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Place of next Convention, Chicago, August, 1893.

Death of Henry Sargent Codman.

Henry Sargent Codman, of the firm of Olmsted & Co., landscape architects, of Boston, and of which Mr. Codman was the Company, died in Chicago, January 13, after a surgical operation for an internal abscess, probably the result of a surgical operation which Mr. Codman was subjected to in August last. Mr. Codman, who was in his thirty-fourth year, has been, since August, 1890, officially connected with the landscape work of the World's Columbian Exposition and it is upon the effective work which he has done in this connection that his fame will rest. After the Jackson Park site was selected, mainly through the advice of the landscape architects, who saw the possibilities for effective grouping of buildings and the landscape effects obtainable there, Mr. Codman became the active adviser of the chief of construction and the architects in all matters pertaining to his department. Especially was this the fact in regard to the lagoons and water ways that were so admirably arranged and which so largely add to the artistic grouping of the buildings. The wooded island thus secured, and which has for two years engaged the special attention and genius of Mr. Codman in its formation and arrangement, will be a perpetual monument to his abilities as a landscape artist, who while alive was regarded as first under his venerable partner in his profession, and who, now that he has departed in the very beginning of his career, will be regretted by those who regard genius as a rare possession and an irremediable loss. Mr. Codman was educated in Boston, and graduating from a special course in the Massachusetts Institute of Technology, entered the employ of Frederick Law Olmsted, becoming his partner in 1889. The universal regret of those who associated with him in Exposition work, with whom his genial, manly and engaging presence made a bond of friendship and who deemed him one of the strongest and most talented among them, was expressed in the following resolution passed by the Board of Directors:

Resolved, That it is with profound regret that this board learns of the untimely death of H. S. Codman, who from the beginning of the work held the position of Landscape Architect of the Exposition. His exceptional genius and his removal from our midst whilst engaged in his very able service in behalf of the Exposition render his death a great public loss.

One cannot but be struck by the singular repetition of the loss sustained by the Exposition at the very outset of the work of preparation in the death of its consulting architect when within two days of two years later, almost at the close of this great work, the landscape architect is called away. Each in his prime and each apparently in the fullest possession of health and activity. When the laurel is placed upon the brows of those who have brought this great achievement to its completion and who living receive the merited award, it will be almost hidden by the ivy wreathed for those who contributed so much yet could not remain to witness the great triumph.

Progress of the Columbian Exposition.

It is with some degree of satisfaction, indorsing what we have said and reiterated since the commencement of the actual work of preparation for the Columbian Exposition, that at this date the several exhibition buildings are practically ready for the installation of exhibits, the work remaining to be done being of a decorative nature. It is

singular that at this late date a manufacturer occasionally will write requests for information regarding the transportation of exhibits. The time allowed for making application for space expired months ago, preparations for the assignment of space commencing July 15 last, each application blank having the full directions asked for printed thereon. The allotment has long been completed upon the basis of applications on file at that date, and as even at that most applicants have been obliged to be content with less space than asked for, it will be very hard for intending exhibitors to gain admittance now. As it is probable that some to whom space has been assigned may withdraw and as dilatory exhibitors may be barred out, application may be made, but the chances of success are small. The leading hotels have announced that no additional rate will be charged next year. The Bureau of Public Comfort of the Fair announces that the city can easily accommodate 300,000 people per day at reasonable rates, and this will certainly be augmented by additional buildings before the opening of the Fair in May.

Decadence of the Use of Gas as an Illuminant. The recent "accidents" attending the use of natural gas in Chicago are not surprising when the quality of the combustible and the character of the pipes and fittings used to circulate and dispense it is considered. The use of water or coal gas is attended with the same conditions, except that there is more odor and leaks are more easily detected. But the use of gas in any form except, perhaps, in a large manufacturing plant where it is drawn from wells or manufactured on the premises, is obsolete, and should be entirely abandoned. It has always been a makeshift between the use of the coal oil lamp, which, by the way, is the more refined and pure illuminant for domestic purposes, and the electric light of the present. It is singular, too, that the peculiar method of distribution has admitted a system of imposition upon the public in the way of exorbitant, incorrect and even ridiculous charges that when calmly viewed in the light of reason and justice causes one to doubt the intelligence of the people of this age of supposed progress. The public have little recourse, for they must pay any bill that may be presented and sustain any damage from defective mediums of supply or distribution without recourse. But architects can do much in the way of correcting the evil, and that is by urging clients to use electricity in every way possible, both for lighting and heating, and encouraging electric companies to improve and still lessen the cost of electric lighting so that as soon as possible gas lighting will be as obsolete as the turpentine lamp, with which it may well be compared, both in its dangerous quality and its general undesirability as an illuminator.

The Revised Form of Standard Contract. The work of revising the Standard Form of Contract by the joint committee of the American Institute of Architects and the National Association of Builders, which began with a meeting of the full committee, at Chicago, October 20, has been completed. All orders upon the publishers can now be filled promptly. The new form, which is printed elsewhere, shows a marked improvement upon the old in the matter of brevity, but the changes are not as radical as it was supposed they might be after four years of trial, a fact which speaks volumes for the excellence of the first draft and its acceptance by archi-

tecs and contractors. The architect still acts as agent for the owner, the contracting parties place the architect in the position of arbitrator, and the only change in the form of arbitration committee noticeable is that it is specified that none of the three arbitrators shall have had previous connection with the work. The insurance clause seems to be omitted, and also that referring to transfer of contract by the contractor, and that regarding claims for additional work. On the whole, while the general phraseology is almost entirely changed, and the conditions greatly simplified, the general trend is the same as that of the form so wisely compiled in 1888 by the committees representing the American Institute of Architects, the Western Association of Architects, and the National Association of Builders, and which has since superseded the use of every other form with the majority of architects and contractors in the United States. It should not be forgotten that this contract was the result of the combined experience and thought of the best architects and builders of the United States, brought together during the year of the greatest activity in the Western Association of Architects and the National Association of Builders, aided by the mature judgment of the American Institute of Architects at a time when all thought in architectural lines was most active, and its exponents were enjoying a period of intellectual life never before reached by the profession.

A Detroit City Hall Competition Proposal. Detroit is in a fair way to experience a "public scandal," such as has not struck an American city since the days of the affair in Macoupin county, Illinois, whose people, we have heard, had a courthouse experience that is still dear to their memories. This is indicated by a bid for competitive designs for the "remodeling of the city hall, and also for adding three stories, including attic, on top of present building," the "instructions to architects" of which are certainly unique and interesting. The city officials say these have been sent to a large number of prominent architects, and we have no reason to doubt the statement; but their added assertion that a large number of the before-mentioned prominent architects have signified their willingness to compete, we are not so ready to take without further evidence. In brief, the "instructions" call for complete detail plans in colors and duplicate, and specifications and two perspectives, estimates of cost, and "the entire system of fireproofing for each floor and partition must be fully described," etc. The building committee, which are all city officials, are the judges, and to the successful competitor is given the job at "three and one-half per cent." It does not say upon what, and this and a number of similar points are left open to speculation, beside the fact that though the competition closes February 8, the money for the improvement has not at this writing been voted by the common council, leads one to think that anyone who takes a job for just about one-half what it is worth, and the fact that the resultant cost, even with the best engineers and architects, must remain more or less an unknown quantity, with all the "extras" possible in such a contract, we see visions of great times in official circles in Detroit before the work has been long finished. One clause, however, favors the "successful" architect, and that is that should the work not proceed within one year he will be paid two per cent upon the work he has done, and the second and third premiated designs will be paid \$1,000 and \$500 respectively.

JAPANESE ARCHITECTURE IN CHICAGO.

BY P. B. WIGHT.

PART II.

WHILE there is a general uniformity in the style of Hōōden, resembling that of Japanese architecture in the seventeenth century, its exterior openings, interior decoration and corresponding furniture will exhibit the design of three different periods. These are exemplified in the three buildings assembled as one, in the general form—as regards the ground plan—of a flying bird (it is a strange coincidence that the general plan of the Fine Art Palace resembles a crab).

The central building is a model of the rich type of domestic architecture of the eighteenth century that prevailed during the period of the powerful Tokugawa (Shogun) dynasty. On the exterior no paint will be used to disguise the natural color of the Japanese woods, which are so beautiful in their natural tints. The wood is covered with an invisible lacquer which has no body or gloss, but still is a perfect grain filler and protection from the elements. It would be profitable for us to introduce the use of this material.

The general appearance of the woodwork will be a warm and delicate cream color, crowned with a projecting roof having on the upper surface the dark natural color of copper hand-made tiles. The surrounding portico is built of hinoki, which is not very compact in texture, yet stands exposure to all kinds of weather, and is easily carved. The rest of the exterior is built of moni, which is little inferior to hinoki. The roof trusses and floor joists are of sugi, which is extensively used in the construction of all kinds of buildings in Japan. This is a strong, and rather knotty timber, and does not look as if it could be procured in heavy scantlings, all of it appearing as if cut by hand from single sticks.

The main building contains (all on the main floor, which is raised a few steps from the ground) a reception hall, sitting-room, study and dressing-room, with corridors and surrounded by a terrace, having a light balustrade. It is such a building as would be adapted to a mild and warm climate, like that of Japan or Italy. The roof is heavy and sets well above the ceiling, affording ample air spaces for protection from intense sun heat; and the sides are made so that nearly the whole building can be thrown open by movable panels, some of which are filled with translucent paper resembling windows. But these panels are changed with the seasons, thereby enabling the occupants to adapt themselves to different kinds of weather. This movable work is highly decorated and lacquered in a manner familiar to us in much Japanese merchandise, but the secrets of which we are not yet acquainted with. The words "Japan" and "Japanning" applied to the material and process commonly employed in finishing tin and sheet iron goods, were derived from the Island Empire, though they in no way resemble the genuine article which we call Japanese lacquer, and which is generally applied to wood.

In this building the central partition and ceiling decoration will be the crowning achievement of Japanese art. The partition will be decorated with great pine trees and birds (hō-ō's) emblematic of power and glory. The ceiling of two hundred and seventy panels will be decorated with paintings, in which the hō-ō will be a prominent feature, on gold grounds, while the beams forming them will be gold lacquered and enriched with gilded metal work.

The whole decoration is designed and executed by special artists from the Academy of Fine Arts at Tokyo. It is probable that even Japanese visitors may be astonished to see such a revival of ancient Japanese decoration.

The partitions between rooms are of fusuma, which is very delicately worked into frames, with panels of gilded paper in exquisite patterns. These are ingeniously made so as to slide in either direction as circumstances require.

The floor will be covered with mats, having black patterns on white grounds, and very thick. These mats are made of straw and reeds, and are nearly three inches thick.

The general features of the exterior of the south pavilion are the same as those of the central building, while the interior decoration will be done in the Ashikaga style (sixteenth century), after the style of Ginkakuji, a villa of one of the Ashikaga Shoguns. In this pavilion the study and tea room are inclosed with sliding partitions covered and decorated with paper. In each of the three rooms some ornamental shelves are provided for different uses. The floors will also be covered with thick mats. The ceiling decorations will be quite different in style from those of the central

building. They will be paneled in wood, showing the natural colors. No lacquering is used, it being inappropriate to the period.

In the north pavilion round columns are used instead of square posts. The windows and doors are different in arrangement, and there are no subdivisions.

It consists of one large room representing a hall attached to the palace of a court noble, where festivities are held. The exterior walls between the wooden columns, whether doors or windows, extend up to the ceiling, and are hinged at the top so that they can be folded up against the ceiling. One pair of solid folding doors is provided facing the central building. The floor is not provided with mats, for at the time from which this dates, uncovered plain board floors were used. Low portable platforms covered with hard mats were then used for seats. This building is in the Fujiwara style, dating from about the twelfth century. It was a period of great simplicity and purity in Japanese architecture. In fact it is about the earliest wooden architecture of which we have any remains or records, and shows the development of architecture from primitive methods of building. One side of this hall will be hung with paper having borders of silk, and the panels thus formed will be painted with historical subjects by artists connected with the Imperial Academy. This pavilion will be furnished as nearly as possible according to the same period.

Throughout the palace will be many alcoves and shelves, such as were used in ancient times for the crowns, armor and swords of the master of the house, and those of his guests. These are now used for bric-a-brac, teapots, and the innocent paraphernalia of peaceful days. There will be many of such appurtenances at Hōōden, and these shelves will be loaded with the choicest articles contributed by the Japanese Imperial Museum selected by Mr. Kuki, director of the museum and vice-president of the Imperial Commission. The beautiful moni wood is used for the columns and outside framing. The exquisite framing and superb finish of this wood will well repay examination. The same may be said of hinoki, the wood used in the porch of the central building, which is superior to moni. This is a wonderful wood to show the beauty of carved designs. It is said that part of the actual lumber sent to Chicago, and especially the hinoki used in the central building, has been cut several hundred years, and that during that time it has been seasoned in many places, both on mountains and in the streams running down the valleys, before being taken to lumber yards, where it has again remained for many years. If this is so the lumber may be as old as the style of architecture which it is used to illustrate.

All the floors of these buildings are laid with clear Japanese pine and cedar. All the framing is done with wonderful accuracy. Very little iron is used. The only American material seen in the construction consists of a few bolts in the roofwork, evidently inserted as an extra precaution against Chicago winds. Some of the mortise and tenon work appears at first to be very intricate, but every part is framed to do just what is required of it with the utmost nicety. It is noticeable that scarcely any braces or struts are employed, the lateral strength of the buildings being preserved by accurately fitting tenons, which are generally framed into mortises at right angles. The framing of the roof trusses, especially of the hip trusses, is well worth examination. The principle is that of the king post truss, supporting purlins. The rafters carried by the purlins are very light and close together. The trusses of sugi wood look heavy, but they have to carry not only the roof, but by their weight to counterbalance the two sets of rafters that carry the immense overhang of the eaves. These are not only curved all along the bottom but turned up more at the corners. The rafter construction and the hips cannot be described but must be seen to be understood. Carpenters, who think they know so much of their craft, may well go to the wooded island and see how much they still have to learn.

The constructive work is done under the direction of Mr. Oda, the foreman of the contracting company (Okura & Co.), which is erecting Hōōden for the Imperial Commission.

It should be borne in mind that these buildings which look so small beside the colossal Exposition buildings, are not as large as the ancient buildings from which they have been modeled. They are built three-fifths of the size of the originals. This is to be regretted, but the space on the wooded island would hardly have warranted making them larger. Neither do they represent a distinct and complete palace, but a small part of the great groups of buildings, being almost like cities themselves, which formed the imperial palaces.

TO THE MEMORY OF GOTTFRIED SEMPER.*

GENTLEMEN ASSEMBLED.—From Leipsic, where you had assembled for commemorating those days of the past fifty years, when German architects and engineers, first recognizing their want of union, met; for arriving at better mutual relations; for discussing matters and topics relative to their calling; for agreement as to questions relative to art principles, such agreement, thorough as it was, having been the foundation upon which this union, as a collegiate association, has come to a success—from Leipsic you have come here in a body to ceremoniously complete an act of piety, and to crown this festival day by inaugurating the monumental memorial sign, which our union as such has devoted to one of its past members. To all of you, here assembled for this purpose, a hearty welcome!

This present day is dedicated to the shades of Gottfried Semper, to the festive unveiling of this monument, planted by our union to his memory, in the vicinity of those monuments which he has erected for himself.

The erection of this monument is an act unique of its kind. It is for the first time in history that a body of architects and engineers commemorates one of their number in such solemn manner. From this preamble it will be plain to all laymen that the man worthy of such homage must have been one of special merit. And here it will be asked: of what nature was the power whence this homage is proceeding, what relation bears Gottfried Semper to the German architects and to German art?

To relate this even but superficially we must cast a glance upon the first decades of this century, and those directly prior thereto. We should keep in mind that in a former century the art of Rococo—an art highly aristocratic as it was, which had the characteristic of associating with wanton frivolity; nevertheless being elegant and delicate in expression; which knew how to create genially and interestingly—and which, as though in a presentiment of the approaching destructive judgment, concealed its most peculiar graces within walls. The age then following, shattered in its very foundation by the storms of the subsequent great Revolution, and by the sorrows consequent thereon, and the wars therefrom arising, had actually lost, even in the higher circles of society, every trace of high art. And the rise of the national spirit prior to and during the wars of liberation, was subdued by the rule of an unholy police régime, under which the sprouting blossom of our art withered. And where heroes in art appear to seemingly prove the contrary thereto, they really do, by their lonesomeness, but prove the fact, that the age has been a poor and neglected one.

A hero of this kind had arisen, at a time prior to Semper, in the person of Carl Frederick Schinkel, who invites our highest admiration for his ingenious creations relative to antique art then everywhere reigning. It was possible only to the gift of a genius like Schinkel to befit the motives at the Greek temple, based as

they are on a programme of the utmost possible simplicity, for the purposes of a complicated theater like the Berlin play-house, which, in spite of all difficulties, he succeeded in bringing to perfection, and to give it the stamp of an art creation of the highest rank. We should, however, not forget that it is possible only to an artist of the highest standing, to successfully introduce means of expression which are so narrow in their limits, and which were originally adapted for execution in marble only. And he did this at a time when all kinds of technic demands made in his country, as to means of execution, were exceedingly limited. It is, however, to be noted as an error on the part of Schinkel, as well as that of his esthetic co-believers, that they, intoxicated with the glory of Hellenic art, believed to find therein the only

true characterization of accomplished art, though this art was really for a time nothing but a vague formalism, because separated from us by ages, by country, and by material. And with these merely constructive principles, infinitely foreign to us, they imagined and believed they could give satisfaction. Even the ancient Romans had found themselves at once under absolute necessity—where they did not follow the Alexandrian school—to transform rigid Greek art in accordance with their views and wants, and to bring it into positive harmony therewith.

Schinkel and his followers were but too much under the ban of Hellenic forms, and failed to succeed in making their own derived forms thrive as a national root. Schinkel's building activity was, aside from this, beset with the misery of the time in which he lived, he was ever under the necessity of employing for material the most miserable subordinates. Neither the majestic appearance of the Schinkel buildings nor the art inspiration emanating from King Ludwig of Bavaria were sufficient to overcome the misery of the age.

In the year 1841, Schinkel died. In 1834 Gottfried Semper, just returned from his art studies, had been called to the Academy of Arts at Dresden. Semper had received his art education at Paris; he had completed it in Italy and Greece, so that the French were not altogether in the wrong by claiming him as one of their stock. In France the development of art has ever been constant. The French consistently honored tradition, especially as to method and mechanical manner in art. They had not lost sight of a thorough and well formed ground plan, nor of a consequent logical development of elevation. Broad points of view, great principles

and comprehensive ideas governed their architectural conceptions. Architecture in France had and has not lost its prestige. It has ever been in harmony with the national feeling, and to this must be added the adroitness of the French in decorative art and their inborn taste.

Semper, acquainted as he was with art as practiced in Germany, acquired also the superiority of the French. In Italy and Greece he had gained his maturity. Thus he entered upon his calling as a finished, strong-willed artist; sagacious, knowing his aim, superior in the main to his German colleagues, and full of character and temperament. As such he began with writing at his home, Hamburg, and subsequently he conquered, with his new theater



MONUMENT TO GOTTFRIED SEMPER, DRESDEN.

* Festival oration at the unveiling of the Semper memorial at Dresden, delivered by Professor C. Lipsius. (Translated from the Berlin *Bau-Zeitung*, by F. Baumann, architect, Chicago.)

at Dresden, as though with a perfect storm, the recognition of all active and passive art circles in Germany.

For the first time, after a long interval, there stood before the eyes of his contemporaries a grand building, which eloquently and clearly expounded its true mission, as a work full of grace and alluring freshness, full of character and genuine monumentality.

In this, Semper's first significant work, we recognize in fact the range of the principles by which he was led in his art aspirations, and which are more and more positively pronounced in his later works, the very principles which he further develops in his theoretic works and places upon surer foundations.

The art of Schinkel was upheld by his personal gift. It stood and fell with him. Even all the grace and charm on the details made by his most gifted of disciples were not sufficient to extend the life of the Schinkel school, however much the same was sustained in art philosophy by the works of Carl Böttiger. The aim and intent of Gottfried Semper is not directed upon a thorough perfection of details for their own sake, nor upon the reproduction of any certain historic style, which, by its beauty, might fascinate an artist. His buildings are the outcome from the architectural task, and are with reference thereto, formed in harmony with the end for which they are to serve. With reference to beauty they are intended to exhibit a living organism, which singularly and wholly expresses its destination as intelligently and clearly as does a creation of free nature. In this sense he teaches, and also builds in harmony with his own nature. And because his Dresden theater represented such an organism, something wholly new and yet entirely plain to common understanding, we perceive therein the fiery and penetrating effect of this Semper work, which did not and could not repeat itself in a like measure on any other of his productions, because with it the path was cleared upon which alone architecture can arrive at a happy development and upon which alone it will be possible to arrive at an actual solution of its problems.

For expressing his art works Semper preferred the form-language of Roman, also renaissance art, which is therefrom derived, but he chose this merely as a means to an end, with free and independent conception. In the forms, as well as in the universal principle of modulation underlying these arts, tending to the individual, as they are, and in their grow-process, he recognized the prototype in the tracks of which our present age must move to aspire for a solution of all tasks, related as they are to those classic productions, though many times more complicated. Dresden was especially adapted to this end. Her grand life-sprouting renaissance monuments offered a basis particularly fit for the realization of his artistic aims, as well as for an approach to art of a former century.

At Dresden he erected also the Villa Rosa, the Palace Oppenheim, and a second masterpiece of his artistic felicity, the Museum. Then followed, after a lapse of about ten years, the Polytechnic Institute at Zürich, and a project for a theater at Rio Janeiro. Since then more and more aiming at the whole and the great, the master adopts the later renaissance as especially represented by Palladio. And with the project for a festival theater at Munich, and especially with the reconstruction of the Dresden theater, which had been destroyed by fire, he succeeds as a sovereign master for the means of expression in architecture (though with a neglect as to details, and with the most independent execution of especial parts as conditioned by the purpose in view) in arriving at the most significant architectural expression, such as is the outgrowth of his own power as an artist. And with his projects for the imperial museums, for the enlargement of the Burg, for the Burg theater, all at Vienna, he succeeds in reaching an architectural symphony still grander than had been on his mind as to his first creations at Dresden.

All his efforts are thus directed upon style: "The coincidence of a work of art with the preliminary conditions and circumstances that are casual to its origin." He demands style to be with every tectonic form; all art efforts shall exclusively be directed upon style, because style is determined by the personal momentum, the individuality of the maker. When and wherever the logical development ripens upon the foundation of an art principle consistently followed up, there we find all the preliminary conditions conducive to the highest beauty possible. And to the age in which he lives, so much in need of style, when, on account of the richness and of the exuberance of all that is inherited, nobody can find the right way, he devotes his literary main work: "the style in all technic and tectonic arts, or practical esthetics," which is a monumental code, not for yesterday or today, but for all future, as long as men live and build. He therein lays down and formulates the laws of creating in tectonic arts.

I intend not here to go into the details of this work, which Semper did not intend to be pure esthetics, or metaphysics of the beautiful; but rather calculated to be a support to his contemporaries, in order that they be firm in their intents. To add to his honor it is my duty to here direct your attention to the fact, that this tremendous document composed by Semper with the heart and soul of a born artist, bears witness to the acumen and sagacity of the thinker as well as to the profound scholarship of the scientific explorer. It has, as must be granted, brought to light treasures valuable not merely to art and industry, but precious also to the art historian, the archaeologist and esthetician. It has disclosed the understanding of architecture, and as to the unity of antique art in all its phases up to its consummation in Greek and Roman art.

It is a harmonious conglomerate of the rational and the ideal, founded upon a thorough humanistic culture of the profound

thinker and acute inquirer, the spirited artist and regenerator, such is the nature of Gottfried Semper.

Of such mold was the artist whom today we celebrate and to whose memory we devote this monument at the city of Dresden, where he accomplished his first great deeds in art and where he concluded his art career with a reaccomplishment of the work with which it had opened.

Now drop, thou veil of this monument which we have erected to his memory! Come to light, thou image of the imperishable master, and shine in form of indestructible metal, the true symbol of his own imperishableness which outlasts centuries!

[The veil is dropping.]

Gottfried Semper, thou pioneer and pathfinder, thou preceptor Germaniac in all tectonic formations, be type in the service of art, today and in all future, in order that our noble art may with blessing develop, so that it further expand, heartily and with pride, to the honor and glory of our German fatherland, and that it become fact and truth; this true and genuine art of our country, to which we devote all our faculties and powers and in which we trust to our ultimate breath.

[NOTE.—The orator fitly omits the mention of Semper's revolutionary action at Dresden in 1849. The city having then been captured by the Prussian guards, Semper succeeded, in fleeing for his life, to reach the port of Hamburg, and he thence went to London, where he made his living as a teacher. In 1852 he had so far succeeded in drawing attention, that he was employed to design and in fact produce the celebrated funeral conveyance, on which the corpse of the Duke of Wellington was carried to Westminster Abbey, and which is kept in a compartment at St. Paul's Cathedral. It is a positive work of fine art, an independent characteristic invention of a profound thinker, who knew how to give life and expression to the whole and to every particular part of it.]

PILING FOR ISOLATED FOUNDATIONS ADJACENT TO WALLS.

At the regular monthly meeting of the Illinois Chapter of the American Institute of Architects, December 19, Mr. Dankmar Adler led the discussion on piling for foundations, using as an example the foundations of the lately-completed Schiller opera house and office building at Chicago, of which he is architect, and narrated the experiences incident thereto.

Mr. Adler said that in calling upon him to lead the discussion upon pile foundations he could give but little new information in a general way, as pile foundations had been used in marshy soil, on river banks, etc., from the Romans down, but that no two authorities seemed to agree as to their bearing capacity, all this seeming to depend largely upon the substance into which they were driven. Pile foundations had been used in Chicago for many years; the oldest heavy buildings, such as elevators on the river bank, had been built on piles, and successful in results. No building could be more trying on piles than elevators, with their constantly shifting loads, and under these pile foundations had so successfully maintained their integrity that they were well worthy of consideration. Twenty years ago it was the fashion to decry the use of piles, because in one building the piling was done carelessly, and the slipshod design, carried out in a slipshod manner, was not held up by the foundations. There are no reliable text-books upon the subject of pile foundations, and experience is the only guide to their successful use. Finally came the stone and concrete, and then the steel foundations, and this it was assumed to be the last word, and ended the use of piles in foundations for a time at least. The speaker regretted the absence of Mr. S. S. Beman, for to him belongs the credit of reviving the use of pile foundations, as four years ago he placed piles under the Northern Pacific railway station under trying circumstances, as part of them supported a tower 240 feet high, and the building itself is eight stories. There has been no indication of unequal settlements, showing the problem to have been successfully solved, and it would have been interesting to have had Mr. Beman describe the method used. The chief success of Mr. Beman lies in the necessity that came to him of designing a building ten stories high, each pier carrying 400 pounds to the square foot, which made it almost impossible to carry the load by iron and concrete. The speaker called attention to the successful use of piles in a large cold-storage warehouse, in which when filled to its full capacity no irregularity of settlement was noticed. This brings the history of the use of piles to the Schiller building, where there were enormous concentrations of loads next to adjacent walls, so that at first it seemed impossible to make concrete foundations without an expense almost prohibitive. After consultation with Gen. William Sooy-Smith and Mr. Beman, it was determined to drive piles fifty feet down and load fifty-five tons per pile. After the building was completed some little time, the record showed movement of the foundations varying from one and one-half to two and one-quarter inches, which seemed on the whole to be quite successful, and not enough variation to make any appreciable damage in the structure.

In narrating some very interesting experiences in the driving of these piles, the speaker said that in preparation he was mindful of the fact that whenever piles are driven the soil rises for several feet around; therefore as we drove these piles the tendency would probably be to raise the soil under the foundations of the other buildings, and several thousands of dollars would have to be spent to prevent this. It was found upon driving the first piles that an adjoining building had settled six inches and had to be raised on screws, and throughout the driving of the piles this tendency was noticed, necessitating constant watchfulness to prevent. Another surprise was, that of the four surrounding buildings, the one with the least efficient foundation was the only one by which such attention was not required, and piles were driven right up to the line

and there was no movement of the walls. Under the Borden block, which was the heaviest building, the movement was such as to necessitate holding it up and inserting new foundations. Another peculiarity which seemed to be the legitimate outcome of the pile-driving was the apparent readjustment of the particles of clay and sand into the condition of a jelly, thus destroying the resisting qualities. The water in the soil is not thoroughly mixed, but occurs in strata and pockets, and the only way the speaker could account for the mixing of the soil was that the jar of driving mixed the water and sand and made it jelly. Another development shows that it is possible to give a foundation so wide a bearing as to resist settlement. When we built the Borden block, in 1879, the soil was bad and full of water, yet the building has stood well. But immediately upon driving piles next it a way was opened for the water, and it rushed in so fast it was almost impossible to stop it. It was necessary to place a new concrete and I-beam foundation with a load pressure of 3,000 pounds; and with all the hard driving no further impression was made and no movement noticed since the completion of the Schiller building. These experiences on the whole were interesting, and gave us several surprises, particularly as an upheaval and not a depression was expected. General Sooy-Smith, who is present, has looked into the matter of piling longer and more thoroughly than I have, and will tell you more about it.

Gen. William Sooy-Smith was introduced and referred to the pile foundations of the new Public Library, of which he was consulting engineer. To cut off connection with the soil being disturbed by the piling three rows of heavy sheet piling were driven, but the speaker was not sure that by driving the sheet piles so much more soil was disturbed and it would have been better to have let it alone. In answer to a question by Mr. Treat regarding the law of damage to adjacent property, the speaker said the general law included pile foundations, and Mr. Jenney, quoting from a recent decision, said the judge was of the opinion that no property owner is allowed to depend on his neighbor for his support, and if he falls down into his neighbor's excavation the responsibility rests with him.

Continuing, Mr. Sooy-Smith called attention to the circumstances under which architects in Chicago were compelled to build foundations, the soil under which varied from the consistency of putty to that of hard clay in strata of hard and soft. When a test load was applied to the surface an initial settlement occurs on the surface. When this has taken place, and it will take place at about one ton to the square foot, by increasing the weight another settlement is produced which will cease in a few hours, and further settlement will not directly occur even with a load of 4,500 pounds to three square feet. I have been inclined to report this as a safe load, but in addition there is a further progressive settlement owing to the gradual pressing of the water from the clay. I had occasion to sink wells under the Auditorium twenty-four feet deep, five feet in diameter, four and one-half feet from the foundations, the borings being through stratified clay ten feet apart and found that the clay had become compact, showing that this change does take place. Settlements have since been watched from levels at stated intervals running through several years, and it is uniform at about a sixteenth of an inch a month, due to this pressing out of the water in the clay. In Chicago now we are better prepared therefore to estimate settlements. If the building is heavy an immediate settlement of from two and one-half to four inches will be noticed and then a progressive settlement. It is the uncertainty of settlement that has again driven us to the use of piles which, when honestly driven, is the best alternative.

The speaker referred to the driving of the piles under the county building as the most ridiculous proceeding ever experienced in foundations in the city. Almost anywhere in Chicago piles forty or fifty feet long reach solid clay. In the Public Library foundations the piles are driven sixty-five feet below the surface. Here a trench twenty-seven feet deep was dug and the piles driven to hard pan. In speaking of pile hammers the Nasmyth steam hammer was said to be much preferable, as the drop hammer made too great a vibration. After speaking of the practicability of sinking rectangular wells and springing an arch, which can be done without disturbing the walls of adjacent buildings, the speaker referred to the extreme antiquity of the use of piles as evidenced by those found in the Rhine which were driven by the Romans, and those under old London Bridge. In regard to cost of piling it was found to be one-third cheaper than the ordinary method used in detached foundations. An interesting experience related was the result of drawing piles where it was found that the frictional resistance of an ordinary oak pile in clay driven to the depth of forty-five feet was three pounds to the square inch, or four hundred and fifty pounds per lineal foot, equal to about forty-five thousand pounds. The strength of piles driven, as those in the Public Library, three feet between centers, is about sixty-five hundred pounds, and the resistance of the clay between will add to this. The hard pan underlying Chicago is a mixture of clay and gravel from zero to ten feet thick which is cemented and almost as good as rock to resist piles.

A general discussion of the subject then ensued, in which Mr. Baumann gave some interesting experiences. Mr. Greg Vigeant spoke of the inadvisability of capping piles with timber as the crushing strength of the timber is so much less than the bearing strength of the pile.

The discussion was closed by Mr. Adler, who said:

"It is necessary now to conclude this evening's discussion, although it might with interest to all of us be prolonged until morning. We have merely begun to draw upon the store of

knowledge and experience and the wise conclusions drawn therefrom stored up in the mind of our honored guest, General Smith. I regret exceedingly that my friend Baumann preferred to show us what he knows and what he does not know about law rather than to justify the high esteem in which we all hold him as the first expositor of the theory of isolated pier foundations, and as one of the most capable and clear-headed constructors in the United States. I regret, further, that our friend Wight, the designer of the first concrete and steel foundation used in Chicago, should have been too modest to favor us with some of his observations and conclusions. I also feel a sense of loss at the absence from this meeting of our friend Beman, who has made such successful recent use of pile foundations. But, altogether, I trust that you will agree with me in believing this evening well spent, and I thank you all for your attendance and for the patience and interest with which you have followed our discussions."

The meeting was attended by the largest number of members present for many months. The subject for the next meeting was not announced, but it is understood that in the near future the Chapter will listen to a paper upon Japanese architecture by M. Kuru, the Japanese architect.

THE EXHIBITION OF THE ARCHITECTURAL LEAGUE IN NEW YORK.

THE eighth annual exhibition of the Architectural League of New York was opened on January 2, in the handsome new building of the American Fine Arts Society, at 215 West Fifty-seventh street. Since its organization, just twelve years ago, the League has increased greatly in membership and influence, and now its annual exhibitions form a conspicuous event in the artistic life of the metropolis. Its resident members number nearly two hundred, besides forty-nine non-residents, all of whom participate in the exhibition.

The entire display includes over six hundred pieces, but these are not all strictly architectural, nor are they all original productions. The tapestries, leather hangings and other curios loaned by various owners, as well as the specimens of wood carving, of modeling in plaster, of wall papers, of wrought-iron work, artificial marbles, etc., form an important and attractive feature.

In taking a general survey one is impressed with the large amount of choice art work which is being done in directions and places seldom thought of for the World's Fair in Chicago. An extremely graceful pair of exhibits in the form of frieze and other mural decoration for the World's Fair, is by Walter Crane, of England.

Turning to subjects of more strictly architectural interest, one of the first to attract and reward attention as one enters the south gallery, is the very large water-color perspective by Babb, Cook & Willard, of an office building after the Chicago fashion of skyscrapers. The design commends itself for the self-control it displays, no less than for its good proportions, while the water color is simple, natural, and the landscape is subordinate to the building.

Adjacent are three large competition drawings for the Rhode Island State House; one by Stone, Carpenter & Willson, of Providence; one by J. C. Cady, of New York, and one by Hoppin, Read & Hoppin, of Providence. Mr. Cady's drawing appears to show a building nearly twice as large as those shown by the other competitors. This raises the question whether there is any delusion about either of these competition perspectives, or was the cost per cubic foot so reduced in the one case as to justify the discrepancy in size.

The various competitions for the state buildings at the World's Fair have furnished a conspicuous part of the exhibit, though certain drawings would be in better taste were they less conspicuously handled. There is in some a disregard of perspective rules, and in others a festive hilarity of landscape which, far from "setting off" the building, as a landscape should, quite relegates it to the rear. The eye is so captured by the goldenrod, the crimson poppies, hollyhocks, etc., in front, as to miss the building itself. The California State building, drawn by Schweinfurth, offends particularly, both by its circus poster quality of landscape, and by the stunning loudness of color values in the building itself, which seems almost ready to leap from the wall.

The New York State building is heavily loaded with an arboretum on its roof as well as on the terraces, and the trees themselves are remarkably conventional, being liquid with purplish and sanguinary tints, very suggestive of an ulcerous tumor much in need of a poultice. Such eccentricities of rendering are not to be excused nor extenuated. It is to be hoped they will find few imitators.

There is some excellent water-color work in a gentler fashion by Beeckman and by Hughson Hawley, also by R. H. Robertson, who signs his drawings with his name in full, so artistically formed that, like an old-fashioned monogram, it is instantly recognized by its illegibility. There is some choice and very artistic work of a sketchy character on tinted paper by Rossiter & Wright, also by Cope & Stewardson, of Philadelphia; by Charles Alling Gifford, of New York; and some especially effective and dainty water-color sketching by W. W. Kent, of New York. R. Kendrick, of New York, contributes a soft, harmonious, yet effective, bit of water-color sketching of an Old House in Morlaix, France.

There is considerable fine pen-and-ink work on exhibition, among which that by A. King James is noteworthy for its beauty, though he inclines to over-elaboration. Renwick, Aspenwall &

Renwick send an admirable pen-and-ink drawing of a Granite Tomb, drawn by B. G. Goodhue. The solid black foliage with a half-tone sky beyond form an excellent foil for the tomb without competing with it. Adjacent is an exquisite piece of pen-and-ink rendering in a Design for a County House, by E. K. Storm, New York, which, for effective chiaroscuro, for delicacy and feeling, is unsurpassed in the whole collection, though it is too small to attract much notice.

Mr. Frank A. Hayes, of Philadelphia, has an admirable though simple sketch in pencil, which does not suffer in comparison with the ink or color drawings, and is very instructive as showing what can be done with this instrument. There are other pencil drawings less noteworthy. There are, besides, a number of excellent interiors, by Bruce Price, Green & Wickes, Hutchins and others, very effectively colored, though in some of the best drawings the color appears mostly by faint suggestions, leaving the eye to supply the rest. It is an indisputable fact in psychology that the eye enjoys those renderings where it is allowed to supply what is merely suggested with more relish than those which have nothing for the eye to furnish.

In conclusion, the photographs should be remarked as a very important and interesting feature, both as to exteriors and interiors. Among them the view of Randall Memorial Church, Staten Island, by R. W. Gibson, architect, of New York, attracts much attention for its harmony, simplicity and beauty.

THE STANDARD CONTRACT FORM.*

FORM OF CONTRACT ADOPTED AND RECOMMENDED FOR GENERAL USE BY THE AMERICAN INSTITUTE OF ARCHITECTS AND THE NATIONAL ASSOCIATION OF BUILDERS AS REVISED BY THE JOINT COMMITTEE
JANUARY 10, 1893.

Architects.

THIS AGREEMENT, made the..... day of..... in the year one thousand eight hundred and ninety..... by and between.....

(Five lines space.)

..... party of the first part (hereinafter designated the contractor), and.....

(Four lines space.)

..... party of the second part (hereinafter designated the owner),

WITNESSETH that the contractor, in consideration of the fulfillment of the agreements herein made by the owner, agrees with the said owner, as follows:

ARTICLE I. The contractor under the direction and to the satisfaction of

..... architects, acting for the purposes of this contract as agents of the said owner, shall and will provide all the materials and perform all the work mentioned in the specifications and shown on the drawings prepared by the said architects for the.....

(Thirteen lines space.)

which drawings and specifications are identified by the signatures of the parties hereto.

ART. II. The architects shall furnish to the contractor such further drawings or explanations as may be necessary to detail and illustrate the work to be done, and the contractor shall conform to the same as part of this contract so far as they may be consistent with the original drawings and specifications referred to and identified, as provided in Article I.

It is mutually understood and agreed that all drawings and specifications are and remain the property of the architects.

ART. III. No alterations shall be made in the work shown or described by the drawings or specifications, except upon a written order of the architects, and when so made, the value of the work added or omitted shall be computed by the architects, and the amount so ascertained shall be added to or deducted from the contract price. In the case of dissent from such award by either party hereto, the valuation of the work added or omitted shall be referred to three (3) disinterested arbitrators, one to be appointed by each of the parties to this contract, and the third by the two thus chosen; the decision of any two of whom shall be final and binding, and each of the parties hereto shall pay one-half of the expenses of such reference.

ART. IV. The contractor shall provide sufficient, safe and proper facilities at all times for the inspection of the work by the architects or their authorized representatives. He shall, within twenty-four hours after receiving written notice from the architects to that effect, proceed to remove from the grounds or buildings all materials condemned by them, whether worked or unworked, and to take down all portions of the work which the architects shall by like written notice condemn as unsound or improper, or as in any way failing to conform to the drawings and specifications.

ART. V. Should the contractor at any time refuse or neglect to supply a sufficiency of properly skilled workmen, or of materials

of the proper quality, or fail in any respect to prosecute the work with promptness and diligence, or fail in the performance of any of the agreements herein contained, such refusal, neglect or failure being certified by the architects, the owner shall be at liberty, after..... days' written notice to the contractor, to provide any such labor or materials, and to deduct the cost thereof from any money then due or thereafter to become due to the contractor under this contract; and if the architects shall certify that such refusal, neglect or failure is sufficient ground for such action, the owner shall also be at liberty to terminate the employment of the contractor for the said work and to enter upon the premises and take possession, for the purpose of completing the work comprehended under this contract, of all materials, tools and appliances thereon, and to employ any other person or persons to finish the work, and to provide the materials therefor; and in case of such discontinuance of the employment of the contractor, he shall not be entitled to receive any further payment under this contract until the said work shall be wholly finished, at which time if the unpaid balance of the amount to be paid under this contract shall exceed the expense incurred by the owner in finishing the work, such excess shall be paid by the owner to the contractor, but if such expense shall exceed such unpaid balance, the contractor shall pay the difference to the owner. The expense incurred by the owner as herein provided, either for furnishing materials or for finishing the work, and any damage incurred through such default shall be audited and certified by the architects, whose certificate thereof shall be conclusive upon the parties.

ART. VI. The contractor shall complete the several portions, and the whole of the work comprehended in this Agreement by and at the time or times hereinafter stated.....

(Five lines space.)

provided that.....

(Five lines space.)

ART. VII. Should the contractor be obstructed or delayed in the prosecution or completion of his work by the act, neglect, delay or default of the owner, or the architects, or of any other contractor employed by the owner upon the work, or by any damage which may happen by fire, lightning, earthquake or cyclone, or by the abandonment of the work by the employees through no default of the contractor, then the time herein fixed for the completion of the work shall be extended for a period equivalent to the time lost by reason of any or all of the causes aforesaid; but no such allowance shall be made unless a claim therefor is presented in writing to the architects within twenty-four hours of the occurrence of such delay. The duration of such extension shall be certified to by the architects, but appeal from their decision may be made to arbitration, as provided in Article III of this contract.

ART. VIII. The owner agrees to provide all labor and materials not included in this contract in such manner as not to delay the material progress of the work, and in the event of failure so to do, thereby causing loss to the contractor, agrees that he will reimburse the contractor for such loss; and the contractor agrees that if he shall delay the material progress of the work so as to cause any damage for which the owner shall become liable (as above stated), then he shall make good to the owner any such damage. The amount of such loss or damage to either party hereto shall, in every case, be fixed and determined by the architects or by arbitration, as provided in Article III of this contract.

ART. IX. It is hereby mutually agreed between the parties hereto that the sum to be paid by the owner to the contractor for said work and materials shall be \$.....

(Four lines space.)

subject to additions and deductions as hereinbefore provided, and that such sum shall be paid in current funds by the owner to the contractor in installments, as follows:

(Ten lines space.)

The final payment shall be made within..... days after this contract is fulfilled.

All payments shall be made upon written certificates of the architects to the effect that such payments have become due.

If at any time there shall be evidence of any lien or claim for which, if established, the owner or the said premises might become liable, and which is chargeable to the contractor, the owner shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify him against such lien or claim. Should there prove to be any such claim after all payments are made, the contractor shall refund to the owner all moneys that the latter may be compelled to pay in discharging any lien on said premises made obligatory in consequence of the contractor's default.

ART. X. It is further mutually agreed between the parties hereto that no certificate given or payment made under this contract, except the final certificate or final payment, shall be conclusive evidence of the performance of this contract, either wholly or in part, and that no payment shall be construed to be an acceptance of defective work or improper materials.

ART. XI. The owner shall during the progress of the work maintain full insurance on said work, in his own name and in the name of the contractor, against loss or damage by fire. The policies shall cover all work incorporated in the building, and all

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materials for the same in or about the premises, and shall be made payable to the parties hereto, as their interest may appear.

(Six lines space.)

ART. XII. The said parties for themselves, their heirs, executors, administrators and assigns, do hereby agree to the full performance of the covenants herein contained.

IN WITNESS WHEREOF, the parties to these presents have hereunto set their hands and seals, the day and year first above written.

In presence of

..... [SEAL]
..... [SEAL]
..... [SEAL]
..... [SEAL]

ROOT MEMORIAL COMPETITION OF THE C. A. S. C.

WHEN Secretary Youngburg, of the Chicago Architectural Sketch Club, received an offer of \$150, of which D. H. Burnham contributed \$100, and John Meiggs Ewen \$50, to be used as premiums for a club competition, the subject to be a memorial to the late architect, John Wellborn Root, he not only established a meritorious competition but provided a subject to which each member would give his best effort. The result has just been announced by the adjudicating committee as follows:

REPORT OF COMMITTEE ON ROOT MEMORIAL COMPETITION.

CHICAGO, January, 9, 1893.

Mr. John E. Youngburg, Secretary, Chicago:

DEAR SIR,—At a meeting of the committee at 12 o'clock today there were present Messrs. Lorado Taft, Charles B. Hutchinson and myself, Mr. Burnham being unable to be present. Mr. Stanford White had previously given an opinion, in the absence of Mr. McKim in Europe.

The designs were premiated in the following order: First, "Caridad"; second, "Sisyphus"; third, "Wellborn." Honorable mention to "Oneida" for scholarship and rendering, but the general design was considered inferior to the drawing marked "Wellborn." Yours very truly,

CHARLES B. ATWOOD.

Chairman of Committee on Chicago Architectural Sketch Club competition for Root Memorial.

Mr. Stanford White's letter, referred to in Mr. Atwood's report, is as follows:

NEW YORK, December 17, 1892.

Charles B. Atwood, Esq., The Rookery, Chicago, Illinois:

MY DEAR MR. ATWOOD,—In relation to the competition of the Chicago Sketch Club for the Permanent Memorial Monument to John Wellborn Root, in conjunction with the drawings we are asked to consider the following points: First, scholarship; second, practicability; third, originality; fourth, rendering; fifth, adherence to the above conditions.

It seems to me that the only important points are those of design and practicability, and that the others are of hardly any importance. If any of these designs are neither good nor practical, certainly it makes very little difference whether they are original or well rendered.

My own decision is that "Caridad" is by far the best of the designs submitted. It is best in design and scholarship, and is perfectly practical. I should place "Sisyphus" second, and "Oneida" third.

I have sent the drawings to Professor Ware, as directed.

Sincerely yours,

STANFORD WHITE.

The committee of judges, composed of Messrs. Charles B. Atwood, Charles F. McKim, D. H. Burnham, Charles L. Hutchinson and Lorado Taft, were unable to meet together, owing to the absence of Mr. McKim in Europe. However, the addition of Professor Ware and Mr. Stanford White were secured as substitutes. Some little time was consumed in transmitting the drawings to and from New York, so that the anticipation of Secretary Youngburg to have these drawings at the annual banquet was not realized. This competition expresses the scholastic and artistic talent of the club. The first prize, \$75, awarded to Mr. P. J. Weber ("Caridad"), was received with approbation. Much comment in the placing of the second prize, \$50, and third prize, \$25, to F. M. Garden ("Sisyphus"), and Ernest F. Guilbert ("Wellborn"), was expressed at the last meeting of the club. Mr. A. C. Berry ("Oneida") was awarded honorable mention.

The competition was very spirited, and each of the eighteen competitors expended his best talent in an effort to perpetuate the memory of the Sketch Club's most illustrious member.

