THE AMERICAN ARCHITECT

VOL. CX WEDNESDAY, NOVEMBER 1, 1916 NUMBER 2132

SPANISH TOWERS

By MORTIMER E. FREEHOF, *Illustrated by Sketches by the Author.*

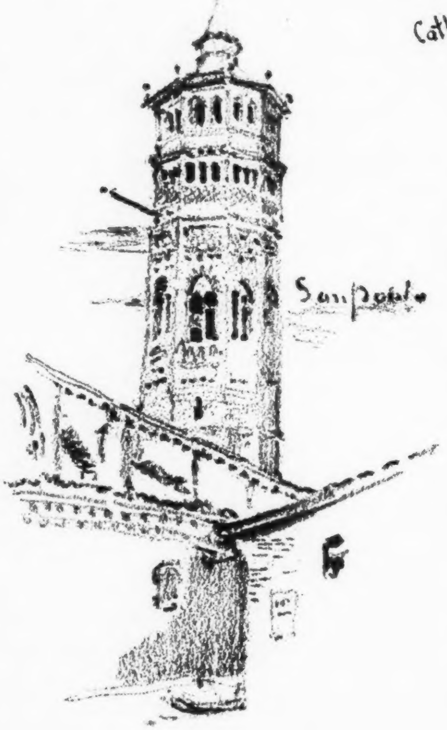
ART and science have ever looked backward for the foundation of their advancement. The artist takes as his model nature, the only perfect precedent; the man of medicine or law learns from the experiences of those who have gone before, and the architect, too, seeks his inspiration in examples nearest to perfection as gaged by man. This state is perhaps identified with ancient Greece, and the orders of architecture have come down from the classic ages, through the Renaissance, to the present day. Columns always form a good motif and, if well designed, are safe from criticism. The work of the architect, however, unlike that of the lawyer or physician, is esthetic and, as such, its success should be measured not only by its fitness, but by versatility. The layman's mental conception of a museum is a portico and peristyle; of a courtyard, a Florentine arcade; of a railroad terminal, anything big, with columns.

Aside from the Gothic, Palladian architecture, Wren's style and the Colonial have been used with varied success for small towers. This feature is an important one, and opens an interesting and comparatively unexplored field as a source of inspiration, in the towers of Old Spain.

By far the most interesting examples are to be found in the south, though the quaint, sun-baked churches of some of the little northern towns offer several good suggestions. They are invariably of brick, simple in design, and most charming when savoring, as most of them do, of the Moresque. It has been generally recognized that the Arab influence on modern work has its limitations, and is at best inclined to be theatrical and unsuited to American conditions and taste. However, these towers are unpretentious, and refuse to be dream architecture, even when transplanted, provided one take his suggestions intelligently. The possibilities of these types are well exemplified in the tower of Madison Square Garden, in New York City, which is surely in harmony with its surroundings. Its prototype, the Giralda Tower of Seville, is the largest and most admirable of all. With its wonderful coloring, intricate Moorish

arches and brick patterns, though capped by a Renaissance motif, it is Eastern-looking, indeed, yet Mr. White succeeded in supplanting this feeling with a more modern one, keeping the spirit of the whole, withal.

Not here, however, but rather among the more numerous smaller types, should we seek our inspiration. Such examples we find in Saragossa, Toledo, Granada and Valencia. In these are portrayed the splendid sympathetic feeling and texture of brickwork. The bricks are long and much more rugged than our own, and with their wide mortar joints give a wonderful play of light and shade, of a depth and with a character seldom if ever attained in modern work. The treatment is varied by the introduction of diaper patterns, corbels, and string courses of projecting bricks, seldom molded, giving different relative values. In a few cases colored tiles have been used between corbels, offsetting any possible monotony, or too deep shadows. Still another interesting feature is obtained by the holes left by the wooden scaffolding. These often extend over the full height of the tower, and are scattered in a manner giving a most pleasing effect. It is true that that these things make for the picturesque, and are due to



the help of time and wear. It is also true that many a poorly-designed building, left to the ravages of the elements, will attain a certain charm and be set down as "romantic." However, if we revert to pre-classic examples, we shall find that dentils and modillions were originally the ends of beams, and are really a stone imitation of earlier wooden construction. Why, then, cannot we, working along similar lines, find a suggestion in this light and shade treatment of the putlog holes?

