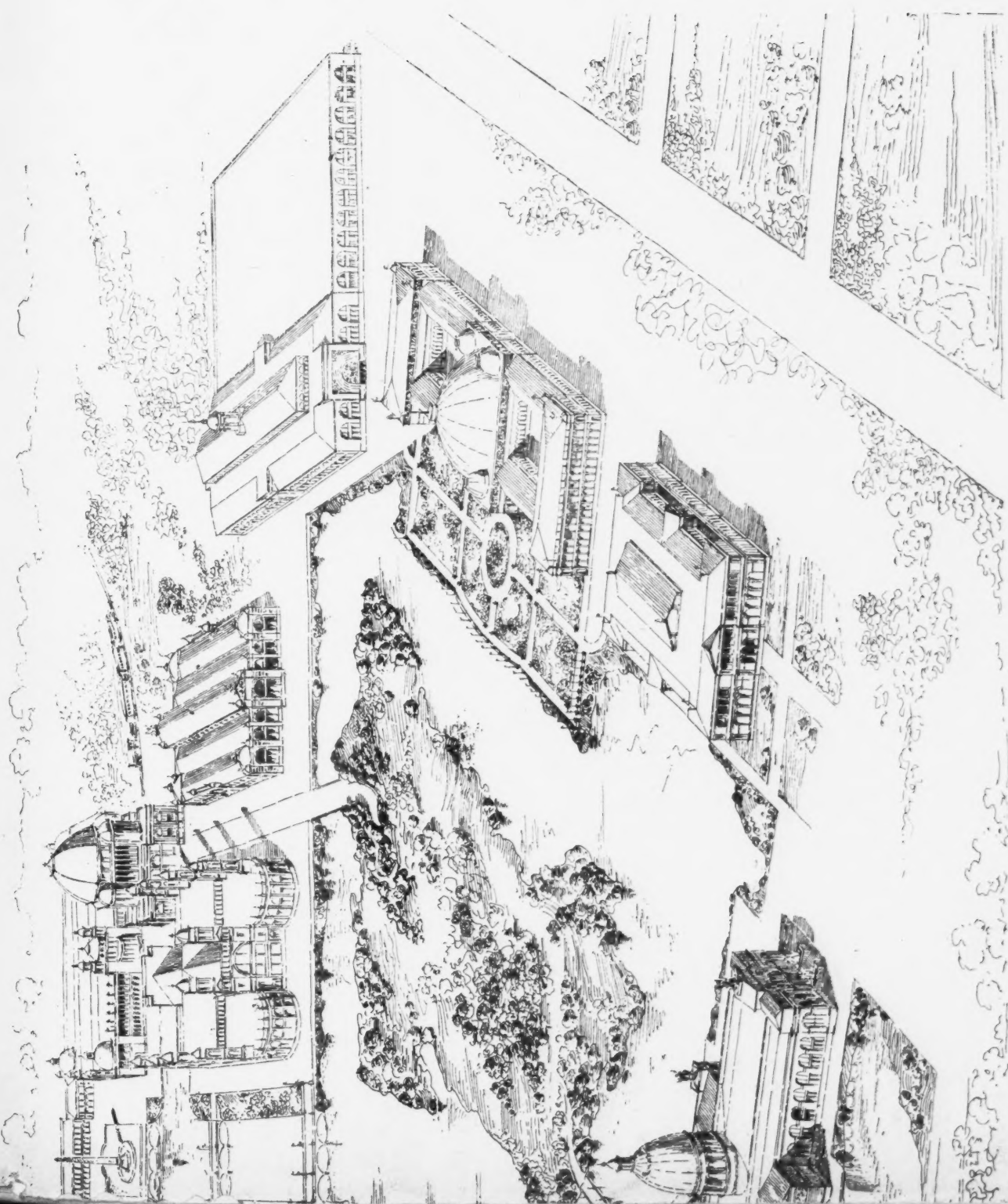


END ELEVATION.





DESIGN OF ILLINOIS STATE BUILDING, COLUMBIAN WORLD'S FAIR, CHICAGO.
W. W. BOYINGTON & Co., ARCHITECTS.