Besides the four mentioned whose designs were premiated, the other competitors, who number among them several who are prize medalists of former club and national competitions, one of them having just been awarded the gold medal by the New York Architectural League, are as follows: W. G. Williamson, J. E. Youngburg, C. A. Kessell, Emery Roth, R. E. Smith, Hugh M. G. Garden, E. G. Garden, Alfred F. Evans, P. C. Stewart, Arthur Heun, Julius Harder, Will J. Beaulieu, C. Bryant Schaefer.

ON Monday evening, January 2, the members of the Woodlawn Park club presented Mr. J. N. Emmons with a beautiful watch charm as a mark of their appreciation of his services as architect of the club building. The charm is made of the finest gold, unique in design, of exquisite workmanship, and altogether a masterpiece of the goldsmith's art. It is in the form of one of the windows of the building, with columns surmounted by an arch richly carved; in the recess is the trestle-board, compass, square, and protractor, emblematic of the profession, and relieved and surrounded in part by a branch of oak. The presentation was made by Mr. A. J. Mills on behalf of the club, among whom may be mentioned A. S. Delaware, M. J. Enright, A. J. Mills, F. U. Green, W. S. Ford, W. H. King, and many others, and whose esteem Mr. Emmons has by his faithful services and unswerving integrity in the face of great difficulties deservedly won. The building was dedicated in February last, and to those not familiar with it may be described as a large and handsome structure, substantially built with rock-faced pressed brick with cut stone courses.

NEW PUBLICATIONS.

ARCHITECTURAL RENDERING IN SEPIA, by Frank Forrest Frederick, Professor of Industrial Art and Design in the University of Illinois. William T. Comstock, New York, 1892.

This is a quarto of forty pages and thirteen full-page plates printed on heavy egg-shell paper, all in an artistic sepia colored cloth cover, and making an attractive volume. It treats the subjects of chiaroscuro, composition, handling, materials, etc., in a direct, concise and practical manner. The style is such as a teacher would use orally to his class—short paragraphs with no rambling digressions. The principles set forth are sound and pertinent; if generally known and observed they would lead to a great improvement not only in architectural rendering but also in exterior design itself.

It is to be regretted, perhaps, that the plates are quite elementary, most of them being reproductions of students' work. A single highly finished sepia drawing would add materially to the usefulness of the work. There is also an occasional disregard of the King's English, arising perhaps from hasty preparation for the press, but which is none the less a blemish in a beautiful and serviceable text-book.

"ENGLISH CATHEDRALS"—by Mrs. S. Van Rensselaer. Illustrated by 154 drawings by Joseph Pennell. New York, The Century Company; Chicago, A. C. McClurg. Price \$6.

There is a seductive charm about the cathedral churches of Europe that attracts to their time-honored walls the traveler and tourist from all over the world. But to no nation are these ancient examples of Gothic architecture so interesting as to our own, for we, in America, have nothing akin to them. The young American architect feels the lack of trustworthy examples at home. He has to look outside the scope of this new continent for his inspirations.

France, England and other European countries, have each their noted cathedrals, but we are accustomed to look upon those of the two former, as the stereotypes of Gothic architecture. Every nationality has its marked peculiarities of construction and decoration, and every church its own distinctive features. They differ from one another in plan and design, and each one has its own cluster of historical facts and associations. "A Gothic cathedral," says Ruskin, "is properly to be defined as a piece of the most magnificent associative sculpture, arranged on the noblest principles of building, for the service and delight of multitudes."

These stones have been for ages the educators of the architect, the art student and the architect. They tutor the eye of the beholder by the grandness of their artistic conception, by the perfection of their scientific construction, and by the richness and variety of their details and decorations.

The history of the country is built up in bold relief in these cathedral piles. They tell their story in their stones. To rightly read that story, and profit by its teaching, we have to remember that these ecclesiastical structures do not, in any one of them, represent the design of any individual architect, or the work of any single decade; but, on the other hand, are the result of a gradual development, and of continual additions, extending through several centuries of time and bearing the stamp on each of their various parts of the style or fashion of construction or decoration prevailing during the period when these several portions were built or restored.

The cathedrals date from away back in the rude ages, and their stones chronicle the scale of changes as they were reared. Passing from the "Saxon" period, in the tenth century, to the bold and heavy "Norman"; changing again in the twelfth century to the lighter "Early English," when the pointed arch was introduced, and again toward the end of the thirteenth century, when the "Decorated" or pure Gothic period prevailed, and finally succeeded about the year 1380, by the "Perpendicular" or "Floral" Gothic. Some of the cathedral churches of England—Winchester, for example—furnish a complete study of the whole gamut of changes within themselves.

The gifted and observant authoress, Mrs. Van Rensselaer, in her "English Cathedrals," gives, in vivid word painting, her art criticisms and historical notes on a select number of England's finest cathedrals. Her style is at times somewhat pedantic, but always clear, bright, and decided. She writes in a way that will attract and interest the general reader, and in a strain so convincing that conviction will naturally follow. Every reader of the book must feel that the critical pen of the authoress has been deftly handled by the fingers of an expert.

This work is the outcome of a series of articles which originally appeared in the *Century Magazine*. The book is elegantly printed and artistically produced. The text is most beautifully illustrated by the able pencil of Mr. Joseph Pennell, in over 150 masterpieces of art, illustrating these brilliant gems of English architecture and contiguous landscape. And though the work of an amateur, written specially for amateurs, and particularly for American general readers, still there is much in it that will repay the perusal of the rising architect, and tempt him to add the "Cathedrals of England" to his library.

Mrs. Van Rensselaer writes as one deeply infused with the conviction that she is a woman with a mission. From the introduction to the conclusion of the book, the halo of a previous scrutiny of the cathedrals of France surrounds almost every page, and there is considerable tautology in her Anglo-French comparisons. The authoress avails herself of every opportunity to draw comparisons between what she sees in England and what she saw in France, and her mission appears to be to convince the reader that the cathedrals of England are inferior constructionally and artistically

to those of France. That may be all very well as a general remark, but we have no reason to assume that any rivalry or competition existed between the builders of France and the builders of England. But we do know that these cathedral churches are individually really the independent work of a distinct people. A parallel construction, a growth from the same seed, perhaps, but in another climate, and amidst different surroundings. What if the English cathedrals are longer, and not as wide, nor as tall, as their Gallic contemporaries! Still they can hold their own, and they stand out in grand majestic beauty as the records of the past ages of gothic architecture in England, ennobling examples that every aspiring American student of architecture would delight to study. There are fully a score of cathedrals in England. This work, however, only embraces a dozen of them, but these twelve are treated in a comprehensive manner. The concluding chapter of the book is devoted to St. Paul's and the Renaissance Architecture of Sir Christopher Wren.

It is pleasant to those of us who have had the opportunity of studying these gems of architectural art on the other side, to have such charming memories revived, and Mrs. Van Rensselaer deserves the high thanks of all Americans for the painstaking criticisms, lucid descriptions and historical facts she has embodied in her "Cathedrals of England," and for the taste with which she has accomplished her graceful task.

A MANUAL OF INDUSTRIAL DRAWING FOR CARPENTERS AND OTHER WOOD-WORKERS, by W. F. Decker. Second edition, revised. William T. Comstock, publisher. New York, 1892.

Mr. Decker's modest book on "Industrial Drawing," published some time since, appears to have been so well received that a second edition has appeared, revised, corrected and enlarged. It is now a neat octavo of 133 pages, including twenty-six full-page plates facing the text. Its contents embrace a description of drawing instruments and materials, and the methods of making rough sketches, lettering and titles, elementary, isometric and cabinet projections, and the working plans and sections of a frame house, with a specification for the same. The subjects are well chosen and the directions are generally clear and practical.

For no obvious reason the plan is placed above the elevation in the examples of elementary projections and below in the following plates; and the illustration of a cube in cabinet projection is incorrect. Plates IX and X do not show the best practice of detailing. It takes less time and is better in every way to make drawings "full size" of such details instead of scale drawings overloaded with explanatory figures. The specification in the appendix is far from complete.

HOW TO JOIN MOLDINGS; OR, THE ARTS OF MITERING AND COPING. A complete treatise on the proper modern methods to apply practically in joining moldings. A book for working carpenters, joiners, cabinet makers, picture-frame makers and woodworkers. Clearly and simply explained by over forty engravings, with full directive text. By Owen B. Maginnis, author of "Practical Centering," "The Carpenter's Handbook" (London), etc. New York: William T. Comstock, 23 Warren street, 1892. Sent by mail for \$1 free of postage to any part of the world.

When the craze for "Queen Anne," "Eastlake," and other forms of Gothic appeared, fifteen years ago, we learned that the mitering of moldings was unconstructive and unreasonable, and that henceforth only butt joints would be used by sensible folk. But the reaction is already well advanced, and therefore a "complete treatise" on mitering is timely. Mr. Maginnis' book is a duodecimo of seventy-three pages, well printed, and well illustrated with inserted cuts and plates, and is well gotten up. There are nine chapters, describing the construction of miter boxes and the lines of miters in rectangular, polygonal and curved figures. The cuts and directions in the opening chapters are very full and practical; but the treatment of miters in curved and "sprung" moldings is less satisfactory. The author here refers readers who may "desire to become thoroughly acquainted with this subject . . . to some of the very excellent works written by various authors treating on it." This conflicts with the preface, which says, "there has never been any book printed treating at length on this important art," and leaves the reader, who has resorted to this "complete treatise," to his own devices in the very part where he most needs instruction, and without even the name of any of the books to which he is referred. The instruction needed should be given in full, or a full list should be added of the books which contain it.

ASSOCIATION NOTES.

EDINBURGH ARCHITECTURAL ASSOCIATION.

On November 21 a lecture, illustrated by limelight views, was given by Mr. G. A. T. Middleton, A. R. I. B. A., upon "Architectural Tours in Belgium and Brittany," before the Edinburgh Architectural Association. The association met for the first time in the Royal Institution, Princes street. Mr. W. W. Robertson, president, occupied the chair.

The ecclesiastical forms of architecture Mr. Middleton divided into three periods—Romanesque, Gothic and Renaissance. In Belgium the Romanesque architecture was founded upon the German work, and was an offshoot from the Rhenish Romanesque introduced by Charlemagne. It was exemplified in the Cathedral of Tournai, where one found work resembling that of the Normans. In Brittany the Romanesque architecture showed many characteristics common to the English style, and was founded equally upon the Byzantine work of southern France. Details given from both districts showed a late adherence to the semi-circular arch. The Gothic architecture in Belgium was rather

German than French in feeling, and was exemplified in many grand cathedrals, of which the towers—as at Antwerp and Malines—were the distinguishing features. The whole compositions were designed to lead up to them. The ironwork was very bold and was as good as any English ironwork. By cheapening the work, however, it had degenerated. The smaller churches in Belgium were often of a simple, early character, well proportioned, but many were badly restored, though they were now being restored in good taste. In Brittany the work was essentially French. It was often stigmatized as coarse in character, but this was owing to the granite material. The Renaissance architecture was heavy in Belgium but light and delicate in Brittany. An instance of this was the plaster tomb at Dol Cathedral. Proceeding to deal with the municipal architecture Mr. Middleton stated that the Belgium municipal work was of late Gothic and early Renaissance character, highly suggestive of an eager municipal life, and great commercial prosperity. The hotels-de-ville were in many cases well designed and rich to excess, as at Brussels and Tournai. The belfries were more simple, and the *hals-aux-drap* well suited for their purpose. That at Ipres he instanced as particularly fine. The domestic style in the Belgian mediæval dwellings, with their richly-traceried gabled brick fronts, showed wealth and comfort; while those of Brittany, built chiefly of granite below and timber above, though equally beautiful, suggested a quieter life. The detail in the latter did not speak of so highly educated a people.

MINNESOTA CHAPTER A. I. A.

At the second annual meeting of the Minnesota Chapter of the American Institute of Architects, December 2, 1892, held in the West Hotel, Minneapolis, the following officers were elected:

President, William Channing Whitney, of Minneapolis; vice-president, Cass Gilbert, of St. Paul; secretary and treasurer, George E. Bertrand, of Minneapolis; directors, the officers and Fred G. Corser, of Minneapolis, and C. H. Johnston, of St. Paul.

Thirteen new members were admitted during the year, making a present membership of twenty-seven.

SKETCH CLUB OF NEW YORK.

The regular monthly meeting of the Sketch Club of New York was held at the rooms of the Club, 47 West Forty-second street, Saturday evening, January 7, 1893. Forty-six members and four guests were present. Mr. John La Farge, the guest of the evening, gave the history of the decorations of Trinity Church, Boston, which was very much enjoyed by all present.

At the conclusion of Mr. La Farge's talk the criticism on the Park Vase competition by Mr. Frank Freeman was read. Mr. B. Hustace Simonson received first mention and Mr. Haralson Bleckley, second.

Fourteen drawings were submitted in the Hillside Tomb competition for January.

Mr. Charles F. Miller, of the J. M. Cornell Iron Works, has offered prizes to the club of \$35 and \$15 for a design of a country house, plans to be furnished. Perspective outline drawing to be submitted only; designer can send in others if he chooses. Mr. Miller will make arrangements with the successful man to carry out the work.

Mr. James Ackerman offered a prize of a box of instruments valued at \$20 to the members of Mr. Kirby's Pen-and-ink class, for the best designed and rendering of a stone panel.

The following class nights were announced for January: Water color, January 12; instructor, Clarence S. Luce. Construction, January 20; instructor, Charles T. Miller. Pen-and-ink, January 27; instructor, Henry P. Kirby.

Mr. J. N. Hutchins is the recording secretary of the club.

SOUTHERN CHAPTER, A. I. A.

The second annual convention of the Southern Chapter of the American Institute of Architects was held in the Caldwell House at Birmingham, Alabama, on January 10, 11 and 12. A report of the convention will be published next month. The visitors, which included architects from all of the southern states, were well received by the Alabama state architects, and a most enjoyable as well as profitable meeting was held, ending with an excursion to the neighboring iron and steel industries, and a banquet at which Ex-President A. C. Bruce, of Atlanta, acted as toastmaster.

MEETING OF BOARD OF DIRECTORS A. I. A.

The regular meeting of the Board of Directors of the American Institute of Architects was held at Washington, D. C., January 10, 11 and 12. While occupying three days progress the work done was not so extensive as to fill in the entire time, as the main object of the meeting at Washington was for the purpose of meeting the Senate Committee on Buildings and Grounds regarding the bill which passed the house last session for the reorganization of the office of supervising architect. In the directors' meeting the work done was largely routine, consisting of the appointment of standing committees, the election of the executive committee, which remains the same as last year, and the general review of association matters. Nothing was done in reference to the resolution passed at the last convention regarding the engagement of a permanent secretary, the result of the discussion upon which not yet being made public. It was impossible to secure a full meeting with the Senate Committee owing to various causes, but the individual expressions of several who were seen by the members of the directory were favorable to the passage of the bill. Those present were as follows: Alfred Stone, of Providence, R. I.; W. R. Gibson, of New York; E. H. Kendall, of New York; R. M. Hunt,

of New York; J. W. McLaughlin, of Cincinnati, Ohio; George W. Rapp, of Cincinnati, Ohio; Levi T. Scofield, of Cleveland, Ohio; W. C. Smith, of Nashville, Tenn.; W. S. Eames, of St. Louis, Mo.; P. P. Furber, of St. Louis, Mo.; W. M. Poindexter, of Washington, D. C.; G. W. Ferry, of Milwaukee, Wis.; W. G. Preston, of Boston, Mass.; W. W. Carlin, of Buffalo, N. Y.; W. W. Clay, of Chicago, Ill.; George C. Mason, of Philadelphia, Pa.; and Charles E. Illsley, of St. Louis, Mo.; and T. P. Chandler, as members of the Institute, acting with the directors to wait upon the Committee on Buildings and Grounds of the Senate regarding the bill for the reorganization of the office of supervising architect.

NEW YORK ARCHITECTURAL LEAGUE COMPETITION.

The sixth annual league competition, which is open to all draftsmen in the United States under twenty-five years of age, the subject of which was "A fountain to commemorate the discovery of America," supposed to be erected against the west wall of the reservoir in Bryant Park, New York, has just been decided. The gold medal was awarded to Alfred F. Evans, Venetian building, Chicago, and the silver medal to Hobart A. Walker, of Chicago, residing at Oak Park, Illinois. Two other designs were given honorable mention. It is extremely creditable to Chicago draftsmen in general that both medals were awarded to two of their number.

MOSAICS.

ARCHITECTS CHARLTON & GELBERT, of Marquette, Michigan, have opened a branch office in the Descent block, at Superior.

In connection with the interior finishing of the Marshall Field building at Chicago, which when finished will probably be the most tasteful and artistic as well as the richest store interior in the country, which has just been placed in the hands of A. H. Andrews & Co., of Chicago, it is well to mention that Mr. Martin B. Hayken has assumed charge of the interior finishing and decorating department for this firm. His artistic abilities are so well known throughout the West as well as in Chicago that architects will with increased confidence intrust their work to this great firm.

It is the season of year when people are seeking the winter resorts of the South at Jacksonville and Tampa, Florida, and other South Atlantic and Gulf Coast resorts. These can be reached with but one change of cars from Chicago and that at Louisville or Cincinnati, where the Monon makes close connection with the Louisville & Nashville and Queen & Crescent vestibule trains, running through to Florida. The Monon's day trains are now all equipped with beautiful new parlor and dining cars, while its night trains are made up of smoking cars, day coaches and Pullman and compartment sleepers, lighted by electricity from headlight to hindermost sleeper. The Monon has gradually fought its way to the front, making extensive improvements in its roadbed and service, until today it is the best equipped line from Chicago to the South, offering its patrons facilities and accommodations second to none in the world and at rates lower than ever before.

A CUSTOM, which should find its way into other large offices has been inaugurated by the employes of the office of Architects Adler & Sullivan, of Chicago. It is an annual dinner at which all the "old hands" come together around a board that had something more transitory yet not the less enjoyable than T squares and pencil sharpeners to make it attractive. On the last day of the old year these draftsmen gathered in the ladies' ordinary at the Victoria hotel. There were present sixteen of the old-time draftsmen and several invited guests, among whom were F. E. Miller, the former head of the office. Messrs. Lincoln and Armstrong, the engineering and electrical experts, and R. C. McLean, of THE INLAND ARCHITECT. It is a singular fact to record that before the half shells were carried away by the waiters or the first glass of chablis drank, the conversation turned upon the silver question which was discussed earnestly and with an acumen that one would hardly have expected among the employes of an office whose habit is to pay their employes almost exclusively in gold. It was noticeable that Messrs. Miller and Bebb, who have been engaged in superintending for the firm in the far west, were "free silver" advocates. Mormonism was a subject of which Mr. Miller through a long residence in Salt Lake City gave some interesting details. The company not only caught a glimpse of the inside workings of polygamy but were admitted into the temple, even to the bridal chamber, where even the peculiar curved sliding doors of which were accurately described. But this was too solid matter to last through the several courses, and as the driving of piles acts upon the soft and hard strata so did the liquids and solids "jelly" as the meal progressed. Mr. McLean was called upon to propose the health of the office, and when he had done so in a manner which seemed to be well received but which was probably due to the profuse libation which followed, Mr. Bebb responded and said: "Gentlemen, Before dispersing I wish to return thanks on behalf of the office for the very kind manner in which Mr. McLean has proposed our health and welfare. We all know the interest he takes in all matters pertaining to the profession for the attainment to which we may call ourselves earnest students, and we heartily thank him for his expression of good will. The closing year has been from an esthetic point one of eminent success to Messrs. Adler & Sullivan. Constantly in the architectural and technical press their name, as a firm and individually, has been mentioned with the highest praise, and we should be wanting in proper feeling if we did not feel honest pride in being the employes of such a firm. Gentlemen, there is no such thing as stand still in this world, we must advance or like the dead branch on the growing

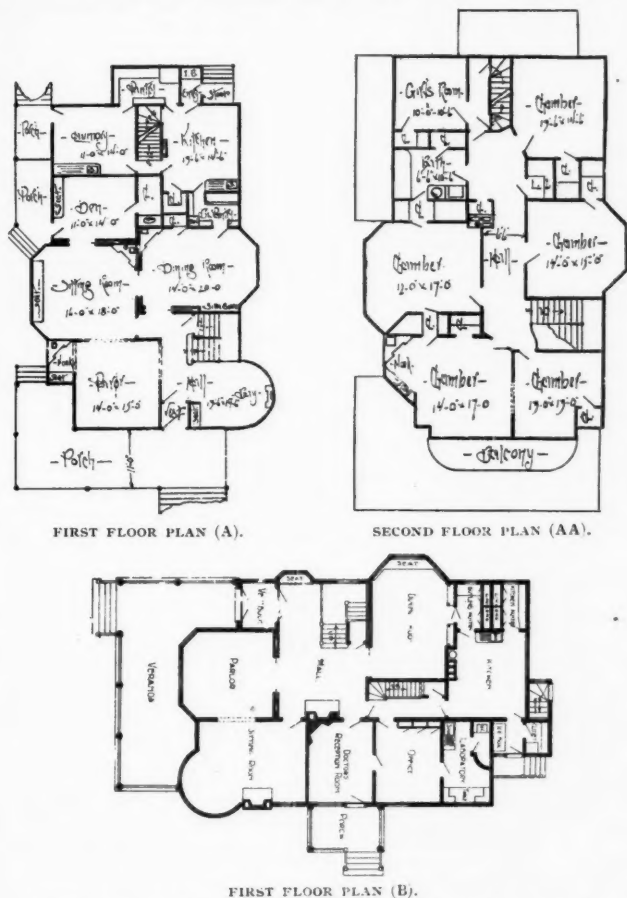
tree be cut down. I do not know with whom the idea originated of lunching together this last day of the year, but I think it a happy one. I look upon this as a pleasant social gathering of the old employes, but I sincerely trust that we shall meet together before long for something more than social pleasure. The best aid to earnest study is the interchange of ideas, and in an office like ours if we might occasionally meet together to listen to one or other of the boys read a paper on that branch of the work that he is especially following, and then in the spirit of good fellowship discuss the same, I am sure we should all of us derive much benefit from it, and working together as a harmonious whole correspondingly increase our value to our employers." The dinner was voted an entire success and will be a permanent institution at the close of each year.

OBSERVERS, says Mr. George E. Androvette, have frequently remarked the vast amount of colored glass used during the past ten years. Starting with the Queen Anne period of architecture, with its little panes of primitive colors inharmoniously arranged, and progressing through various stages of leaded glass to the last four years, during which have appeared the most startling combinations of colored glass, beveled plate glass and jewels arranged to catch the fancy of the uneducated eye. This kind of work has been used with the most indiscriminate profusion, often regardless of cost or propriety. In fact, the artistic sense is rarely gratified by seeing a piece of glasswork accomplishing the purpose for which it should be used. The demand for this doubtful sort of decoration has caused what should be an art industry simply to become a mechanical pursuit. It is hardly known and little appreciated, however, that it requires as full a knowledge of correct drawing and composition and a finer sense of color to produce successful glasswork than in decorative painting. Recently, it has appeared that the fear of the abuse of color has caused many architects and buyers to eschew colored glass, and to use various forms of crystal glass, and also beveled plate in ornamental shapes. The first answers fairly well in some positions; the last is a doubtful resource from an artistic standpoint. Here we wish to urge that color only, colors harmoniously blended and adapted to their surroundings, must be used to fill certain places in a house to give the true decorative value to glass. That colors have been so used cannot be gainsaid; but such work must be made by those who have gained the knowledge by years of experience, and who possess the love of the artist for his work. Until the artist's remuneration is commensurate with his success as a decorator in the true sense, rather than a measure of the cost of materials and labor used, we will still have the same state of things as before.

OUR ILLUSTRATIONS.

Kershaw school, Chicago; J. J. Flanders, architect.
House, No. 512 Delaware avenue, Buffalo, New York; E. A. Kent, architect.
Hotel Victoria, Chicago Heights, Illinois; Adler & Sullivan, architects, Chicago.
House for F. H. Davis, Omaha, Nebraska; George W. Maher, architect, Chicago.
House on the Lake Shore for H. W. Sprague, Buffalo, New York; E. A. Kent, architect.
Hotel St. Nicholas, St. Louis, Missouri; Adler & Sullivan, Chicago, and Charles K. Ramsey, St. Louis, associated architects.
Memorial monument to John Wellborn Root, Chicago Architectural Sketch Club Competition. First place, P. J. Weber; second place, F. M. Garden; third place, Ernest F. Guilbert.
Competitive Designs for Phoenix Club building, Cincinnati, Ohio. Accepted design, submitted by Samuel Hannaford & Sons, architects; other designs submitted by following: A. O. Elzner, architect; James W. McLaughlin, architect; William M. Aiken and George W. Rapp, associate architects; S. S. Godley, architect. The conditions of the Phoenix Club competition were as follows: The committee invited five architects to compete, agreeing to pay the unsuccessful competitors a set sum for their drawings. The successful competitor to have charge of the execution of the work. They furnished each competitor with a list giving number and sizes and character of rooms desired. They also furnished each competitor with the size of lot, its location, etc. The cost of the house was also limited. The committee called in the services of an expert, Mr. Stein, of New York, who made an examination of the drawings and reported in favor of the design submitted by Samuel Hannaford & Sons. The report of the expert was adopted and Samuel Hannaford & Sons were awarded the work.
Elevations, sectional drawings and floor plans of the Temple of Hô-dô, Japan. The two double-page plates are facsimiles of measured drawings, made by Japanese draftsmen, and belonging to the collections of the Imperial Museum at Tokyo, of which M. Kuru, who is now in Chicago, is chief of the architectural section. They have been kindly lent to THE INLAND ARCHITECT by the Imperial Japanese Commission to the World's Columbian Exposition. The authorities of the Imperial museum have, for the last twenty-five years, been having the best of the ancient buildings of Japan measured and drawn out to scale for preservation. These drawings are especially interesting at the present time for the reason that the plan of this temple suggested the general conformation of the Japanese palace now being erected in Jackson park. They are, moreover, illustrations of a building which is considered by Japanese experts to be one of the best examples of the best period of ancient Japanese architecture. They are of course only constructive drawings and give no idea of the elaboration of carving and

color with which this building was enriched. The Hō-ō-do is a Buddhist Temple still used, located at Uji, in the division Kuze, country Tamashiro (in which is also located Saikyo, the old and western capital of Japan). The drawings consist of a ground plan, which in our reproduction is to a scale of $\frac{1}{2}$ inch to a foot (nearly); a plan of the ceiling beams, scale $\frac{3}{4}$ inch to 3 feet; a front and side elevation, scale $\frac{1}{4}$ inch to a foot (nearly); and two sections, scale $\frac{1}{2}$ inch to a foot (nearly). The notes on the front elevation are translated as follows (reference A): "In early times Uji belonged to the Fujiwara family (one of the noble houses) as a place of residence. In the middle period it belonged to the Emperor, as a place of residence, and sometimes as a hunting ground, in which he built a palace called Uji-no-in. Later it again came into possession of the Fujiwara family. One of the most powerful nobles of this family, named Yoramichi, who built the temple, here shown, in the seventh year of Yeigio, that is, in 1052, and set up the large idol of Buddhism. The whole building was called Hō-ō-do." (Reference B.) "The whole structure consists of three buildings connected by covered corridors of two stories. The central main building is one story high to the ceiling, and here is the magnificent site of the idol on a platform surrounded by a balustrade as shown in the section drawings. Both wings of the building are in two stories surmounted by two turrets, one for a bell, the other for a drum." "The whole building is painted red on the outside. Inside it is highly decorated with pictures, carving, etc." "The Phoenix birds (Hō-ō's) on both ends of the ridge of the main building are five feet in height and are placed in such a way as to turn with the wind. Hence the temple was named both after the Hō-ō's on the ridge and the form of the ground plan." The printing on drawings that is not translated comprises generally the titles to the drawings and the dimensions of parts. P. B. W.



Photogravure Plate. Residence of Timothy Dwight, Jr., Evanston, Illinois; S. A. Jennings, architect (Plans A-AA).
Residence of Dr. E. H. Webster, Evanston, Illinois; Holabird & Roche, architects, Chicago (Plan B).

PHOTOGRAVURE PLATES.

(Issued only to subscribers for the Photogravure edition.)

- Entrance, residence of W. W. Kimball, Chicago; S. S. Beman, architect.
- Residence of F. J. Hecker, Detroit, Michigan; John Scott & Co., architects.
- Residence of J. S. Farrand, Jr., Detroit, Michigan; Mason & Rice, architects.
- Residence of William S. Moore, Detroit, Michigan; Mason & Rice, architects.
- Carriage Works of Seivers & Erdman, Detroit, Michigan; Mason & Rice, architects.
- House for William Blanchard, Evanston, Illinois; Holabird & Roche, architects, Chicago.
- Stores and flats for J. M. Bishop and B. Philpot & Co., Chicago; Frederick W. Perkins, architect.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, January 15, 1893.

So far as financial and commercial summaries have been made for 1892, they show an excess in the volume of business as compared to last year, but a lower range of prices for nearly all commodities. The lower range of prices is due mainly to increased production. The tendency at the present time is to check production, and take such steps to improve prices as are within reach. Combinations to that end have been formed, and are maintained with more or less sincerity. The general condition of business is good. The industries are generally active, but not so fully employed as capacity would permit. A steady expansion of capacity is, nevertheless, in progress in all parts of the country. There is an abundance of capital for all the new enterprises. Opportunities are opening up everywhere, and investors have a good choice of channels. There have been no serious failures, no breaks in commercial lines. The banks continue strong, and command the confidence of the people. Our monetary system is working well, and the distribution of funds is maintained in a way which preserves confidence, and answers the urgent requirements of business men. In building operations there has been greater activity this year than last, and so far as surface indications show, no check is likely to be given to enterprise. In some cities, it is true, less building was done than in 1891, but taking building operations in the aggregate, more money has been expended. Building materials, and indeed raw material of all kinds, continue low in price, and in abundant supply. Lumber, iron and steel, lath, and all kinds of inside finishings are selling at slightly lower prices than twelve months ago. The possibility of a reaction is constantly kept in mind. But little danger of higher prices or a speculative movement exists, because of the enormous producing capacity, and the anxiety of business men and manufacturers to expand it to still greater proportions. Reports from all cities and towns show a wonderful degree of confidence in building operations, and the preparations now being made to supply material for next year indicate that orders are already being placed on a large scale.

SYNOPSIS OF BUILDING NEWS.

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

Chicago.—Architect William Strippleman: For Henry J. Luders, on Fulton street east of Leavitt street, a two-story bakery and barn 95 by 120 feet in size, to be occupied by the Luders Baking Company. It will be of pressed brick and stone, have all improvements, and cost \$30,000. For Mrs. Mary A. C. Richardson, on the southwest corner of Madison avenue and Sixty-fourth street, a two-story and basement apartment house, 100 by 60 feet, to be of pressed brick and stone front; and cost \$50,000.

Architect Arthur G. Morey: For Messrs. Geary, corner of Seventy-fifth street and Stony Island avenue, a three-story frame hotel, 119 by 54 feet, to have sanitary improvements.

Architects A. M. F. Colton & Son: For John Quincy Adams, alterations of building on East Adams street near Franklin street. It will be occupied by Butler Brothers for their Chicago house. Two additional stories will be added, they will also put in new elevators, electric light plant, etc. For Doctor Allport they have just completed drawings for a handsome six-story apartment house, 40 by 80 feet in size, to be erected on the corner of Maple and State streets. It will be of pressed brick and stone front, have steam heating, electric light, elevators, gas ranges, etc.; the cost will be \$50,000.

Architects Klempell & Borst: For Messrs. Veasey & Bennett, on Hope avenue south of Sixty-third street, a three-story apartment house, 125 feet front, to be of roman pressed brick with stone trimmings and copper bays. The interior will be finished in hardwoods, and have steam heating, electric light and all the sanitary and modern conveniences. For H. B. Wheeler, on Woodlawn Terrace and Sixty-sixth place, a three-story and basement flat building, 40 by 76 feet in size, to have the first story of stone and above to be of pressed brick and stone with copper bays. For F. W. Green, on Woodlawn avenue near Sixty-fifth street, five two-story residences, to cover 100 by 60 feet. They will have fronts of stone and pressed brick, hardwood finish, all the sanitary improvements, heating, etc.

Architect Henry Ives Cobb has finished the plans for the two-story and basement theater and club house, 142 by 81 feet in size, to be erected at Grand Rapids, Michigan, for the St. Cecilia Singing Society. It will be a handsome building, of stone all round, have steam heating, electric light, etc., the foundations are now being put in.

Architect J. E. O. Pridmore: For C. Johnston, on Forestville avenue, three two-story residences, to have stone fronts, hot-water heating, electric light, hardwood finish, all sanitary and modern improvements. Also made plans for five handsome two-story and basement residences, to be erected on Sixty-second street near Greenwood avenue, for himself. They will have stone fronts, all hardwood interior finish, electric light, furnaces, etc.; and cost about \$40,000.

Architect Ewald Bargman: For the Star Brewing Company, on the north-east corner of Washtenaw avenue and Taylor street, a four-story hotel, 50 by 82 feet in size; to be of pressed brick and stone front with galvanized iron bays; cost \$30,000.

Architect A. F. Hussander: For S. Henderson, at New Orleans, Louisiana, a five-story store and office building, 22 by 120 feet in size; to be of copper bay front, have hot-water heating, electric light, elevator, hardwood finish, etc.

Architect E. M. Newman: For J. B. Hobbs, at Evanston, a three-story store and apartment house, 55 by 116 feet in size; to be of pressed brick and stone front, have steam heating, all sanitary improvements, and cost about \$25,000.

Architects Wilson & Marble: For W. H. Pruyn, on Forty-second place near Drexel boulevard, a three-story apartment house, 50 by 100 feet; to be of light-colored pressed brick with stone trimmings, interior finish to be in hardwoods, have steam heating, electric light, etc.; cost \$30,000.

Architect Robert S. Smith: For Mrs. Kencott, corner of Brookes avenue and Seventy-fifth street, a four-story apartment house, 126 feet front by 62 deep; to be of pressed brick and stone front, have oak and pine finish for the interior, also steam heating, electric light, etc. Also for Jerome P. Bowes, on Prairie avenue and Garfield boulevard, a three-story and basement apartment house, 50 by 65 feet; to be of brownstone front, have hardwood interior finish, steam heating, electric light and the best of sanitary and modern conveniences.

Architects Crowen & Richards: For the Strickland Hotel Company, John O. Plank, manager, a five-story hotel, 100 by 150 feet in size, to be erected on Lake avenue between Thirty-eighth and Thirty-ninth streets; to be of pressed brick and stone front, have hardwood interior finish, steam heating, electric light, elevators and all conveniences. It will ultimately be made into a seven-story building.

Architects Willett & Pashley: For the Chicago College of Dental Surgery, corner of Harrison and Wood streets, a five-story building, 83 by 100 feet in size; to have a handsome front of pressed brick, stone and terra cotta; the interior will be finished in hardwoods, have steam heating, electric light and all the conveniences. Also made plans for a rear addition to the Needham apartment house, corner of Cottage Grove avenue and Thirty-second street; it will be three stories, 50 by 60 feet in size, of common brick, have steam heating,

electric light, all the best of plumbing, etc. For C. E. Brown, corner Forty-seventh and State streets, a four-story store and flat building, 72 by 100 feet in size; to be of cut stone front, have hardwood finish, electric light and all improvements.

Architect John R. Scott: For Messrs. McElroy, Brett, et al., twelve two-story flat buildings; to be of frame construction, with brick foundations, and have all the sanitary improvements; six will be erected at Roseland and six at Sheldon Heights. Also for the same owners, eight two-story cottages; to be of frame with brick basements, and have all conveniences; four to be erected on each of the above subdivisions.

Architect Louis Martens: For A. Toolen, corner of Sixty-second street and Wharton avenue, a three-story apartment house, 50 by 160 feet in size; to be of rockfaced stone for basement fronts, and above this will be of buff pressed brick, with terra cotta trimmings; the interior will be all finished in hard woods, have marble entrance and mosaic floors, steam heating, electric light, laundry driers, the best of sanitary arrangements, gas ranges, fireplaces, etc.; the cost will be about \$75,000.

Architects Stiles & Stone: For W. C. Nelson, on Monroe avenue between Fifty-seventh and Fifty-eighth streets, ten three-story detached residences, 24 by 65 feet each; to cost \$80,000; they will have stone and pressed brick fronts, the first story being of stone, all hardwood interior finish, hot-water heating, electric light, gas ranges and fireplaces, laundries, etc. For the same owners, on Sixty-first street east of Stony Island avenue, a block of six three-story residences; to cost \$36,000; they will have fronts of Chicago hydraulic pressed brick, light colored, with stone trimmings; all interiors to be finished in oak and pine, and have steam heating, electric light, etc. For W. J. Button, on Edgerton avenue between Sixtieth and Sixty-first streets, four three-story residences, semi-detached; to be of pressed brick and stone fronts, with slate mansard roofs; the interiors to be finished in red oak for the first floor, and above in cypress; they will put in steam heating, electric light, hardwood mantels, and all the best of improvements; the cost will be \$25,000. For J. D. Hallock they have completed drawings for a three-story apartment house, 24 by 70 feet in size, to be erected on Jackson boulevard; it will have a stone front, slate roof, hardwood trimmings, steam heating, electric light, ranges, fireplaces, wood mantels, the best of plumbing, and cost about \$20,000.

Architects Beers, Clay & Dutton have completed plans for the Medinah Temple, to be erected on the northeast corner of Fifth avenue and Jackson street for the Medinah Temple Company. It will be twelve stories and basement, in the Spanish-Moorsque style of architecture, and have two very handsomely designed fronts of pressed brick, with very elaborate terra cotta ornamentation and Spanish tile roof. It will front 115 feet on Fifth avenue and 110 on Jackson street, and have a large arched entrance on each street, richly decorated in terra cotta. The first ten stories will be plain in design, the two remaining stories being highly ornamented with terra cotta in dark colors. The first two stories will be arranged for stores and shops, the next eight stories will be devoted to manufacturers' agents, and the other stories will be devoted exclusively to the Shriners—who, by the way, have taken all the stock. The tenth floor will be occupied by the large banqueting hall, 64 by 110 feet in size, besides kitchen and reception rooms. The preceptory will be provided with seating capacity for 1,000 persons, and will have a stage arranged for scenic effects, also ladies' rooms, candidate rooms, parlors, check rooms, cloak rooms, officers' quarters, etc. The building will be strictly fireproof, and have mosaic floors, marble wainscoting, elevators, electric light, and all the most modern improvements in regard to plumbing, ventilation, etc. The old buildings are now being taken down, and as soon as the ground is ready, active building operations will be commenced.

Architect H. B. Wheelock: For W. M. Knapp and D. W. Nye, at Cheltenham Beach, a three-story hotel, 80 by 150 feet in size, to be of frame construction, have two hundred rooms, electric light, all the sanitary conveniences, etc. For Joshua Burrell, at Lake Forrest, a two-story basement and attic residence 36 by 42 feet, to be of frame with stone basement, have hardwood finish, hot-water heating, electric light, and all improvements.

Architect H. M. Hansen: For O. B. Green, on the southwest corner of Halsted and Sixty-third streets, a four-story store and flat building 100 by 94 feet in size, to be of pressed brick, stone and terra cotta front, have oak finish and the best of modern improvements; the cost will be \$55,000.

Architects Faber & Pagels: For the Evangelical Lutheran Theological Seminary, on Sheffield avenue and Addison street, a three-story basement and attic dormitory building 67 by 44 feet in size, to be of pressed brick, stone and terra cotta front, with slate roof; cost \$30,000.

Architect L. G. Hallberg: For John Samuelson, on Webster avenue near Paulina street, a three-story flat building, 24 by 64 feet; to be of Bedford stone front, have oak, birch and cypress interior finish, steam heating, electric light and all improvements; the cost will be \$15,000.

Architect Franklin P. Burnham: For J. W. Brooks, at Kenilworth, a two-story frame residence, 35 by 50 feet; to be of frame with stone basement, have hardwood finish, hot-water heating, electric light, etc. For G. W. Rice, at 1375 Washington boulevard, a three-story flat building, 25 by 90 feet in size; to be of Artesian black stone front, have oak finish, all the sanitary plumbing, steam heating, ranges, wood mantels, etc.; cost \$15,000. For A. W. Bartlett, at Rockford, Illinois, a two-story frame residence; to have a stone basement, heating apparatus, sanitary plumbing, laundries, etc.

Architects W. L. Carroll & Co. have completed drawings for the Shawanossaway Club house, to be erected on the southeast corner of Sixtieth street and Cottage Grove avenue; it will be a very handsome four-story structure, 135 by 85 feet in size, two stories of stone and above of buff pressed brick and stone. The interior will be elaborately finished in hardwoods, marble, mosaic, etc.; have also steam heating, electric light and freight and passenger elevators; the cost will be about \$250,000.

Architect Francis J. Norton has secured a permit for the erection of the Chinese World's Fair building, of which full particulars were given in this paper a few weeks ago. The masonry and other heavy parts of the work will be performed by Americans, but the interior and exterior will be finished by fifty Chinese mechanics who have come especially to this country from Canton and Peking, China, to complete the work. The whole of the building will be completed under the direct supervision of Mr. Francis J. Norton. The Chinese minister at Washington, 'Tou Sing, Chinese Missionary of New York, and president of Six Companies of San Francisco, are the principal movers in the enterprise. The general contract of the building is in the hands of Thomas Johnston, mason builder, at Sixty-second and Wallace streets, Englewood. The building in question will represent an outlay of \$100,000. Has also completed plans and let contract for a family hotel, 75 by 160 feet, at Forty-sixth street and Woodlawn avenue, for Mr. Rood. The exterior will be built of stone and have three massive romanesque arches, plate and art glass. The interior will be finished with cypress throughout, oil finish, electric service, electric wiring, elevators, steam heat, dumb waiters, and the latest sanitary and modern improvements. Work has already commenced and the building will represent an outlay of \$150,000. Also completed drawings and taken estimates for a handsome residence, 25 by 50 feet, two stories high, to be erected at Park Ridge, for R. G. McGhee, of Baltimore, which is to be completed about the first of April.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall. Business at this time of year should not be very brisk, for contractors, like other members of the mercantile world, find it quite necessary to balance their books and determine whether bran pudding or mince pies will form a part of next year's diet. Architects as a rule feel reasonably encouraged over the outlook for next year. Let us hope that they will not see their fondest hopes decay, and let everyone interested in building foster a hopeful feeling. By the time this journal goes to press our builders' congress will have joined the ranks of collapsed organizations. It is extremely unfortunate, for it had in its organization elements of much usefulness. There are several causes which led to its failure. Primarily I think, jealousy exerted a baneful influence, for different organizations of different strength welded into a homogeneous whole do not, as a rule, produce harmony. Another cause, as has been intimated, was that of being unwieldy, and at the same time trying to be dictatorial, almost to the extent of coercion. Selfishness also played a prominent part. It has been aptly said "scratch a selfish man's back, and you'll hear the grunt of a hog." A few of the members joined, I am afraid, not from the desire of mutual benefit but just to get number one in good trim. There was one good thing at least

accomplished during its existence, namely, the settling of the wage question for two years.

The plans mentioned erroneously in connection with Crapsey & Brown's work in last month's issue should belong to the firm of J. H. Boll & Co., and THE INLAND ARCHITECT makes the correction, with an apology for the mistake.

Architects S. Hannaford & Sons report: A residence for Alexander E. Ferguson, Cincinnati; materials: pressed brick, stone trimmings, furnaces, plate and stained glass, hardwood, grates, mantels, blinds, etc.; cost \$16,000. For the "Big 4" Railroad, Cincinnati, passenger sheds at Terre Haute, Indiana; size 57 by 500 and 84 by 500 feet; materials: iron and wood with a handsome brick entrance building in which will be the offices; cost \$60,000. Also for Mr. W. C. Bare, care of M. Bare & Co., a hotel building; materials: pressed brick, iron, tin roof, elevator, gas, plumbing, office fixtures, mantels, grates, fire escapes, etc.; cost \$30,000.

Architect A. O. Elzner reports: For the Esculapia Springs, Kentucky, a hotel building; materials: frame, slate roof, plate glass, elevators, grates, mantels, bells, laundry, gas, plumbing, etc.; cost not given. For the A. D. Bullock estate, Cincinnati, Ohio, a residence; materials: pressed brick, slate roof, hardwood finish, furnace, grates, mantels, stained glass, etc.; cost \$15,000. Also a stable for same party; materials: stone, slate roof, stable fittings, etc.; cost 6,000.

Architect W. W. Franklin reports: For the Reformed Presbyterian congregation at Walnut Hills, Cincinnati, a church edifice; materials: brick, slate roof, furnace, stained glass, pews, frescoing, etc.; cost \$12,000.

Architect W. C. Lawrence reports: For Mr. Harold Ryland a residence; materials: frame, slate roof, furnace, stained glass, gas, plumbing, etc.; cost \$3,500.

The Cincinnati Gas Light and Coke Company will build a large electric light plant for the Cincinnati Electric Light Company; it will be of pressed brick, and contain all modern improvements; cost \$50,000.

Architect S. S. Godley has drawn plans for a residence for Mr. Edward J. Mack, Cincinnati; materials: pressed brick, slate roof, hardwood, mantels, grates, furnace, stained glass, etc.; cost \$15,000. By the bye, Mr. Godley has lately enlarged his offices. He has now four well-lighted rooms en suite, and when through with his contemplated improvements, can sit down with a look and feeling of satisfaction. May his business grow still more, and render more rooms necessary.

Cleveland, Ohio.—Architect F. C. Bate: For the Standard Tool Company, a three-story brick factory, size 50 by 300 feet; to cost \$11,000.

Plans are in preparation for the new Art Gallery, A. H. Wade, Jr., having presented the city with a site valued at \$100,000.

Architect S. R. Badgley: For the M. E. Church at Mount Union, a two-story church building; pressed brick, stone trimmings; to cost \$20,000.

Denver, Colo.—Architect J. F. Mackay: For W. J. Latham, three two-story brick dwellings, size 29 by 44 feet; cost \$9,000 each.

Architect H. Reed: For A. Hemstead, three three-story residences, size 25 by 62 feet, brick and stone; to cost \$32,000. Also for same, a three-story brick dwelling, size 25 by 62 feet; cost \$12,000.

Architects McCurdy & Puls: For Thomas Freeman, a two-story brick dwelling, size 29 by 48 feet; to cost \$5,000.

Architects F. E. Edbrooke & Co.: For G. W. Pierce, a two-story brick residence, size 48 by 56 feet; to cost \$10,000.

Architect H. T. E. Wendell: For H. C. Brown, a one-story plunge-bath building, with hotel connection; brick; size 40 by 50 feet; to cost \$12,000. For Patterson & Morgan, a four-story hotel, additions and alterations, size 80 by 100 feet; brick; cost \$30,000.

Architect F. E. Kidder: For Ramond Salis, a two-story brick business block, size 50 by 120 feet; to cost \$17,000.

Architects Balcomb & Rice: For C. J. Hellier & Co., two two-story brick dwellings, size 22 by 46 feet; to cost \$13,800.

Architects Baerresen Bros.: For J. L. Wolf, two-story residence, brick and stone, size 28 by 43 feet; cost \$6,960.

Detroit, Mich.—Architect R. E. Raseman: For Dr. J. Henry Carsons, a three-story residence; gray and buff pressed brick; size 40 by 60 feet; cost \$20,000. For Henry Moesta, a two-story brick house; to cost \$5,000. For Meyer S. Fink, a three-story brick store and flat building on Gratiot avenue; cost \$5,000.

Architect William L. Joy: For Stephen W. Itself, a two-story residence on High street near Cass; to cost \$12,000.

Architect Peter Dedricks: For the White Eagle Brewing Company, a four-story brick addition on southeast corner of Cornfield and Propelle streets; size 40 by 80 feet; cost \$20,000. For the Rehberg Brewing Company, a two-story brick and frame brewery at Ann Arbor, Michigan; size 60 by 60 feet; cost \$6,000. For James H. Cole, two four-story brick store and flat buildings on Gratiot and Beaubien streets; cost \$8,000. For St. Mary's Roman Catholic Society, a frame church at Provemont, Michigan; to cost \$5,000.