The general design of these towers conforms to the requirements of our modern work. The body offers a plain wall surface, sometimes perforated by small openings, while the crowning feature is the inevitable arched belfry. This is often in two or more stages and usually follows the plan of the body, square or polygonal. The arches are either semi-circular or horseshoe, though occasionally pointed, and the bells hang directly in them, with their pivot supports acting as tie rods for the openings. The roof is sometimes a plain, low-lying, hipped affair of once-red tile, but is often molded fantastically in bulbous or pyramid shapes, and the metal cross, or weather vane, gives something of the same finesse so characteristic of the French.

The simplicity of these towers is their strength. We often contemplate the perfectly plain vault of a cathedral, with the exception of the structural ribs, bare of all ornament or decoration. Not until we analyze it, however, is its simplicity apparent, nor do we feel that the color and stone jointing alone give at once expression and decoration. In like manner the frankness of the wall space of the Spanish tower gives a true decorative composition, with dull red or buff color, and the contrasting wide raked joints as motifs.

Obviously, this simplicity has also its practical advantages. One of the most rigid of limitations set by present conditions, and particularly in churches of small congregations, is economy. The adoption of a design of this type enables one to arrive at a very pleasing result with little expense. It has been mentioned that the brick corbels, string courses and projecting diaper patterns are seldom molded, thus showing the possibilities of the unadulterated material, and minimizing costs. Then, too, these brick courses need little supplementary relief by the introduction of stone. The usual stone superstructure, which often forms the belfry of our modern work, gives way to a brick finish, with some Moorish brick patterns which can be made intricate enough to suit the taste of any exponent of things decorative.

OLD CHURCH, SARAGOSSA

We have never favored any radical movement, suggestive of the art nouveau; it has always been the forte of the American architect to recognize the best in a style and employ it in the most effective way.

THE EVOLUTION OF THE PRISON PLAN—PART II

By REXFORD NEWCOMB, B. S., M. A.,

University of Southern California

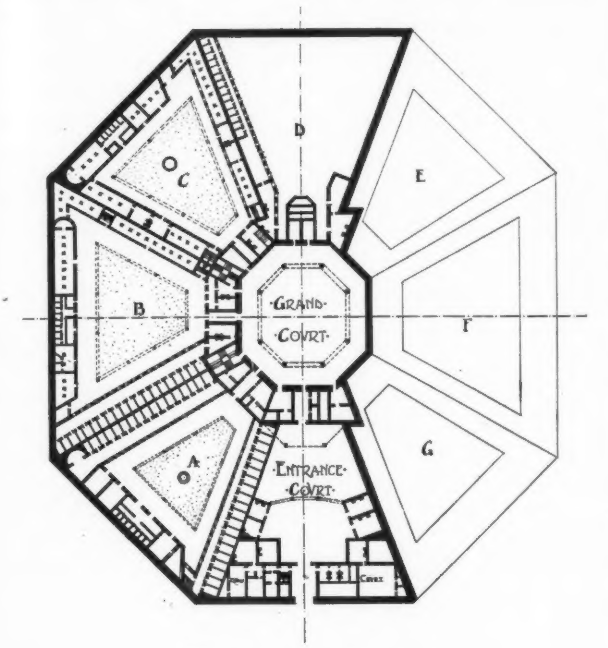
IN THE previous article we have noticed the beginnings of the classification and cellular confinement of prisoners. The Prison of Ghent was the first great prison historically in which these principles were worked out to anything like an architectural ensemble that was at all satisfactory. It was built by Vilain XII, Burgomaster of Ghent, in 1773. In this prison the mode of cellular grouping was the system used later at Auburn, that of placing the cells in the center, back to back with the corridors next the outer walls. This was just the opposite of the arrangement used at Saint Michael. This is perhaps the earliest example of this arrangement. Here also another element of composition was introduced, namely, the arrangement of the cell houses in such a way as to make them enclosures about the various department courts. The building was octagonal in plan with trapezoidal courts between the cell houses, which radiated from a central court like the spokes of a wheel. The central court, which was octagonal in plan, was called the grand court. The other courts were named as follows: Entrance court, criminals' court, beggars' court, women's court, court of the pursemakers, and laborers' court. Other courts were projected as will be seen in the plan given in Fig. 3.