S NOW DETERMINED UPON.—DEPARTMENT OF CONSTRUCTION, APRIL, 1891.—VIEW LOOKING SOUTH.

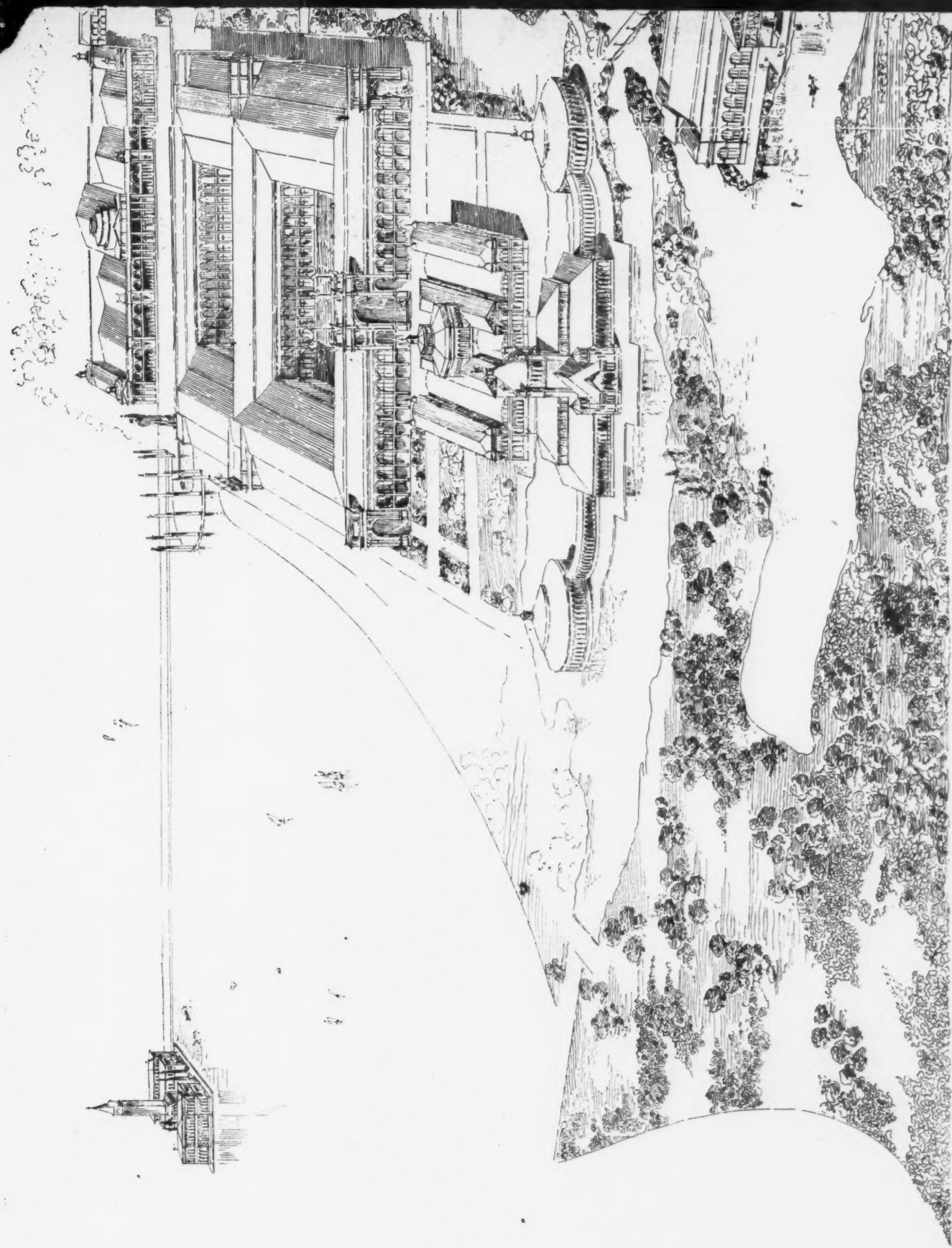
Transportation.

Horticulture.

Mines.
Woman's Building.

Machinery Hall.
Administration Building.
Electricity.

State Building.