Architect E. C. Van Leyen: For Mrs. Caroline Brehler, a three-story frame hotel at Mount Clemens, Michigan; size 46 by 56 feet; cost \$8,000. For D. C. Spaulding, a two-and-one-half-story frame residence; to cost \$5,000.

Architects A. C. Varney & Co.: For the Pemberton Injection Company, a brick building with stone trimmings; to cost \$5,000.

Architect James Appleyard: For the Fort Street Union Depot Company, a three-story office building and freight warehouse; size 70 by 120 feet; to cost \$55,000. The board of estimates have authorized the bonding of the city for \$350,000 for additions, etc., to the city hall.

Little Rock, Ark.—Architects Rickon & Thompson report the following: Courthouse, Faulkner county, Arkansas, at Conway county seat; R. E. Sevier, commissioner, Conway; cost \$25,000; to be let in January; brick, tin, shingle roof, stone trimmings, etc. Outlook for building very poor; has been very dull for past six months.

Milwaukee, Wis.—Architects Ferry & Clas are preparing plans for a new office building, to be built on the Tesh corner.

Architects Rau & Kirsch are preparing plans for a new jail and sheriff's residence at Sheboygan, two-story brick and stone, size 38 by 28 feet; cost \$25,000.

The St. Joseph Convent Committee will begin work on their sanitarium at once; the building is to be of brick, three stories, and cost \$75,000.

Pittsburgh, Pa.—Architect W. S. Fraser: For the Hamilton avenue U. P. Church, a frame church, size 68 by 54 feet; slate roof; cost \$6,000.

Architect T. H. Scott: For Henry Broschart, Red Key, Indiana, a three-story brick hotel, size 114 by 114 feet; to cost \$25,000.

The Pittsburgh Female College will erect a new five-story brick building; to cost \$85,000.

Architect J. A. Jacobs: For Chaddock & Owens, a five-story brick and terra cotta office building; to cost 22,000.

Rochester, N. Y.—Architect J. Foster Warner reports the following work: For Whitney & Harris, fireproof commercial building, on East Main street corner Elm street, 66 by 165 feet, six stories high; cost about \$100,000. Gymnasium building for University of Rochester; cost \$40,000. Rochester Homeopathic Hospital, on Alexander street; cost about \$75,000. Colonial residence for Mrs. Jennings, to be built on Granger Place; cost \$9,000. Residence for Mrs. Jennings, on Granger Place; cost \$5,000. Colonial residence for Mr. Mumford, on Granger Place; cost \$10,000.

Architects Block & Barnes have drawn plans for a factory building, on North St. Paul street, for the Photo Materials Company, to be five stories high; cost \$75,000. Remodeling New Osburn House; cost about \$7,500.

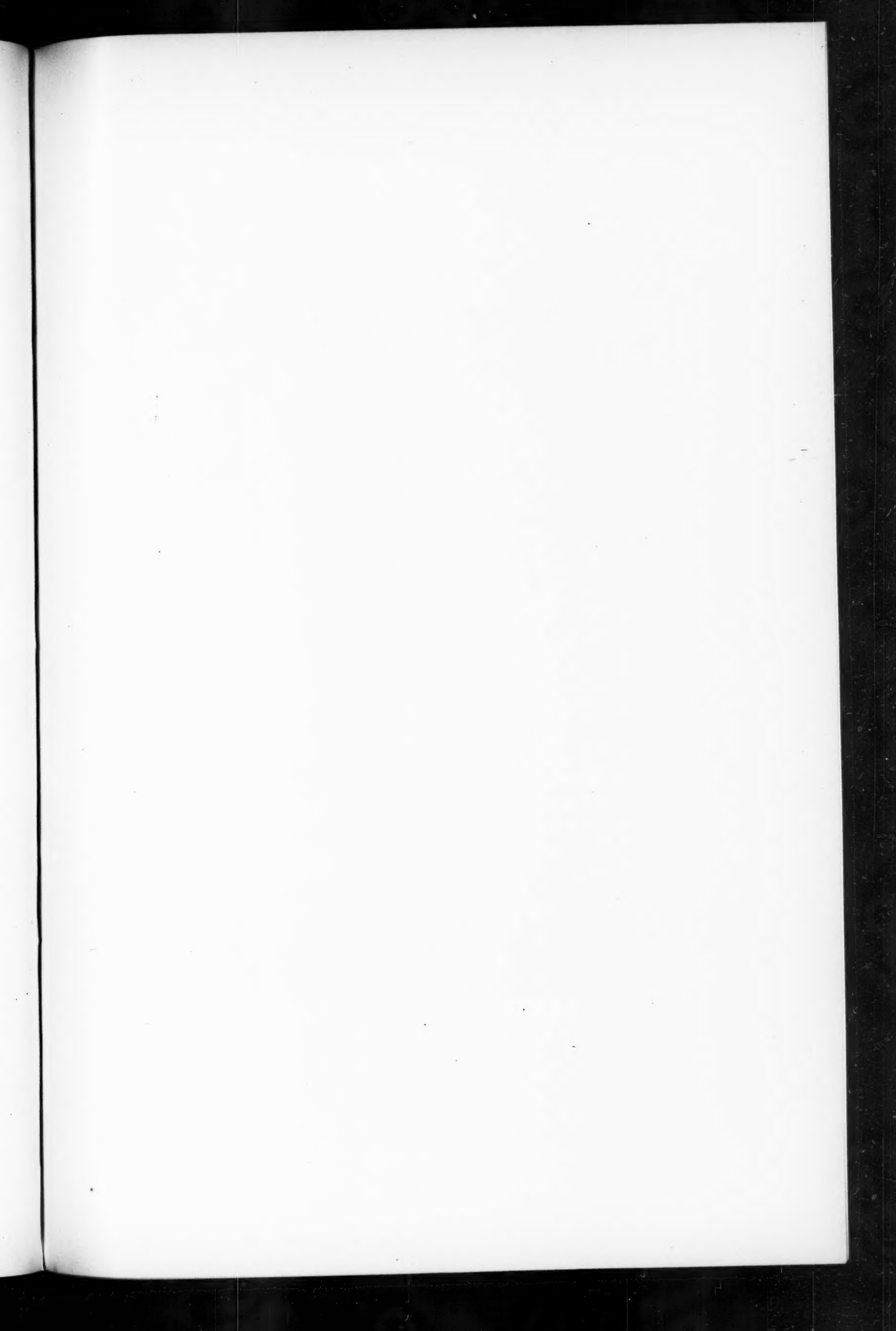
St. Louis, Mo.—Architect E. Treisler is building for self a two-story pressed brick dwelling, size 38 by 68 feet; cost \$7,000.

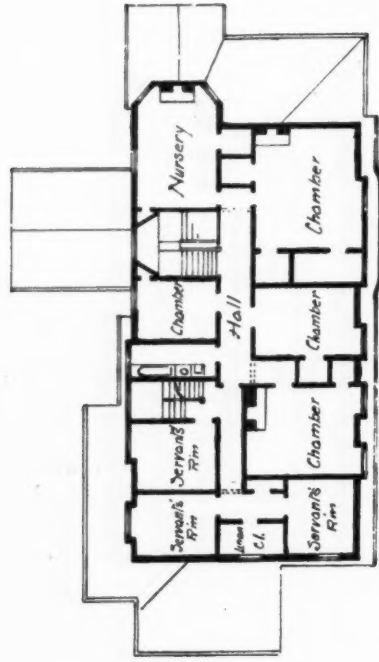
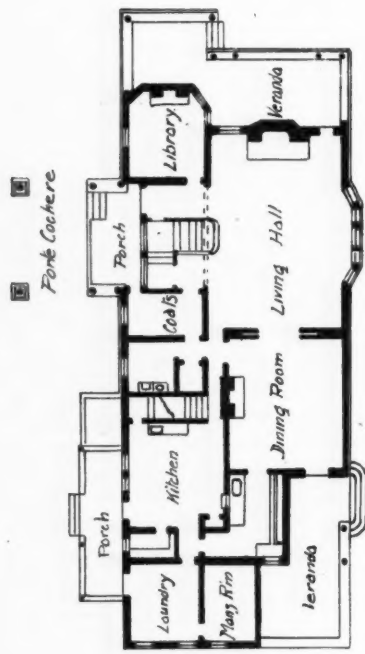
Architect C. C. Helmers, Jr.: For J. T. Burdeau, a two-and-one-half-story residence, size 103 by 60 feet; brick, stone trimmings; to cost \$22,500.

Architects Beinke & Weiss: For W. Lasser, a two-story pressed brick dwelling, size 65 by 60 feet; to cost \$12,000.

Architect T. O. Allardt: For R. B. Grant, three two-story dwellings, brick with stone trimmings, size 33 by 46 feet; to cost \$15,600.

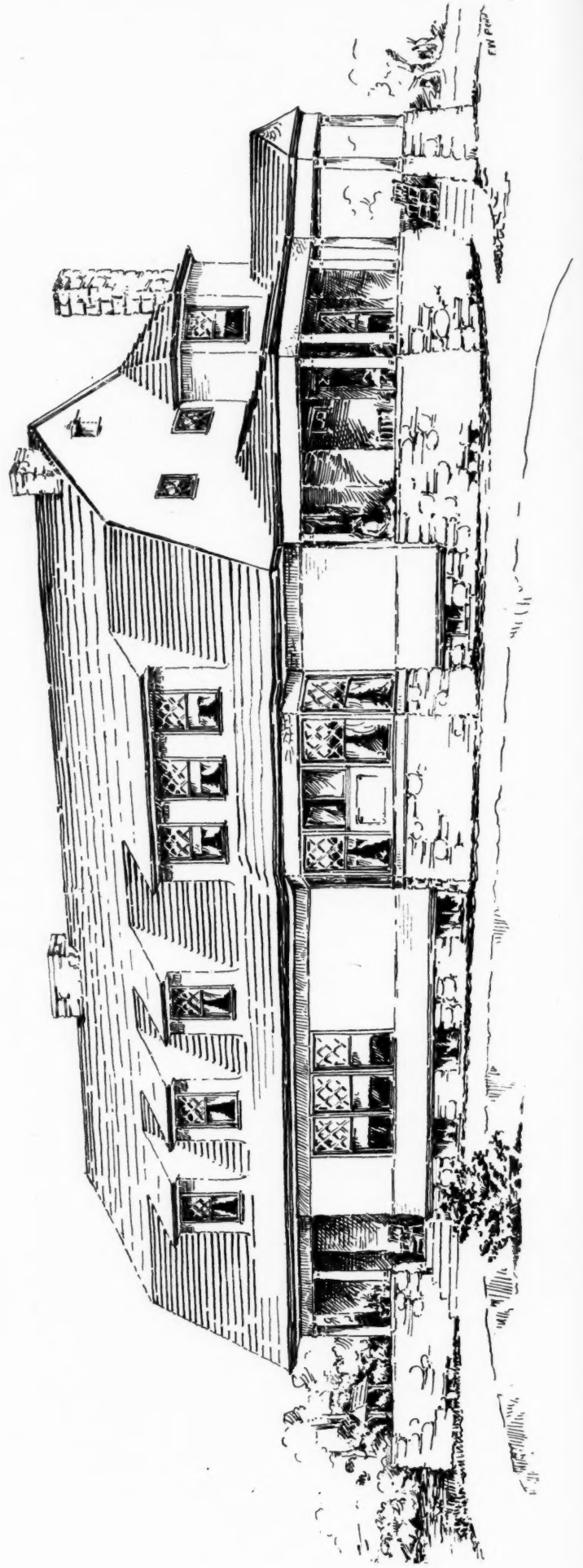
Architect William A. Lucas: For H. E. Robinson, a two-story store and dwelling, brick, size 83 by 48 feet; cost \$12,600.

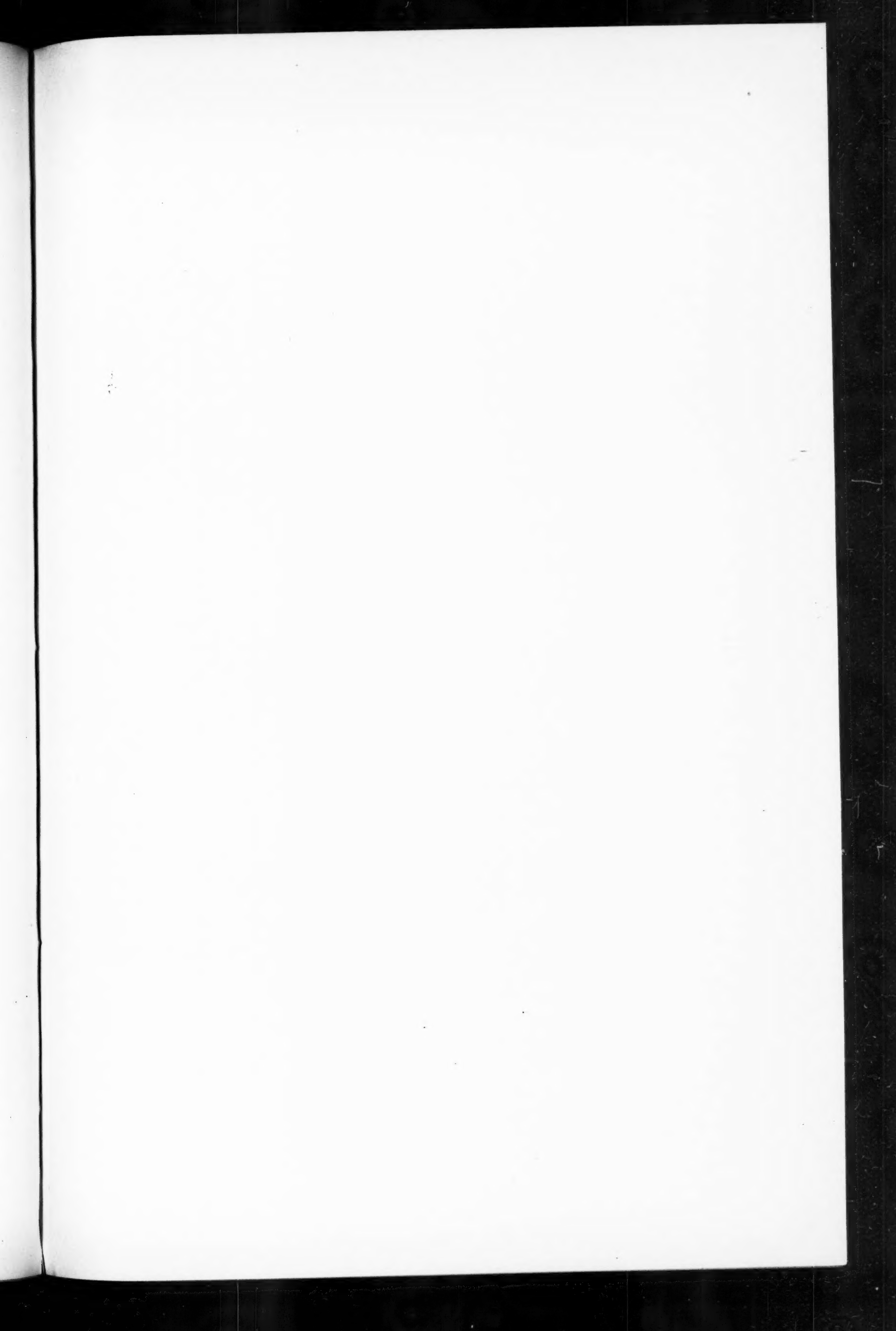


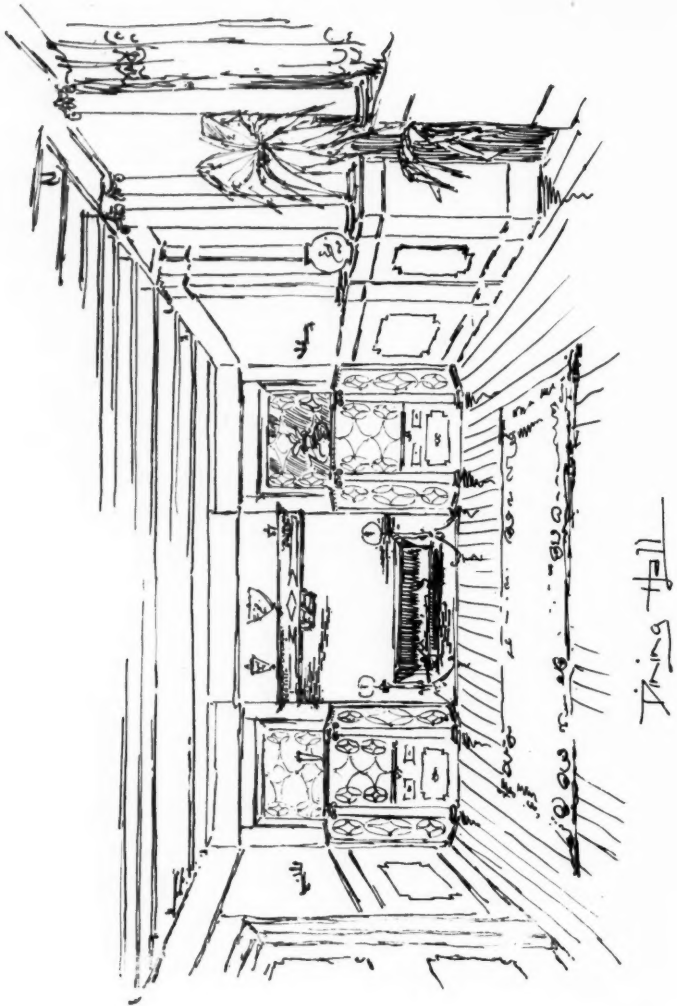
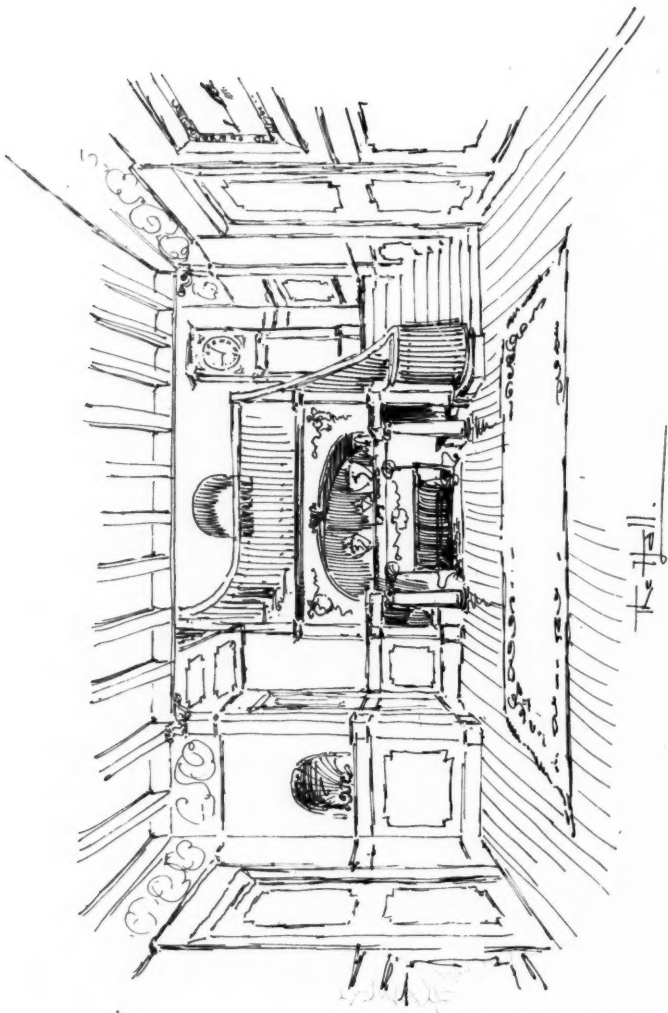


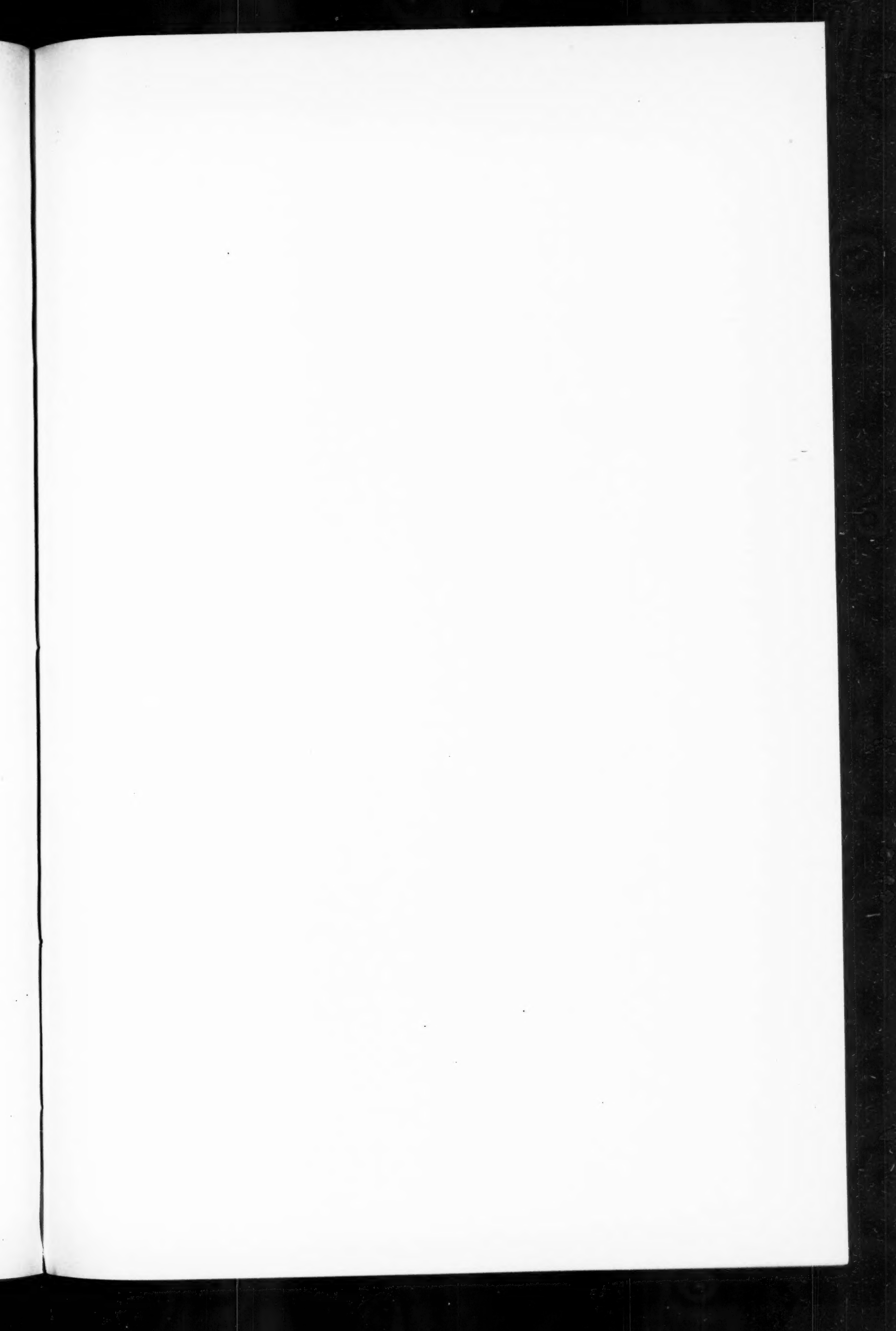
*House on the Lake Shore
for
Mr. Henry Ware Sprague-
Buffalo. N.Y.
E.A. Kent-Archit. Buffalo. N.Y.*

Scale 1/8" = 1'-0"

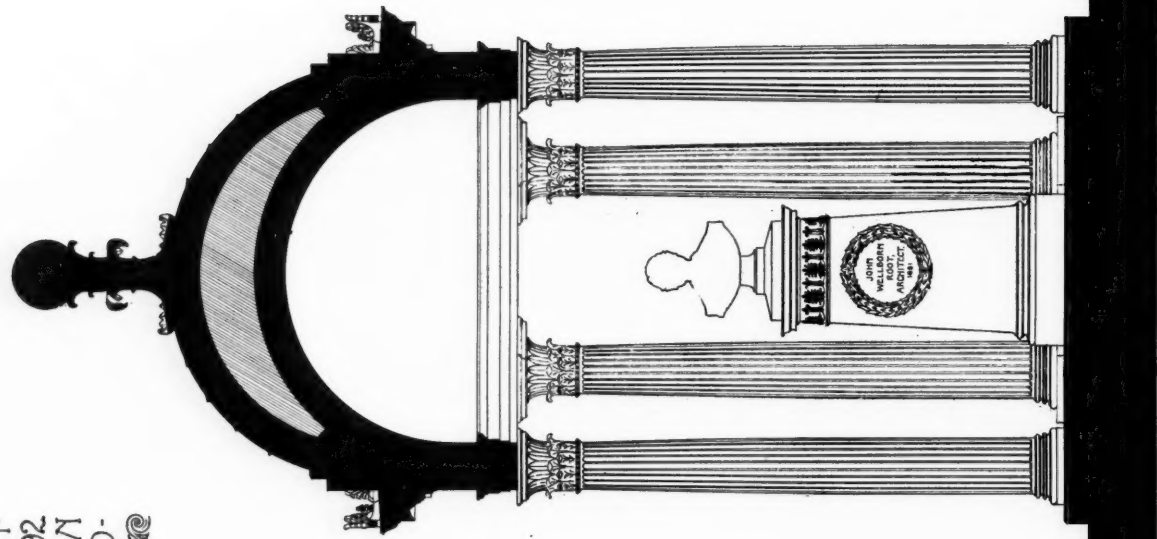
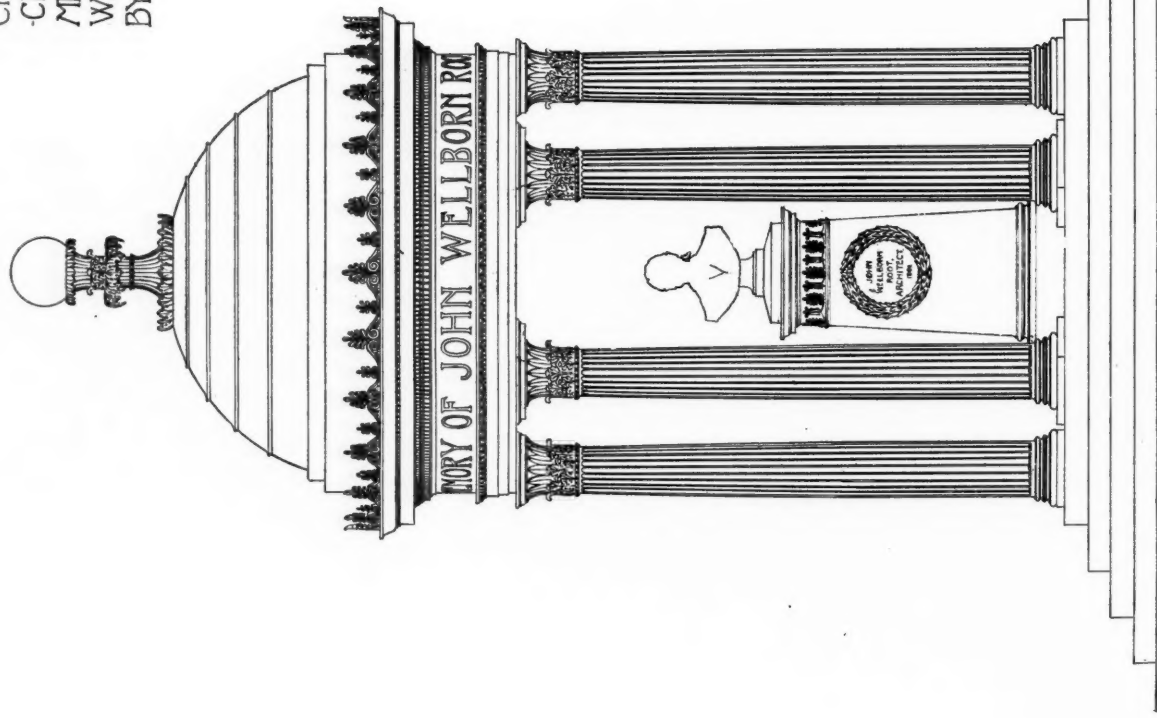






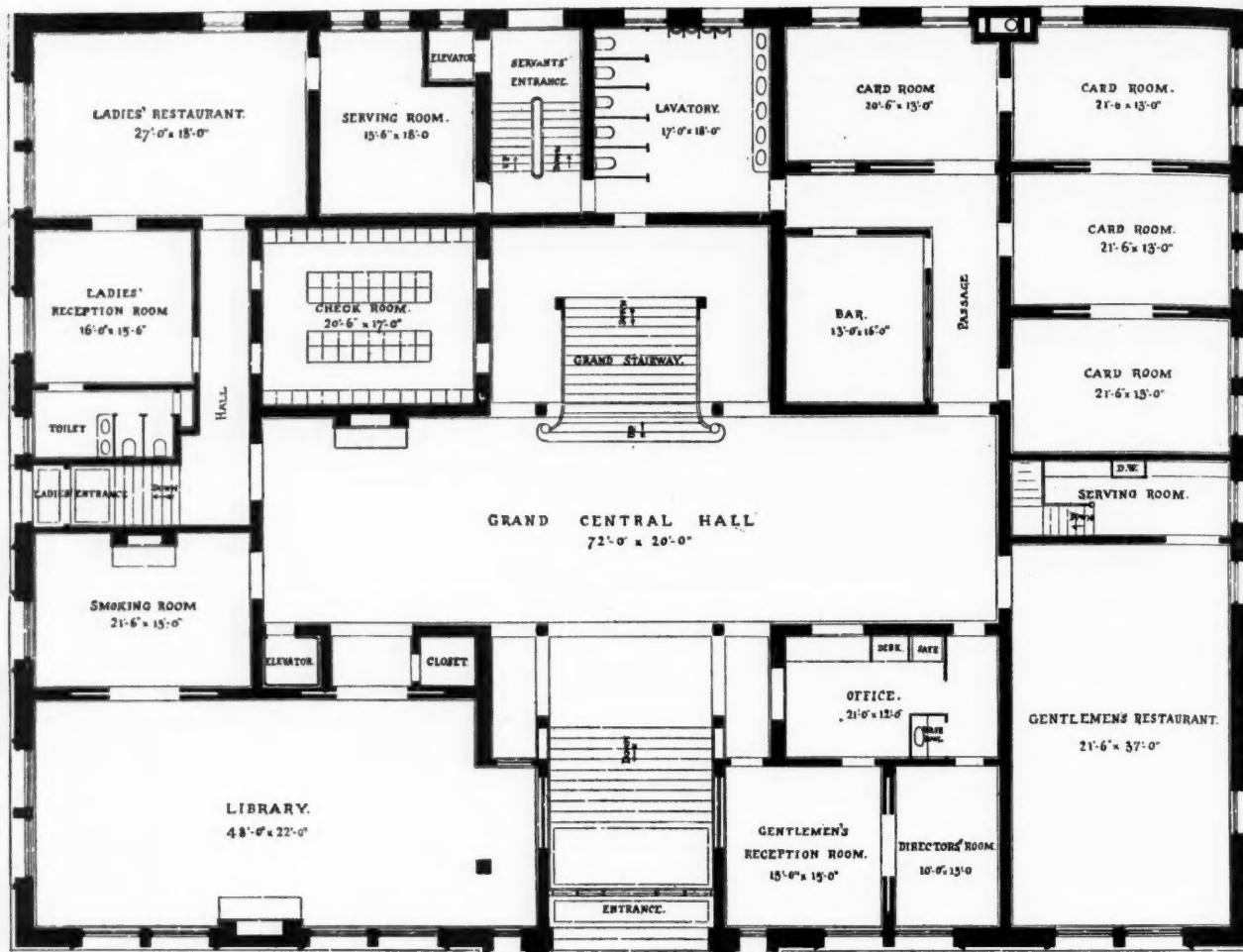


CHICAGO-ARCHITECTURAL-SKET-
CH-CLUB-COMPETITION-OCT-17-92
MEMORIAL-MONUMENT-TO-JOHN
WELLBORN-ROOT-SUBMITTED-
BY-SISYPHVS



MATERIAL - CARRARA MARBLE.

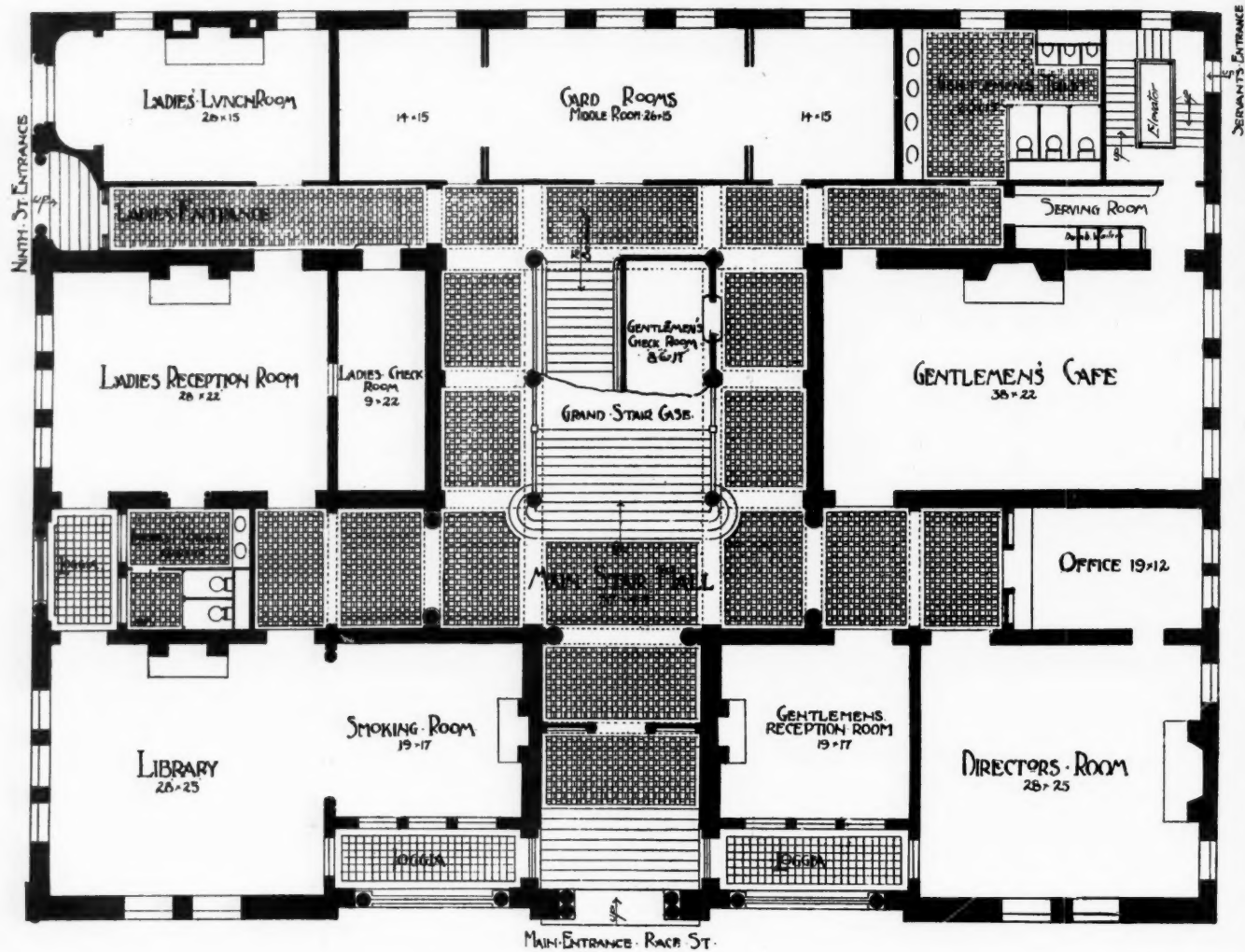
SCALE 1/4 INCH TO THE FOOT.
SECOND PLACE, F. M. GARDEN.



RACE STREET



COMPETITIVE DESIGN FOR PHOENIX CLUB BUILDING, CINCINNATI, OHIO.
S. S. GODLEY, ARCHITECT.



COMPETITIVE DESIGN FOR PHOENIX CLUB BUILDING, CINCINNATI, OHIO.

A. O. ELZNER, ARCHITECT.

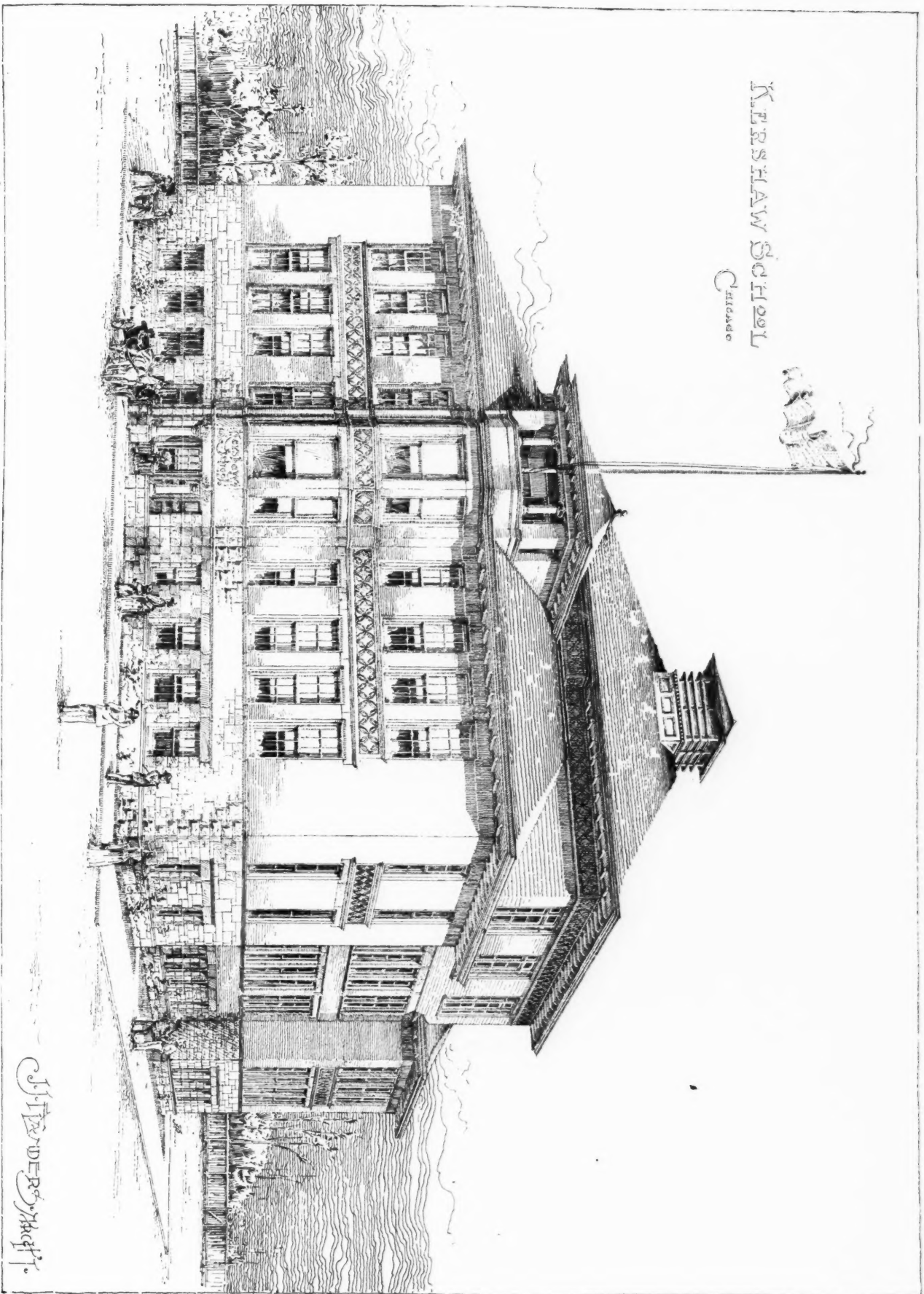


FIRST FLOOR PLAN.



LONGITUDINAL SECTION.

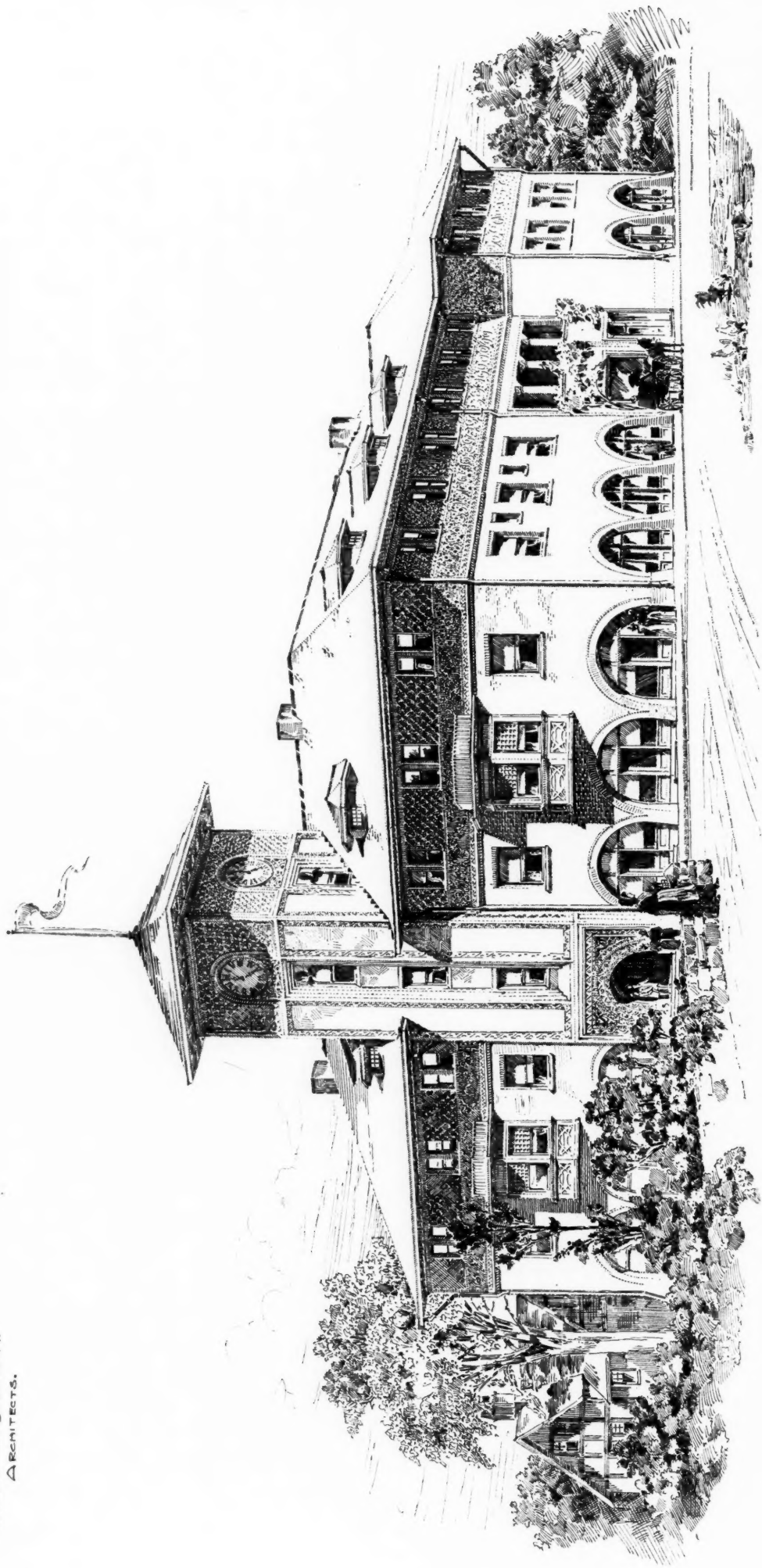
BASEMENT PLAN.

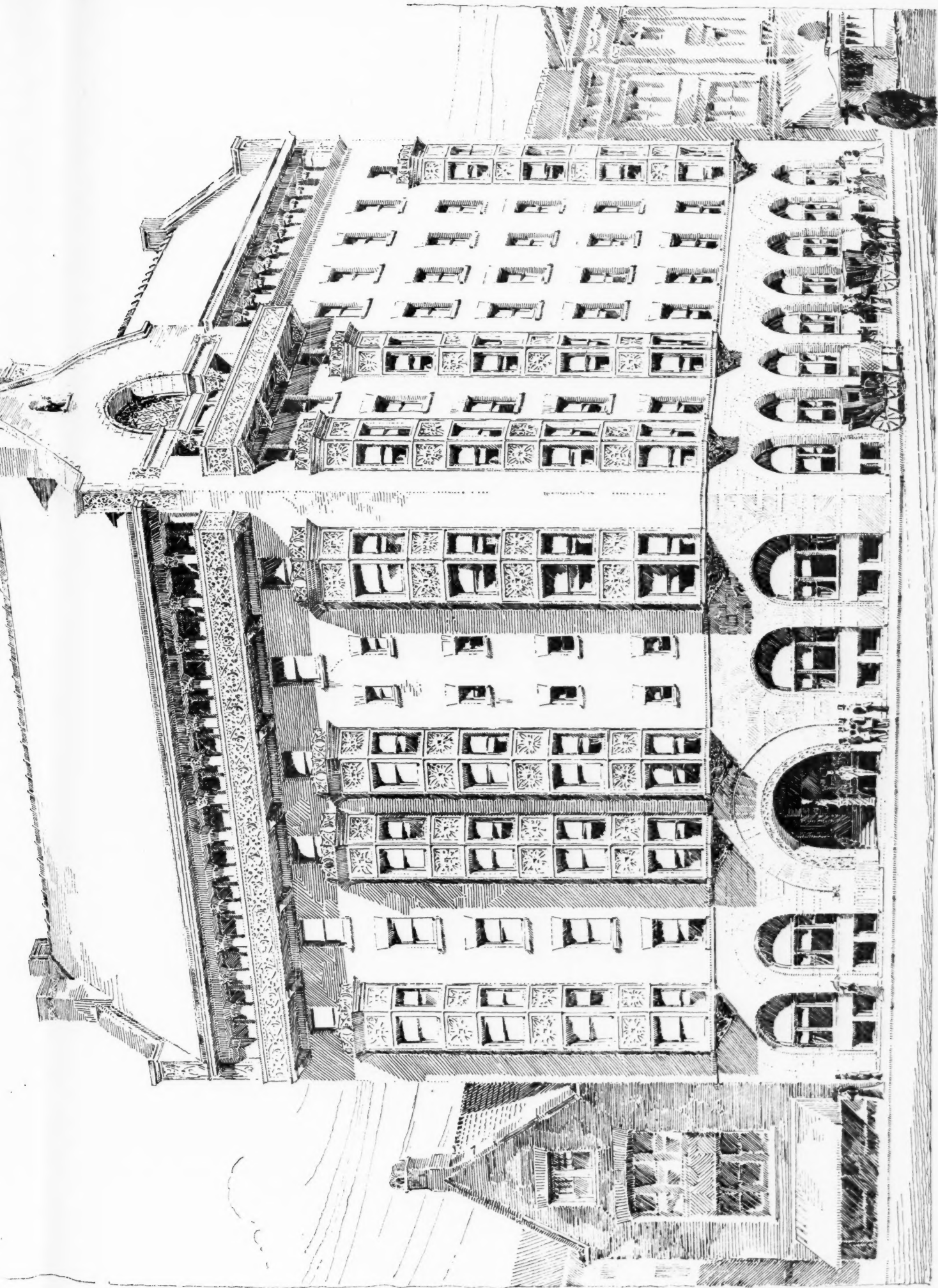


HOTEL, VICTORIA.

CHICAGO, HEIGHTS. ILLS.