This gives an idea of the departments considered necessary in a well ordered prison of the time. It is noteworthy that although the cellular arrangement used in this prison was used later at Auburn, the general arrangement about a central point with cell houses radiating therefrom was subsequently used at the Eastern Penitentiary of Pennsylvania at Philadelphia (Fig. 6). Thus the two distinguishing features of the prison plans that later became the bone of contention between their respective advocates came from the same prison in the beginning.

Another architectural solution of a similar nature was Jeremy Bentham's dream prison known as the "Panopticon" or inspection house, which was brought forth in 1787 as a solution of the prison problem in England. The design seems to have been originated by Jeremy and his brother, who, as an architect, had prepared plans for a Russian prison, which likewise was never built. The building was in reality a large circular

FIG. 8—NEW YORK'S FIRST STATE PRISON, KNOWN AS NEWGATE PRISON

(From an old print)



·PRISON·OF·GHENT·

·A·CRIMINALS·COURT· C·WOMENS·COURT·
·B·BEGGARS· " D·LABOR· " ·
·E·F·G·PROJECTED·ADDITIONAL·COURTS·

·FIG 3·

structure with a glass roof and cells situated in tiers around the outside wall and facing the center in such a way that the supervisor, located at the center, could at all times have a complete survey of the interior of the cells. It failed of adoption as a scheme in England, France, Ireland and the United States. Its greatest objections are due, perhaps, to the fact that it is based on solitary, perpetual confinement and that it was expensive to build, although inexpensive to guard. In spite of its defects it had some merits, when once granted the theory of solitary confinement as a basis. This idea at that time had little or no following, although to-day it is the system used at the new short-term prison at Fresnes, near Paris. Fig. 6 shows a sketch of the half plan of the Panopticon, while Figs. 4 and 5 give an idea of the elevation and section. It is interesting to know that the proposed plan of the new Illinois Penitentiary at Joliet has cell houses that are almost identical with the Panopticon in arrangement. Figs. 18 and 19.

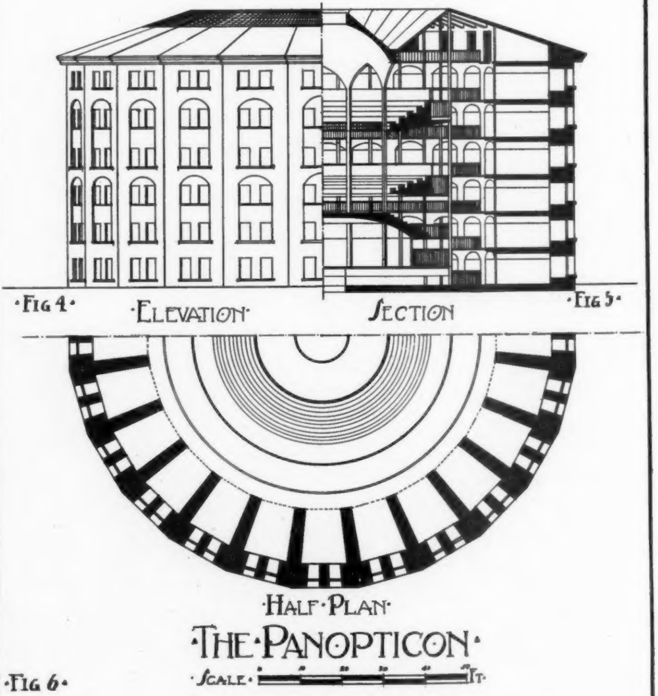
Wines draws an interesting comparison between the two systems of prison layout of the time—the circular and the radiating. He says, "When the idea of the penitentiary system dawned upon the world, there were no precedents by which to be directed in its development. In the matter of architectural construction, the friends of an improved prison discipline were divided between the 'circular' and the 'radiating' plans. The Panopticon was strictly circular; the Eastern Penitentiary was stellar. Between the two were the Prison of Ghent, built before either of them, and Millbank (Fig. 7), built after them both. Ghent was an octagon with eight surrounding triangles, Millbank was a hexagon with six surrounding pentagons. The arrangement of cells at Ghent was predominantly radiating, at Millbank it was predominantly circular in principle, though not circular in form —each of the pentagons was, so to speak, a modified circle, that is, in the words of Mr. Holford, the prison was so built as to enclose its courtyards within its perimeter. In fact, the radiating system of construction is still highly esteemed, after trial: the circular plan has been abandoned."