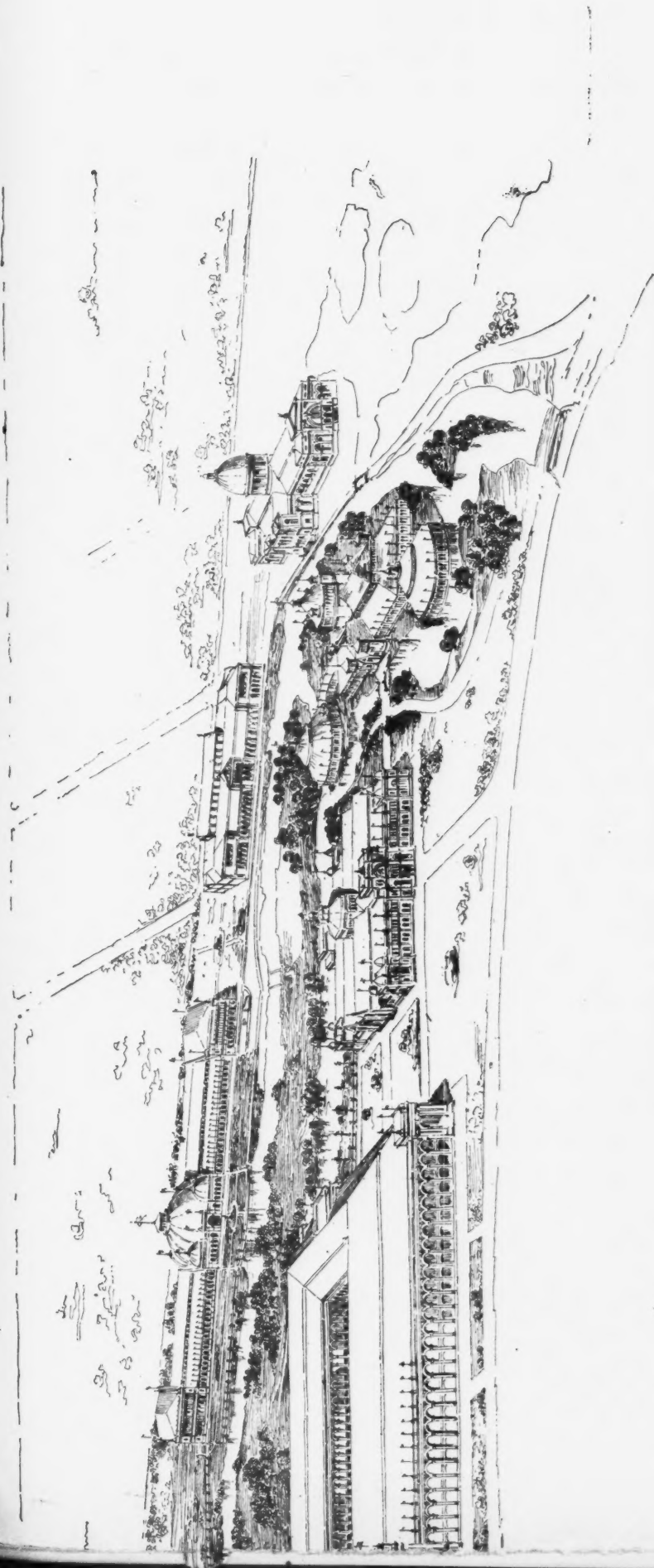


BIRD'S-EYE VIEW OF THE WORLD'S COLUMBIAN EXPOSITION, SHOWING DESIGNS AND GROUPING OF ALL BUILDINGS

Casino and Pier.