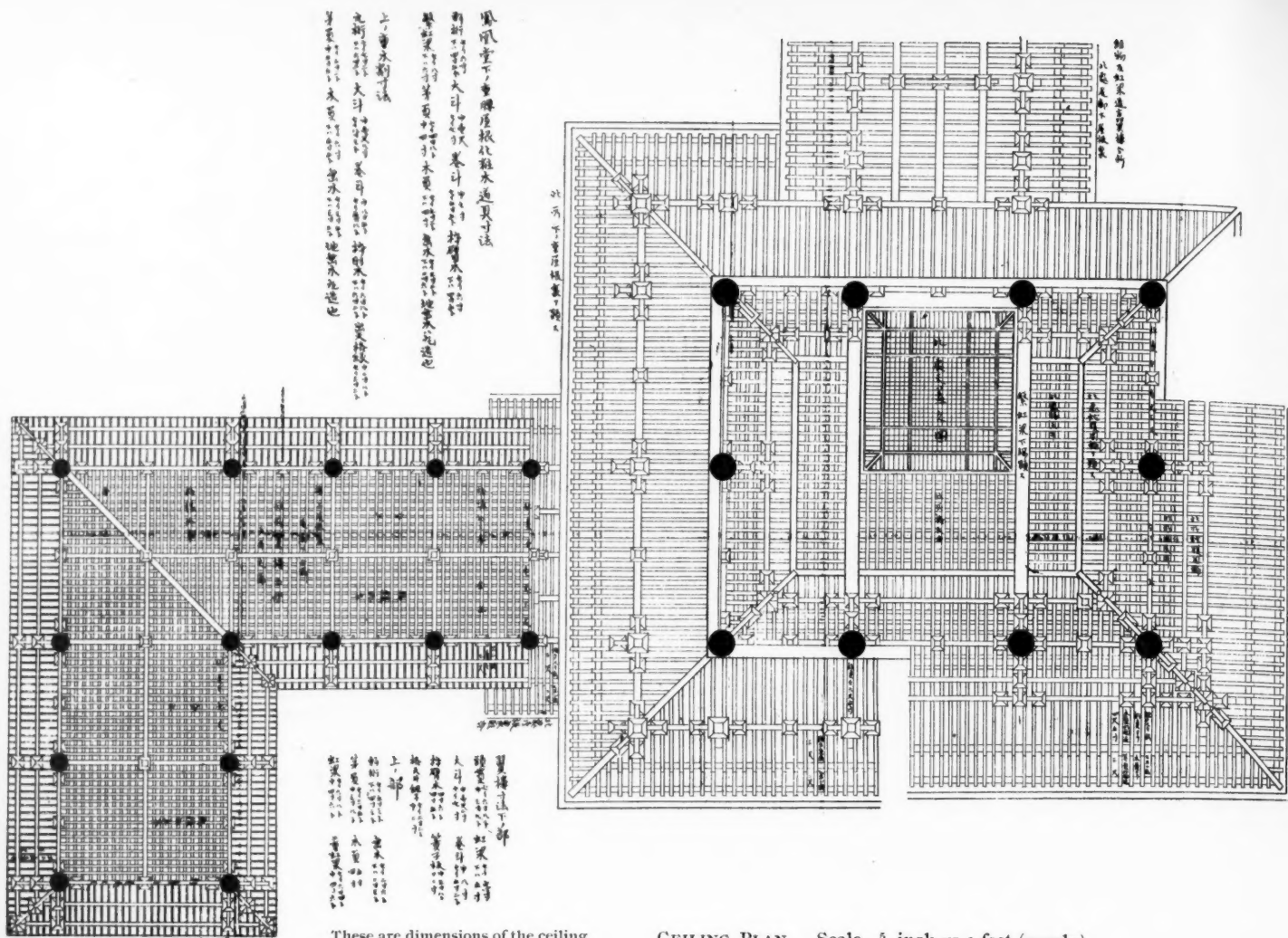
ADLER AND SULLIVAN,
ARCHITECTS.





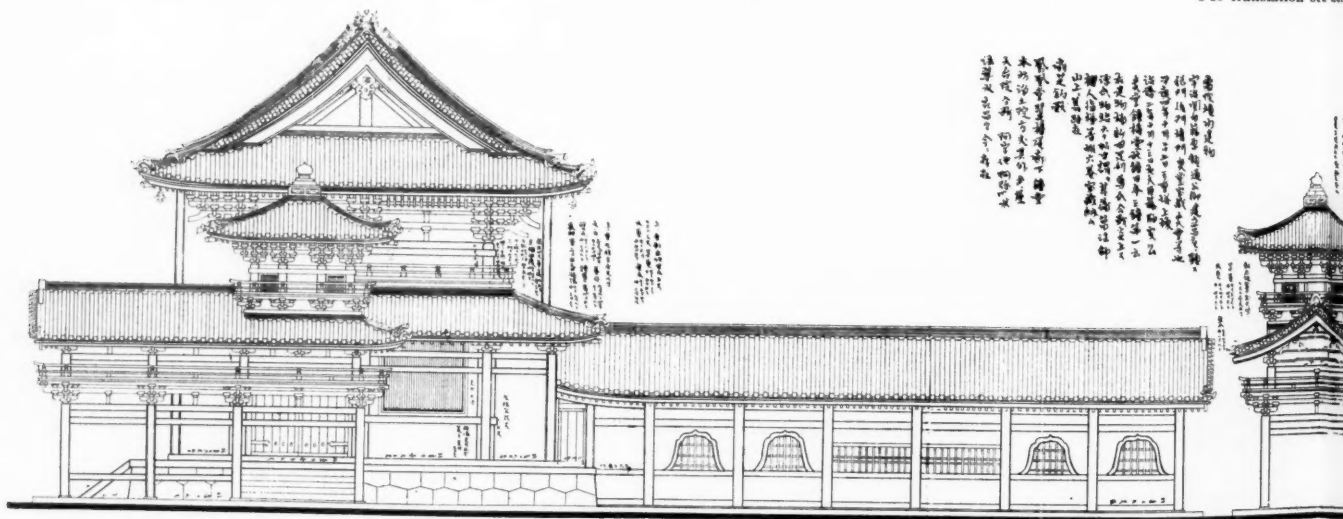
HOTEL ST. NICHOLAS, ST. LOUIS, MISSOURI.
ADLER & SULLIVAN AND CHARLES K. RAMSEY, ASSOCIATED ARCHITECTS.

These are the dimensions of the ceiling and eaves of the roof of main building.



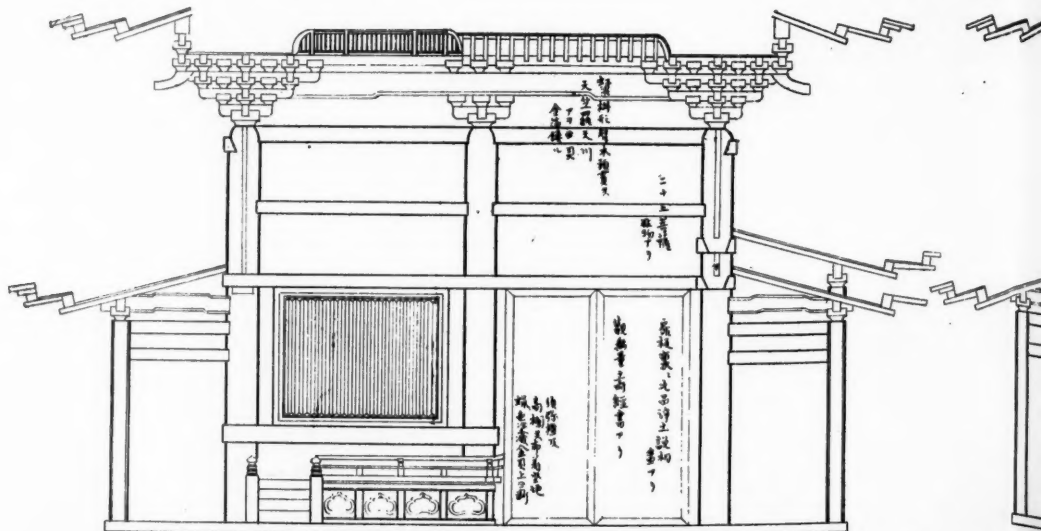
CEILING PLAN. Scale, $\frac{5}{8}$ inch = 3 feet (nearly).

For translation see des



SIDE ELEVATION.

Scale, $\frac{1}{24}$ inch = 1 foot (nearly)



SECTION AT E F (see plan).

Scale, $\frac{1}{12}$ inch = 1 foot (nearly)

平定院鳳凰堂屋椽數天井五拾分處木口指闊

山城國久世郡都巽宇治里

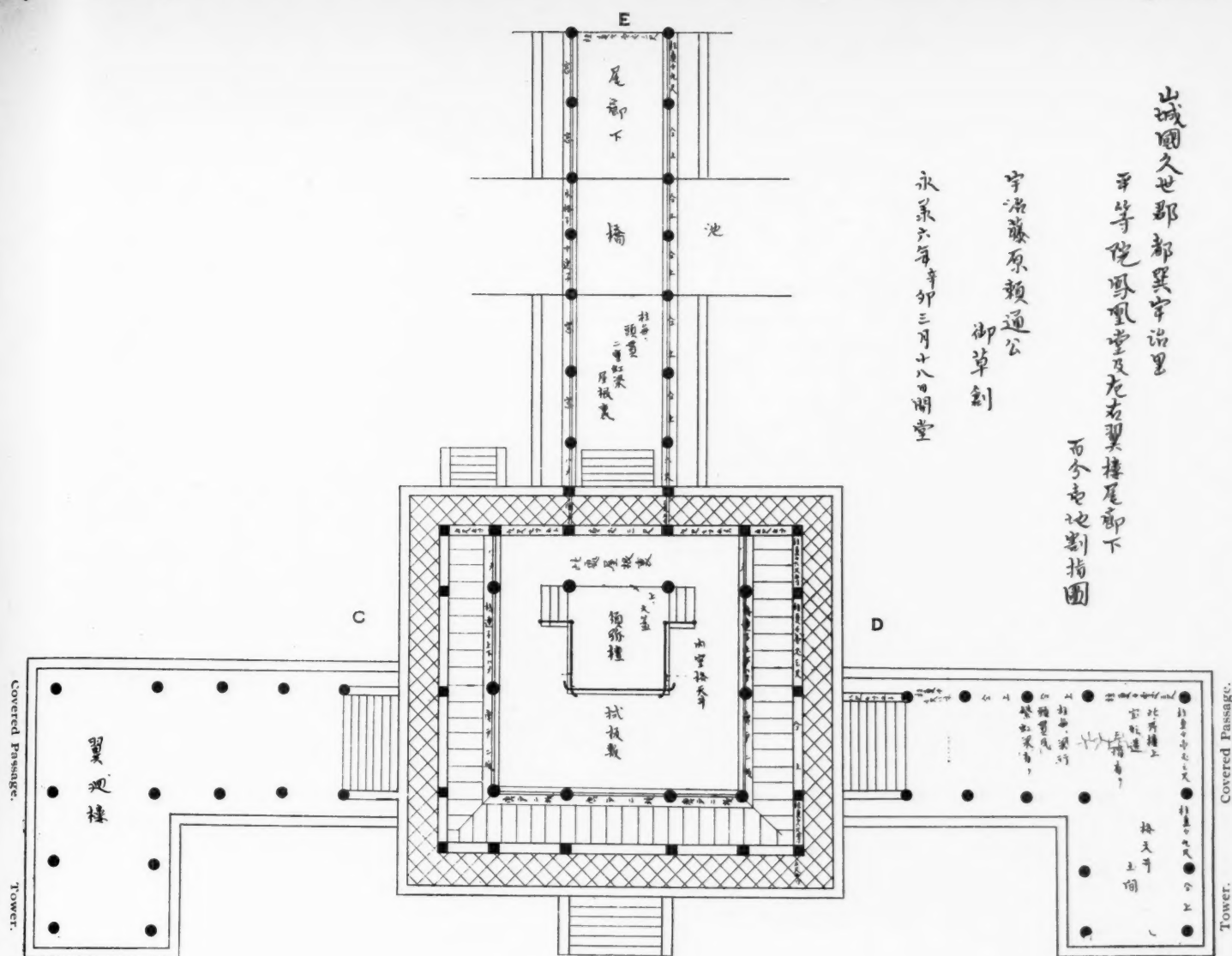
華等院鳳凰堂及左右翼樓尾廊下

百分地割指圖

宇治藤原賴通公

御草創

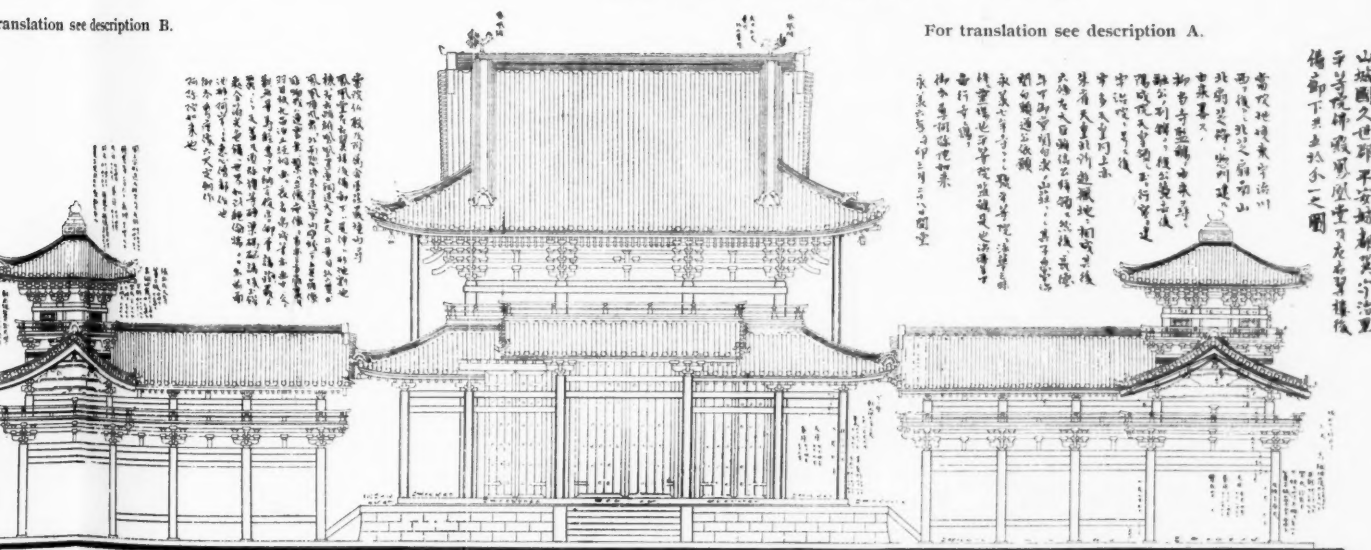
永泰六年辛卯三月十八日關堂



GROUND PLAN. Scale, $\frac{1}{24}$ inch = 1 foot (nearly).

translation see description B.

For translation see description A.



== 1 foot (nearly).

FRONT ELEVATION.

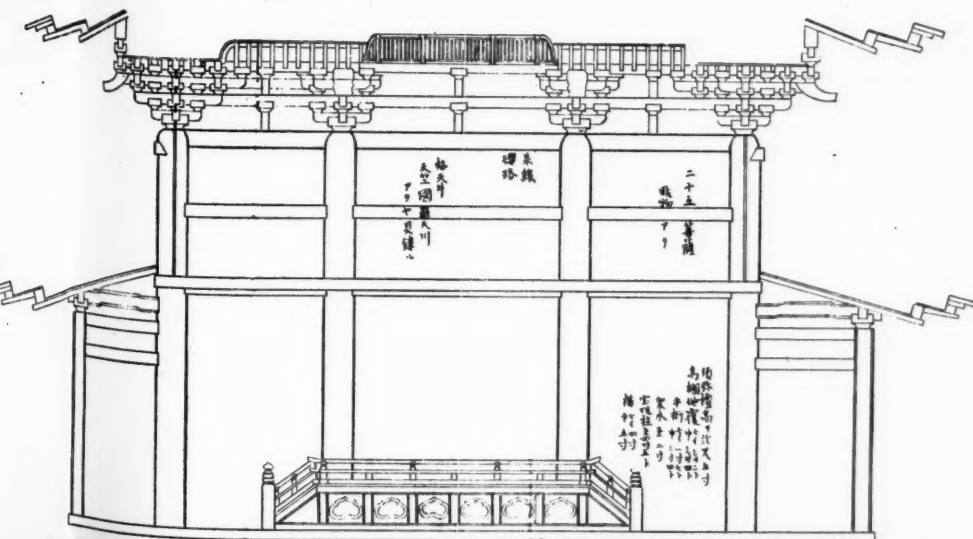
山城國久世郡平安城郡翼守浩里
平芳院碑殿鳳凰堂及左右翼樓後
偏廊下共五於今一之圖

雷地地境東至新寧山
 西至...之新寧山
 北窮之...所建
 中...
 柳寄寺...
 融公...
 理...
 宇...
 其有...
 大...
 地...
 中...
 朝...
 聖...
 永...
 印...
 閣堂



鳳凰堂御內陣之圖

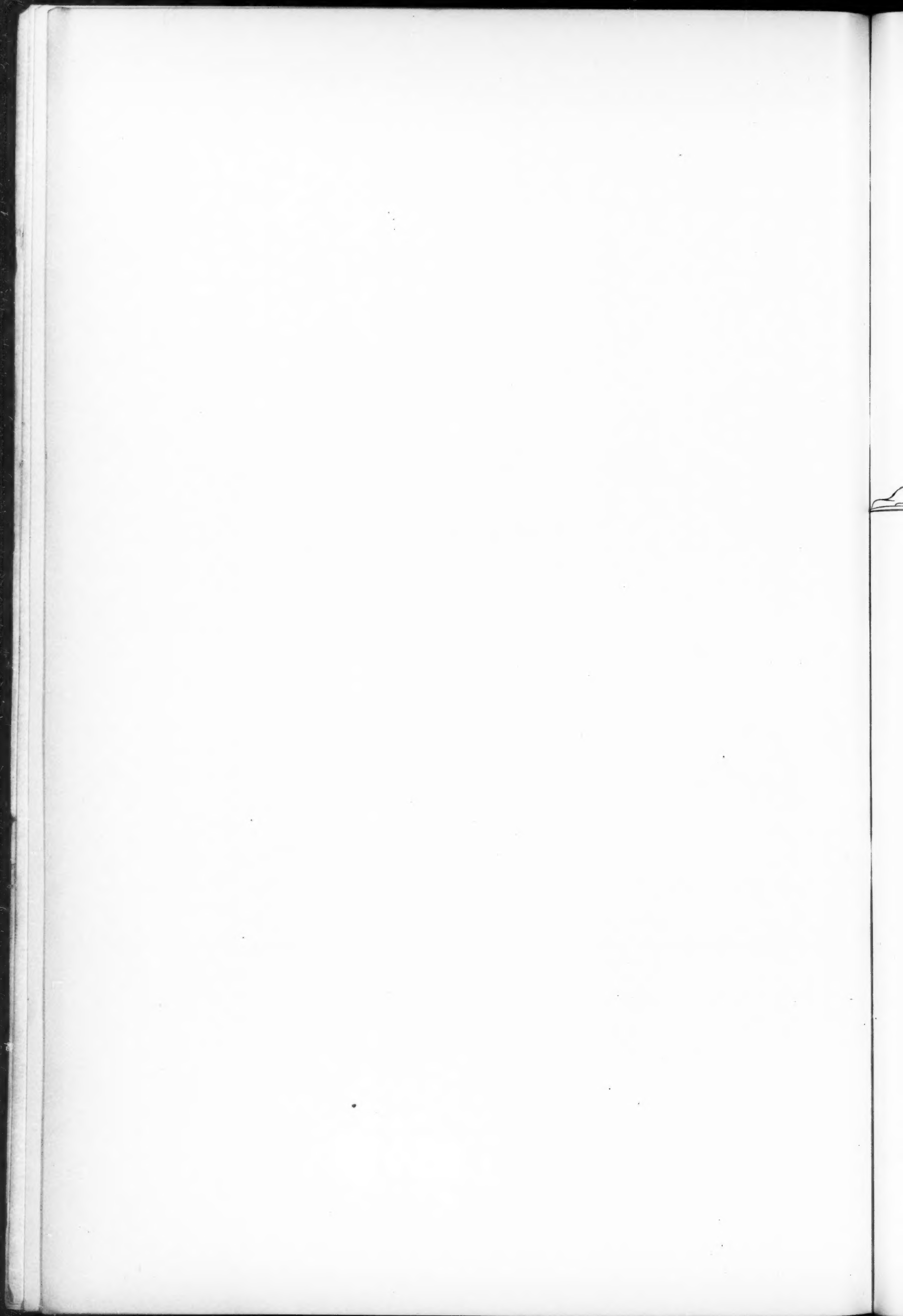
Translation. Sections of Central Building
of the Hō-ō-do.

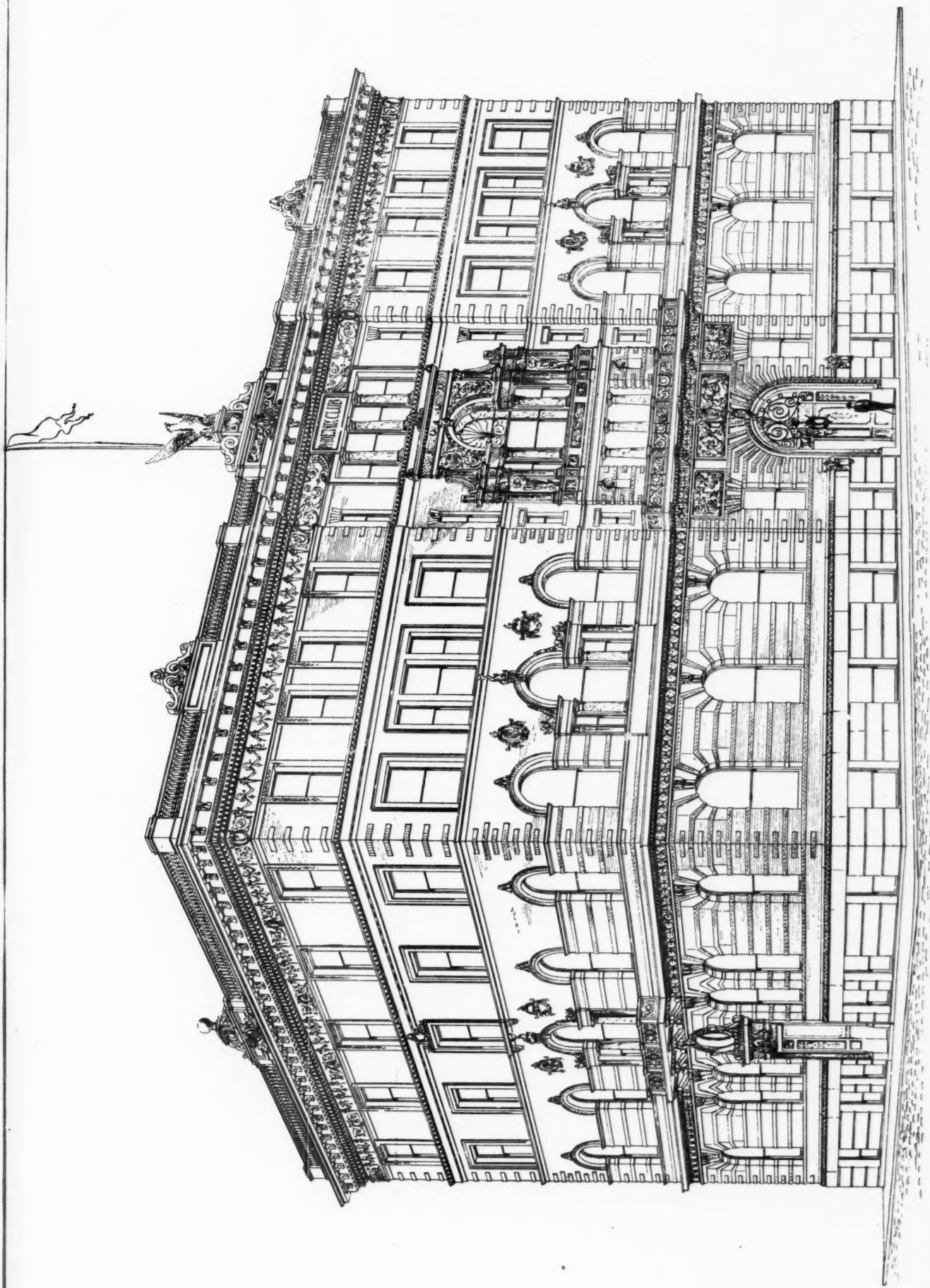


= 1 foot (nearly).

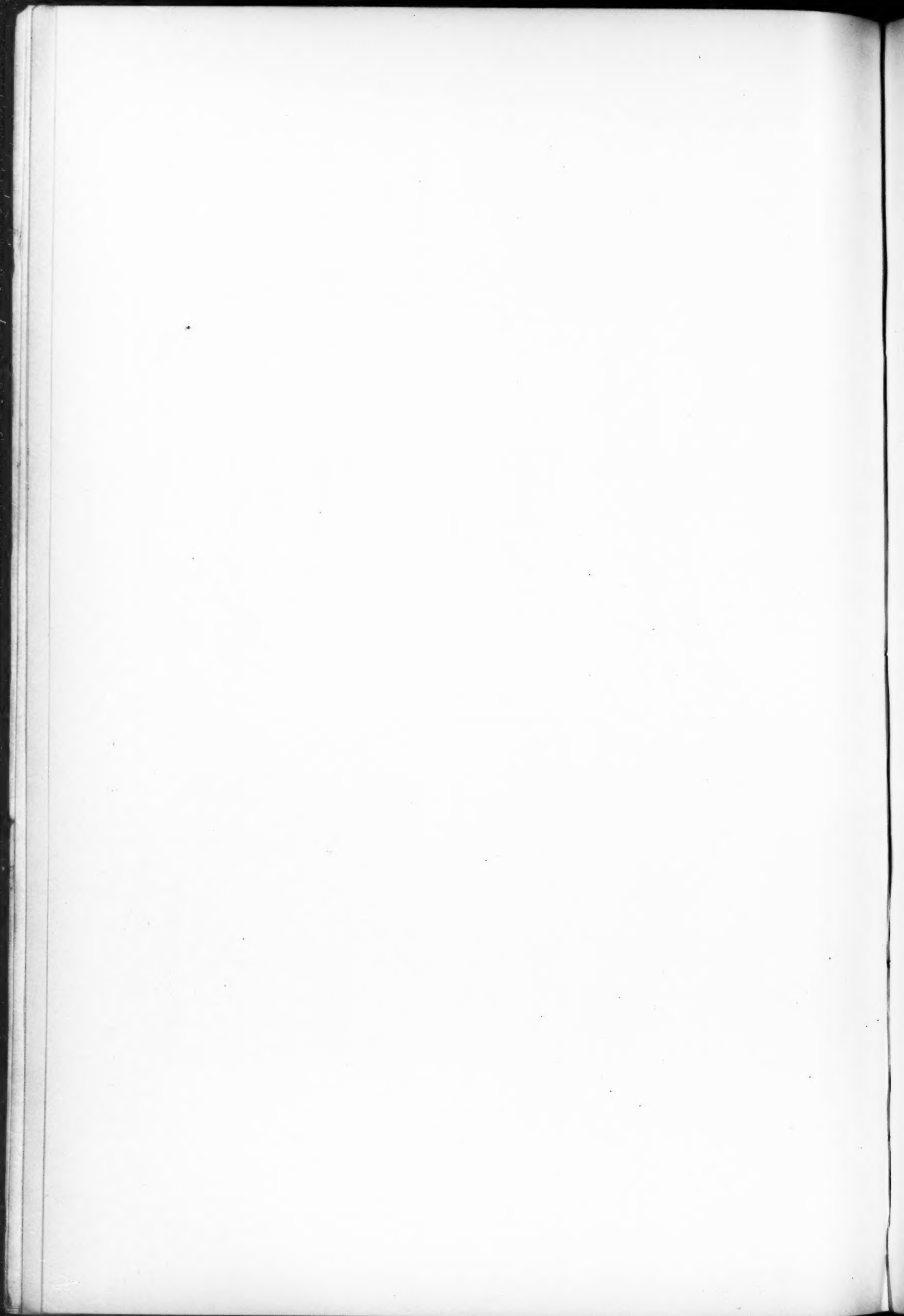
SECTION AT C D (see plan).

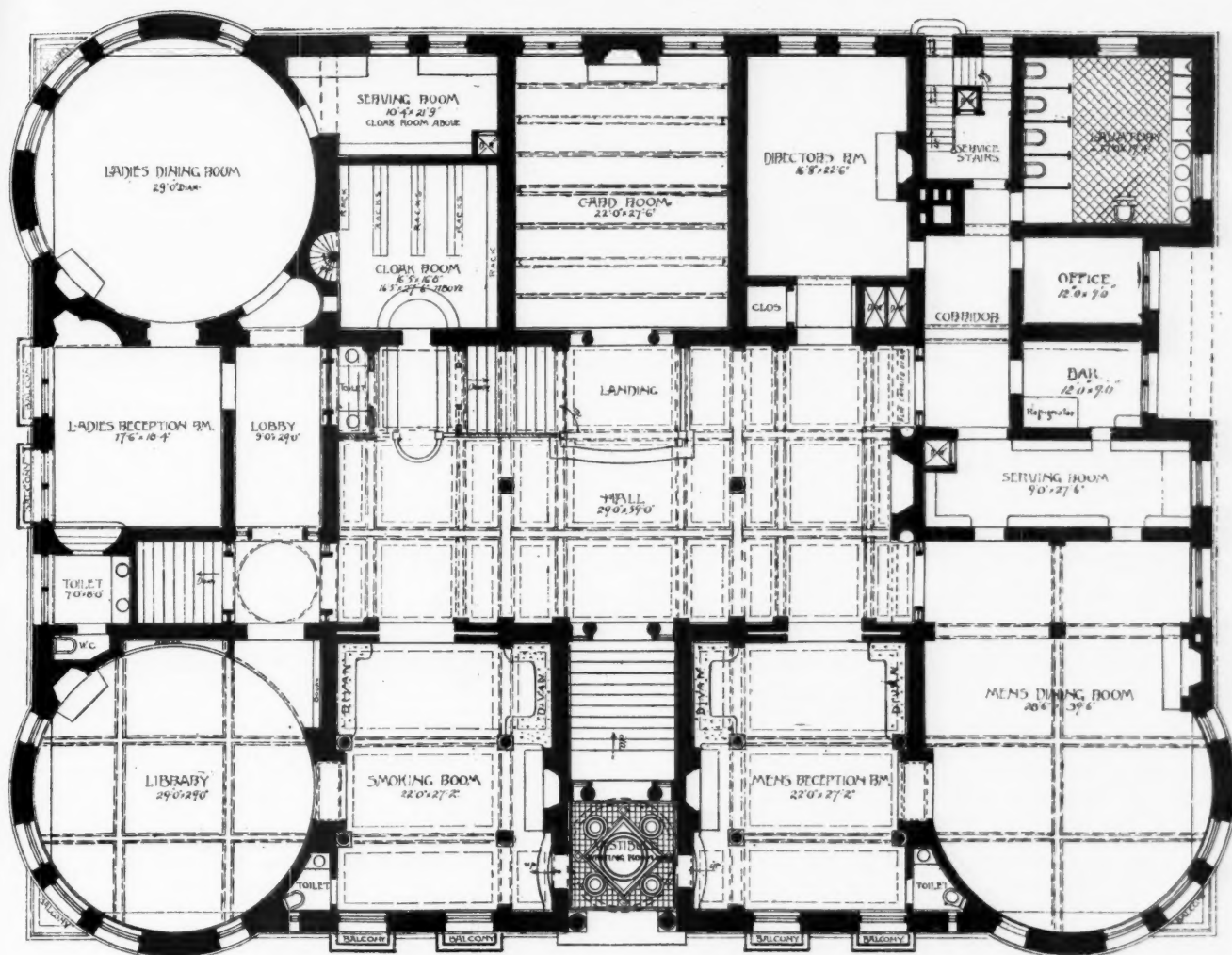
TEMPLE (JAPAN).





ACCEPTED COMPETITIVE DESIGN FOR PHOENIX CLUB BUILDING, CINCINNATI, OHIO.
SAMUEL HANNAFORD & SONS, ARCHITECTS.





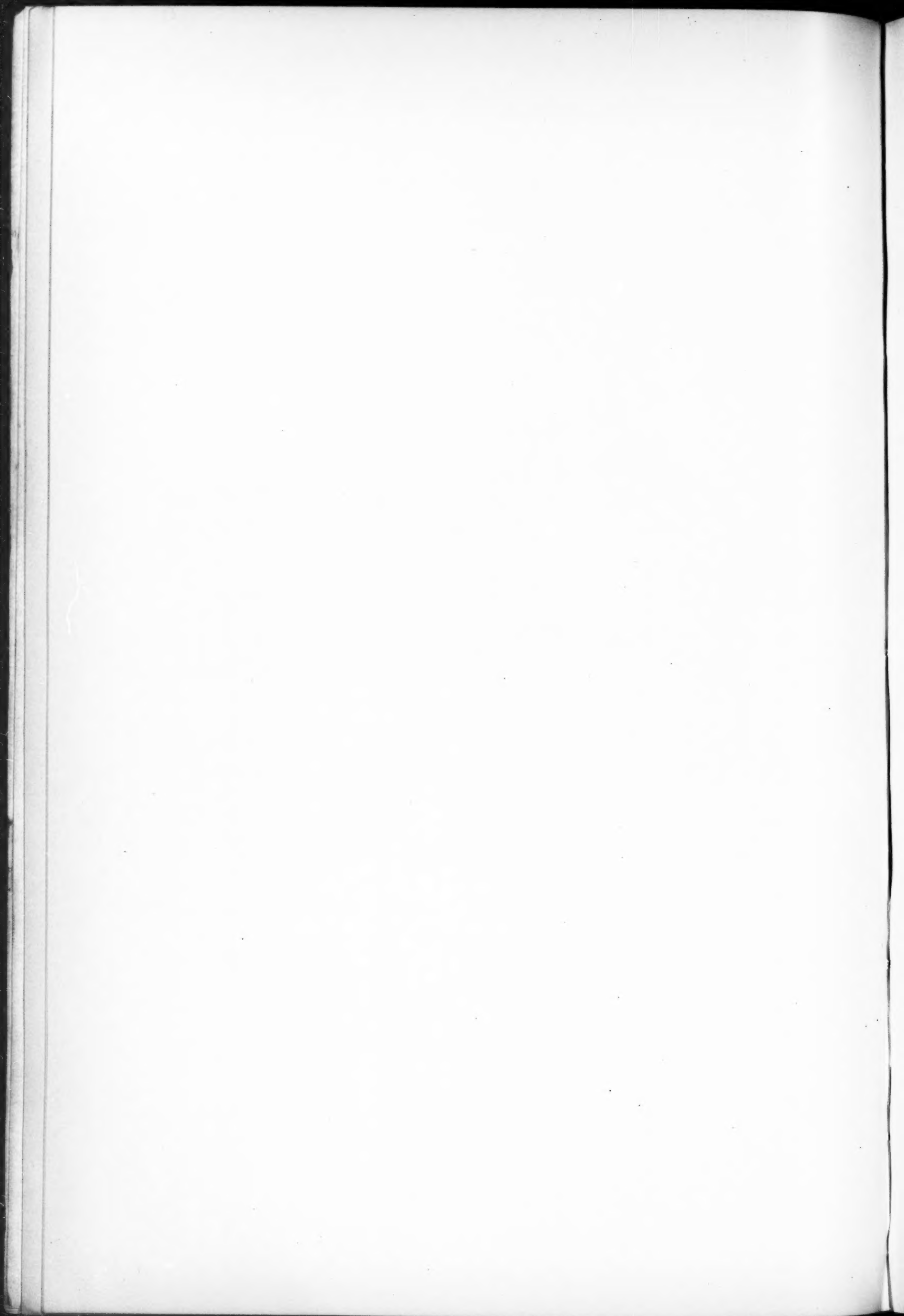
COMPETITIVE DESIGN FOR PHOENIX CLUB BUILDING, CINCINNATI, OHIO.

WILLIAM M. AIKEN AND GEORGE W. RAPP, ASSOCIATE ARCHITECTS.

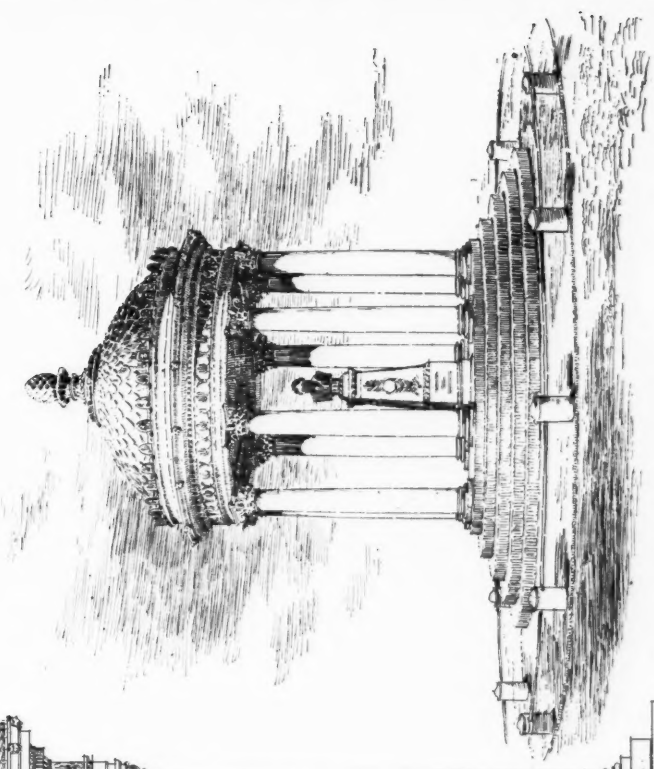
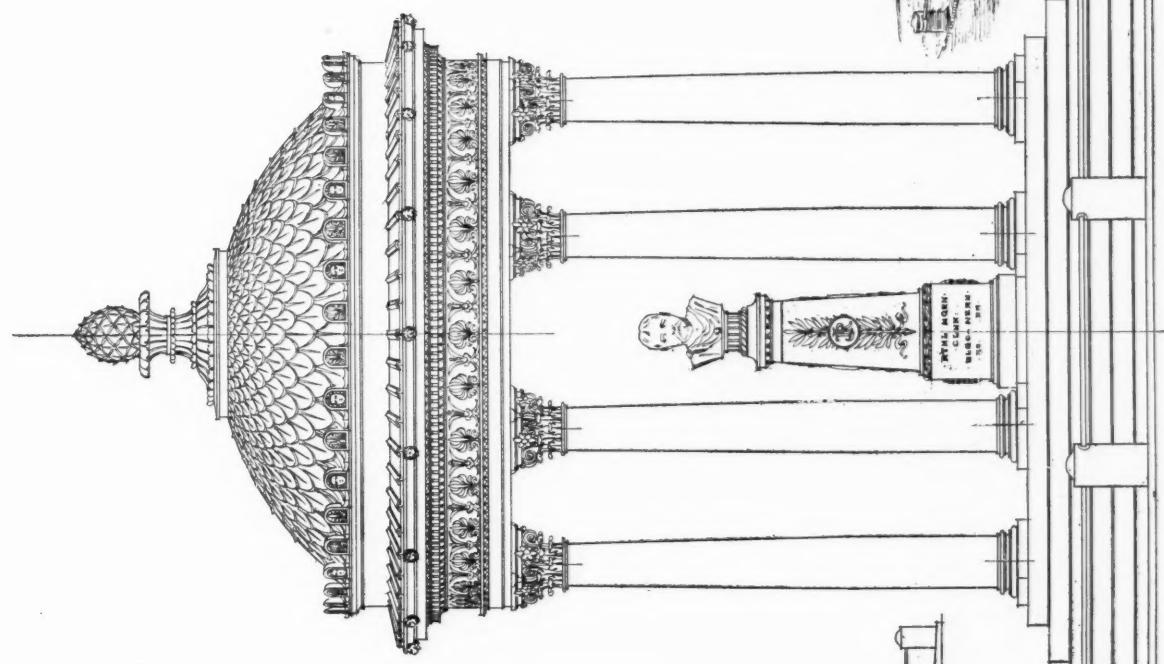
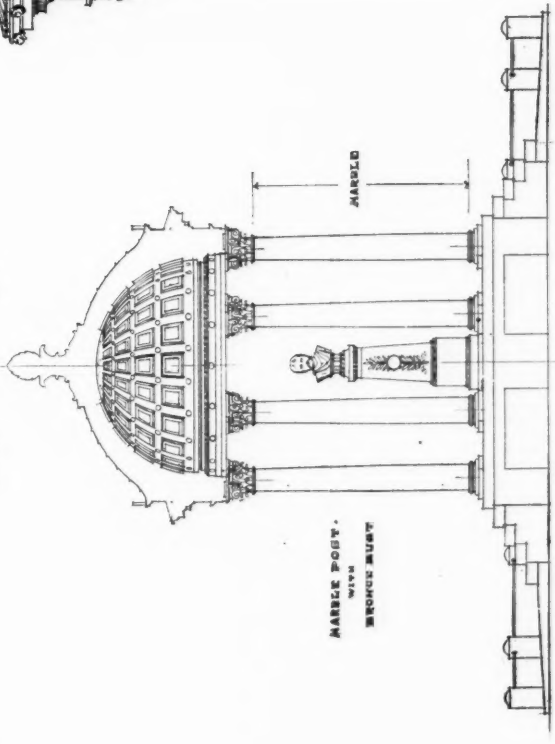
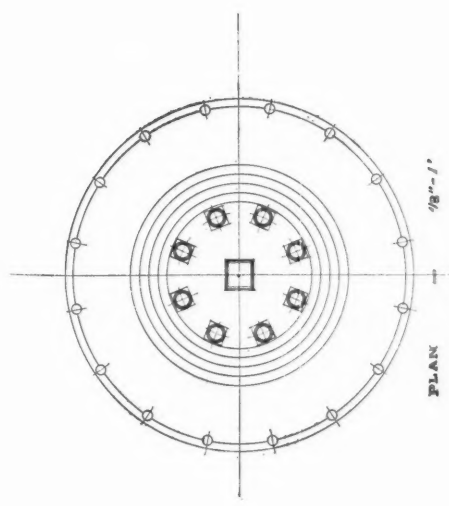


COMPETITIVE DESIGN FOR PHOENIX CLUB BUILDING, CINCINNATI, OHIO.

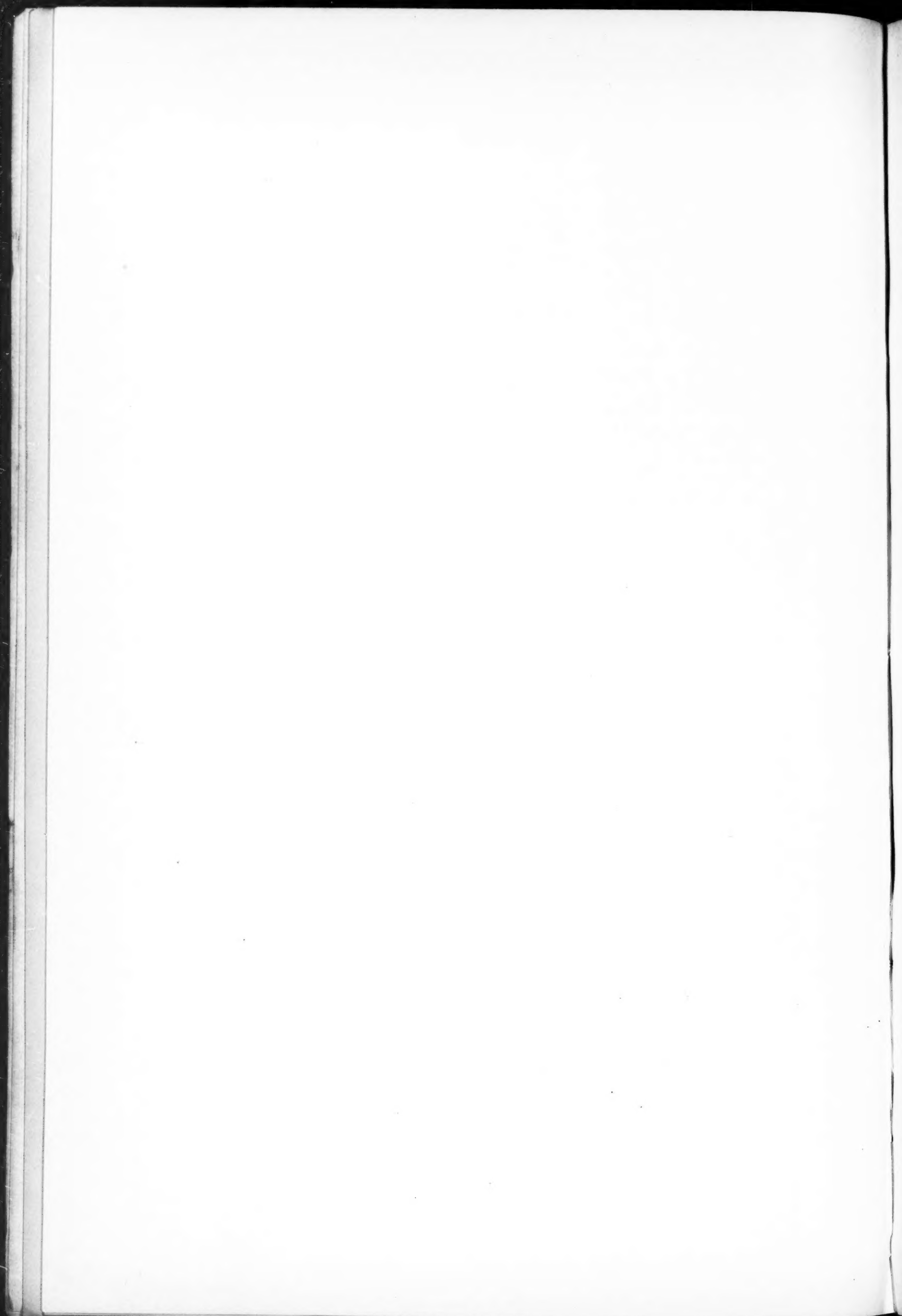
JAMES W. McLAUGHLIN, ARCHITECT.

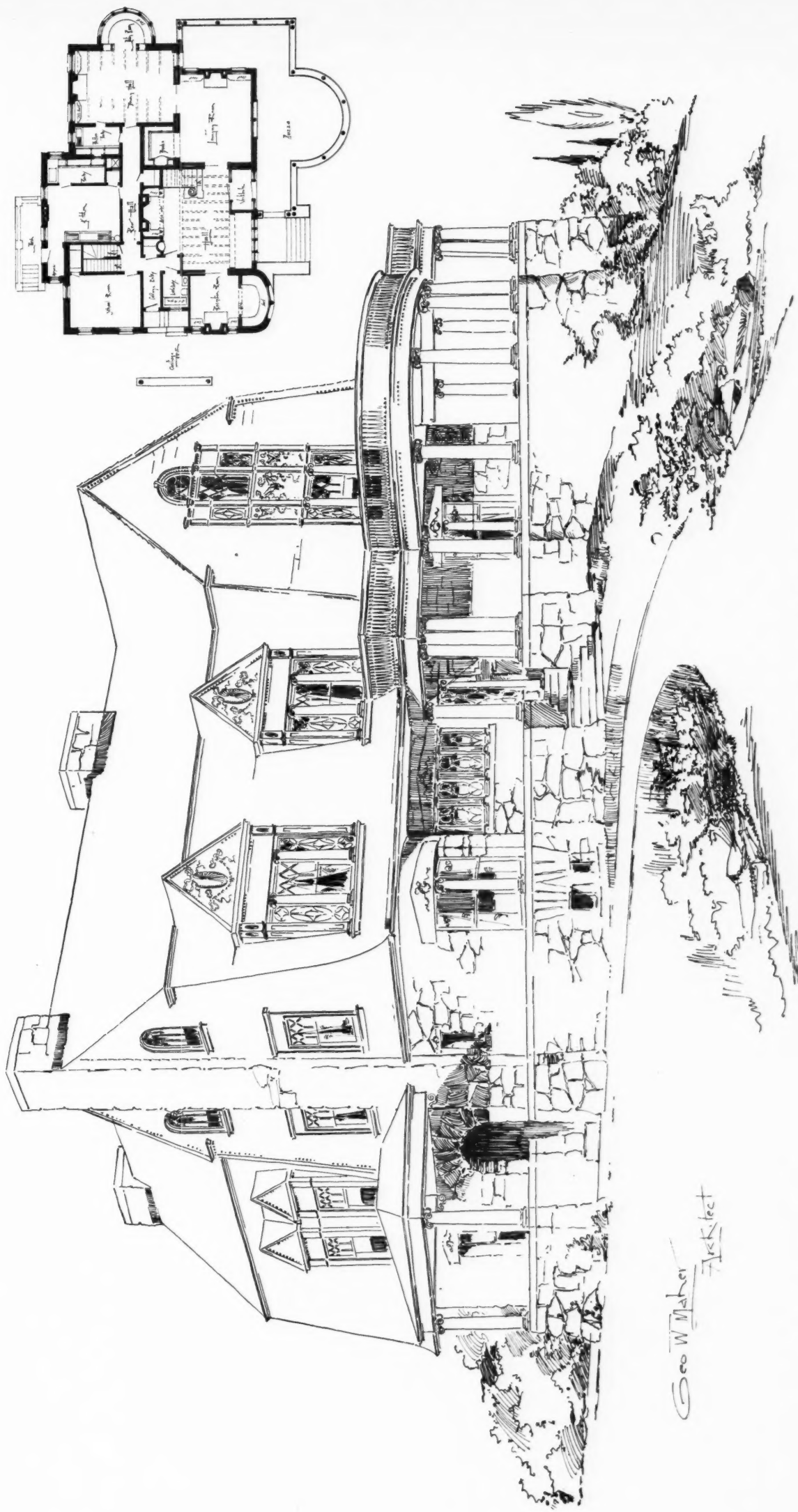


COMPETITION
 CHICAGO ARCHT'L SKETCH CLUB
 MEMORIAL-MONUMENT
 TO JOHN W ROOT
 SUBMITTED BY, 'CARIDAD'



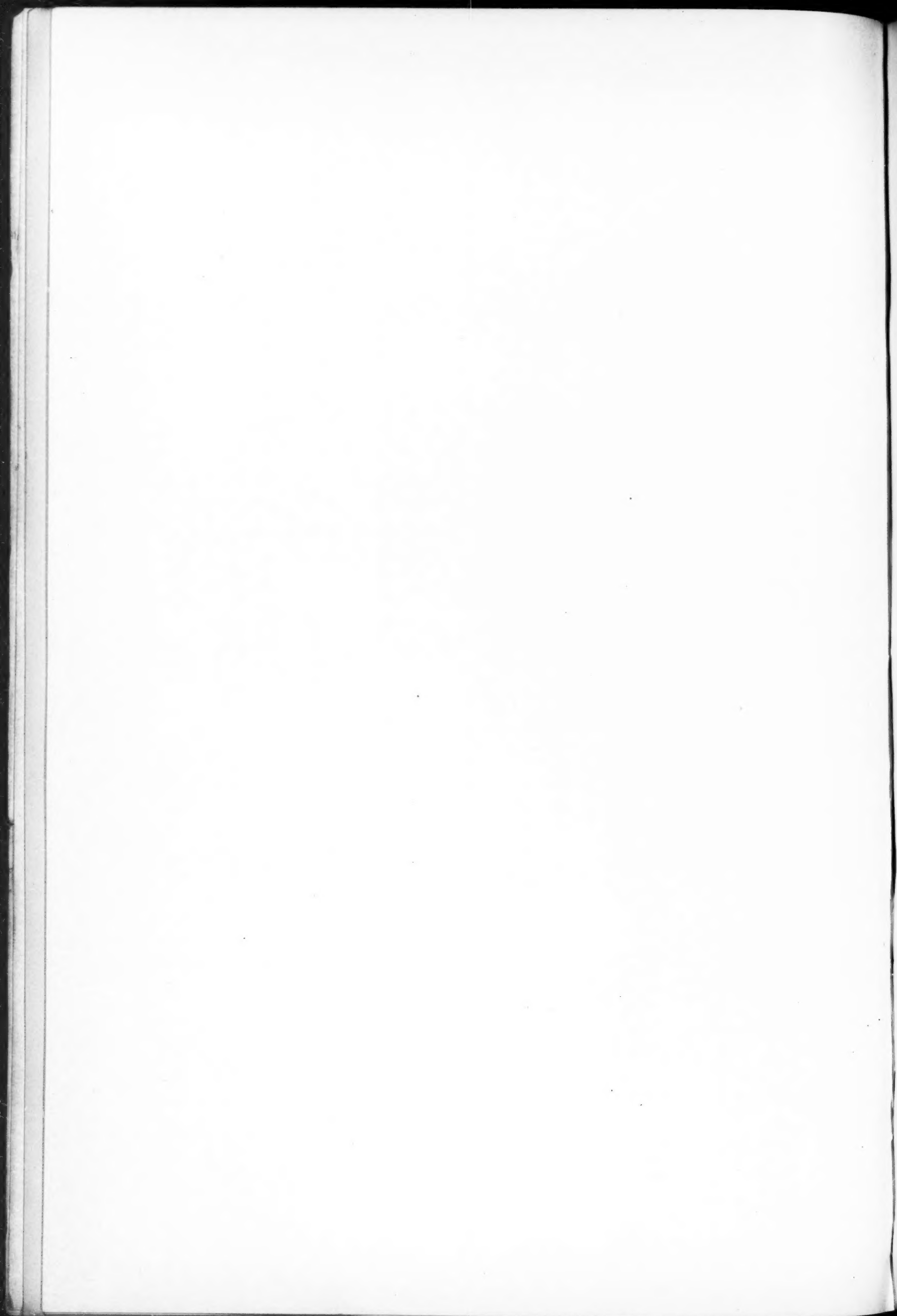
SCALE 1/8" = 1' FOOT
 FIRST PLACE, P. J. WEBER.





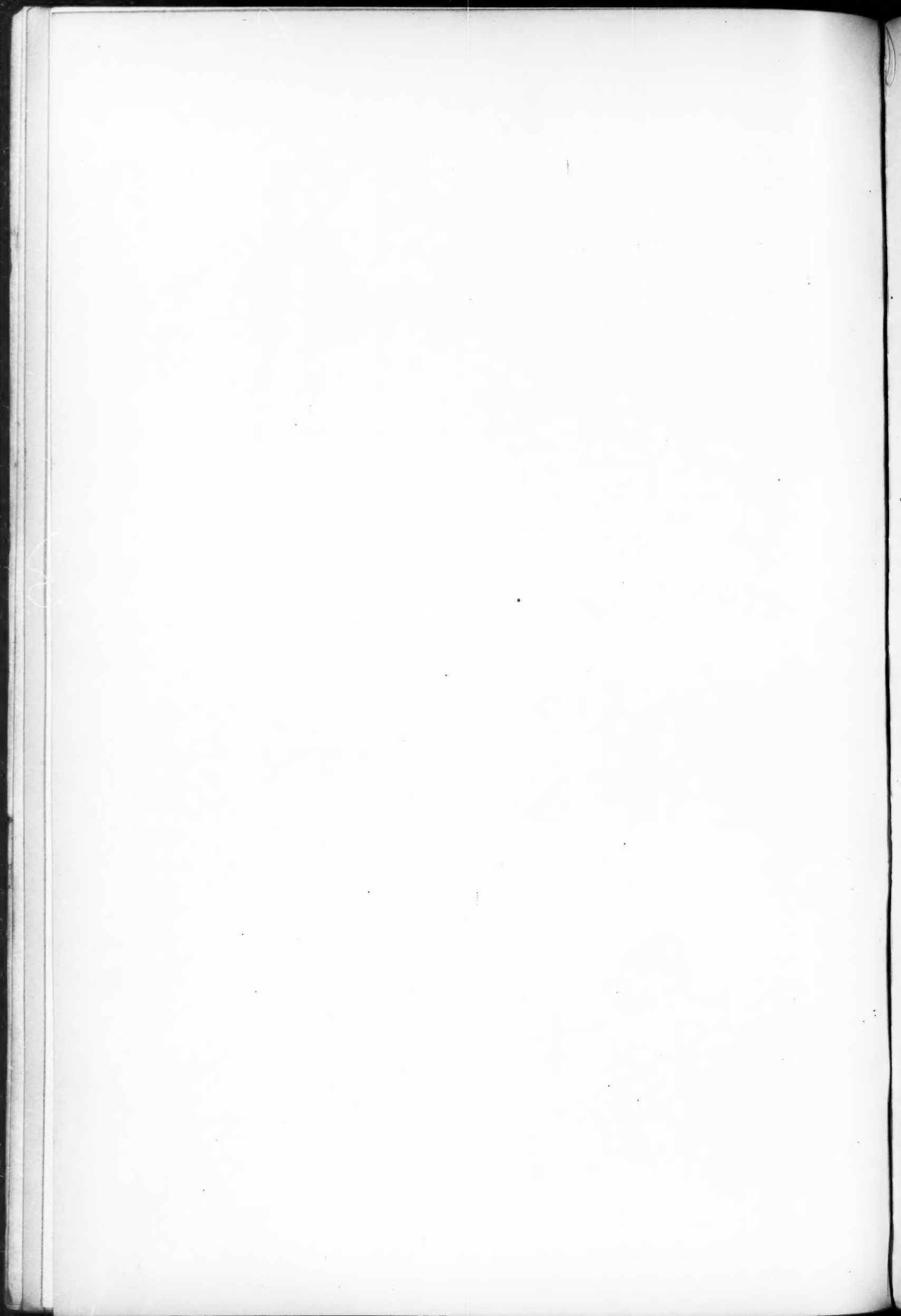
HOUSE FOR F. H. DAVIS, OMAHA, NEBRASKA.

GEORGE W. MAHER, ARCHITECT, CHICAGO.





HOUSE, NO. 512 DELAWARE AVENUE, BUFFALO, NEW YORK.
E. A. KENT, ARCHITECT.





This is a cut of our No. 20 C set, adopted by the Massachusetts Institute of Technology, Boston. Write for Price.

SAVES TIME AND MONEY.

THE STANDARD CONTRACT

SAVES TIME IN WRITING CONTRACTS.

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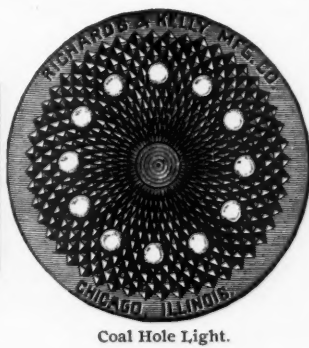
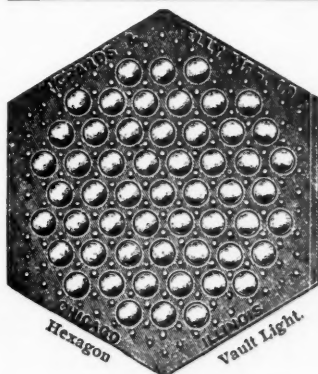
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Saves Money for Owner, Architect and Contractor.

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19 Tribune Building, CHICAGO.

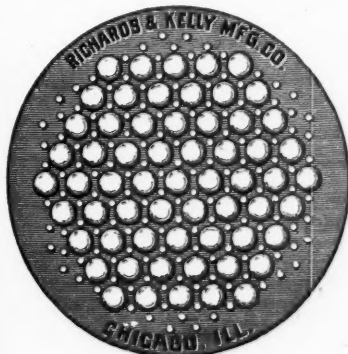


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FLOOR and SKY LIGHTS,

RICHARDS & KELLY MFG. CO.



Round Vault Light.

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Send for Illustrated Catalogue.



Reflecting Lens.

Rolled Rim Porcelain Lined IRON BATHS.

Newest and best.

No Woodwork.

Cannot Get Dirty.

HANDSOME AND INDESTRUCTIBLE.

Every tub guaranteed perfect and not to chip.



MADELINE PATTERN.

The Plumbing Trade, Property Owners and Architects are cordially invited to visit our Showrooms. We have on exhibition a large number of plain and decorated Baths. Also a full line of the most approved

Sanitary Appliances.

HAINES, JONES & CADBURY CO.

MANUFACTURERS OF

HIGH-CLASS PLUMBING GOODS,

1136 RIDGE AVE., PHILADELPHIA, PA.

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EARLY THIS YEAR

WE COMMENCED } MANUFACTURING
THE WELSH QUIT }

"Scott's Extra Coated"

GUARANTEED

ROOFING TIN PLATE.

The demand has heretofore exceeded the supply, but Factory output is now greatly enlarged.

THE QUALITY IS ALWAYS PERFECT.

SOLE OWNERS AND MANUFACTURERS,

JAMES B. SCOTT & CO.,

PITTSBURGH, PA.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

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SANITARY PLUMBING,**

GASFITTING,

Plumbing Material and Fine Chandeliers,

169-171 ADAMS STREET.

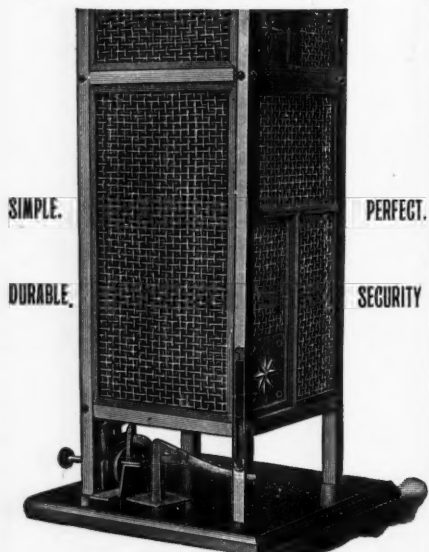


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Compound light-spreading Sil-
ver-plated Corrugated Glass
REFLECTORS
A wonderful invention for
lighting Churches,
Halls, etc. Satisfaction
guaranteed. Catalogue
and price list free.
BAILEY REFLECTOR CO.
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U. S. MAIL CHUTES

WHICH ARE

A necessity in office buildings and hotels,
write to the sole makers,
THE CUTLER MFG CO., Rochester, N. Y.
PATENTED. AUTHORIZED.**SAFETY ELEVATOR BRAKE
AND SELF-CLOSING DOOR**Elevator cannot move when door is open.
Can be attached to any elevator.**SAFETY ELEVATOR BRAKE CO.**

1231 Masonic Temple, CHICAGO.

TOCH BROTHERS


EDINBURGH RED FRONT OIL PURPLE BROWN ECT. SPECIALS

SOLE IMPORTERS IN THE U.S.

STONE BLACK STONE BUFF MAROON ACIDS ECT. SPECIALS

Established 1848.

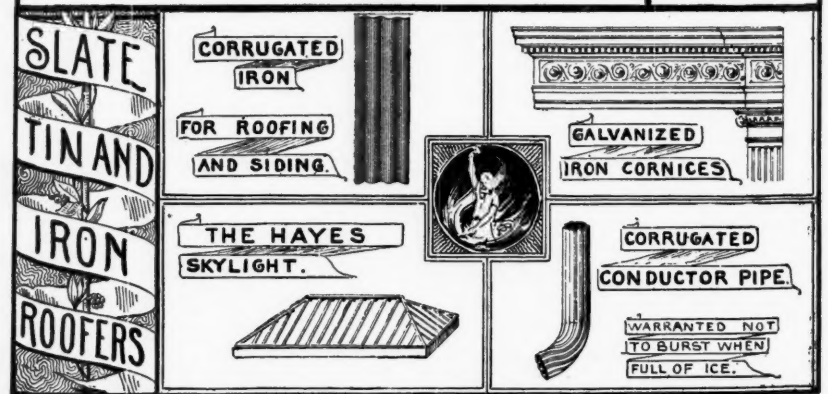
The Only Unfading MORTAR - TINTERS

Descriptive Circular and Price List on application.

Office and Store, 35 BOWERY, NEW YORK CITY.

—ALSO—
Paints,
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Brushes,
Stains,
Etc.**MASON & BARNETT,**
SELLING AGENTS,
159 La Salle St., CHICAGO
"Builders' Exchange."**GEM SPRING HINGES.**

	FOR DOORS.		Length of Flanges.	JAPANNED.		COPPER BRONZED.		REAL BRONZE AND BRASS.		
	Feet.	Inch.		Single Acting. Per pair. No.	Double Acting. Per pair. No.	Single Acting. Per pair.	Double Acting. Per pair.	Single Acting. Per pair.	Double Acting. Per pair.	
6 x 2	x	¾	to 1 ½	3 ½ in.	63 \$0 70	83 \$1 40	\$2 00	\$3 75	\$3 00	\$6 00
7 x 2	x	1	to 1 ¾	4 in.	64 0 90	84 1 75	2 50	4 75	3 75	7 00
7 x 2 ½	x	1	to 1 ½	5 in.	65 1 10	85 2 20	3 00	5 75	4 75	8 50
7 x 2 ½	x	1	to 1 ¾	6 in.	66 1 40	86 2 80	3 75	6 75	5 75	10 25
8 x 2 ½	x	1 ¼	to 1 ½	7 in.	67 1 75	87 3 50	4 50	8 25	7 00	13 25
8 x 3	x	1 ½	to 2 ¼	8 in.	68 2 50	88 5 00	5 50	10 50	9 25	17 00
9 x 3	x	1 ¾	to 2 ½	10 in.	69 3 50	89 7 00	7 50	14 25	12 25	23 00
10 x 3	x	2	to 3	12 in.	70 4 50	90 9 00	10 00	18 00	16 50	30 00

Manufactured by **VAN WAGONER & WILLIAMS CO.,**
Send for April, 1889, Catalogue. 82 Beekman Street, NEW YORK.**THE OBELISK HOUSE PUMP**Is practically tested, both in its LIFTING
and FORCING qualities, and warranted.
Architects specially invited to examine
into its merits. Circulars and full infor-
mation from**THE WM. POWELL CO., CINCINNATI, OHIO.****JAMES A. MILLER & BRO.**129 & 131
S. CLINTON ST.
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SLATE
TIN AND
IRON
ROOFERS

CORRUGATED
IRON
FOR ROOFING
AND SIDING.

THE HAYES
SKYLIGHT.

GALVANIZED
IRON CORNICES.

CORRUGATED
CONDUCTOR PIPE.

WARRANTED NOT
TO BURST WHEN
FULL OF ICE.

**John Moore & Co.**

..... FINE

.....Interior Trimmings
and Room Mouldings,Peoria and Kinzie Streets,
CHICAGO.

We have a Salesroom at 289 Wabash Avenue, near Van Buren St.

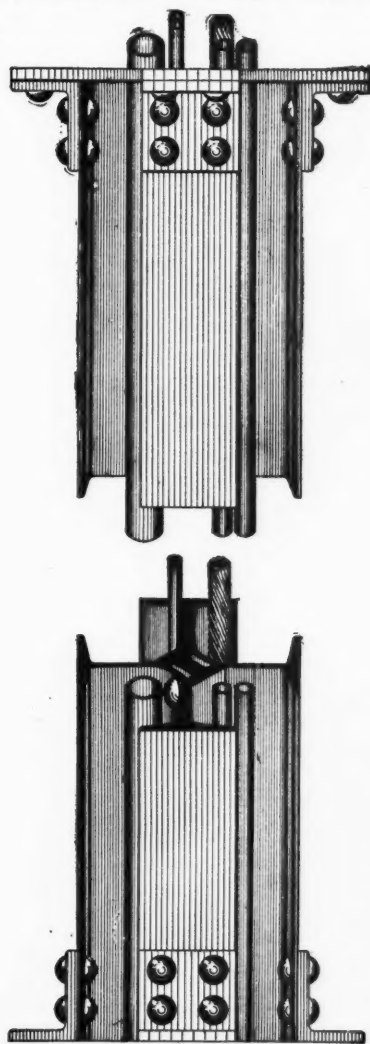
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Lyle's Improved Screen Door.

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

The Larimer Column in Tall Buildings.

It has been a problem for some time how to dispose of the water pipes, tubes, electric wires, etc., in the tall fireproof buildings that are so numerous erected at present. In previous constructions these pipes, tubes and



LARIMER COLUMN,
SHOWING METHOD OF CONCEALING PIPES, WIRES, ETC.

wires have been carried up through the floors in the corners of the rooms and exterior of the walls. They are unsightly when so disposed, and, besides, openings must be made in the floors through which they pass. The Larimer column solves the problem and entirely overcomes these objections. The construction of the column allows the placing of pipes, tubes, wires, etc., on all sides, and without in any way interfering with the fireproofing or other manner of covering. The accompanying illustration is a view of the column, showing the arrangement for this purpose. The plates between the columns are perforated as required, allowing extensions from base of column to the highest stories without trouble

or exposure. The Larimer column, also, has many advantages in other respects, such as ease of fireproofing, saving of space when used as an interior column, and readiness with which connections can be made to it, as necessities of position and load require.

The sections of which it is composed can also be increased in weight without material increase of diameter, so that heavier or variable loads can be allowed.

Safety in the Theaters.

The Boston *Advertiser* pays a deserved tribute to the asbestos drop curtain in the following: "The utility of the asbestos drop curtain in case of fire was demonstrated recently at the Haverhill Opera House. After the stage was set for the first act in the well-known spectacular performance, 'The Vendetta,' the scenery took fire from a border light, and almost instantaneously the entire contents of the stage were in flames. At this juncture the asbestos curtain was dropped, and the audience notified that there was no danger. The presence of the curtain prevented a panic, and lives were doubtless saved thereby. The new Columbia Theater, of this city, has just been provided with one of these asbestos curtains, which are manufactured by the H. W. Johns Manufacturing Company, of New York, with branch offices at Chicago, Boston, Philadelphia and Atlanta.

Suggestions on Exterior Staining.

No article used by the building trade can ruin the best architectural features of a building more than a poor shingle stain. With the changeable climate of the North and South, East and West, it has been demonstrated that it is a most difficult task to unite pure pigments with preserving oils and not have the color fade or wash off or turn black. No painter can mix a pigment with linseed oil and apply it to the shingles of a house but what the house will turn black within a year.

Dexter Brothers have accomplished this in their English shingle stain, as the thousands of buildings testify throughout the country from Maine to California, and Dexter Brothers challenge anyone to show them a house where their stain has washed off. There is another important feature which too few know: the fact that linseed oil should never be put over these stains, as is often done after a year or two when the trimmings are repainted. This should never be done. Either a coat of shingle stain should be used again or shingle oil from Dexter Brothers without color should be applied. Dexter Brothers have reason to congratulate themselves that the new hotels of the South have been stained with their stains. The Kenilworth Inn at Asheville, North Carolina; the Southern Hotel at New Birmingham, Texas; Basic City Hotel, Shenandoah Hotel and Hotel Bedford, at Bedford, Virginia, besides many private houses.

The distinctly American house has come to stay. No other house is so wholly American as the shingled house. In Brookline, the wealthiest suburb of Boston, the prevailing style is the shingled house. Shepley, Rutan & Coolidge have designed recently five houses for the Goddard Land Company and the two houses which Hartwell & Richardson designed for Mr. Whiting and Mr. Bacom are shingled from top to bottom. In that section of Brookline known as Aberdeen Mr. Parker, an architect of the firm of Parker & Mears, is building for himself, and has combined the colonial with best American features for his house. Mr. Rogers, of Andrews, Jacques & Rantoul, has a very attractive house nearly completed. The first story of yellow brick and the shingles of second story of a stain closely following the color of the brick. Near this is a house for Mrs. Kelly of which Hartwell & Richardson were the architects. It is welcome in among the trees, for the rich red tile color of the shingles on sides and roof gives a warm effect to the surrounding country. The stain on all these houses is rich in color and varied in

effect without a suggestion of paint. Dexter Brothers' English Shingle Stain was used on all these houses.

Van Auken Duplex Automatic Air Valves.

It is an old saying that "every rose has its thorn," and is exemplified very forcibly by drawbacks that modify in a great degree the many desirable qualities of steam-heating apparatus generally, confined principally to two specific defects, that have wearied the patience of all users, namely, escaping steam and water from radiator valves and the non-escape from odors naturally arising from the quality of steam-heated pipes. It will be gratifying news to all users of steam for heating purposes to be informed the necessity for being thus tormented has been effectually removed by the invention of a simple device in valves, by the Van Auken Steam Specialty Company, Chicago, named by the company the "Van Auken Duplex Automatic Air



Valves," which will not permit steam or water to escape from the radiators, and as well ventilate the rooms of all the commonly obnoxious odors. The accompanying cut illustrates this opportune valve.

As already 128,000 of them are in use, and the number is being added to daily, what the users of them think of their merits can be gleaned from the following testimonials taken at random from a host of others equally as pertinent, gathered from experts residing in all parts of the union:

E. RUTZLER, New York, April 16, 1891: "I did not order any of these air valves from you until I had placed them upon the radiators in my own house, where I would have an opportunity of watching their action. I must say that they have given the best of service. Where they have come under my own supervision I have had no trouble with them whatever. I am satisfied that you have struck the key-note of perfection. It does away with the matter of drip cups or air pipes and does not allow the water or drippings to escape and soil carpets or flooring."

HUTCHINSON BUILDING — B. P. Kane, Engineer, Buffalo, New York, May 8, 1891: "Mr. Hutchinson complained to me about radiators hammering at his residence. I put your automatic air valves on the worst ones and he tells me they hear no more hammering. I shall put them on the balance before steam time this fall. The separate passages for air and steam in your valve, and no dripping, make them the most perfect for the purpose of any valve on the market, and I have used them ALL. Yours did just what you claimed it would and gives perfect satisfaction."

W. C. GILLESPIE, chief engineer, Rookery Building, Chicago, January 17, 1891: "I have several of your duplex automatic air valves in use at the Rookery Building, and they are doing all that you claim for them. I also recommended their use at the Chicago Club building, where they had in use an automatic air valve, which gave satisfaction as an air valve, but while there was any water in the radiator they were troubled with water dripping all over the carpets. Since placing your valves on all the radiators this difficulty has all been stopped, and I find them positive against both water and steam, and quick to relieve the radiator of air. I do not hesitate to recommend them to all persons requiring the use of automatic air and water valves."

ADVERTISERS' TRADE DEPARTMENT—Continued.

Railroad Notes.

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

TRAVELERS and tourists contemplating a visit to the Pacific coast should bear in mind the Lake Superior, St. Paul & Union Pacific, a new passenger and freight line formed by the Chicago, St. Paul, Minneapolis & Omaha and Union Pacific railways. This line strikes about all the important far western towns and cities, i. e., of Nebraska, Montana, Idaho, Utah, Wyoming, Washington, Oregon and California, and reaches the coast several hours sooner than any other route. The accommodations are first-class in every respect and the fare as low as the lowest. Special excursion trains are run, leaving St. Paul and

Minneapolis every Thursday morning. For fuller particulars address T. W. Teasdale, general passenger agent, St. Paul.

Trade Notes.

A CONTEMPORARY says that it has always seemed singular that paint has not been used more for shingle roofs, and claims that this omission is accidental. The fact is that it was early known that a painted roof is much more liable to decay than a roof with nothing on it. The paint seals the pores of the wood and holds the moisture confined, thus hastening the decay. Nowadays roofs may be colored with Creosote Shingle Stains and give very rich effects in browns, greens, grays, etc., which in no way injure the porosity of the wood, while the creosote in the stain is doubtless the best wood preservative known.

THE large, elegant brownstone front building, 25 by 90 feet, five stories, basement and sub-cellar, located at 56 Beekman street, New York city, has been secured for a term of years by the Beekman Salutory System Company, of New York. They are the manufacturers and sole patentees of the "Whirlpool" double flushing water-closet and also the Beekman "duplex" cistern, a positively noiseless tank, and one that is thoroughly flushed after each use, so that no scum or dangerous secretion can accumulate in the bottom of the cistern, an entirely original feature that cannot be claimed for any other cistern. The new features of the "Whirlpool" closet are the keen-

edged divider opposite the inlet nozzle, the reservoir rim, the second flushing chamber, through which a large number of streams issue forth in opposite directions, meeting in the dome of the conduit, causing a veritable "whirlpool" in that part of the closet not heretofore reached, but left dangerous to health. We cannot speak too highly of these new sanitary improvements, and we are satisfied that it will fully repay anyone to call and examine them. The company's showroom at present is at No. 280 Broadway.

THE following letters have been received by the Buffalo Forge Company, Buffalo, New York, and are very strong evidence of the value of the company's hot blast heating and ventilating apparatus:

JANESVILLE, Wis., July 29, 1891.

GENTLEMEN.—The two sets of "Hot Blast" heating apparatus purchased of you last year have given good satisfaction, and we consider them equal to any we have seen of the same system, and we believe that our shops are better and more economically heated than by the steam pipes distributed around the rooms of the shops, which were replaced by your apparatus. Yours truly,

THE JANESVILLE MACHINE CO.

St. Louis, Mo., May 5, 1891.

DEAR SIRS.—Answering your favor of the 1st: we are well pleased with the dry kiln apparatus at our factories in Edwardsville. The kiln is operating very satisfactorily on both hard and soft timber. Yours truly,

N. O. NELSON MFG. CO.

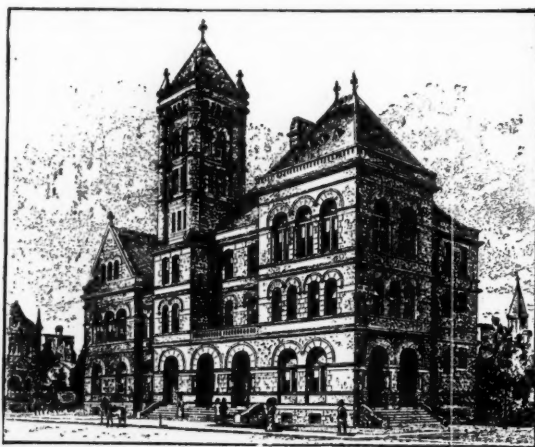
BRANTFORD, Canada, July 25, 1891.

GENTLEMEN.—We have much pleasure in testifying to the efficiency of the heating and ventilating apparatus supplied by you for our works in 1890; it fully comes up to our most sanguine expectations, and comfortably heated the works throughout during the coldest weather experienced last winter. Yours truly,

WATEROUS ENGINE WORKS CO., Ltd.

King's Windsor Asbestos Cement FOR PLASTERING WALLS AND CEILINGS.

300 PER CENT MORE TENSILE STRENGTH, 200 PER CENT HARDER,
AND REQUIRES ONE-THIRD LESS LABOR THAN
LIME AND HAIR PLASTER.



"U. S. Court House and Postoffice at Williamsport, Pa., plastered with King's Windsor Cement."

Houses can be Occupied in from Four to Six Weeks Earlier than those finished in the old method. Does not Chip, Pit nor Crack. Any mechanic who understands his trade can apply it.

INDORSED AND USED BY THE BEST
ARCHITECTS, BUILDERS AND PLASTERERS.

All dealers in Building Materials are familiar with our goods, ask them for prices.

FOR FURTHER PARTICULARS, APPLY TO OR ADDRESS

J. B. KING & CO.,

PATENTEES AND SOLE MANUFACTURERS,

24 State Street, NEW YORK CITY.

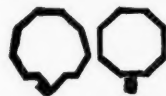
Manufacturers King's Eagle (Patented) and Celebrated "Diamond" Brand Calcined Plaster.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

THE IRWIN & REBER PATENT EXPANDING WATER CONDUCTOR. MANUFACTURED BY THE S. S. S. Conductor Co. LIMITED,

163 Lacock Street,
ALLEGHENY, PA.

THE STANDING SEAM allows of an easy and secure fastening, keeping the pipe far enough from the wall to make any overflow from the eave pipe or head, run down the spout, and not the wall; and will open, in case of freezing, so as to prevent bursting, and still remain double-locked and water-tight.



MADE IN

SIX FOOT LENGTHS

of a Single Sheet of

SOFT STEEL.

Either Galvanized, Kalameined or Leaded.

The Only Conductor in the Market Made of Best Bloom Soft Steel Galvanized.

GUARANTEED NOT TO BURST.

Smaller sizes of 26 Gauge. Larger sizes in any Gauge ordered. Prompt shipments. Low prices.

SPECIAL DISCOUNT GIVEN ON LARGE ORDERS.

Can be obtained from any first-class tinner or galvanized iron worker.

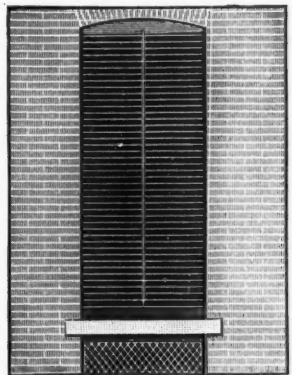
SAVE 50% WATER
BY USING
VARIABLE HYDRAULIC ELEVATORS
FOR CATALOGUES & INFORMATION WRITE
THE JAS. L. HAVEN COMPY.
CINCINNATI, OHIO, U.S.A.

Combined Blind and Awning.

The accompanying illustrations present to the reader one of the happiest conceptions that has yet been born into the growing family of modern house conveniences and comforts. As will be perceived it is a window awning, and more than that, a window blind as well, and all at the disposal of the possessor. It is constructed of wooden slats similar to the well-known Venetian blind, but instead of being fitted on tapes is hung on aluminum bronze chain connections. It is therefore not only light and graceful in appearance, but is necessarily strong and durable.



What a bound from a light-extinguishing, air-excluding, smoke-begrimed, tattered and flapping awning, that requires an expert, spring and fall, to put up and take down, to a blind and awning that neither excludes the light or air, and that doesn't require the inmates of a house to own a seven-league pair of boots wherewith to rush to open windows to shut them down on every occurring shower, for this one perfectly turns off the rain. Nor does it require to be taken down when once put in place. It will stand exposure to all kinds of weather for years and remain in first-class condition all the time without expense. This is the averment of two of Chicago's prominent architects, Messrs. Holabird & Roche, who have had the awnings on their office windows in the Montauk Block for over two years. From this fact alone it will be seen that it is no untried whim or caprice, but a substantial reality that has been exemplified with numerous Chicago residences and business blocks.



It will be found decorating and protecting the windows of such noted structures in Chicago as the Monadnock, Kearsarge, Ashland, Venetian, Chicago Title & Trust Company, and others not within present recollection.

The Chicago Blind and Awning Company, 218 North Union street, manufacturers of this admirable specialty, have issued a neatly gotten up photogravure catalogue giving views of a number of buildings where the awning has been adopted, supplemented by testimonials from the users, and containing further and fuller particulars of the construction, placing and operation of this combined blind and awning, which no doubt can be had on application from the interested.

Growth of a Brightwood Factory.

The E. Stebbins Manufacturing Company of Brightwood, Massachusetts, has begun the new year with various improvements upon its plant and additions which will increase its capacity a third. There has been an increased demand the past few years for the finer class of brasswork of which the company makes a specialty, so that last year especially it could not keep up with its orders and an increase became inevitable. The especial pinch came in the foundry, and consequently an addition, 50 by 45 feet, was made at the end and at right angles to the former foundry building, which was 130 feet by 45. This gave room for twenty-two molders, and the company immediately increased its force from twelve to seventeen men; it also gave room for a new "core" oven and allowed the increase of the core-makers from nine to fourteen. This change allows an increase in the number of employees in the finishing rooms, and altogether the force has received an addition of twenty-five men. This, of course, has necessitated the addition of much new machinery. The old room for the storage of patterns was much crowded, and so an addition of 30 feet has been made to this, which nearly doubles its capacity, and allows a convenient arrangement. The company sold last fall 33 feet of land at the rear of the building to the Connecticut River Company, but it also bought 50 feet on the north and 35 feet on the south, which gives it a lot 240 feet wide and 207 feet deep. The change has made the whole arrangement of the yard more compact and convenient, the old storage shed which stood some distance behind the shop having been moved up even with the back of the foundry and a side-track run immediately behind it.

Steel Lath.

The risk of fire is one of the gravest anxieties of property owners. Costly organizations of firemen are maintained and a host of insurance companies are patronized to avert the consequent financial loss. Science too has not been idle. The chemist and architect have worked in concert to restrict this constant menace to property and human life. Though every instance has not been satisfactory it has nevertheless been demonstrated that in conflagrations as in epidemics "prevention is better than cure."

Recently a very satisfactory experiment was made at Boston in illustration of this assertion. A building was constructed, divided into seven rooms, 5 by 15 feet area. These compartments were lined with distinct specimens of fireproof material, including plaster, fireproof paper, steel lath and other specialties. Each room was protected by a fireproof door and also had an opening in the roof. Four metallic links



were suspended in each compartment, one of lead, melting at 620° Fahr; one of antimony, melting at 842°; one of aluminum alloy, running at 1292°; and one of brass, melting at 1850° Fahr. Hickory wood saturated with oil was piled in each room. The various piles were simultaneously ignited and after an hour and forty minutes of unobstructed combustion the fire was extinguished. The metallic links

had severely melted except the one of brass, showing that the temperature had climbed above 1292°. The fireproof material had in every case been entirely satisfactory.

Still more recently a test was made at Columbus, Ohio, with the Bostwick "Fireproof Steel Lath." Four frames were made of 2 by 4 studding 12 by 18 square, 4 inches thick, two of which wood lathed, one with Bostwick steel lath and one simply covered with sheet steel. All but the last were then plastered, common plaster on one, rock plaster on the others. These were laid on the fires in the boiler furnaces. In less than 1½ minutes the sheet steel covered frame was burning. In 7 minutes the common plastered lath were burning. In 29 minutes there showed evidence that the heat had penetrated the rock plaster on wood lath, but had not affected the Bostwick steel lath. At the expiration of 40 minutes the two rock plastered samples were removed for examination, the others being practically destroyed. The intense heat had affected some of the wood lath, where in immediate contact with the live coals, but the balance of them were not even scorched and the rock plaster continued to adhere till dislodged with a poker. On tearing off the Bostwick steel lath the frame was found intact.

From this test the investigating committee decided: That sheet metal does not protect woodwork from fire to any appreciable extent; that common mortar has but small value as a factor in retarding fire; that rock plaster on wood lath is a remarkable retarder of combustion; that rock plaster applied to Bostwick steel lath, presents a fire wall beyond which fire can make but slight progress.

The above cut illustrates the Bostwick Steel Lath, which is manufactured at Niles, Ohio.

Photography and the Manufacturing Arts.

It is but a very few years ago that photography was practiced by a chosen few who had gained their knowledge by hard study and experiment. Today, professional photographers may be counted by the thousand, while a hundred thousand amateurs spend all their leisure moments "viewing." Large manufacturing concerns, too, have found it advantageous to set up their own studios and employ a regular operator for the purpose of sending out to their customers photo prints of their latest wares and goods. This progress in the art is due to the substitution of the dry plate, in place of the collodion bath, introduced in this country by Mr. John Carbutt, of the Keystone Dry Plate Works, Philadelphia, about the time it was first manufactured in Great Britain. This same gentleman is once more to the front with a new photographic device, termed "negative films," which will interest the architectural profession and other designers and builders, as it opens up a field of utility that trenches upon their professional domains. It consists of coating thin celluloid sheets with the dry plate emulsion, thus dispensing with the weight and liability of breakage incident to glass, and rendering them particularly adapted for the use of supervising architects and engineers in charge of works who are called upon for exhibits of progress. These films are as light and flexible as an ordinary sheet of paper, can be carried in a hand satchel without inconvenience, and after exposure is made, if there are no facilities handy for the development and printing, they can be placed in an envelope and mailed to the home office for the necessary treatment. Photography is no longer a mysterious art, at least for purposes above indicated. Any man of average intelligence can learn from five minutes' explanation how to put a plate in the camera and make the exposure; the further operations of developing and printing require some skill to get good results, but this can be had by a little practice or it may be delegated to someone already experienced at the home office, or to an available professional photographer.

ADVERTISERS' TRADE DEPARTMENT—Continued.

Go South via the Monon Route.

The equipment of this line is not surpassed by any other. Its roadbed and bridges have been thoroughly rebuilt, thus assuring passengers speed, safety and comfort. Four fast trains leave Chicago daily, making close connection at Louisville and Cincinnati with the Louisville & Nashville Railroad, and Queen & Crescent Route for Jacksonville, New Orleans and the winter resorts of the South. The day trains are made up of day coaches, parlor and dining cars, vestibuled from end to end. The night trains consist of Pullman's perfected vestibuled coaches, sleepers and compartment cars, with an extra sleeper for Indianapolis passengers, lighted by electricity and heated by steam. In addition to the usual Pullman sleeper, the fast night trains between Chicago and Cincinnati have compartment sleeping cars, just built for this line. This feature is particularly "the thing" for families, bridal couples or parties traveling together. The "Monon" is also the only road that serves meals in a regular dining car, between Chicago and Cincinnati. On the whole, it is the most pleasant, comfortable and above all the most scenic route from Chicago to the Gulf or Atlantic coast. For full information regarding the cities of the South, how to reach them, etc., or for maps and time tables, address L. E. Sessions, traveling passenger agent, Minneapolis, Minnesota; F. J. Reed, city passenger agent, 73 Clark street, Chicago, Illinois, or James Barker, general passenger agent, Monon block, Chicago, Illinois.

Trade Notes.

THE negatives taken in Chicago and vicinity for reproduction in the photogravure edition of THE INLAND ARCHITECT were made by H. W. Kennicott, 70 State street, Chicago.

IT is related of Abraham Lincoln, as an instance of his appreciation of and respect for old friends, that one among the number, on

every occasion of their meeting, was sure to repeat a threadbare story to which the Martyr President always listened with manifested interest. It was always new and fresh as a spring morning. THE INLAND ARCHITECT has so often told the story of the excellence of the "Morrison Old Style Terne and Roofing Plates," of which C. Sidney Shepard & Co., of Chicago, are headquarters, that it expects to be likened to the eccentric old gentleman of the Lincoln anecdote, nevertheless, however often it has been retold, the good points of the narrative are so salient it has always caused respectful attention, namely, that they are made from the best hammered Siemen soft steel, hand dipped, treble coated, and that there is nothing in the markets of the world superior to them.

SOME numbers ago THE INLAND ARCHITECT found occasion to refer to the Potsdam red sandstone as something peculiar in the way of building stone, finding the text in the recapitulation of some government tests made in conjunction with other well-known quarry-stones. Some of the striking features of this particular stone were its phenomenal crushing strength; its fire-resisting character, having been utilized for furnace linings, and its excellent tooling structure. Since the appearance of this reference it has been the privilege of the writer to see and examine specimens of the Potsdam, and find it to be of very fine and close granulations, and of a pleasing light red trending to a pinkish-drab hue. It is evident it produces a pleasant effect in building externals, whether in part or in entirety, and must be a lively competitor wherever introduced. It is alleged that freight charges somewhat interfere with its introduction in the West, but if it be true that it is handicapped in this respect in a competition with more favorably located quarries, it does not follow necessarily that it will be shut out of the western market, for it is a lesson all have learned in the school of experience that low priced goods are by no means always the cheapest, and perhaps nowhere has

it been demonstrated so painfully as in house building. It is naturally to be apprehended when there is an owner who is going to put in a considerable sum of money in a structure he will not let the price of freight debar him from having the Potsdam red sandstone if he decides not to have an inferior article.

Railroad Notes.

HARRIMAN, TENN.—The growth of Harri-man, Tennessee, in buildings and traffic has been steady and permanent, and the increasing demand for lots for business and manufacturing purposes by parties from a distance desiring to locate has induced the management to announce another Land Sale, to take place on April 12, 13 and 14, 1892. The Queen & Crescent Route quotes one fare for the round trip from all its terminal points, and have requested all connections to name same rates for this sale. See that your tickets read via Queen & Crescent Route.

PICNIC GROUNDS—WHERE THEY ARE AND HOW TO REACH THEM.—The most beautiful picnic grounds, within easy distance of Chicago, fitted out with all the conveniences necessary to make a day's outing enjoyable, are situated on the Wisconsin Central lines, among which are Schiller Park, Clybourn Park and Diamond Lake Park. The superior facilities afforded by the "Central" for handling this business need no introduction. Its advantages have been fully established. Lodges, clubs, churches, societies, associations, etc., contemplating an outing during the coming summer, will find it to their interest, before making final preparations, to call upon James C. Pond, General Passenger and Ticket Agent, Room 212, Grand Central Passenger Station, corner Harrison street and Fifth avenue, who will take pleasure in furnishing all information. Committees desiring to inspect grounds will be provided with necessary transportation.

THE ARCHITECT



WHO recommends such sanitary and durable Fixtures as Porcelain-lined Baths, Laundry Tubs, Soil Pipe, etc., earns the good will and praise of his client, and makes a lasting advertisement.

Our goods are acknowledged to be the best and are guaranteed.

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MORRISTON

OLD STYLE TERNE
OR ROOFING PLATES

Made from Best Hammered Siemen's Soft Steel
HAND DIPPED, TREBLE COATED.

These plates are made by the Morrision Tin Plate Co. (makers of the Celebrated Calland Best Quality Bright Charcoal Tin Plates), and are guaranteed as Heavily Coated and equal to any Old Style or Old Method Terne Plates on the market. The makers guarantee that the Tin and Palm Oil used in the manufacture of these Plates are of the

RICHEST BRANDS AND ARE PURIFIED BY A FILTRATION
PROCESS, EXCLUSIVELY THEIR OWN, WHICH GIVES
THE PUREST AND FINEST SURFACE TO ANY TERNE
PLATE NOW MADE, AND THAT NO FLUX OF ANY KIND
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Being made from Best Hammered Siemen's Soft Steel, they will stand any test required.

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THE INLAND ARCHITECT AND NEWS RECORD.

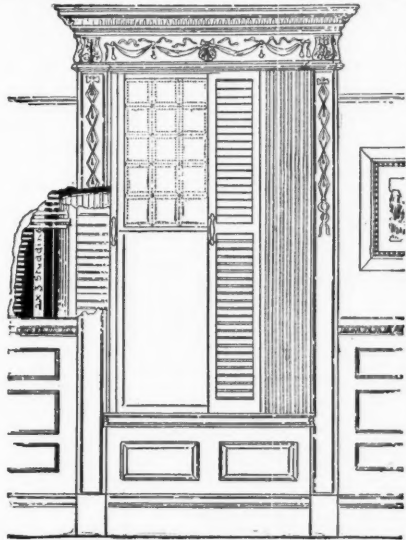
Vol. XIX.

ADVERTISERS' TRADE DEPARTMENT.

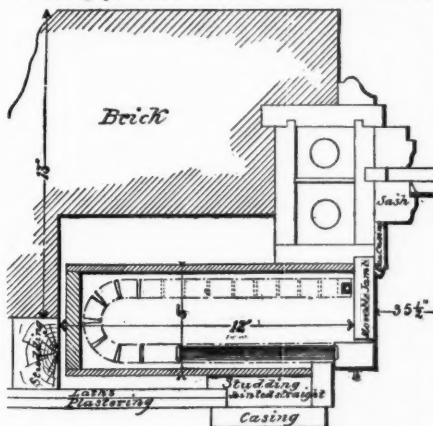
No. 3

Flexifold.

With this number appears an advertisement from the "Flexible Door and Shutter Company," of Worcester, Massachusetts, Boston office, Master Builders' Exchange building, 166 Devonshire street. It ought to interest every architect and house owner in the country because it calls attention to the fact of a common sense door that promises to supersede those made after methods that have come down to the present generation from an antiquity that is lost in the revolution of the centuries. This door does not swing backward



and forward on hinges; neither does it slide upon uncertain tracks and rollers. It is an in-folding and un-folding flexible door, that moves—when the way is to be opened—into shallow pockets in side casings, by a peculiar and stable mechanism that has neither weights, springs, cords or pulleys to get out of order, and is always to be depended upon to do its work in an ideal manner. They are so balanced that they operate without friction or noise, and when in the pockets, are flush with the side jambs and consequently protected from dust and dirt. There is nothing puny or unsubstantial in their character, as use has proven them to be trustworthy under all circumstances; at least this is the reputation reputed architects have given them together with praise for the other merits claimed for them, after most crucial tests. Inside blinds, partitions and other inclosures are also made upon the same principle as the doors, which may be double or single, according to the requirements of the case. Recently a pair of winding partition doors of this construction,



eleven feet high and thirty-eight feet wide, were put up in a church in Paterson, N. J., that worked to a perfection that won the admiration of the church authorities. Wherein this "dissolving" principle, as it may be properly called, can be utilized for inclosures, is readily suggested to those who have an inventive turn of mind, and a score of places

about "modern buildings" are waiting for its utilization.