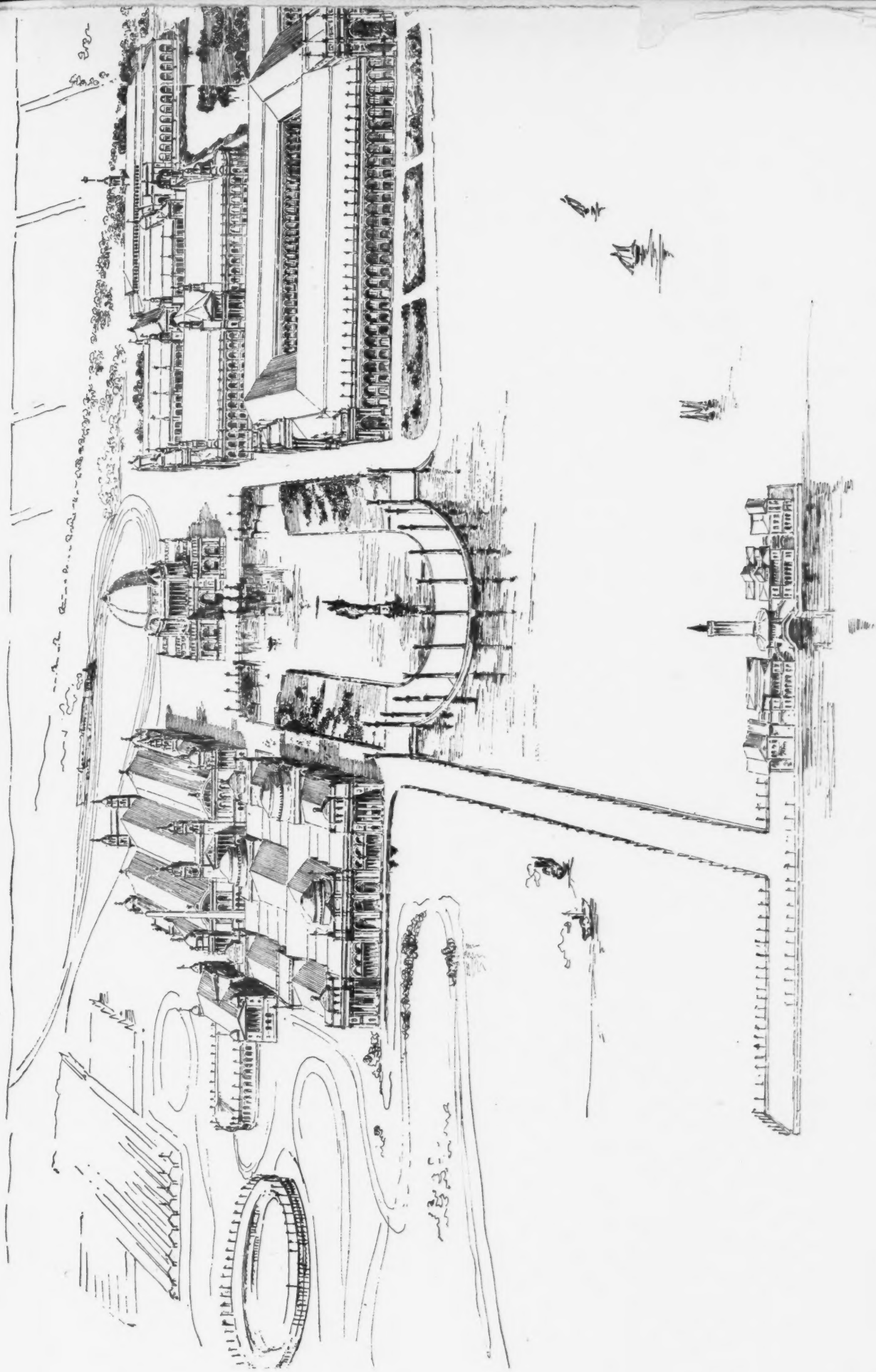
Agriculture.
Manufactures and Decorative Arts.
United States Government Building.
Fisheries.

Illinois



AS NOW DETERMINED UPON.—DEPARTMENT OF CONSTRUCTION, APRIL, 1891.—VIEW LOOKING WEST.

Decorative Arts.
Horticulture Hall.
Woman's Building.
United States Government Building.
Fisheries.
Illinois State Building.



BIRD'S-EYE VIEW OF THE WORLD'S COLUMBIAN EXPOSITION, SHOWING DESIGNS AND GROUPING OF ALL BUILDINGS.

Live Stock Building.

Machinery Hall.
Agricultural Hall.

Administration Building.
Casino and Pier.

Mines.
Electricity.

Transportation.

Manufactures and De