In conclusion it is proper to state the company makes these doors at the factory, all finished in any wood or stain, hung, trimmed and boxed ready to be slipped into the pockets that have been prepared to receive them in the partitions. Therefore there is no trouble to be anticipated by anyone who should desire to adopt them in the place of the old tried-and-found-wanting doors that will soon, very likely, be only a memory.

Further, the company has a neat illustrated pamphlet giving specific information in regard to this specialty of their famous interior finish woodwork, which those who are desirous of learning further particulars may procure on application.

Spanish Tiles in Copper.

In a recent article public attention was called to the subject of clay tiles for roofing purposes. The statements made in that article having called forth some comment, a reporter was sent to examine a patent owned by Merchant & Co., 517 Arch street, when opportunity was afforded him to view the new Spanish tiles, made of copper and tin and manufactured by that firm under their patent.

These tiles are claimed to have superior merits over the clay tiles for the reason that they are much lighter in weight, and when made of copper are practically indestructible, as a copper roof is known to be the most durable roof in the market. The copper itself when removed from the roof has a commercial value which is possessed by no other roofing material when taken off.

The great objection to the clay tiles is their excessive weight as well as liability to breakage, and it is stated that it costs about one-third less to construct the supporting framework for the metal tiles than for those made of clay, which, of course, is an important item in itself.

Then again the vertical side lock of the metal tiles renders them absolutely storm and weather proof, and the device is so simple that there is an immense saving in the time taken to lay them. Ample provision is made also in the construction of these tiles for any possible expansion and contraction of either copper or tin.—*The Times, Philadelphia.*

Trade Notes.

MR. EDWARD P. BATES, the well-known Syracuse, New York, manufacturer of high and low pressure steam heating apparatus, sends us notice that he has opened a branch office at 72 Lake street, Chicago, and has placed the management of the same in the hands of H. P. Blair, a gentleman whom we happen to know has for many years been identified with this particular "specialty," and whose natural ability and extensive experience have made him an authority in the matter of house heating and ventilation. Mr. Bates has certainly made a wise selection and presumably with full knowledge of what he was doing at the time, and will no doubt reap all the advantage to be gained from a proper presentation of his excellent apparatus in the western market. Those who want the services of a competent engineer and expert in regard to steam and hot-water heating, or ventilation, are commended to H. P. Blair, 72 Lake street, Chicago.

A BUILDING stone that is attracting much attention among builders at the present time is the product from quarries located on the Cache la Poudre River, Colorado, and known under the name of "Pleasant Valley Red Sandstone." The quarries are operated by a company with a capital of \$150,000, of which J. S. F. Batchen is president and general manager, and C. H. Johnson, secretary and treasurer. The main offices of the company are located in suite 1119 Chamber of Commerce, Chicago. The quarry office is at Fort Collins, Colorado. The beauty and quality of the stone is exemplified in the construction of a number of prominent modern buildings, widely diversified, among which are

the Mining Exchange, Denver, Colo.; Grace Church, Denver, Colo.; Arapahoe County Jail and Criminal Court building, Denver, Colo.; Essex building, Denver, Colo.; Denver Club house, Denver, Colo.; McCarthy office building, Pueblo, Colo.; residence, Fifty-first street and Madison avenue, Chicago; residence, 38 St. James place, Chicago; residence, 328 Hampden court, near Wrightwood avenue, Chicago; residence, on Wrightwood avenue, east of Clark street, Chicago. Among the attractive qualities of the Pleasant Valley Sandstone, those which find most favor with architects are said to be purity of color and durability.

TOCH BROTHERS, New York, 35 Bowery, proprietors of the Edinburgh Mortar Stains, have issued a very artistic brochure with the legend "Select Buildings—New York and Brooklyn" embossed in gold on the cover. The pages comprise a dozen, or thereabout, photogravure views of buildings in the construction of which these superior mortar stains have been used. The views embrace Madison Square Garden, Carnegie Music Hall, Le Boutillier building, Laurence residence, Sherman Square hotel, Broadway theater, Jackson building, Nevada apartments, R. H. Macy & Co's new building, Twenty-second Regiment armory, San Reno hotel, Brooklyn tabernacle, etc. Evidently the Toch Brothers, in sending out this little architectural gem are satisfied that their Edinburgh mortar stains require no further advertising in its pages than the mere mention of the fact that they have been specified by the designers of these several prominent buildings; and no doubt have the additional restful confidence nestling around their consciousness that they are duly appreciated by all the leading architects and builders of the country, and that nothing more than a mere mention is necessary to keep them in lively remembrance, when the recollection of them amounts to something more than a sentiment. Almost any possible need in the variety of specific masonry can be filled by them singly or in combination.

It would be difficult for Mr. I. P. Frink, 551 Pearl street, New York, to give the reader a better idea of the popularity of Frink's reflectors and the extent to which they are used in lighting public buildings throughout the world than by naming a few of the prominent orders he has now under way for lighting with his celebrated reflectors: Silk department, Wechsler & Abraham, Brooklyn, N. Y.; German Baptist Church, Tyndall, S. D.; First Reformed Church, Glenn, N. Y.; Knox Presbyterian Church, Newark, N. J.; Christ Church, Cape Coast, Africa; M. E. Church, Gouverneur, N. Y.; M. E. Church, Califton, N. J.; M. E. Church, Claremont, N. H.; Church of the Immaculate Conception, Washington, Pa.; First Presbyterian Church, Mehoopany, Pa.; High School, Englewood, N. J.; First Presbyterian Church, Marlborough, N. Y.; M. E. Church, Landskrona, Sweden; York Street M. E. Church, Brooklyn, N. Y.; M. E. Church, Plainfield, N. J.; and others.

Railroad Notes.

FASTEST TIME FROM CHICAGO TO OTHER CITIES.—Cut this out and retain for reference.			
To	Miles.	Hours.	Mins.
New York.....	913.....	26	..
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*ST. PAUL.....	402.....	13	25
*MINNEAPOLIS.....	412.....	14	03
Buffalo.....	537.....	14	10
Cincinnati.....	298.....	8	54
Louisville.....	304.....	9	55
*OMAHA.....	490.....	15	10
*DENVER.....	1,025.....	29	15
St. Louis.....	283.....	8	30
Kansas City.....	458.....	14	20

*The cities specified above in large letters are best reached via the Electric Lighted Vestibule Trains of the Chicago, Milwaukee & St. Paul R'y. City ticket office, 207 Clark street, Chicago.

P. S.—Our new flying machines will be ready for World's Fair travel in 1893.

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Is superior to any other Portland Cement made. It is very finely ground, always uniform and reliable, and of such extraordinary strength, that it will permit the addition of 25 per cent more sand, etc., than other well-known Portland Cements, and produce the most durable work. It is unalterable in volume and not liable to crack.

8,000 barrels have been used in the foundations of the Bartholdi Statue of Liberty, and it has also been used in the construction of the Washington Monument at Washington.

Pamphlet with directions for its employment, testimonials and tests sent on application.

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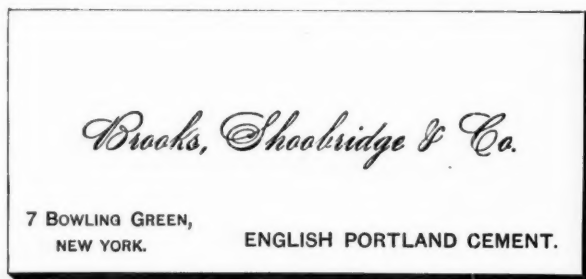
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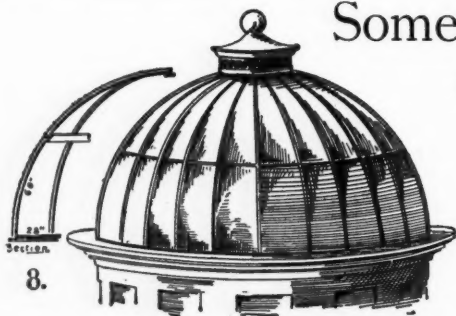
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GALVANIZED IRON CORNICES, CORRUGATED IRON ROOFING
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99 and 101 Bunker Street,
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Something New.

Dome Roofed with Colored Glass

Three-eighths thick, any color, bright preferred, say red, yellow or amber. A very pleasing effect, especially when lit up or with sun's rays. Adapted also for rotundas, public buildings, hotels or conservatories, with glass one-quarter thick, ribbed. Crowned glass around top circle, making it very effective. Can be glazed as ordinary. For inside work glass should have smooth side facing in. Weather and fireproof.

Approximate price, \$1 per square foot.

Detailed drawings must be sent. Sizes ought not to exceed 24 x 60. Correspondence solicited.

WESTERN GLASS-BENDING WORKS, 1520 Gratiot Street, ST. LOUIS, MO.

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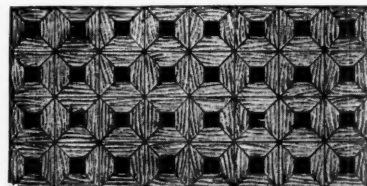
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DRAFTSMAN WANTED.

Competent to make scale drawings and good water-color perspectives. A young man with American ideas required. Must be a good, all-around man, and willing to work. Will pay \$50 to \$100 a week to right man. No one worth less need apply. Address X, Care INLAND ARCHITECT Office.

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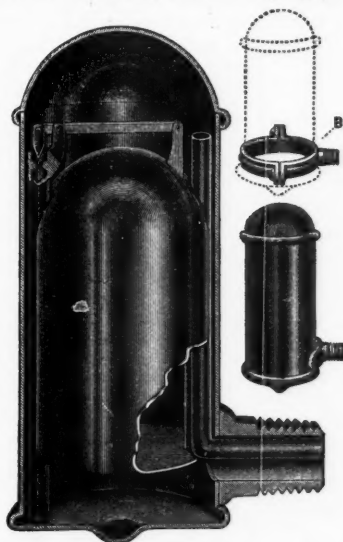
Vol. XIX.

ADVERTISERS' TRADE DEPARTMENT.

No. 4

MAKES A HOT-WATER HEATING SYSTEM PERFECT.

One serious objection to hot-water heating systems has been that they did not permit as easy regulation as steam, and were likely to become air-bound, thus destroying perfect



circulation of hot water. Air valves have been designed to overcome this trouble, and now it may be entirely avoided. Such a valve, to be considered perfect, must work automatically and must not leak. Some valves which have met the automatic requirement have fallen short in that they would leak water, thus being apt to cause damage to the building at any time. The Hot Water Automatic Air Valve, which is here illustrated, is made by the Van Auker Steam Specialty Co., of 201-207 South Canal street, Chicago, and is guaranteed to permit the escape of air and to prevent the escape of water and perform its functions automatically.

The principle in connection with the working of the valve is the same as the piping of a hot-water plant, as, by means of a small tube which opens from the radiator into the upper portion of the valve, it keeps a constant circulation through it at all times. The valve is placed at the highest point on the radiator, and of course the air accumulates in it, and, as it does so, forces the water out of the valve into the radiator. When the valve becomes full of air the float drops and allows the air to escape until the water again enters and closes it, thus acting automatically. The valve does its work well and reliably, requiring no adjustment or attention whatever. It is made in two parts so that it may be kept close to the radiator. It is guaranteed in every respect as represented for hot-water heating purposes.

Every reader of this article, who will send his address to the Van Auker Steam Specialty Co., 201-207 South Canal street, Chicago, will receive by mail, free of charge, one of their handsomely illustrated catalogues of all their specialties.

FIVE HUNDRED REPRESENTATIVE BUILDINGS.

We have received from the B. F. Sturtevant Company, Boston, Massachusetts, a large, beautifully illustrated book of 130 pages, tastily bound and entitled "500 Representative Buildings Heated and Ventilated by the Sturtevant System."

Its object is distinctly implied in its short and pithy introduction, which reads, "The high character of the buildings herein illustrated betokens the quality of the system by which they are heated and ventilated."

Most of the illustrations are from specially prepared pen and ink sketches, printed in colors, and forming, with their excellent

accompanying testimonials set in carefully chosen type, a succession of most pleasing pages.

The entire work is indicative of the scope and success of the Sturtevant system, which by means of a fan acts positively to force air to all parts of a building.

The book is designed for distribution among architects, heating and ventilating engineers and others desirous of obtaining information regarding the system.

FIDELITY RANGE.

Horizontal boiler ranges seem to be increasing in demand continually on account of the many advantages which they possess, as compared with brick-set ranges and others with vertical circulating boilers. Among these advantages may be mentioned the following: Economy of first cost, as the services of a bricklayer are not required to set them and the plumbing connections are easily made at small expense; economy of space, as less room is taken up in the kitchen; rapid heating of water, the circulation between the boiler and waterback being exceedingly rapid; ease with which the plumbing work may be disconnected and the range repaired or removed to a different place. Among goods of this class the "Fidelity Range," manufactured by Isaac A. Sheppard & Co., Philadelphia and Baltimore, ranks very high. The illustration below shows the latest and most complete form of this deservedly popular range.

The characteristic features of the "Fidelity" are: End draft, insuring an even fire and plenty of hot water, heating it at



the rate of a gallon every three minutes; dust dampers and oven dampers with cast-iron handles, removable without disturbing the top; five-hole top, with one expansion ring, and central and end tie pieces, to prevent cracking by fire; sheet flue, making all boiler holes equally serviceable; hinged clean-out door in front of range; large feed door, with check draft; oven door pedal, outside shelf, tin oven door lining, nickel oven door panel and a substantial base under range.

The design is highly artistic and harmonious throughout. Material and finish are of unsurpassed quality. The boilers furnished with these ranges have been subjected to a test of 150 pounds pressure per square inch, and are very strong and durable. The hot-air attachment, upon which a patent has been applied for, is complete and effective, absolutely free from gas and dust in the upper room.

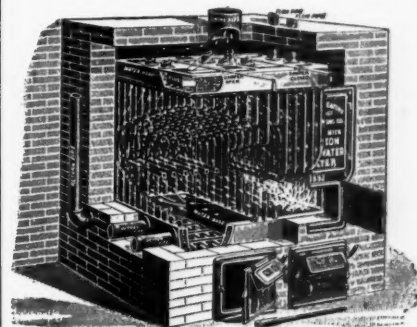
In the "Fidelity Range" the heated boiler is not placed, as in other ranges, where it will be directly opposite the face of a person using the range, thereby occasioning discomfort, but it is raised as high as possible, and is furthermore so shielded, by an ornamental cast-iron front, as to prevent any radiation downward and forward from the surface of

the boiler. The "Fidelity" thus becomes a most comfortable range to work over.

The "Fidelity Ranges" are made in two sizes, 7-inch and 8-inch, and with ovens on right or left hand side of the fire, as may be preferred. Brackets may be had to suit either 10-inch or 12-inch boiler.

THE BOLTON HOT-WATER HEATER.

There are few water heating apparatuses so well known to the trade as the "Bolton" heater, manufactured by the Detroit Heating and Lighting Company, of Detroit, Michigan, and fewer still which enjoy



BROKEN VIEW OF THE "BOLTON" HOT-WATER HEATER.

such merited popularity with the public. The manufacturers claim that this enviable position has been earned by distinct merit, and assert that one of the many advantages which the "Bolton" possesses, that of economy in fuel, is alone sufficient to explain its popularity and wide sale.

A new engraving is here presented, showing a broken view of this famous heater, which is made in all sizes, with capacity ranging from 400 to 10,000 feet of radiation, thus making it equally suitable for the largest buildings or the smallest residence.

One of the excellent features of the "Bolton" is the economy in fuel of the double and triple fire-pot sizes, whereby a great saving of coal is effected by using only one-half or one-third of fire-pot capacity, while the remaining unused fire-boxes are kept in reserve for the extreme weather commonly experienced for a few days in any winter. From an inspection of the accompanying cut it will be seen there is no cast-iron or brick-wall partition between the heater's sections, as is the case in the "twinning" boilers of other makes. This construction is peculiar to the "Bolton" heater, and gives it the great advantage of passing the heat of only one fire-box over the entire heating surface of practically two or three heaters, producing ample heat and resulting in a great saving of coal. This operation would be impossible were the heaters built with partitions between sections or entirely separate, necessitating full fire-box capacity to be always in use, even on the mildest winter day. With only one fire-box in use, by closing the direct draft damper above the fire and leaving open the one belonging to the unused fire-box, the heat, in order to escape, must first pass over and among the pipes composing the heating surface of both parts of the boiler, as indicated by the arrows in the cut. As the water-base and top for both fire-pots are continuous, a fire in either side of the heater acts directly upon the entire body of water, and not alone upon that in its individual sections, as is the case with the "twinning" heaters.

These are among the many valuable features of the "Bolton" hot-water heater that have made it a favorite with architects and experts for large work as well as for ordinary home and greenhouse heating.

These heaters have been selected for the Convent of the Visitation, St. Louis, Mo.,

ADVERTISERS' TRADE DEPARTMENT—Continued.

which requires upward of 27,000 feet of radiation. This heater is famous for its success in heating the largest buildings. The new Credit building at Newark, N. J.; the Weinstock-Lubin building, Sacramento, Cal.; the Kiser office building, Atlanta, Ga.; the Tallmage & Boyer and Ochiltree buildings, Denver, Colo., all very large structures, will show the range of this heater's popularity, while the successfully heated schools, hospitals, churches, etc., in all parts of the country further prove the heater's special adaptability for the very largest buildings.

AMERICAN TIN PLATE.

Notwithstanding the *can* and *can't* controversy over the possibility, to say nothing of the probability, of there being such a thing as American tin plate made right here, out of home-mined tin, it seems to be an undisturbed fact, one that keeps going right along, without paying any heed to the debaters, as if it was a matter of no consequence what men said so long as it was permitted to do what it said it was doing. At least this would appear to be the situation, judging from an eight-page circular letter of acknowledgements and testimonials from practical dealers and users of tin plate, located in twenty-six states of the Union, issued by the N. & G. Taylor Company's plant in behalf of their American tin-plate industry. It may task the credulity of the public which is not unfamiliar with the merits of the N. & G. Taylor Company's "old style" tin plate, made in England and Wales, to accept the declaration of many of these testimonials that the American make is the better of the two, but we can compromise the matter by saying if it is as good as the "old" that is glory enough.

TRADE NOTES.

THE Garry Iron and Steel Roofing Company, of Cleveland, Ohio, report an increased demand for their class of goods, and the prospects good for the season's trade.

THE Perth Amboy Terra Cotta Company are furnishing the terra cotta for the Lakota apartment building on the corner of Thirtieth street and Michigan avenue, and have also secured the contract to furnish the terra cotta for the Boyce building at Dearborn street and Calhoun place. Several small contracts are also being executed by this well known firm.

WE are pleased to refer to the Ludlow-Saylor Wire Company, St. Louis, Missouri, as being among the leaders in the manufacture of art metal work, covering everything that the name implies, as well as bank railings, elevator inclosures and a general line of wire work. They are fully equipped for prompt service and fine work. Parties who desire anything in their line should send for their catalogue and prices, which will be sent on application.

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

THE Worthington pumping engines and hydraulic machinery are so well known, being in satisfactory service the world over, that there is no occasion to refer to the excellencies that have brought them to such general notoriety, but it is a matter for publicity to refer to a very neat and comprehensive "general catalogue" just issued from the headquarters, 86 to 88 Liberty street, and 145 Broadway, New York, wherein valuable and necessary information is concisely given in regard to the service of pumping engines,

steam pumps, condensers, water meters and kindred hydraulic apparatus—such information as will certainly be appreciated by every one in any degree interested in the question it discusses. THE INLAND ARCHITECT is not authorized to say so, but the inference is that a copy of this carefully prepared and revised catalogue may be procured on application at the home office or at the branches in Boston, Philadelphia, Chicago, St. Louis, St. Paul, and abroad at London, Paris, Berlin, Brussels and Vienna.

THE Storm Manufacturing Company, of Newark, New Jersey, has remembered THE INLAND ARCHITECT, as is manifest from the receipt of a brand-new illustrated catalogue exploiting the dumb waiters, hand-power elevators and other hardware specialties manufactured by the company. If a multiplicity of names of users is a criterion to go by—and what evidence can be better?—certainly the Storm people have no reason to complain that the merits of their goods are not fully appreciated from the Atlantic to the Pacific ocean.

THE Tiffany Pressed Brick Company, Chicago, Illinois, with main office at 161 La Salle street, has issued an artistically illustrated, printed and morocco-bound pocket edition catalogue and price list for the current year, which certainly will be appreciated by the building craft. The company's works has been recently enlarged by the addition of new presses, kilns, dry houses and latest improved machinery so, that with present facilities, there is no need for delay in any order no matter what the magnitude may be. The product of the company's plant, with regard to richness of colors, perfection of shape and finish as well as great strength, is too well known to require more than an allusion to those paramount essentials. The convenient little book abounds in testimonials from leading architects, who have employed the company's material in construction and has a number of photographic prints of notable Chicago buildings wherein it has been used in entirety of external walls; among the number the Grand Central Passenger Station, Fifth avenue; Ashland Block, Hyde Park Hotel, Hotel Metropole, La Plaza Block and others.

THE utility of iron in one form or other is something amazing, even from the standpoint of modern application, wherein it seems to be a necessary component of every reliable thing from a carpet tack to a war cruiser. We have become so accustomed to see it taking the place of timber in architecture, and in other lines of construction, substituting other material and "going it one better," that it is doubtful should a man appear on the street clad in a cast-iron overcoat, malleable iron subcoat and vest, mild steel trousers and an aluminum bronze necktie decorating a nickel-plated shirt front, that he would excite more than a day's wonder, unless it would be for his omission at his outfitting to purchase a galvanized iron handkerchief and a copper-plated iron Derby. Of course, then, the statement that steel has already become a substitute for stone in the construction of sidewalks, street curbs, terrace holdings, lawn confines, rip-raping, road and street culverts and about for everything else of like character, will create no surprise, nor that it has so far advanced beyond the experimental stage as to have attained a place in the front rank of modern construction material. What progress has been made in this direction can be learned from an illustrated exposition pamphlet issued by the Landis Steel Curbing Company, 167 Dearborn street, Chicago, which makes a specialty of this class of material.

WE are proud to call our readers' attention to the Nautilus syphon water closet as it is described in our advertising columns, page xii. Outside of the fact that this closet is practically noiseless in operation, it possesses many distinctive points of superiority, and is unquestionably the finest sanitary fixture before the public. The single

point of the seat attachment has won for this closet hosts of friends, as in fine work the use of marble and tile is universal, and the value of a closet that has no woodwork at the back cannot be overestimated. William S. Cooper Brass Works of Philadelphia, who have been making closets with this seat attachment for several years, will be pleased to furnish detailed information regarding their washout, hopper and trap and syphon closets to all who are interested in advanced plumbing fixtures. We can say from our personal knowledge and observation that any person who looks into the merit of the seat attachment will never again recommend the use of a closet that has the wood frame fastened to the wall.

THE random rockfaced ashlar sold by The Potsdam Red Sandstone Company cut ready to lay, is cut to $\frac{1}{4}$ inch beds and joints, and on account of the perfection of the natural beds of the stone, the beds in the majority of the pieces extend to the extreme back of the stone, and are not "slacked off" after the first quarter or half inch. A fine wall can be made of this stone without anchors, the grip of the mortar on it being very great. They also sell large quantities of this random ashlar broken out ready for the stone cutters, but not pitched and taken out of wind. Many architects allow the stone to be delivered to the masons in this form and fitted by them for the wall with the hammer only. It is difficult to find any wall facing cheaper than this, without any reference to its extreme beauty, durability and strength. The prices for this stone (random ashlar) enable an architect in any part of the country to use it without paying much more than for the low-priced local stones, and the building can be trimmed with any of the prominent stones with fine effect. At the suggestion of a firm of prominent Eastern architects the company have produced a variety of this random ashlar of specially small size, that is, from $2\frac{1}{2}$ to $5\frac{1}{2}$ inches thick, and in rather long pieces. This is something entirely new in effect, and makes a wall that it is difficult to equal in beauty. It is as carefully cut and made up as are the other varieties of this ashlar. The ashlar above referred to is made from the pieces left in getting out stone to dimension, trimming up blocks, etc., hence the low price.

RAILROAD NOTES.

EARLY CLOSING ON SATURDAY.—Most of the wholesale and retail firms in Chicago have decided to close their stores on Saturday at 1:00 P.M., commencing May 1, in order to give their clerks a much needed rest. In connection with this service the Wisconsin Central lines beg to announce that commencing May 1 excursion tickets will be placed on sale to Lake Villa, Fox Lake, Antioch and Mukwonago. Trains leave the Grand Central Passenger Station at 8:00 A.M., 3:00 P.M., 4:25 P.M., 5:47 P.M. and 10:45 P.M. Returning trains arrive at Chicago at 7:15 A.M., 9:45 A.M., 9:59 A.M., 1:55 P.M. and 7:45 P.M. Ticket office, 205 Clark street, Chicago, Illinois.

TO KNOXVILLE, TENNESSEE.—The route from Cincinnati to Knoxville via the Queen & Crescent route is one of the most attractive rides in the South. Leaving Cincinnati on the beautiful vestibuled trains, passing for nearly one hundred miles through the Blue Grass region of Kentucky, over the famous High Bridge, with its picturesque scenery, along the wild and rugged banks of the Emory river, through Harriman, Tennessee, the rising prohibition town, on through Oliver Springs, one of the prettiest and best of the mineral spring resorts in the South, into Knoxville by the historical Walden's Ridge. Every foot of ground traveled over is replete with objects of interest and beauty. The most enjoyable trip is in the daytime, but should the passenger happen to be fortunate enough, as we were, to come out of Knoxville on a moonlight night, the scenery is beautiful beyond comparison.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XIX.

ADVERTISERS' TRADE DEPARTMENT.

No. 3

UTILIZATION OF ELECTRICALLY TRANSMITTED POWER AT THE WORLD'S FAIR.

The Engineers of the Construction Department of the World's Fair have recognized the many benefits to be derived from the use of electricity, and from the first decided upon employing it to run the machinery used in the work of construction, as being the only perfect agent to perform the work as expeditiously as the shortness of the time at their disposal demanded. They have installed at the Fair Grounds a perfect electrical power transmission plant—one in which the conditions are of a peculiar nature on account of the long distances separating the apparatus, and the fact that this machinery is being constantly shifted from place to place as it is required. The lines had, therefore, to be erected to satisfy any call for power from any particular spot in the grounds.

The buildings of the Fair, which are to be wonders of the world for the time being, are built of wood covered with staff, which will give to them the appearance of imposing marble edifices. The framework of the buildings is of iron. The major part of the machinery, therefore, consists of sawmills to cut the lumber, and hoists for raising into their lofty positions the immense girders, trusses and ponderous beams. In addition, there are molding machines, planing machines and pulverizers for the clay. The presence of the electric motors for operating the sawmills insures the absence of fire, from the danger of which the employment of steam engines is no guarantee.

The entire plant consists of the generators, the line and the motors, together with the various accessory appliances needed for the successful and economical operation of the electrical apparatus. The current of 500 volts is generated from two 100 K. W. compound wound Edison Generators, of the Edison street railway type, belted direct to two high-speed engines. The duplication of the generating apparatus was decided upon in order that the machines should be continually supplied with power, and the chances of a total breakdown obviated, one generator being capable of supplying the entire demand for a short time in case the other should be disabled. The "temporary" station in which the dynamos and engines are located is so substantially constructed that the term is almost a misnomer. The same may be said of the pole line carrying the wires and making a complete circuit of that portion of the grounds in which the motors are located. It is of first-class construction and of the best material. The high standard of insulation of the wires is always maintained, each circuit being subjected to rigid daily inspection and tests.

Each motor is operated by means of an ordinary starting switch and rheostat, and main line switches in series with each motor. Protection is afforded by suitable fusible cutouts, and the motors are also sheltered from dust, dirt, rain and accident as far as possible. These machines are let to the contractors by the Exposition managers, the charge for their use being based upon the average daily maximum load, gauged by suitable measuring instruments. As promised by the engineers, the result of adoption of electricity has proved entirely satisfactory, and the advocates of the portable steam engine and boiler have been compelled to acknowledge defeat. The motors have responded to every call made upon them, even to the extent of sustaining a heavy overload for a short time.

The entire plant is leased from the Edison Company, and is to be returned in the same good condition as received on 1st of January, 1893.

This transmission plant is a most important one, although only temporary, on account of its magnitude, the long distances separating the various plants, and the fact that the line is easy of access from any point

within the grounds. The motors are scattered over an area a mile north and south by half a mile wide. The absolute freedom from accident or failure of any kind which the plant has enjoyed proves that this means of power transmission is as reliable as, if not more so than, any known method.

TRADE NOTES.

THE new "Katahdin" and "Teutonia" blocks, Chicago, are to be constructed with Tiffany brown brick. The "Hartford" uses other plain brick with *Tiffany Ornamental*.

SAMSON CORDAGE WORKS, manufacturers of solid braided cords and cotton yarns, Boston, Massachusetts, have been increasing their plant for the manufacture of "Samson" braided cord, and have recently purchased a water power near their mill which they expect to transmit by electricity, as the power that they now have is insufficient without the use of steam.

VAN AUKEN'S high-grade steam specialties ought to be, if they are not, always borne in mind when planning to steam heat buildings, or, in fact, when renovating apparatus or otherwise correcting defects. They embrace an automatic boiler feeder, improved steam trap, fusible locked safety alarm, duplex automatic steam air valve, duplex automatic bottom-inlet air valve, automatic air valves for hot-water heaters, etc. The fusible locked safety alarm is unique in its departure from the heretofore dubious fusible-alloy alarm, and never fails to give notice when the water in a boiler is reaching the danger point. The automatic steam air valve is constructed to conduct the foul air from rooms. Similar benefits attach to all the other specialties.

MERCHANT & Co., Philadelphia, with branches at New York, Chicago and London, England, send out a card announcing that in the future they will manufacture their well-known brands of roofing tin, "Merchant" and "Alaska," in Philadelphia, and will no longer import them from abroad. This determination is the result of the company's unqualified success with American tin, and the production of plates equal to the very best foreign article it has ever dealt in. The company pledges that under no circumstances will any "wasters" of these brands be put upon the market. The card is accompanied by an unique photograph print of the tower on the Masonic Temple at Mount Holly, which is covered by the company's plate in the Spanish pattern.

THE Garry Iron and Steel Roofing Company, Cleveland, Ohio, has recently issued a neatly printed illustrated pamphlet explaining how their several specialties are correctly applied. There is nothing abstruse in the text, but everything is made so perfectly clear that a jack-of-all-trades with the book in hand might do a job that an expert would not be ashamed to father. The examples are given with the Garry patent cap roofing, corrugated siding, corrugated curved roofings for ceilings, corrugated ridge capping and wall flashings, metallic shingles, sidings, etc., covering very nearly everything embraced in the company's output. With the examples are given full instructions as regards how to manipulate the material under construction, and how to ascertain the amount of material required. Altogether it is a very interesting as well as instructive book, and no doubt will suggest to many persons how advantageously this class of building material can be utilized in cases heretofore given over to inferior methods.

THERE was a time, now a mere tradition, when Benjamin Franklin's name and that potent unknowable thing men term "electricity" were intimately associated in the minds of men. Today another name is uppermost in the world's thought when that "subtle fluid" is mentioned, and its possessor

has won a wider and greater fame through his mastery of its hidden possibilities and making them subservient to the needs of his race in many and diverse ways. The name need not be written to be recognized. The multifarious accomplishments in the electrical domain by the "Wizard of Menlo Park" make it improbable that it can be any other than he. Indeed, whatever in modern electrical results that are par excellence are directly traceable to and are the fruits of the phenomenal genius of Thomas A. Edison, so that it has come to be naturally expected that with whatever his name is associated in the realm of electrical application only that which is the present highest attainment in the direction pursued is there. A good exemplification of this affirmation is presented in the instance of the Edison General Electric Company, that has added to the other known specialties the manufacture of electric and gaslighting apparatus and fixtures. A visit to the company's Chicago office and show rooms in the new quarters at 173-175 Adams street furnished a revelation of art and beauty in those lines beyond anything previously seen by the writer. There was a bewildering array of varied fixtures exquisitely designed and finished in the Renaissance, Louis XV, Flemish, Louis XVI, Colonial and modern styles, and all suggestive of the need of the eternal fitness of things for the uses intended when they are being constructed. Certain it is, whoever may view this high art collection of house, church and store light fixtures will recognize that the reputation of the master for preëminence is in no manner disparaged by the Edison General Electric Company in this department of its commendable enterprise.

RAILROAD NOTES.

BURLINGTON ROUTE NEW SERVICE.—A through Pullman sleeping car, Chicago to San Francisco, is a feature of the Burlington's new service. This car leaves Chicago daily on the fast train at 1 P. M., and runs via Denver, Colorado Springs, Leadville, Glenwood Springs, Salt Lake City and Ogden, arriving in San Francisco at 11:45 A. M., less than four days en route.

PULLMAN VESTIBULED BUFFET SLEEPING CAR SERVICE.—CHICAGO TO PORTLAND, MAINE.—Commencing June 26, and continuing through the Tourist Season, the Chicago & Grand Trunk Railway will run a Pullman vestibuled buffet sleeping car of the most modern pattern, through without change, from Chicago to Portland via Toronto and Montreal, leaving Chicago 3:00 P. M. daily except Saturday, arriving at Portland for breakfast second morning. On this train there will be a Pullman car for Old Orchard Beach, and tourists for all north Atlantic seaside and mountain resorts will find this improved through service worthy of patronage. Secure sleeping car reservations and further information by applying to E. H. Hughes, General Western Passenger Agent, No. 103 South Clark street, Chicago.

SUNDAY SERVICE.—On Sunday, May 22, the Wisconsin Central lines resumed its popular train service between Chicago, Waukesha and the lake region. Trains leave the grand central passenger station for Lake Villa (Fox Lake), Antioch, Mukwonago and Waukesha, at 8:30 A. M., Sunday, arriving at Lake Villa 10:33 A. M., Antioch 10:40 A. M., Mukwonago 11:40 A. M., and Waukesha 11:59 A. M. Returning leave Waukesha 4:45 P. M., Mukwonago 5:05 P. M., Antioch 6:18 P. M., Lake Villa 6:30 P. M., arriving at Chicago 8:45 P. M. For the accommodation of excursionists desiring to remain in the country over Sunday, "The Business Man's Special" has again been placed in service. This train leaves Waukesha at 5:30 A. M., arriving at Chicago at 8:50 A. M. For tickets, time tables and pamphlets apply to George K. Thompson, city passenger and ticket agent, Chicago, Illinois; or to James C. Pond, general passenger and ticket agent, Chicago.

PROPOSAL.	PROPOSAL.	A MANUAL OF
BIDS FOR FRESCOING COUNCIL CHAMBER, IN NEW CITY HALL, OMAHA, NEB. Sealed bids for fresco painting the side walls and ceiling of the Council Chamber, in the new City Hall, in oil colors, the last coat to be waxed, will be received at this office to 4 P. M., July 12, 1892. Cost not to exceed \$3,000. Each bidder to furnish his own specifications and designs, and to accompany his bid with a certified check for \$100. The right is reserved to reject any or all bids. THEO. OLSEN, Comptroller.	ART GLASS FOR NEW CITY HALL, OMAHA, NEB. Sealed bids will be received at this office up to 4 P. M., July 12, 1892, for the art glass ceiling in rotunda of City Hall. Bidders to furnish their own sketches, and each bid to be accompanied by a certified check of \$100; cost not to exceed \$2,000. Specifications on file at the office of Architect Beindorff, 607 Bee building. The right is reserved to reject any or all bids. THEO. OLSEN, Comptroller.	INDUSTRIAL DRAWING FOR CARPENTERS AND OTHER WOOD-WORKERS. By W. F. DECKER, Instructor in Drawing, University of Minnesota. PRICE, \$2.00. INLAND PUBLISHING COMPANY, 19 Tribune Building, Chicago, Ill.

HAWK-EYE AND KAMARET

NEW STYLES AND SIZES FOR 1892.

The New Folding Hawk-Eye. Size, 5x7.

The Petite Kamarette. For Ladies.

These cameras use regular dry plates, or BLAIR'S NEW FILM, for 25 to 100 pictures without loading. The HAWK-EYE has had the largest sale of any combined plate and film camera ever made. The KAMARET is unequalled for tourists' use, being nearly one-third smaller than any similar camera of equal capacity. Anyone who will glance over the HAWK-EYE and KAMARET booklets, which are sent free, will understand why his choice should be one of these, rather than any of the numerous other cameras which are advertised.

THE PRICES RANGE FROM \$15.00 TO \$55.00.

We develop and finish the pictures or supply outfits for such purposes, as preferred.

THE BLAIR CAMERA COMPANY, Manufacturers.

Salesrooms, Wholesale and Retail: No. 471 Tremont St., Boston; Nos. 451-453 Broadway, New York; No. 918 Arch St., Philadelphia; Nos. 245-247 State St., Chicago.

E. & H. T. ANTHONY & CO., New York, Trade Agents.

BLAIR'S FILM . .
. . WON'T FRILL

INSTITUTE OF BUILDING ARTS,

UNDER THE OWNERSHIP AND DIRECTION OF THE

ILLINOIS CHAPTER

—OF THE—

American Institute of Architects,

63 AND 65 WASHINGTON ST.,

CHICAGO.

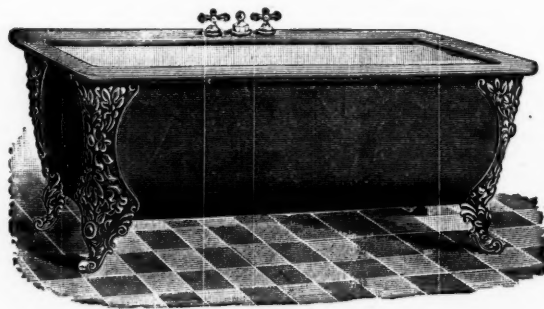
An Exhibit of
Building Materials, Appliances and Improvements,
and a Bureau of General Information
Relating to
Architectural Forms of Construction.

A VALUABLE METHOD OF BRINGING YOUR MATERIAL AND APPLIANCES BEFORE THE BUILDING PUBLIC.

H. W. PERCE, MANAGER.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

MADELINE.



Porcelain Enameled Iron Baths

ARE fast taking the place of the old style copper-lined Bath Tubs. They are cleaner, more sightly, and will outlast the house in which they are placed. The cut illustrates the Madeline pattern, which is a complete fixture in itself, and does not require casing in with woodwork. We have them handsomely decorated in colors on exhibition in our Show-rooms, and everybody interested is heartily invited to inspect them.

HAINES, JONES & CADBURY CO.

MANUFACTURERS

High Class Plumbing Goods,

1136 RIDGE AVE., PHILADELPHIA.

THE INLAND ARCHITECT AND NEWS RECORD

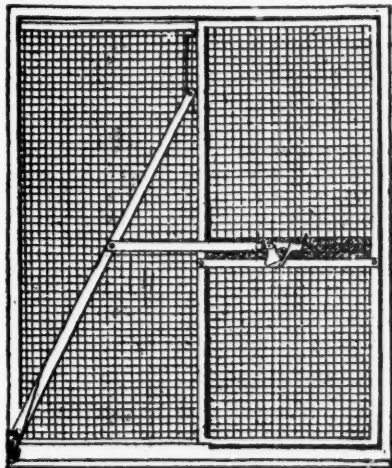
Vol. XIX.

ADVERTISERS' TRADE DEPARTMENT.

No. 6

ELEVATOR DOORS.

It is only necessary to mention to people accustomed to riding in "elevators" the opportunity for accidents to careless and thoughtless persons by the insecurity of the common fastenings on the doors of elevator shafts. They may occur either through the inattention of the elevator conductor to properly close the door when starting or by individuals in the endeavor to get on when the elevator has started, and only succeeds in getting to the bottom of the elevator shaft with a broken limb or neck instead. The newspapers have recorded thousands of these unhappy happenings, all growing out of a misplaced confidence in the every-day shaft elevator door. The frequency of these accidents and their always imminent possibility induced Mr. Bert M. Russell, of Chicago, to turn his thoughtful attention to the subject, with a view to removing the danger by removing the cause, and the result was the invention of an economical and thoroughly practical device by which elevator shaft doors are locked institutions except such times as they should be open. The accompanying diagram, in connection with the explanatory text to follow, will afford a



pretty clear understanding of this timely and valuable invention.

It will be seen by the illustrated door that it is comprised of a stationary bar and two working levers. The bar, it will be noticed, runs horizontally across the door a little below the middle. Back of the door and pivoted to the sill is a lever, which runs obliquely to the upper part of the door, and is connected with the door by a small wheel which travels in a slotted plate upon the back of the edge of the door-frame. About the middle of this oblique lever a second lever is riveted, which runs horizontally to a point half way across the door, and having at the end of it a friction catch, which moves forward upon the stationary bar when the door is opening. By touching the handle of this catch and giving it a slight push backward the catch is released and the pressure is transmitted by the horizontal lever to the oblique one, which acts upon the door, throwing it open. When the catch handle is released the door is closed by means of a spring or weight acting upon the oblique lever. The friction catch prevents the door from being thrown back at any point while it is closing.

It is a simple affair, but it effectually puts careless conductors and thoughtless elevator patrons out of harm's way, and therefore ought to be made a compulsory part of all elevators.

In this number of THE INLAND ARCHITECT appears the advertisement of one of the foremost establishments in its line on this continent, one that has a proverbial fame for originality and excellence, namely, the Ludlow-Saylor Wire Company, of St. Louis,

whose specialty comprises wire cloth, wire rope, fences and railings, screens, barbed and plain fence wires, coal and ore screens, etc., etc. At the present time the company is fitting the St. Louis Commercial Banking House with metal work of special designs finished in oxydized silver; the Ridge building, of Kansas City, with brass and iron grill work and elevator inclosures, and has just completed the erection of 500 feet of wrought iron fence as an inclosure for St. Alphonse Church, of St. Louis. In fact scarcely any town or city of any prominence but has something to show of the art metal work of this notable plant.

A STRONG COMBINATION.

An important addition to the manufacturers of building materials is chronicled in the following circular which we reproduce in full:

"CHICAGO, May 24, 1892.

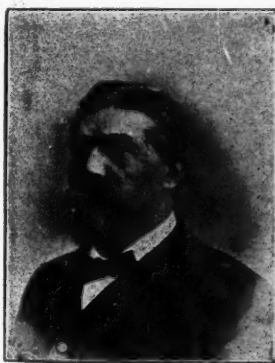
"DEAR SIR,—We beg leave respectfully to announce to our friends, and the trade in general, that we have just embarked in business on our own account under the firm name and style of 'The Knisely & Yeldham Roofing Company,' with headquarters in the Knisely Building, Nos. 68 to 74 West Monroe street.

"We are thoroughly equipped with all the latest and most approved appliances for the prosecution of our business in tin, slate and corrugated iron roofing, and for the manufacture of galvanized iron cornices, skylights, etc. Special attention will be given to jobbing, and from the character and quality of our work we feel justified in adopting as our motto or trademark, 'High Grade and Meritorious Work.'

"Our firm is composed of the following individual members: George F. Knisely, president; H. J. Yeldham, vice-president; and Harry C. Knisely, secretary and treasurer.

Mr. George F. Knisely brings to the company the ability and practical experience of years, having been identified with Knisely Bros. & Miller, Knisely & Miller, Knisely & Miller Bros., and James A. Miller & Bro.

"Mr. H. Judd Yeldham has sedulously worked at the trade for a period of twenty-three years, and strengthens the co-partnership by a thorough knowledge and mastery of the business. He was initiated into the trade by his connection with Abraham Knisely, and has labored consecutively with



ABRAHAM KNISELY.

A. Knisely & Co., Knisely Bros. & Miller, Knisely & Miller, Knisely & Miller Bros., and James A. Miller & Bro. He had the custody of nearly all the large contracts negotiated by the above prominent houses, supervising the work, such as passenger depots, freight houses, train sheds, rolling mills and elevators.

"Mr. Harry C. Knisely has for several years been associated with Richard Knisely & Son, and Knisely Bros., their successors, in charge of the office and financing department, and by his energy and devotion

to the same has acquired a thorough insight into the operations of the business embracing these important functions.

"Mr. George F. Knisely and Mr. Harry C. Knisely are the sons of the late Abe Knisely, whose portrait above will be recognized by all who appreciated his energy and integrity, and familiar with the fact that he was the founder of the oldest roofing concern in this city, have learned to regard him with interest and foster his memory with pride.

Thus fortified with the experiences and apprenticeship of years, we confidently solicit a share of your patronage, and will be pleased to furnish estimates upon work intrusted to our care, with the assurance that all orders will receive prompt and faithful execution.

Yours very truly, etc.,

KNISELY & YELDHAM ROOFING CO.

TRADE NOTES.

THEODORE ALTENEDER & SONS, Philadelphia, the well-known manufacturers of drawing instruments and dealers in draftsmen's supplies, have issued a neat, completely revised edition of their catalogue and price list for the current year. It is well illustrated. Copies are sent to any address upon the receipt of five 2-cent postage stamps.

GEORGE E. ANDROVETTE & CO. have removed their stained and beveled glass works and display room to Nos. 27 and 29 South Clinton street, near Washington, Chicago, and have more than doubled their previous capacity, which will now enable them to guarantee prompt shipment of all orders. The designs of the firm are characterized by high art instinct, and the workmanship preserves all the beauty of the designs.

THE Willer Manufacturing Company, Milwaukee, Wisconsin, has just issued a special catalogue devoted to the Willer window screens and screen doors, which have become so deservedly popular wherever they have been introduced. It is sent to anyone interested in screens that are par excellence and beyond compare with any now in the market. It is pleasant to learn that the demand for the company's celebrated inside sliding blinds is growing prodigiously and is becoming a feature of the enterprising establishment.

THE Detroit Heating and Lighting Company, has exhibited its appreciation and kind regards for THE INLAND ARCHITECT by sending two exquisitely beautiful souvenir mementoes of the recent Master Plumbers', and Master Steam and Hot-Water Fitters' national conventions held respectively at Washington, D. C., and Boston, Massachusetts. Each souvenir is a chaste and gentle reminder of the excellence of the Bolton hot-water heater and of its continued growing popularity among the building-making and building-owning public.

THE Goulds Manufacturing Company, works, Seneca Falls, New York, head-quarter warerooms, 16 Murray street, New York, has complimented THE INLAND ARCHITECT with advanced pages, selected from new catalogues in press, presenting engravings and tabulated data respecting the Gould Triplex Power Pumps which have won such enviable fame among manufacturers, miners and others to whom this class of hydraulic apparatus is a living necessity. The peculiarity of the Gould pump lies in the uniformity of its work, i. e., in discharging equal volumes of water in equal times, a feature that reduces the inertia of moving water to a minimum and hence is a vast saving in the economy of motive power. However, those who are interested in this department of hydraulics are familiar with the merits of this special device in pumps and need nothing by way of information from these pages. It will be a satisfaction though to learn of these forthcoming catalogues which are sure to furnish a large fund of practical knowledge and information.

ADVERTISERS' TRADE DEPARTMENT—Continued.

RAILROAD NOTES.

BURLINGTON ROUTE NEW SERVICE.—A through Pullman sleeping car, Chicago to San Francisco, is a feature of the Burlington's new service. This car leaves Chicago daily on the fast train at 1 P. M., and runs via Denver, Colorado Springs, Leadville, Glenwood Springs, Salt Lake City and Ogden, arriving in San Francisco at 11:45 A. M., less than four days en route.

EARLY CLOSING ON SATURDAY.—Most of the wholesale and retail firms in Chicago have decided to close their stores on Saturday at 1:00 P. M., commencing May 1, in order to give their clerks a much needed rest. In connection with this service the Wisconsin Central lines beg to announce that commencing May 1 excursion tickets will be placed on sale to Lake Villa, Fox Lake, Antioch and Mukwonago. Trains leave the Grand Central Passenger Station at 8:00 A. M., 3:00 P. M., 4:25 P. M., 5:47 P. M. and 10:45 P. M. Returning trains arrive at Chicago at 7:15 A. M., 9:45 A. M., 9:59 A. M., 1:55 P. M. and 7:45 P. M. Ticket office, 205 Clark street, Chicago, Illinois.

PULLMAN VESTIBULED BUFFET SLEEPING CAR SERVICE.—CHICAGO TO PORTLAND, MAINE.—Commencing June 26, and continuing through the Tourist Season, the Chicago & Grand Trunk Railway will run a Pullman vestibuled buffet sleeping car of the most modern pattern, through without change, from Chicago to Portland via Toronto and Montreal, leaving Chicago 3:00 P. M. daily except Saturday, arriving at Portland for breakfast second morning. On this train there will be a Pullman car for Old Orchard Beach, and tourists for all north Atlantic seaside and mountain resorts will find this improved through service worthy of patronage. Secure sleeping car reservations and further information by applying to E. H. Hughes, General Western Passenger Agent, No. 103 South Clark street, Chicago.

TO KNOXVILLE, TENNESSEE.—The route from Cincinnati to Knoxville via the Queen & Crescent route is one of the most attractive rides in the South. Leaving Cincinnati on the beautiful vestibuled trains, passing for nearly one hundred miles through the Blue Grass region of Kentucky, over the famous High Bridge, with its picturesque scenery, along the wild and rugged banks of the Emory river, through Harriman, Tennessee, the rising prohibition town, on through Oliver Springs, one of the prettiest and best of the mineral spring resorts in the South, into Knoxville by the historical Walden's Ridge. Every foot of ground traveled over is replete with objects of interest and beauty. The most enjoyable trip is in the daytime, but should the passenger happen to be fortunate enough, as we were, to come out of Knoxville on a moonlight night, the scenery is beautiful beyond comparison.

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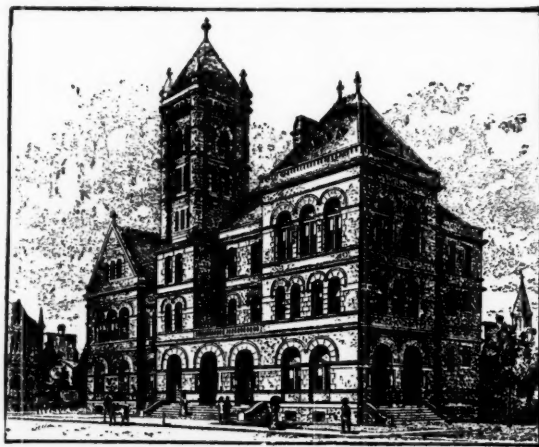
a free illustrated tourist folder, to George H. Heafford, General Passenger Agent, Chicago.

MODEL LOCOMOTIVE ENGINES.—The Baltimore & Ohio Railroad has just placed in service on its Chicago Division three new passenger engines, built at the Baldwin Locomotive Works, after new designs furnished by the General Superintendent of Motive Power of the Baltimore & Ohio Company. The engines weigh 113,000 pounds, have driving wheels six feet six inches in diameter, cylinders 19 by 24 inches, and are without doubt the finest passenger locomotives running into the city of Chicago today. Companions of these new engines have developed wonderful power and speed in hauling the famous Royal Blue Line trains, which run between New York, Philadelphia, Baltimore and Washington, over the Philadelphia Division of the Baltimore & Ohio Railroad. The Baltimore & Ohio has added over forty new, high-class engines to its motive power equipment within the last sixty days, and others are under construction. While constantly adding engines of approved design and highest grade to its motive power, and passenger coaches of Pullman standard to its rolling stock, the Baltimore & Ohio is also expending large amounts for additional second and third tracks and sidings, and improved facilities at terminal points. By the time the World's Fair is opened for the reception of visitors the Baltimore & Ohio will be well equipped to handle, expeditiously, the large volume of passenger traffic which will naturally seek this picturesque route from the Atlantic seaboard to Chicago.

King's Windsor Asbestos Cement

FOR PLASTERING WALLS AND CEILINGS.

300 PER CENT MORE TENSILE STRENGTH, 200 PER CENT HARDER, AND
REQUIRES ONE-THIRD LESS LABOR THAN LIME AND HAIR PLASTER.



"U. S. Court House and Postoffice at Williamsport, Pa., plastered with King's Windsor Cement."

Houses can be Occupied in from Four to Six Weeks Earlier than those finished in the old Method. Does not Chip, Pit nor Crack. Any mechanic who understands his trade can apply it.

INDORSED AND USED BY THE BEST
Architects, Builders and Plasterers.

All dealers in Building Materials are familiar with our goods, ask them for prices.

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PATENTEES AND SOLE MANUFACTURERS,

24 State Street,

NEW YORK CITY.

Manufacturers King's Eagle (Patented) and Celebrated "Diamond" Brand Calcined Plaster.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XX.

ADVERTISERS' TRADE DEPARTMENT.

No. 1

A NEW SASH LOCK.

THE INLAND ARCHITECT is always pleased when it has an opportunity to call attention to something that is particularly good in the line of household conveniences. The following cut is an illustration of an automatic



sash lock that has recently been put upon the market by the manufacturers, Carey & Wood, 39 to 43 Washington street, Chicago, and it is safe to say is possessed of merits that are not possessed by any other window-fastening device within the writer's knowledge. It is a lock devised without springs, of very simple parts that cannot become deranged, and which locks the window of itself when the sash is closed. It cannot be picked, and will prevent the window sashes from rattling. It is just such a device as everybody will want on their windows when they know how cleverly it works.

BLUE PRINT PAPER.

A recently received circular from the Philadelphia Blue Print Company conveys the intelligence that the Company is now in possession of a new factory building of much larger proportions and increased facilities for turning out the blue process papers which have given it fame. It is alleged of the "French Satin, Jr.," a new blue print paper, a late product of the company, that it possesses the peculiar characteristic of extracting all there is in a negative and affording lines of equal richness and depth to the best silver prints. It is worked the same as the ordinary papers and keeps fresh for months. The professions called upon to make reproductions of drawings will do well to make a note of this, as well as the fact that the company deals in all kinds of draftsmen's apparatus and material of standard brands.

A STEEL BATHTUB.

The day of the uncanny zinc bathtub, and in fact all of the disgusting apparatus of the bathroom, is high spent. More attention is now given to designing and attractively fitting the lavatories of a residence than perhaps to any other apartment, not even excepting the living and entertaining rooms. Hence we have exposed nickel-plated plumbing, ceramic and enameled bowls and tubs. One of the latest candidates for public favor in this line is a steel-clad bathtub—made of an outside shell of steel and inside lining of planished copper. It stands on ornamental metal feet. Of course, such a constructed tub needs no inclosure. It is said to be handsome in appearance and growing in popularity. It is the output of The Steel-Clad Bath Company, of Detroit—George Booth, manager.

ORNAMENTAL IRONWORK.

The mail has brought to THE INLAND ARCHITECT's table an illustrated brochure from the Ludlow-Saylor Wire Company, of St. Louis, giving examples of ornamental brass and iron work for interior and exterior decoration, that for artistic conception are beyond praise. Particularly is this the case with the designs for a wrought-iron gate,

and the theatrical specialties of a ticket office screen, proscenium box rail, and a balcony rail. Unquestionably this company is producing the highest grade work of this class seen in this country, and is building up a fame that will not pale in the presence of the very best that European brawn and brain can do. Inasmuch as this character of house ornamentation—combining utility, durability and beauty, in an exclusive degree, is entering so largely into modern construction detail, it is a pleasure to be able to point to an establishment that aims to, not only supply the public demand, but to merit its patronage by artistic originality and perfection of workmanship. Every architect ought to have a copy of the Ludlow-Saylor Wire Company's illustrated catalogue. It will be found to be interesting and suggestive literature, and oftentimes a friend indeed in the time of need. This is not the first time THE INLAND ARCHITECT has taken the opportunity to speak a good word for this enterprising company, and it expects to do it again whenever by some creditable work it may present the occasion to do so.

METAL ROOFING SLATES.

Since shingles have made quite a feature in the construction of rural and suburban architecture, the inventive genius of man has been directed to furnishing something better than those made of wood. The result has been that a variety of metal shingles have been put upon the market which are meeting with more or less favor according to their respective merits as better substitutes. Experience with the manufactures tends to perfection, so that faults and errors are being eliminated and new merits added. Among those that have met the tests best, according to architects who have specified them, are those known as the Eastlake metal slates, made by the W. J. Burton Company, Detroit, Michigan. This company also make imitation tile and other metal siding, finals, etc.

TRADE NOTES.

SPEAKING of artists' materials: Have you ever had any dealings with Frost & Adams, 37 Cornhill, Boston, the "Hub's" prominent importers, manufacturers and dealers in all manner of architects' and draughtsmen's supplies? If you have, you have given an exhibition of good judgment. And, too, you know all about that unique sketching device, Crosses' sketching easel, which has met with unqualified favor from artists the world over.

THE modern idea of constructing large buildings of steel beams, columns, girders, channels, tees, etc., so that the whole conformation is of this material, simply encased by brick, terra cotta or other fireproof ceramic, is so rapidly being accepted as a wise departure from old-time methods that the architect who still adheres to them, at least in Chicago, where the idea was born, is relegated to the paleozoic age of architecture. Of course, in the pursuit of the practice many new and improved forms in the several materials have been evolved, so that at the present time they are a near approach to that perfection every conscientious and labor-loving designer searches for. As a result of this utilization of steel a vast and new field of manufacture has been opened which, if it has not already dwarfed the magnitude of the manufacture of railway supplies, bids fair to do so in a very near future. A number of rolling plants have actively engaged in the specialty, some of them, like the well-known "Jones & Laughlin, Limited," producing prodigious quantities of the material. However, these are not fresh facts to the initiated, but all may not be up with every step of progress that has been made, and it is with this apprehension in view that attention is directed to a new rolled steel column that is being used by some of the Chicago

architects and giving greatest satisfaction to them, called the "Larimer column," a product, the INLAND ARCHITECT is informed, of the Jones & Laughlin mills, which already have an enviable fame for other superior steel building material. This column is so designed that piping, wiring and tubing may be concealed in it, and the method of attachment is so admirably arranged that the loading will be uniformly distributed on floors and throughout the building. In short, it may be set down as a "factor of safety" in architectural steel construction. From present indications it would appear that it will become generally popular. Those who have not the opportunity to see it in practical use probably can procure such diagrams and literature from the company as will afford all additional information desired.

THERE has been kept up a hue and cry about the "American tin-plate sham" by those who seem to possess anything but an American spirit. They would apparently rejoice if all the enterprise of those who do possess it and are endeavoring to encourage the utilization of the native ore and bring it into competition with the foreign industry should fail. Nevertheless the "sun do move," and beyond question Yankee ingenuity is bound to supply the home market in the near future. A great step of progress has been made by turning roofing plate out in long rolls, locked and soldered together in a manner that it is impossible to tear the seams apart and superior to any tinner hand-work. This important invention is the result of the push and enterprise of Merchant & Co., Philadelphia, who have silently kept at work with the determination to answer all calumnies by the indisputable fact of "success."

THE "Albany" Venetian Blind Company, Albany, New York, is circulating a descriptive pamphlet-catalogue exploiting the merits of this peculiarly constructed venetian blind, which consists mainly of the avoidance of the objectionable features common to those made on pre-Adamite formulas and in the addition of new expedients that go to complete the sum of perfection. This blind is a ventilating as well as a light screening curtain, and when hung does not in any way interfere with window draperies that it may be desirable to use. While being simplicity itself it is not liable to get out of order. It may be classed as a permanent fixture that can always be depended upon, and is said to be in every respect preferable to the ordinary inside wooden blinds. The pamphlet is accompanied by a list of testimonials from users, who speak in unmistakable terms of praise, which will be found of interest to every one in search of a neat and practical inside window blind.

A CORRESPONDENT in the American Machinist says: If engineers, machinists and millwrights in general and pipe-fitters in particular knew of the good qualities of graphite, I dare say there would be ten times the demand for it. Its lubricating qualities are questioned only by the impractical and it is this quality alone that sounds its keynote, so to speak. Let me describe a few of what I consider its most important uses. As above stated its primary object is lubrication and it is to this fact we must credit good pipe joints and cool bearings. In making pipe cement (or as I would term it, pipe smear), it is not necessary to use the best oil or grease, as it is the graphite and not the body in which it is suspended that makes the mixture valuable and the joint perfect. I use the drippings from line shaft bearings, caught in the ordinary way and mix it with the best Ticonderoga flake graphite so that it can be applied with an ordinary sash tool. During the past three years I have used about fifteen or twenty pounds of dry Ticonderoga flake graphite for pipe joints, cylinder heads, piston-rod packing, etc. Bolts, smeared with graphite mixed as above, I have unscrewed after having been

ADVERTISERS' TRADE DEPARTMENT—Continued.

in the dampest places for upward of two years, or more, proving the antirusting qualities of graphite. To cool hot bearings put it on as thick as it will mix with oil. Almost any oil or grease will answer, but don't use poor graphite.

ON a number of occasions there has appeared in these columns favorable mention of the "Goetz box-anchor"—a device for the purpose of anchoring and framing large timbers together in the construction of buildings. It was not that it was an entire novelty in this direction, for there were other similar meritorious ones that had found favor in the eyes of builders, but that the Goetz anchor seemed to possess a peculiarity of formation that suggested a combination of adaptation, simplicity and strength that had not been reached by previous ventures, which made it an object of special interest. On one of these occasions engravings showing the forms and methods of its employment were given, so that it is fairly presumable, what with reading and practical testing, nothing new could be added to what is generally known by the interested professions concerning its alleged merits. The object of this present writing is to mention the interesting fact that they have stood the test of severe conflagrations so well as to receive the highest praise from fire underwriters and adjusters.

CONCRETE work is becoming a very important factor in modern construction. When one contemplates the great variety of uses to which "Portland cement" has been applied it is somewhat appalling to think what a hardship it would be if by any possibility it would come to pass that the supply should fall short of the public demand. In the construction of foundations of vast buildings nothing could be substituted for its great utility that would in any satisfactory degree compare with it; and so, too, in street and sidewalk pavings and also sub-floorings. Of course there are varieties of excellence in the products, resulting from the quality and character of the "cement" more than from any formulas of composition, but there are cements that invariably produce good results, and it is well to keep such brands well in memory. Among them may be named the "Anchor Settin" and "Eagle Settin," which have been found to be *par excellence* for all manner of high grade work. They are frost and water resisting. The Marble Head Lime Company, Chicago, handle these brands as well as other high grade German and English Portland cements, and the interested will find it profitable to get into communication with this honorable dealing company.

EVERY day gives some manifestation of the thought home designers give to those details known as "conveniences." The in-built consoles, sideboards, hall trees, cedar closets, jewelry safes, are all outgrowths of this direction of mental application and are typical of scores of other non-mentioned helps to home comforts that have materialized since architectural contemplation has taken this supremely practical bent. It is to be confessed that "appearances" govern to a considerable extent in their introduction, for of all things the architect knows the first thing to be gratified is the eye; yet there are those, like the dumb waiter and the hand elevator, while making no such appeal for recognition, have done more than anything else to revolutionize modern home construction. It is doubtful if any other one modern home "convenience" is able to afford so much help to a household as can be got out of what the English people call a "lift." From a dumb waiter all the way along the line of "hand elevators" the ways and means to avoid needless toil and discomfort is apparent. It is not made as a prophesy but as a conclusion from the known utilities of these burthen-lifting devices, that they will be more generally asked for in the planning of dwelling places of the future, even for the humblest, than is dreamed today. If there is any doubt of this assumption

on the part of the reader, let him take the catalogue of some such firm as the Storm Manufacturing Company, of Newark, New Jersey, and glance over the variety of sizes, capacities, purposes, methods of operation and cost of the kinds made and then turn his thoughts to where they could best be utilized to advantage, where they now are not, if he can.

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BURLINGTON ROUTE NEW SERVICE.—A through Pullman sleeping car, Chicago to San Francisco, is a feature of the Burlington's new service. This car leaves Chicago daily on the fast train at 1 P. M., and runs via Denver, Colorado Springs, Leadville, Glenwood Springs, Salt Lake City and Ogden, arriving in San Francisco at 11:45 A. M., less than four days en route.

GET OUT OF THE RUTS.—Everyone needs a respite from their daily toil and daily nervous strain. A summer trip enlarges one's ideas and prolongs life. And by the Michigan Central, "The Niagara Falls Route," one gets lots of solid comfort and pleasure. Write to O. W. Ruggles, General Passenger and Ticket Agent, Chicago, Illinois, for the Michigan Central's Summer Tourist Folder, read it, and then buy your tickets over that line. Our word for it, you'll be glad of it afterward.

OF COURSE YOU WANT TO GO!—Where? Why, to some delightful spot where you can rest, have a good time, and return refreshed and with pleasant memories. To Mackinac Island and Northern Michigan, to Niagara Falls, to the St. Lawrence and its rapids and Thousand Islands, to the Adirondacks or White Mountains, to New England's hills, lakes or seacoast. It don't cost much and it pays. Write for the beautiful summer tourist folder of the Michigan Central, "The Niagara Falls Route," and then buy your tickets that way. Address O. W. Ruggles, General Passenger and Ticket Agent, Chicago, Illinois.

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SUNDAY SERVICE.—On Sunday, May 22, the Wisconsin Central lines resumed its popular train service between Chicago, Waukesha and the lake region. Trains leave the grand central passenger station for Lake Villa (Fox Lake), Antioch, Mukwonago and Waukesha, at 8:30 A. M., Sunday, arriving at Lake Villa 10:33 A. M., Antioch 10:40 A. M., Mukwonago 11:40 A. M., and Waukesha 11:59 A. M. Returning leave Waukesha 4:45 P. M., Mukwonago 5:05 P. M., Antioch 6:18 P. M., Lake Villa 6:30 P. M., arriving at Chicago 8:45 P. M. For the accommodation of excursionists desiring to remain in the country over Sunday, "The Business Man's Special" has again been placed in service. This train leaves Waukesha at 5:30 A. M., arriving at Chicago at 8:50 A. M.

TO KNOXVILLE, TENNESSEE.—The route from Cincinnati to Knoxville via the Queen & Crescent route is one of the most attractive rides in the South. Leaving Cincinnati on the beautiful vestibuled trains, passing for nearly one hundred miles through the Blue Grass region of Kentucky, over the famous High Bridge, with its picturesque scenery, along the wild and rugged banks of the Emory river, through Harriman, Tennessee, the rising prohibition town, on through Oliver Springs, one of the prettiest and best of the mineral spring resorts in the South, into Knoxville by the historical Walden's Ridge. Every foot of ground traveled over is replete with objects of interest and beauty. The most enjoyable trip is in the daytime, but should the passenger happen to be fortunate enough, as we were, to come out of Knoxville on a moonlight night, the scenery is beautiful beyond comparison.

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THE INLAND ARCHITECT AND NEWS RECORD

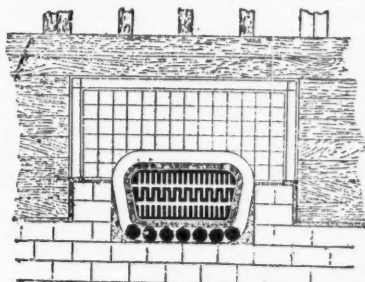
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ADVERTISERS' TRADE DEPARTMENT.

No. 2

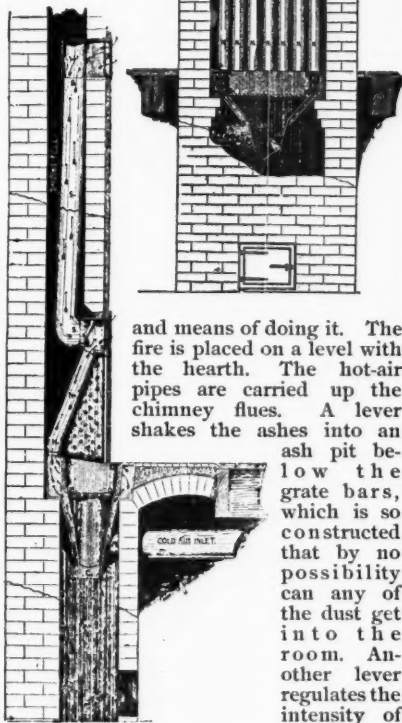
JACKSON'S FIREPLACE HOT-AIR FURNACE.

A hot-air furnace that has its habitat in the cheerful grate fire ought to become a popular house warmer. Edwin A. Jackson & Brother, 50 Beekman street, New York,



who have gathered such enviable fame though their well-known "Jackson's Ventilating Grate," have gone one step further and have devised a way whereby any fireplace may be turned into a hot-air furnace without detracting from its cheerful exterior.

The accompanying engravings intelligently illustrate the ways



and means of doing it. The fire is placed on a level with the hearth. The hot-air pipes are carried up the chimney flues. A lever shakes the ashes into an ash pit below the grate bars, which is so constructed that by no possibility can any of the dust get into the room. Another lever regulates the intensity of the heat,

which can be made to conform to the temperature of the season. Each fireplace will heat uniformly three ordinary sized rooms. All the heated air is from out of doors—the vitiated air of the rooms is carried to the fireplace and up the chimney.

HOT-WATER HEATING.

The Model Heating Company is the name of a new company organized to take over and conduct the hot-water heating business heretofore carried on by the Abram Cox Stove Company, Philadelphia, and the Hogan Boiler Company, New York. Its officers include Abram C. Mott, Philadelphia,

president; Joseph M. Stoughton, New York, secretary, and John J. Hogan, New York, consulting engineer. The Model Heating Company will market the "Novelty Circulator," the new form of hot-water heating apparatus that is at present attracting so much attention wherever presented, and in due season will introduce other specialties. The New York office of the company is in the Stewart Building, corner Broadway and Chambers street, and the Philadelphia office at 144 North Second street. The book descriptive of the Novelty Circulator, containing illustrations of the installation of hot-water apparatus in dwelling, school, church, railway station, etc., and which bears the significant title of "Water and Air Circulation in Heating and Ventilating," is being sent to all applicants.

FINISH OF WROUGHT-IRON WORK.

The use of paint, varnish, or of any plastic material on the surface of wrought metal work, tends to obscure or conceal its intrinsic qualities, and is therefore undesirable, but heretofore it has been a matter of necessity to apply such material as a protective coating to wrought-iron work, even in many cases where the work was not exposed to the weather, and as it is greatly to be desired, to retain in wrought-iron work the natural texture of the material, together with the individuality given by the marks of the hammer of the artisan, science has, in this, as in so many other instances, come to the relief of art and provided a method of treatment known as the rust-proof furnace process, by which the iron work is subjected to the action of certain gases, involved by excessive heat and steam, by means of which the body of the surfaces treated are converted into a double carbide of iron and hydrogen, without scale or alteration of dimensions, producing a true metallic surface, unique in tone and permanent in finish, the beauty of which can scarcely be realized by those who have not seen ironwork treated in the furnace process black iron finish.

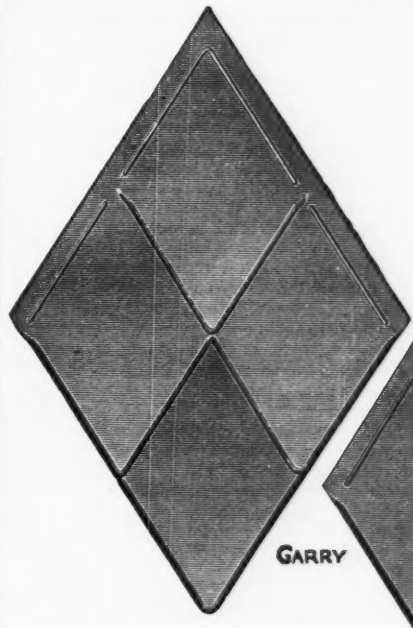
In this connection it gives us pleasure to call our readers' attention to the fact that the St. Louis Railing Works, No. 107 South Seventh street, St. Louis, Mo., whose extensive facilities and practical experience in the manufacture of all kinds of wrought-iron work for architectural or decorative purposes, render them experts whose services are most desirable, when artistic work is wanted, have the furnace process treatment for wrought-iron work in active operation at their plant, and are turning out work which is received with great satisfaction by their patrons.

SPECIAL BANK AND OFFICE FINISHING.

The name of the Henry Dibblee Company, under the management of Anson S. Hopkins, has become known to every architect in whose hands the finer work of residence finishing, especially in the line of mantels and mosaic floors. Another special department has been growing during the past year, until it has become the principal specialty of the company. This is in the line of bank, office and club finish designing. Artists of the highest grade are engaged in this department, under the efficient management of Mr. P. D. Weary, so long connected with the firm of A. H. Andrews & Co., than whom no better designer or practical exponent of correct designs in relation to interior finish can be found in the United States. Architects in the rush of work can safely send their plans to the Dibblee Company and secure their interior designing as correctly and intelligently done as if under their own supervision. A suite of rooms have been fitted up which are always open to visitors and display examples of the various classes of designing, and especially that of their bank, office and club departments, to which all architects or their clients are welcomed.

DIAMOND METALLIC SHINGLE.

THE INLAND ARCHITECT has on more than one occasion called attention to the various products of the Garry Iron and Steel Roofing Company, of Cleveland, Ohio, pointing out their excellence attested by builders all over the country, and generally have had something new and progressive to mention, for this is a most enterprising building material establishment and is never satisfied to rest content on past achievements. It is now introducing a new metallic shingle,



made specifically for steep roofs, towers and steeples, which has been christened the "Diamond Metallic Shingle." The accompanying cut gives a good illustration of it. It is made from painted steel and galvanized iron.

THE BOWER ILLUSTRATED.

The above heading may be somewhat misleading, and suggests to the reader that the writer has something to say about floriculture and forestry. But the fact is it refers to something more directly interesting to architects, house owners and plumbers—a nicely printed and handsomely illustrated catalogue and price list of the inimitable Bower Sewer-gas Trap, that has just reached THE INLAND ARCHITECT'S table. It is needless to say anything in behalf of the merits of the Bower trap, or of its enviable place among sanitary plumbing devices, as nothing is better known by the building fraternity. It therefore only remains to say, if you have not been complimented with a copy, just write to Cleveland and remind the B. P. Bower Company that you would like to be.

CHANGE OF MANAGEMENT.

From the following notice it will be learned that there has been a change in the management of the Boston Fire Brick Works, which has won an enviable business reputation throughout the Union, especially from its very popular recent product of "Brick Ashlar":

NOTICE.—The business connection heretofore existing between George M. Fiske, Eugene B. Coleman, and William Homes, under the business title of Fiske, Coleman & Co., managers and agents of the Boston Fire Brick Works, having been this day dissolved, the said George M. Fiske and William Homes are alone authorized to receive moneys for the Boston Fire Brick Works, and to sign checks, notes, drafts and contracts as managers and agents of the Boston Fire Brick Works.

BOSTON FIRE BRICK AND CLAY RETORT MANUFACTURING CO.,
R. G. F. CANDAGE, President.

BOSTON, August 9, 1892.

ADVERTISERS' TRADE DEPARTMENT—Continued.

GILBERTSON'S OLD METHOD
ROOFING TIN.

This brand, which for many years has occupied a very leading position, has been put in the hands of E. S. Wheeler & Co., New Haven, who are large dealers in tin plates, tanners' and plumbers' supplies for distribution in the United States. This concern are in closest touch with the largest dealers in tin plates throughout the country, as well as with the careful roofers, and are in best position to give the famous brand a wide circulation.

THE VERDICT OF EXPERTS.

It is always pleasurable to be classed with the "best," but when unbiased, competent men, sitting in judgment upon our possessions write over them "best of the best," it is human nature to indulge in an amount of vanity that, under other circumstances, would perhaps not be considered "in good form." The above premises are laid down if, peradventure, it should be discovered the management and representatives of the Watts-DeGolyer Company are holding their heads a little higher than their wont since the committee of experts appointed by the Master Painters' National Association have reported on tests made with the high grade outside varnishes. The points of the tests as laid down were fineness of color, body, drying, durability and, of course, finish. The verdict was that the DeGolyer Rock Finish varnish alone carried all the points in controversy, and consequently was superior to any other. "Good" is always commendable, "better" something more, but to attain the superlative "best," in varnish at least, there appears to be no alternative now but to use the DeGolyer Rock Finish.

LOCK-JOINT BRICK.

Mr. George E. Briggs, of Pittsburgh, Pennsylvania, has evolved something new in brick ceramics that will cause builders and masons to "rise up and call him blessed." He has invented or designed a new form for a brick by which every brick is a header and stretcher; consequently has a double binding surface more than the common article. He calls it the "lock-joint brick." It consists of four equal rectangles, three of which are arranged side by side and attached edge to edge, the fourth being attached to the second. It is, as it were, as if a common brick was made one-half as long again and had another half-brick attached on one side at the center. By making a sketch of such a brick it will be seen how nicely it will interlock with another of similar form in a variety of ways, or combine with the ordinary article. It is claimed that a wall laid of this form of brick will take much less mortar, and that a two-brick wall will have more strength than a three-brick wall laid with the common. In other words, a saving of 33 1/3 per cent in material and labor, and a gain in space of about four inches on a wall. Mr. Briggs has issued a neat little pamphlet showing diagrams of walls, ventilated and solid, illustrating the lock-joint brick in practice, together with other information connected therewith, and which may be had by addressing him at 96 Fourth avenue, Pittsburgh, Pennsylvania.

TRADE NOTES.

THE weathering of shingles to a silver gray is growing deservedly popular. It is possible to greatly hasten this effect by the use of Cabot's creosote bleaching oil, which contains a whitening, bleaching agent. The raw yellow look of the new shingle is overcome from the first, and the wood is perfectly preserved by the creosote.

MR. JOHN WILKINS is the courteous representative now in Chicago of the Steel-clad Bath Company. He is meeting much success among the architects, who readily

appreciate the durability and sanitary qualities of the steel-clad bath tub. The company have an exhibit at the Institute of Building Arts.

THE Empire Fireproofing Company have secured the contract for fireproofing the Congress Hotel building, corner Michigan avenue and Congress street, Chicago.

THE use of marble, tile, and other non-absorbent material in finishing bath and toilet rooms has become so general that every method conceivable is now employed to do away with all unnecessary woodwork in such places, and each invention that devises new methods for improving the sanitary condition of buildings in this respect is heartily welcomed by all who take interest in advancement of the art. Probably no one device in this line has been so well received as that employed by the W. S. Cooper Brass Works, of Philadelphia, for hinging the seat to a water closet bowl, the full details of which are explained in our advertising columns. We have frequently noticed in residences as well as office buildings that large amounts of money have been spent in making the walls non-absorbent, and then a closet has been used that requires a seat-back fastened to wall, thus making an absorbent substance against the non-absorbent marble. We cannot speak in too high praise of the Cooper seat device.

THE following statistics of the tinplate production in the United States is from the Philadelphia Record of August 26:

The importation of tinplate for the year ended June 30 was 420,000,000 pounds. This does not cover the importation of black plates to be tinned in this country. The importation is also lessened by the excessive purchases made in anticipation of the higher tariff duties which went into operation in July, 1891.

An idea of the progress of the business of tinning black plates (chiefly imported) in this country may be obtained from the following official Treasury statement of the production of tin andterne plates for the quarter ended June 30, 1892:

Producers.	Where Located.	Pounds.
A. A. Thompson & Co.	New York, N. Y.	24,805
American Tin and Terne Plate Co.	Philadelphia, Pa.	264,000
American Tinplate Co.	Elwood, Ind.	56,597
Anderson Tinplate Co.	Anderson, Ind.	161,416
Apollo Iron and Steel Co.	Apollo, Pa.	1,020,786
Cincinnati Corrugating Co.	Piqua, O.	90,372
Cleveland Tinplate Co.	Cleveland, O.	190,791
Coates & Co.	Baltimore, Md.	155,000
Columbia Tinplate Co.	Piqua, O.	207,700
Griffiths & Cadwallader	Pittsburgh, Pa.	43,000
John Hamilton	Pittsburgh, Pa.	230,367
Kahn Bros.	New York, N. Y.	138,240
Keystone Tinplate Co.	Philadelphia, Pa.	120,000
Marshall Bros. & Co.	Philadelphia, Pa.	335,170
Matthai, Ingram & Co.	Baltimore, Md.	179,125
Merchant & Co.	Philadelphia, Pa.	587,977
McKinley Tinplate Co.	Williamsburg, Pa.	48,000
Norton Bros.	Chicago, Ill.	140,104
P. H. Laufman & Co.	Apollo, Pa.	260,564
Pittsburgh Electro-Plating Co.	Apollo, Pa.	120,540
Pittsburgh Tinplate Works	No. Kensington, Pa.	237,500
Record Manufacturing Co.	Conneaut, O.	358,100
James B. Scott & Co.	Pittsburgh, Pa.	54,990
St. Louis Stamping Co.	St. Louis, Mo.	1,965,470
U. S. Iron and Tinplate Mfg. Co.	Demmler, Pa.	531,313
Wallace, Banfield & Co.	Irondale, O.	735,764
Total production for quarter		8,255,691

THERE are water closets and water closets, all more or less commendable since modern thought has taken hold of their construction, but if there are any that have got nearer to the goal of complete success than the Beekman outfit—the "whirlpool" bowl and duplex tank—THE INLAND ARCHITECT's watchful eye has failed to see them. The peculiarity of this apparatus consists in the design and operation of the bowl and tank. The tank gives a double flush, one immediately following the other. The two streams meet at an arranged center in the bowl and are thrown together in a manner that sends the waters whirling like a young

tornado around and over the entire surface of the bowl, rounding up the turmoil by making a forceful exit through the discharge conduit, and leaving behind for a seal a trap filled with pure water. It is hardly necessary to say, under such treatment it is impossible for any excreta or offensive matter to find a hiding place to send out deadly odors, since every hidden part of the closet is reached and most thoroughly swept by the intensely agitated flushes which wash out the bowel and conduit separately. As a consequence, there are no bad smells arising from this closet and what is almost as agreeable, it is automatic and noiseless in operation. Very much more could be said regarding this superior plumbing device, but enough has been said to direct interested parties to headquarters for full information, and the address will be found in the pages of this journal by referring to the advertisement of the company.

AN article from the editorial columns of the Metal Worker, July 9, entitled "Light Weight Plates," says the protests of the American importers against the unsatisfactory plates that have been coming out for some months past go unheeded. Letters from consumers addressed to importers, saying that recent invoices are not up to standard and are not according to representations, when turned over to the manufacturers produce no effect, and on top of all this comes the cool proposition—in one particular case, at least—to maintain the name and degrade the plates to such an extent that the market will be met and some profit made. We have before us a letter dated in Wales some two months since, in which the proposition is made to reduce the weight of one of the leading guaranteed ternes from 120 pounds to the box to 108 pounds, and to reduce its quality in other particulars as well. "In this way," says the manufacturer, "we could reduce the price" so much; "and as we are gradually to lose the trade, we may as well supply the cheaper grade of plates while we can." If consumers of high-grade ternes find at the present time that their plates are not equal to what they were formerly, they have the reason for it in the facts above presented.

RAILROAD NOTES.

THE HEALTH RESORTS OF COLORADO are directly reached by the Burlington Route fast express trains. One leaves Chicago at 1 P.M., arriving at Denver the following afternoon—only one night on the road. Another leaves Chicago at 10:30 P.M. and gets to Denver the second morning following—only one day on the road. Both are equipped with vestibuled Pullman sleeping cars, reclining chair cars (seats free), and Burlington Route dining-cars. For berth reservations apply at city ticket office, No. 211 Clark street, Chicago.

The Baltimore & Ohio Railroad will grant most liberal concessions in the way of stop-over privileges on the tickets sold for the reunion of the naval veterans at Baltimore, September 15 to 19, and for the Grand Army encampment at Washington, commencing September 20. Tickets will be sold at the offices of the company and at offices of the principal railroad companies of the West, from September 13 to 20 inclusive, at very low rates, and will be valid for return journey until October 10. Both going and returning, tickets will be good to stop off at all stations between Cumberland and Baltimore, a region rendered familiar to all veterans by the constant warfare along the Potomac. The signature of purchaser to tickets will not be required, nor will it be necessary to have them stamped to make them valid for return journey. For more detailed information as to time of trains, rates and sleeping car accommodations apply to L. S. Allen, assistant general passenger agent, the Rookery, Chicago, or O. P. McCarty, assistant general passenger agent, Cincinnati, Ohio.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XX.

ADVERTISERS' TRADE DEPARTMENT.

No. 4

THE GUASTAVINO FIREPROOF CONSTRUCTION.

Elsewhere in this journal will be found the advertisement of the Guastavino Fireproof Construction Company, whose peculiar system is doing so much toward solving that perplexing architectural problem of how to build a building that shall be in fact as well as in name fireproof. It is not the purpose in calling attention to this company and its methods to call in question the practicability of other accepted ways, but to invite attention to the differences between them. At the outset it is proper to state the Guastavino process calls for little ironwork and in the majority of cases where it may be applied successfully, none. It consists principally in using a comparatively thin fire-clay tiling, of a greater length and breadth than brick, and so laying them that the bond and strain is uniform throughout. The value of the idea, as proven by practice is, that arches of any span, strength, shape or form can be made of a lightness hitherto unknown by these peculiarly made tiles and the manner of laying them, and that the work can be performed in a much shorter space of time than is required by old-time methods. The introduction of the Guastavino plan by leading eastern architects in their recent notable buildings shows the estimation in which it is held by them. Some of those buildings will be found named in the advertisement above referred to; among them the great Boston library. It may be mentioned in this connection that Chicago architects have an opportunity of viewing the process, as the company is now engaged in carrying on the construction of the new Illinois Central Railroad passenger depot now begun at the southern extremity of the Lake Front park. Of course being a comprehensive system the Guastavino method includes all interior work, such as floors, ceilings, partitions, stairways—in short everything that progressive architecture is likely to demand. In more than one respect the Guastavino theory is a revelation and an expounder of ideas that have grown venerable through immemorial use, and from its simplicity and universality of application must as a natural result come into a wide acceptance with the building public.

ARTISTIC WOODEN MANTELS.

It is an admitted fact that one of the most prominent changes that have been made in house building within the last few years, particularly in the homes of the people, is the pains that have been taken, in interior decoration to get as far away from bizarre effects as possible and to get nearer to the infallible lines of true art for the expression of beauty. The result is embellishment of which the eye never tires and in which the consciousness is ever satisfied.

Of these interior decorations, perhaps no feature can be said to be as salient as the wooden mantel. From its conspicuous place in the room; its breadth of occupancy and its ornate conformation, of all others it is first to pass the ordeal of criticism. For this reason this piece of home embellishment is one that house designers have given no small consideration in their planning, and its importance has led to the creation of a special industry, which architects have been glad to foster. There are establishments with adapted machinery, skilled artists and artisans, whose chief or sole labor is producing them in graded variety.

Before the writer is lying an illustrated catalogue of one that makes wooden mantels an exclusive occupation—the Rockford Cabinet Company, of Rockford, Illinois. Nothing could better exploit the wisdom of relegating such an important detail to exclusive workers. The beautiful designs in this book of mantels made in styles that are new and original is something that cannot fail to meet a warm appreciation from all lovers of true art. Especially are those after the

French and Colonial patterns to be praised for their artistic handling. Nevertheless, all seem to be built upon the same lines of appreciation, as will appear from the example given in the company's advertisement on another page. It has been communicated that this company takes particular pains in the perfection of its productions, and that nothing is permitted to leave its works that is not as mechanically perfect as it is artistic in design. Further, that through perfected machinery and exclusiveness of manufacture it is able to turn out the large product of the plant at figures that will surprise consumers, when style and finish are measured by them.

As a conclusion for this article, the suggestion is made that a correspondence with this wide-awake and progressive company would be anything but a detriment to those actively engaged in house making and at all ambitious to "keep up with the procession."

SIRE AND SON.

In Chicago a man can hardly think of plumbing without calling up the name of J. J. Wade, who for thirty-five years has been in the foremost rank of his profession in the "World's Fair City." The progress that has been made in the plumbing art during those three-and-a-half decades of years is an interesting contemplation. Thirty-five years ago a man who could make a "connection" and a "wipe joint" possessed about all the knowledge there was going of the specialty. Sanitation! There was no such word in the plumbers' lexicon. The catalogue of "plumbers' supplies" comprised a listing of sizes of lead piping, soft solder and faucets—scarcely anything more. How different the situation today. The plumber who is not a good sanitary engineer has but little call for his services, while the catalogue of plumbers' supplies has grown to be a formidable volume of appliances commensurate with the knowledge of sanitation.

Perhaps no other single individual has done more toward this gratifying change than the subject of this notice. He has not only been a close observer and diligent student but a successful inventor of appliances as well. His "drain flushing traps," "manhole and flushing fittings" and "back-water gate," to prevent the flooding of cellars from sewers, are among the most pronounced successes of the times, as evidenced by their adoption by leading architects and the patronage of plumbers all over the country. By his manhole leading from the drain to the surface—which is fitted with a cover and gasket—the interior of sewers is always accessible, without removing the floor or concrete, and in a situation to be connected either direct to the water supply or by hose, for the purpose of flushing, which may be done by any unskilled person. These are among the fruitage of his experience, observation and study, and accounts for the extensive patronage for his services and appliances that is crowning the veteran's career. Mr. Wade has now associated with him in business, at 298 Dearborn street, Chicago, his son, Thomas P. Wade, "a worthy son of a worthy sire," who has grown up under his father's tuition, and renders invaluable assistance in the promotion of the business.

A PERFECT POCKET CATALOGUE.

The American Radiator Company has complimented THE INLAND ARCHITECT with an early copy of a pocket illustrated catalogue, just issued for the current year, wherein is presented cuts showing the varied output of radiators that are made at the company's three great factory plants which cover an aggregate area of twenty acres. It is unnecessary to say anything in behalf of the merits of the "American" radiator, whether for steam or hot-water heating, nor of the philosophy of their construction, as they have been so long and thoroughly

tested by public use that it would be hard to find an architect or builder who would be willing to admit his ignorance of the subject. It is therefore only necessary to say this contribution to useful building literature will undoubtedly be fully appreciated, as it leaves no desirable information untouched, whether it be forms of apparatus, prices, or amount of materials required for any given surface. The final pages comprise a complete and exhaustive telegraph code.

TRADE NOTES.

THE Ludlow-Saylor Wire Company, of St. Louis, has complimented THE INLAND ARCHITECT with a copy of a new catalogue, No. 21, just issued, which contains the company's latest designs in bank railing and fittings; prices, etc., accompany the illustrations. It is needless to speak of the artistic character of the company's bank work—that has become an old familiar story to architects and contractors.

HENRY R. WORTHINGTON, 86 & 88 Liberty street and 145 Broadway, New York, have opened a new branch office at 1762 Larimer street, Denver, Colorado. There will be carried at that point a full line of pumps, water meters and repair parts, and complete arrangements have been made for handling the increasing business in that section which has made necessary the establishment of a branch office at Denver.

THE Butler Hardware Company, 23 Warren street, New York, has recently issued from the press a voluminous illustrated catalogue and price list of tools that encompasses all trades that can possibly find a place in modern building construction. There is an almost infinite variety shown, together with the prices and other needful information concerning them. The character of the goods, and the prompt and honorable treatment by the company of its innumerable patrons explains the necessity of publications like the above mentioned.

RAILROAD NOTES.

BURLINGTON ROUTE NEW SERVICE.—A through Pullman sleeping car, Chicago to San Francisco, is a feature of the Burlington's new service. This car leaves Chicago daily on the fast train at 1 P. M., and runs via Denver, Colorado Springs, Leadville, Glenwood Springs, Salt Lake City and Ogden, arriving in San Francisco at 11:45 A. M., less than four days en route.

ALL FOR 55 CENTS.—The Monon Route has added to its already splendid equipment, two brand-new dining cars, which are now in daily service on the fast day trains between Chicago and Louisville. These cars are models of convenience, comfort and beauty, and are operated on the la carte plan, which means that a passenger can get anything he wants and pay only for what he gets. An elegant steak, with bread, butter, coffee or tea with cream is served for only 55 cents. Watch for the Monon's new schedule to Florida.

DESIRED INFORMATION.—We desire to impress upon the minds of the public the superiority of the service offered by the Wisconsin Central lines between Chicago and Milwaukee and St. Paul, Minneapolis, Duluth and all points in the Northwest. Two fast trains leave Chicago daily for St. Paul, Minneapolis and Duluth with Pullman vestibuled drawing-room sleepers and coaches of latest design. Its dining-car service is unsurpassed. This the public is invited to judge for itself. It is the only route to the Pacific Coast over which both Pullman vestibuled, first-class, and Pullman tourist cars are operated from Chicago via St. Paul without change. Pamphlets giving valuable information can be obtained free upon application to your nearest ticket agent, or to James C. Pond, General Passenger and Ticket Agent, Chicago, Illinois.

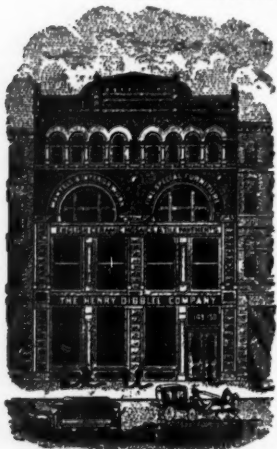
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149 & 150 MICHIGAN AVE.

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FINE BANK AND OFFICE INTERIORS FROM OUR
OWN OR ARCHITECTS' DESIGNS.

THE HENRY DIBBLEE COMPANY,

ENGLISH CERAMIC MOSAICS, MANTELS, GRATES AND TILES, FINE SPECIAL FURNITURE, CHICAGO.

SUPERIOR Copper Weather Vanes,

GILDED WITH PURE GOLD.

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or design on short notice.

T. W. JONES,

Successor to CHAS. W. BRIGGS,
" " V. W. BALDWIN.170 and 172 Front Street,
NEW YORK.Illustrated Catalogue of over
250 designs, mailed to any ad-
dress on receipt of a two-cent
stamp, half the postage.

F. M. HICKS & CO.

ARCHITECTURAL IRON WORK.

Skylights, Floor Lights,
Area and
SIDEWALK LIGHTS.886 Throop St.,
CHICAGO.

GAS FIXTURES

AT FACTORY PRICES.

Special Inducements to the Trade.

Office and Salesroom at Factory,

67 & 69 S. Canal St., near Madison Street,
CHICAGO.

H. S. HOLDEN.

Photo-Engraving,
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Reproductions.

INLAND PUBLISHING CO., CHICAGO.

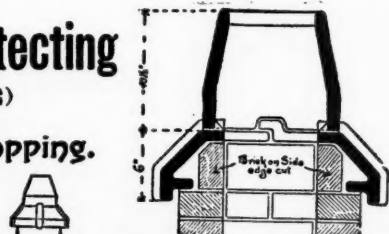
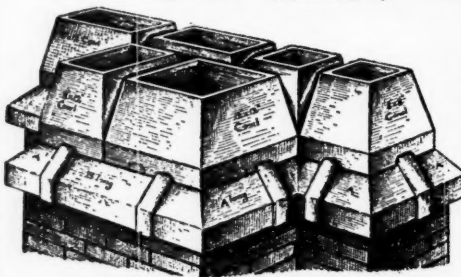
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MEXICO

In Pullman Hotel Cars, visiting all prin-
cipal cities and places of interest. For
an illustrated book, descriptive of these
tours, address

J. J. GRAFTON, 109 Clark St., CHICAGO.

THE HANSEN PATENT Weather-Protecting SALT GLAZED, (EVER-LASTING) Terra Cotta Chimney Topping.



THESE Toppings, made by steam-
press, VITRIFIED, SALT-GLAZED and in
RICH DARK BROWN color, finish and
weather-resisting quality are just like first-
class Ohio sewer pipe, and cost only a trifle
more than common unprotected brick top-
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HAROLD M. HANSEN, Architect,
88 La Salle Street, CHICAGO, ILL., Patentee.

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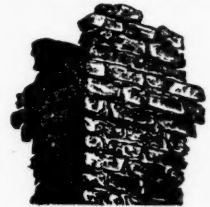
THE STANDARD DRAIN-PIPE CO., St. Johns, P. Q., Canada.

W. S. DICKEY CLAY MANUFACTURING CO., New York Life Bldg., Kansas City, Mo.

EMPIRE FIREPROOFING CO., Main Office Cor. Wood and Fifth Ave., Pittsburgh, Pa.

Works at Empire, Ohio.

Also, Manufacturers of Wall Coping, Sewer Pipe and other Clay Products.



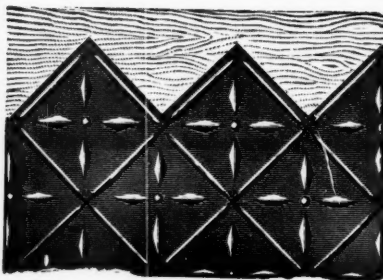
ECONOMY?

NEW METALLIC TILE or SHINGLE

Made from the Garry Refined Roofing Iron
and Steel, also from Galvanized
Iron and Tin.

The sheets are 12 x 12 inches, and stamped in
such form as to make them impervious to rain,
wind and snow. One hundred will lay a square,
and any one can apply them. Send for Circular
and Price List No. 97.

Garry Iron and Steel Roofing Co.
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(INCORPORATED.)

ARTISTIC INTERIOR MARBLE DECORATORS,

Italian, Venetian and Roman Mosaics, Marble Wainscoting, Floor Tiling, Bank Counters, etc.

Quarrymen and Importers of Fine Colored Marble and Onyx,

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New York Marble quarried Gouverneur, St. Lawrence Co., N. Y., has no superior for building fronts. Send for samples
and estimates.

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THE INLAND ARCHITECT AND NEWS RECORD

Vol. XX.

ADVERTISERS' TRADE DEPARTMENT.

No. 8

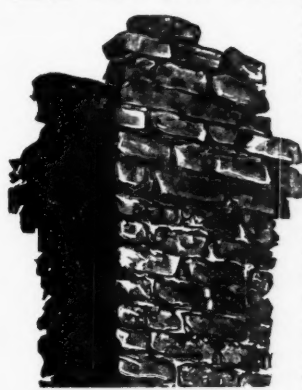
Valuable Publications Free.

Any architect can secure valuable books of reference without cost by sending for the catalogue of materials, etc., noticed from month to month in these columns. Large sums are spent on these catalogues, and they contain much practical information. Many are art productions. They may be obtained free on application to those issuing them. In writing please mention THE INLAND ARCHITECT, and oblige the journal and the dealer.

EVERLASTING SALT-GLAZED CHIMNEY TOPPINGS.

(See Advertisement page XXII.)

Chicago architects generally—a few of whom are Messrs. Treat and Foltz, Patton & Fisher, Ackerman, Bauer & Hill, Drake, Beaumont, Carroll, Cudell, De Horvath, Faber & Pagels, Froman & Jepson, Foehring, Frost, Hallberg, Hettinger, Huehl & Schmid, Krause, Perkins, Randolph, Thisselw, Van Osdel, Zarbell, and many about the county—now specify for use in their buildings the Hansen Weather-Protecting, Salt-Glazed Terra Cotta Chimney Toppings,



which, being hard-burned, highly salt-glazed—same quality and color as first-class sewer-pipe—have proved to be the best and most practical, and really cheap, indestructible material for the preservation of chimney masonry

from the usual destruction caused by rains and frost—from which even a heavily stone-capped chimney is not exempt unless provided with large water-drip and covered joints, and as they require hoisting machinery or extra strong scaffolding to set in place, must be made to order, causing delay, and such stone toppings become several times more costly and do not do as permanently good service as the Hansen salt-glazed toppings. The Hansen toppings are shaped so as to form a large effective water-drip, and at joints of copings are provided with large socket over-lap running over to inside of flue wall through base of cowl (top part), thus effectively covering and protecting brick-work, even if carelessly pointed by bricklayer, and as the toppings are indestructible by weather, they secure a practically everlasting chimney, avoiding the usual rebuilding, unsightly patchings, and consequent expense to owner—all at a trifling expense over the ordinary common method and material.

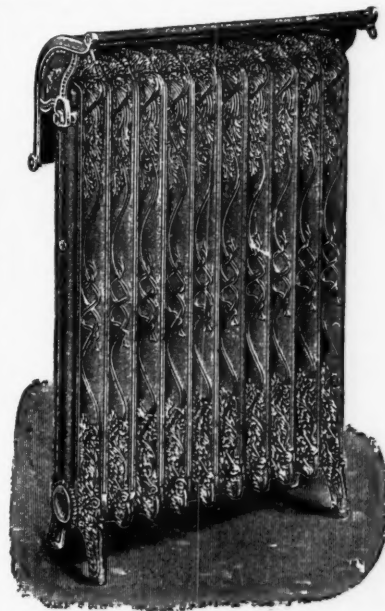
The Hansen toppings are intended mainly for brick-built chimneys, with 4-inch inclosing and same size partition walls—if in blocks of several flues *without the usual brick, projecting, cornicings at top*. They are made in three sizes (copings and cowls complete) to fit the average brick and joint sizes (the large overlap joint taking care of the varying sizes of brick and different localities) of 8 by 8 (one by one brick and joints), 8 by 12 (one by one and one-half brick and joints) and 12 by 12 flues (one and one-half by one and one-half brick and joints) all inside flue sizes; but copings may be used alone for other flue sizes, being of lengths to fit the

half, the whole or two bricks in length, which though without locking and weight of cowl, if set and pointed in good cement mortar (dark preferable for all outside, exposed joints), will attach to chimney masonry as permanently as if the whole were glass or granite. The plainly shaped toppings are made on steam press same as sewer-pipe—kept in stock and sold by the carload, or when in small orders, shipped in crates or boxes. A few shapes of more ornamental cowls, molded by hand, etc., are made to suit above sizes, and with bonnets or wind guards when so required. The undersigned, as well as the several firms manufacturing the Hansen toppings, guarantee their permanent quality, and also the resulting permanency of chimney masonry where these toppings are used and properly set, and will at any time promptly replace same with any practical material suggested by owner or architect, where these goods shall have failed, as herein represented, without expense to owner. HARALD M. HANSEN, Patentee,

88 La Salle street, Chicago, Ill.
November, 1892.

PERFECT HOUSE HEATING.

In the race to lead in the substitution of better household conveniences for those that have not come up to the standards of expectation and desire, one is reminded of the old darkey cosmographer's explanation of the wherefore of the earth's stability: "It rested on a rock." To a skeptical "coon" who wanted to know what that "rock rested upon," he replied, "Why, annoder rock, of course"; and to the further query of "What dat odder rock rest on?" he squelched the interrogator by exclaiming, "Why, you blanked fool, dey's rocks all de way down!" One can hardly think of any pronounced improved device that has overcome an admitted inconvenience but it has developed another "rock" in the way of a complete success that inventive genius has had to remove. Take in instance the utilization of steam and hot water for house heating. Scarcely had their real advantages become a grateful truth before the unpleasant fact that the radiators were discoloring the walls

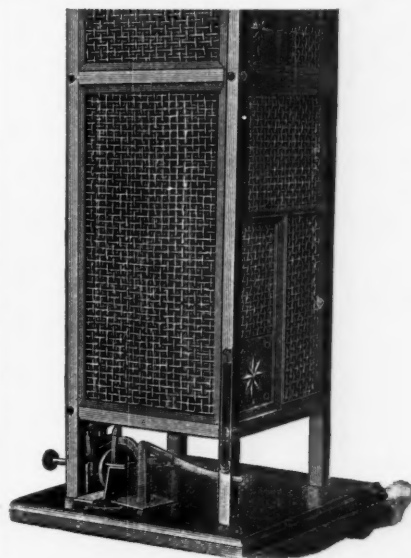


and ceilings in their immediate vicinity revealed itself. Sheet-iron coverings on various plans were resorted to, but in remedying the evil they were found to be robbers of the heat. Something more practical was in demand. At length Mr. Dixon hit upon the construction of what he has termed a "deflecting shield," an ornamental capping that not only effectually stops the discoloration of the walls and ceilings but

leaves the radiator fully exposed to the surrounding atmosphere, and adds to its efficiency by deflecting the warm currents of air horizontally to the floor, from whence it naturally rises to the upper parts of the room. The accompanying engraving illustrates this shield. It is manufactured by the Gould & Caldwell Company, of 22-24 North Canal street, Chicago, and can be attached to all radiators.

ELEVATOR SAFETY.

The long chapter of accidents that have attended the use of that great modern house convenience, the passenger elevator, very naturally would inspire the inventive genius of the day to devise a way and means to put an end to such possible calamities. There have been a number of means offered but none that seem to cover the "danger



line" so effectually as the one represented by the accompanying engraving, the invention of W. J. Rochford and E. W. Kempter, of Chicago, and termed by them "The Safety Elevator Brake." The invention consists of a brake so constructed as to stop the elevator running when the door of the elevator shaft is open to admit passengers, and keeping it inoperative so long as any door is open. Again, it is so arranged that every door closes automatically when the car leaves it, and it remains tightly closed until the car is halted at a landing to receive or let off passengers. As almost every elevator fatality has resulted either through the loss of control of the car or from open hatchways, it would seem as if the Safety Elevator Brake and accompanying appliances is all that is needed to make an elevator complete in all things that can be hoped or wished for in such a public necessity. All whom this notice has interested can learn further particulars concerning the device by addressing the Safety Elevator Company, Room 1231 Masonic Temple, Chicago, Illinois.

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THE BANNER ROUTE.—To points west and southwest from Chicago and Toledo take the great Wabash Railway—finest cars, best service, highest speed, lowest rates. This is the "Banner Route."

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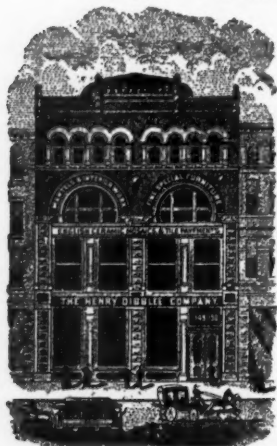
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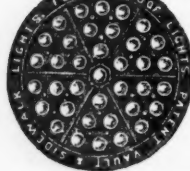
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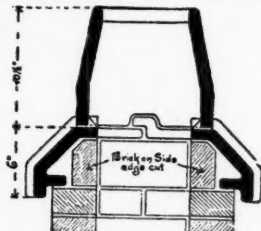
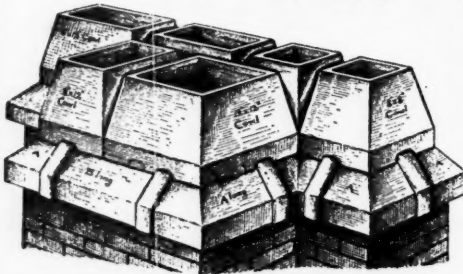
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RICH DARK BROWN color, finish and
weather-resisting quality are just like first-
class Ohio sewer pipe, and cost only a trifle
more than common unprotected brick top-
pings.HARALD M. HANSEN, Architect,
88 La Salle Street, CHICAGO, ILL., Patentee.

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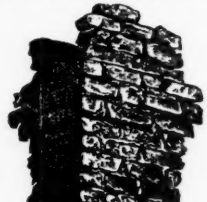
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W. S. DICKEY CLAY MANUFACTURING CO., New York Life Bldg., Kansas City, Mo.

EMPIRE FIREPROOFING CO., Main Office Cor. Wood and Fifth Ave., Pittsburgh, Pa.

Works at Empire, Ohio.

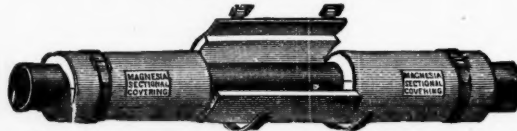
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Are a type of what a non heat conductor should be. Competitors selling Asbestos and Plaster Paris sections first imitated our moulded sections. Next they adopted our iron and brass bands. Next they canvassed and banded them to make them as closely resemble "MAGNESIA" as possible. Now they contract to furnish "MAGNESIA" and apply their own cheap imitations instead.

See that when you buy "MAGNESIA" you get "MAGNESIA."

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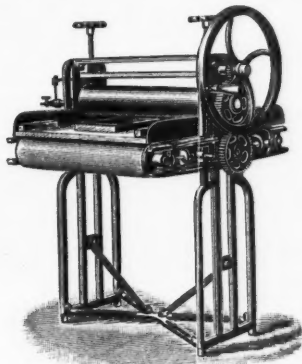
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NOVEL LAUNDRY APPLIANCES.

Architects are often called upon in their versatile labors, especially when it pertains to the construction and completion of hotels, laundries, hospitals, asylums and like public institutions, to specify laundry appliances. It is always well to be generally posted on the subject and to touch elbows with the file-leader. In other words, to keep up with the procession's progress. With this idea in view, attention is called to what the United States Mangle & Laundry Company, of Chicago, is doing in the way of file-leader. It has now perfected and for some time been placing on the market what it terms the Universal Mangle, which it manufactures in six sizes, ranging from one capable of doing the work of a hotel down to a diminutive hand machine not larger than an ordinary sewing machine, designed for family use. They are of simple construction, not liable to get out of order, won't stretch or wear the goods in ironing, and a child can operate them. They are made to work with either gas or gasoline and are in no case dangerous. Light articles can be taken direct from the wringer and dried and ironed at one operation. In the case of larger articles, such as plain clothes and flannels, a special three-roller mangle is provided, whereby the same process of drying and ironing is accomplished in the same interval. For the ironing of embroidered articles, tidies, lace curtains, a felt apron is provided into which the embroidered or



raised parts sink when the pressure is applied, and thus is given that fresh appearance which obtains when articles are new. Space will not permit of a detailed account of other like novel excellencies. It is only necessary to state that this combination machine embraces five machines in one to get an idea of how wide a departure it is from the ordinary apparatus going. The best thing for the interested to do is to send to the company for descriptive literature, and a better thing is to call and see what they are capable of doing to satisfy the public.

WOOD STAINS.

Shingle and exterior wood stains are turning down paint in many directions in modern house building, especially in suburban and country architecture. Good stains are found to be lasting and great preservers from decay. Besides, emphasized effects are afforded by them. There are several popular wood stains on the market and each have their warm adherents, but a new competitor

has entered the field. The E. A. Mason Stain Company, of Chicago, has been for some time quietly introducing a new process shingle stain called the "New England." It is made in a great variety of colors. The claims for this stain are: It thoroughly penetrates and impregnates the wood, and hence is permanent; it is free from unpleasant odor, therefore the rain water can be used for drinking; it dries quickly and shingles can be put on in a few hours after dipping; it can be used over paint; it perfectly prevents wood rot; it is comparatively cheap; it can be applied with a brush as well as by the dipping process, and more rapidly than paint can be spread. These are not all the claims of excellence and superiority put forth by the company in its behalf, but are sufficient to induce architects and contractors to send to the company for further particulars. We learn the company is meeting with success.

COMPLIMENTS OF THE SEASON.

The Eastern Hydraulic Brick Company, Philadelphia, manufacturers of vari-colored and ornamental bricks, is sending out a gentle reminder to patrons that it is still in the field of competition and keeping up with the head of the procession. It is in the form of a scale rule on which are markings for $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch. A good rule is a good thing to go by, and no doubt the company believes it is a good rule to stay by old friends, hence this compliment of the season.

SUBSTANTIAL PAINT.

Many have become disgusted with prepared paints ready for use, owing to imperfections of various kinds which render them anything but satisfactory. However, there are paints of this class that are better than those formulated and prepared in the professional painter's shop, from the fact that their manufacturers have better facilities for preparing them added to a perpetual experience in compounding which necessarily brings good results. Among those who have achieved an enviable success in this specialty is the Russell Paint Company, of Chicago, whose advertisement will be found in this journal. A characteristic of this company's paints is that they are abiding. They can be used either with a brush or as a dipping paint. The company is the originator of dipping paints. The company's "primer" is a perfect wood-filler. It isn't brittle, sandpapers smoothly, and takes linseed oil for thinning lovingly. As many of these paints are used for the protection of iron and steel work, and that may be applied by the dipping process when necessary, it is well to mention a special preparation denominated by the company, "Egyptian Black." It is a very elastic paint, does not settle nor chip and dries easily. It is applied cold with a brush and gives as good effects as japans subjected to furnace heat. Anyone desirous of further particulars should address the company.

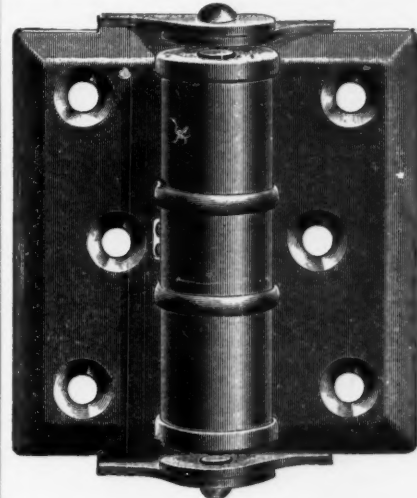
LARGE ADDITIONS TO AN ALREADY EXTENSIVE PLANT.

The Joseph Dixon Crucible Company, of Jersey City, manufacturers of Dixon's "American Graphite" Pencils, are taking time by the forelock by putting a fifth story, 175 by 75 feet, on their pencil factory. The new addition will be equipped with new and improved pencil machinery of their own invention. Florida cedar and American graphite will start in, and come out of Dixon's new machinery in "round" and "hexagon" shape, "regular size" or "tablet," "full length" or "pocket," for "office," "school," "carpenters'" or "artists'" use, in "satin," "maroon," "ebony," "cedar" or "natural" finish, and in the thousand and one styles in which we now have our pencils served to us. Besides

this large addition to their pencil factory, the company will establish a rubber and brass plant for the manufacture of the various pencil accessories and novelties. As it was only in 1891 when the Dixon Company put extensive additions on their crucible and blacklead works, and erected offices which for size and beauty are second to none in the state, it is very evident that prosperity claims the Dixon Company for its own, and that the company is well officered and wisely managed.

A NEW SPRING HINGE.

Attention is called to the New Idea Steel Spring Hinge, made by the Stover Manufacturing Company, Freeport, Illinois, makers of the well-known cast hinge bearing the same name. The cut shows a well-balanced



and neat design and the manufacturers represent it as being the only covered steel spring hinge on the market that embraces lasting with correct working qualities. It is made in one size only 3 by 3, for screen doors, and ordinarily finished in japan, but on special order will be furnished in electro, nickel and copper, Berlin bronzed, bronze plate, oxidized, copper and brass, packed for fine trade.

HARDWOOD FLOORS.

S. C. Johnson, manufacturer of ornamental hardwood floors, Racine, Wisconsin, is at present at work on a new catalogue which will be issued about February 15. This catalogue will be a beautiful and complete one, containing nothing but new and artistic designs. He wishes to put one of these in the hands of all architects, contractors and builders, or any who are at all interested in this class of work. Whenever you are in want of anything of this kind, it will be to your advantage to see Mr. S. C. Johnson's catalogue before purchasing.

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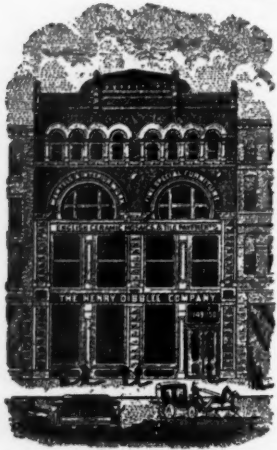
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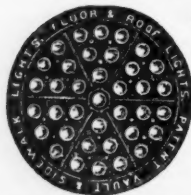
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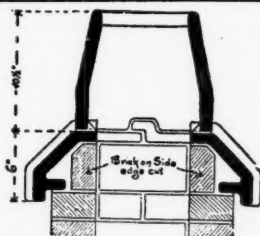
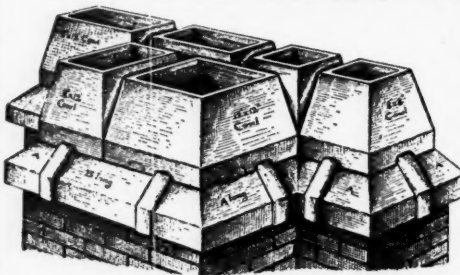
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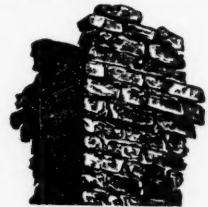
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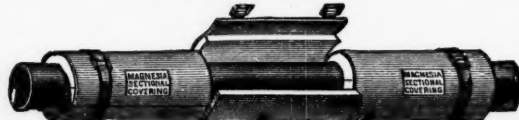
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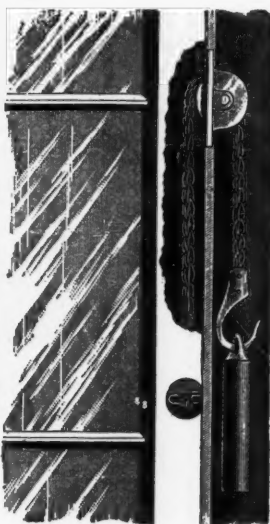
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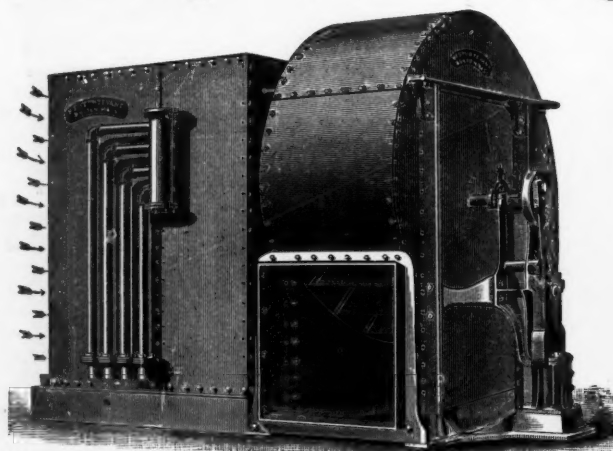
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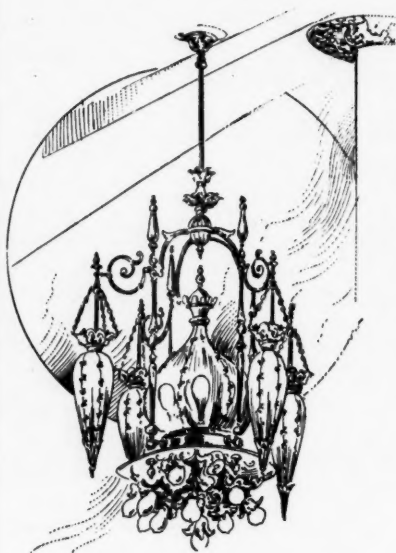
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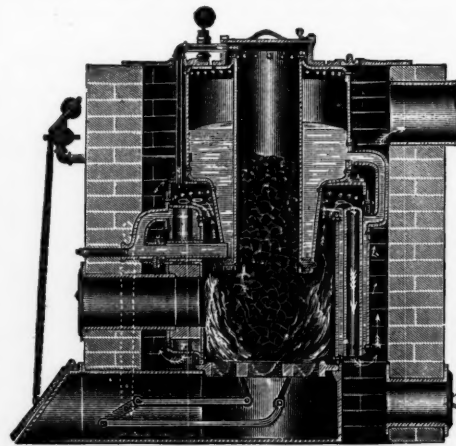
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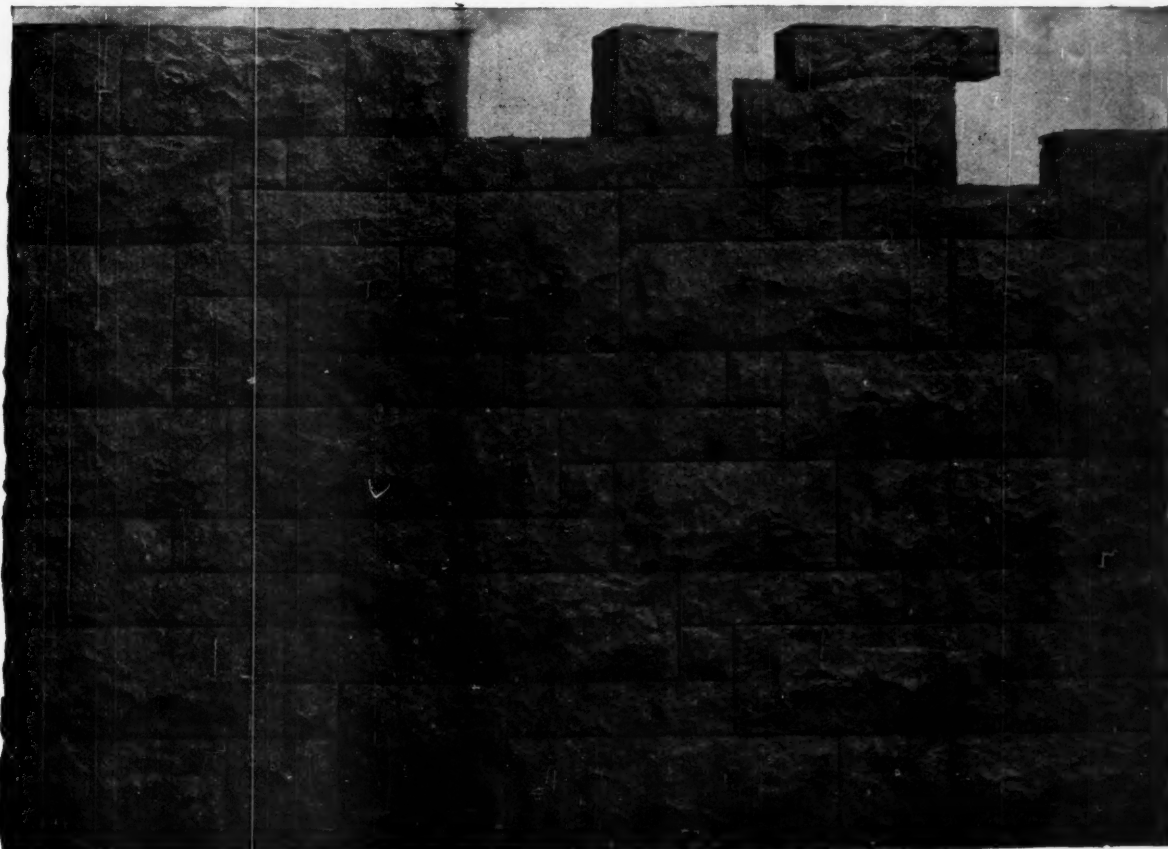
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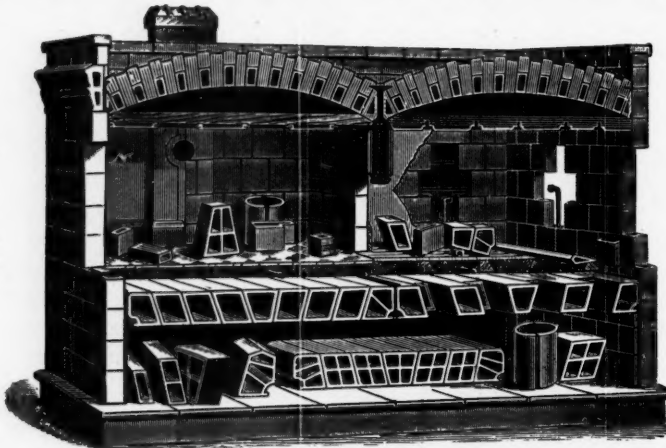
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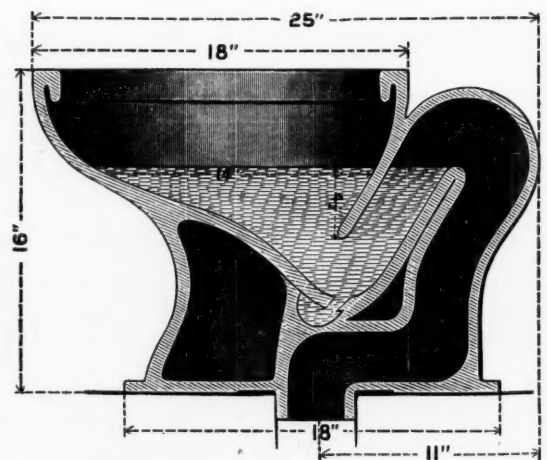
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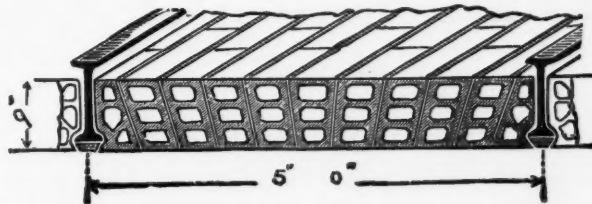
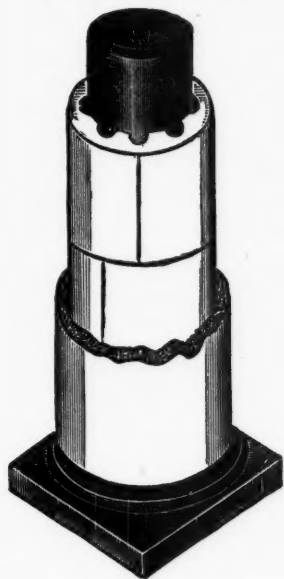
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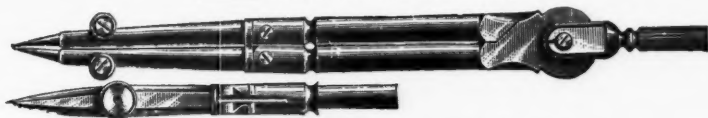
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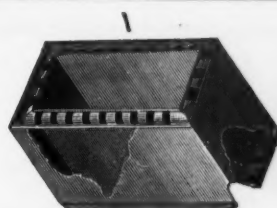
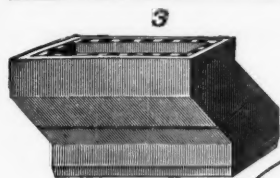
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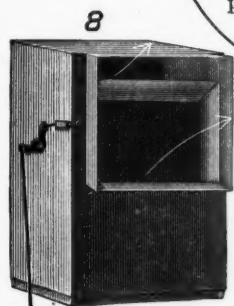
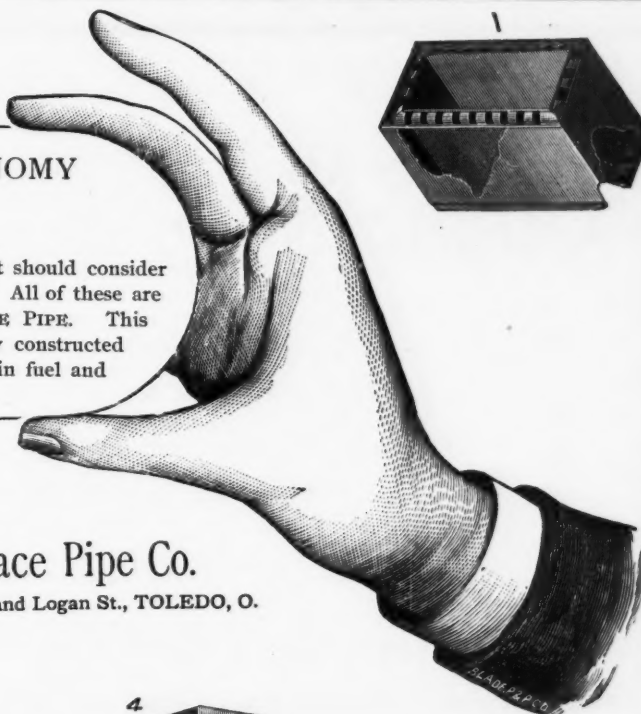
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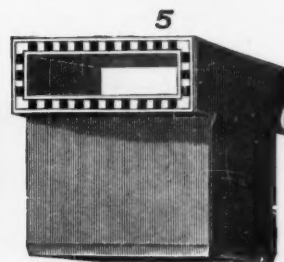
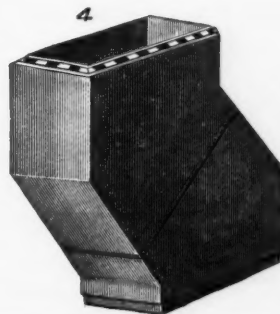
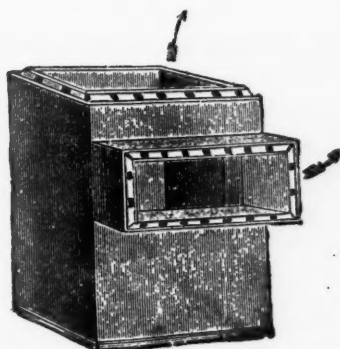
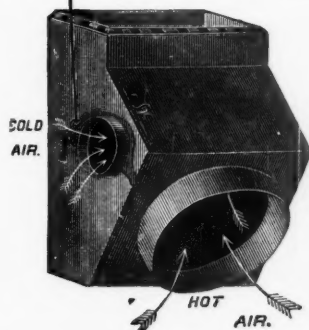
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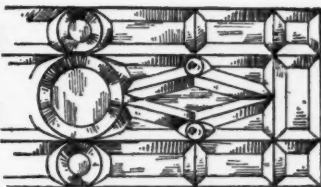
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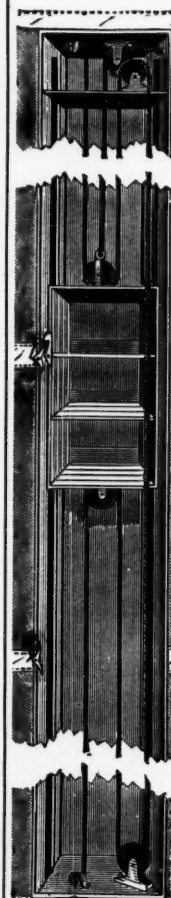
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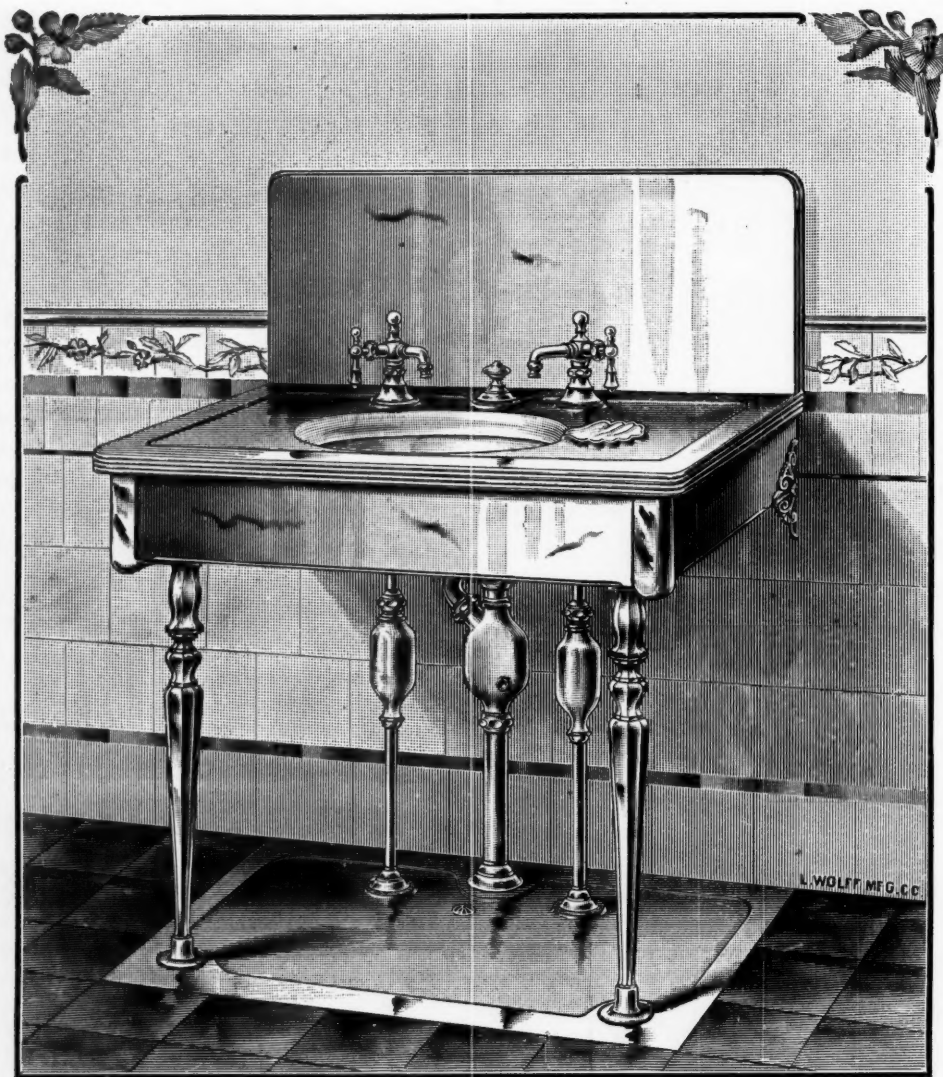
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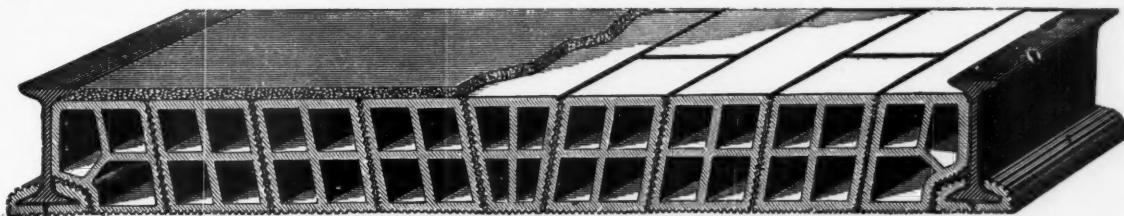
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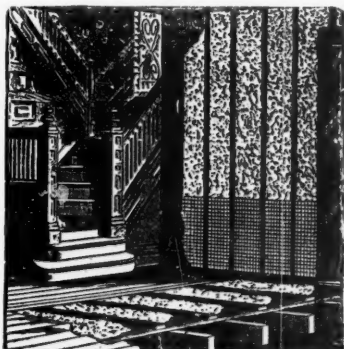
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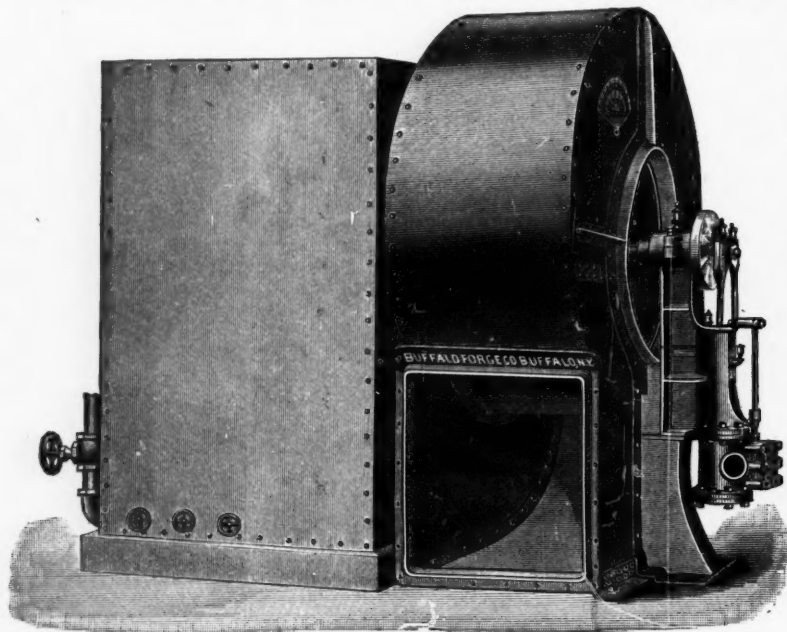
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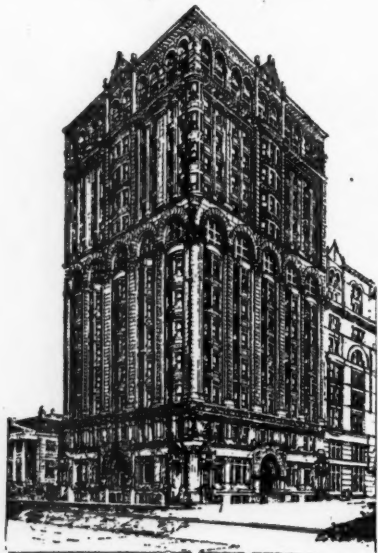
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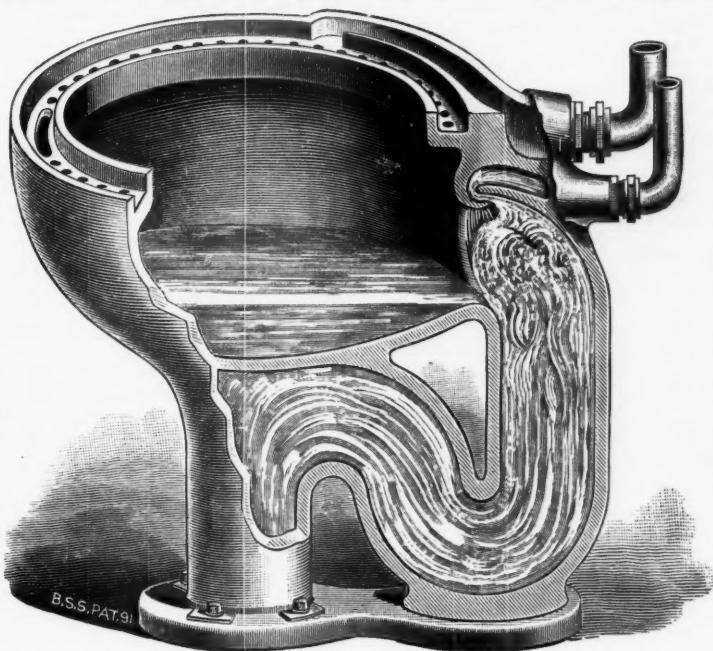
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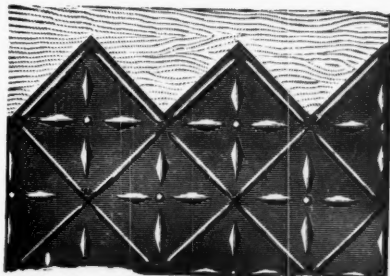
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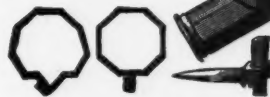
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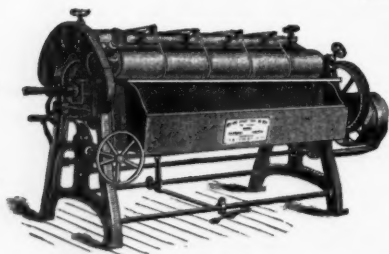
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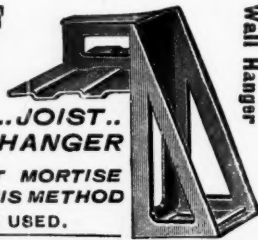
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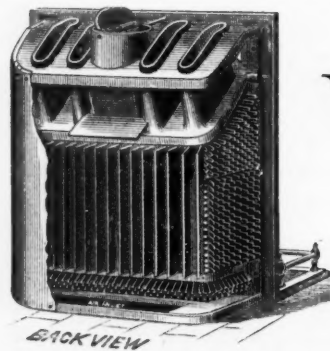
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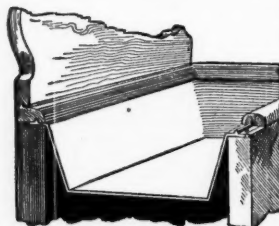
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It is supplied, ready for use, in rolls of 200 square feet, and weighs, with Asbestos Roof Coating, ready for shipment, about 85 pounds to 100 square feet.

It is adapted for steep or flat roofs in all climates, and can be readily applied by unskilled workmen.

There are inferior imitations of our Asbestos Roofing; purchasers are cautioned.

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Chief Engineer's Office, Grand Central Depot.

JOHN D. FOUQUET, Architect.

NEW YORK, February 25, 1889.

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Yours very truly,

(Signed) JOHN D. FOUQUET, Architect.

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JOHN D. FOUQUET, Architect.

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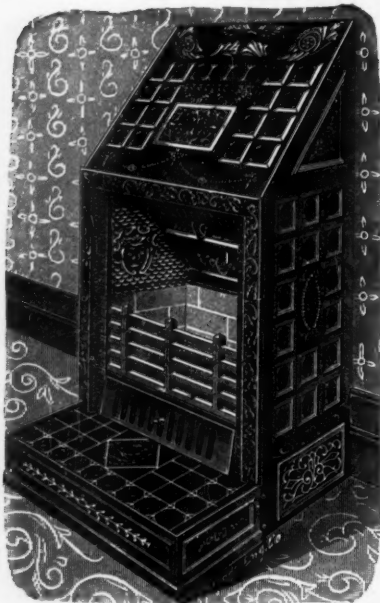
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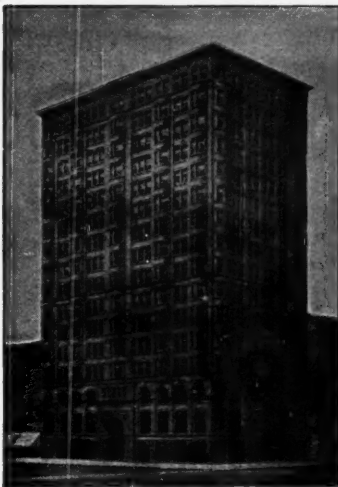
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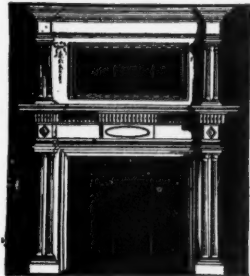
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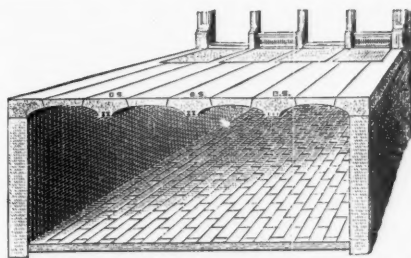
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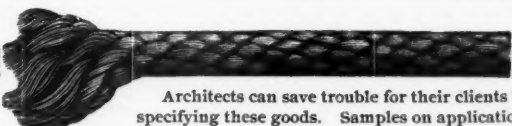
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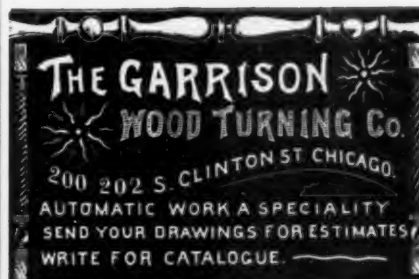
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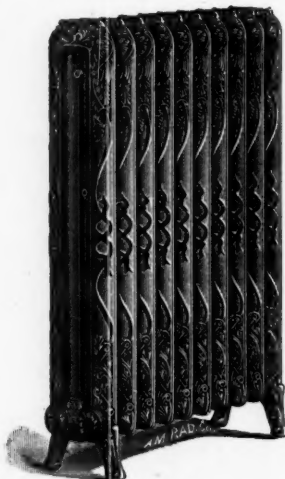


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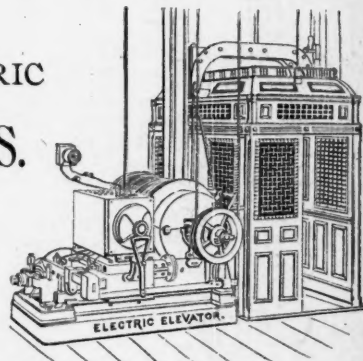
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