Hence we see that within a few years after prison science became a serious study with prison officials, prison plans were evolved, some good, some poor. These terms are used in a relative sense. It must be remembered that the form of penal treatment must always, of necessity, establish the basis for the architectural design and, judged upon a given basis, a design may be poor, while for another system it would be admirably adapted. It is interesting here to point out that most of the American prisons are not either circular or radiating exclusively.

Before turning to a discussion of the development of the prison system and its attendant architecture in America, it will be necessary to note the progress made in England, notably through the efforts of Howard, because the reform movement antedated the same movement in America a number of years, although it was left for America to build some of the best early prisons constructed.

John Howard was born in 1726, the son of a merchant, who early retired although he was not wealthy. Howard himself was poorly educated and his interest in prisons dates from a short imprisonment which he underwent at Brest, as a result of the capture of the vessel in which he sailed by a privateer. He was made Sheriff of Bedford Jail when he returned to England and was from then on an untiring worker for prison reform. Howard describes the jails of the time as "for the most part pestiferous dens, overcrowded, dark, foully dirty, not only illy ventilated but deprived altogether of fresh air. Inmates depend for food upon charity or the caprice of the jailer,—water is given them only in the scantiest portions—bedding putrid straw,—all in irons." In Howard's time, prisons were places of detention for people innocent in the eyes of the law, as all proven criminals were transported to America or Australia. Howard traveled all over Europe studying prison systems and wrote a book on "The State of Prisons." For many years he fought for better prisons and up to the time of his death was a constant student of prison conditions on the Continent as well as in England. In fact, he died on his sixth tour of European prisons at a town called Cherson, in Russia. He made attacks not only upon the physical appointments, but also upon the methods of management. He stated that, on account of lack of ventilation, clean water, and sunshine, malignant typhus, commonly called jail fever, was propagated, and he estimated that more persons had died of jail fever in England than had ever been executed for crime. Due to his efforts and those of Bentham, Parliament finally built, in 1813, Millbank Prison, which has been mentioned. It was considered a model in its day and cost over half a million dollars. Reformation was to be brought about by "employment and religious instruction." But for many years prisons outside of Millbank were unimproved.

In 1818, Sir T. F. Buxton describes

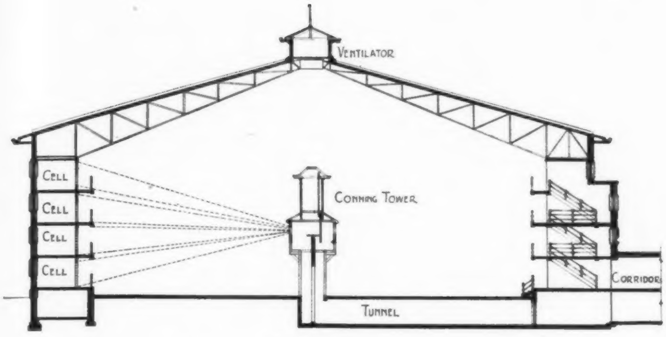


·Fig 4· ·Elevation· ·Section· ·Fig 5·

·Half·Plan·

·The·Panopticon·

·Fig 6·



·Fig 18· ·Section·

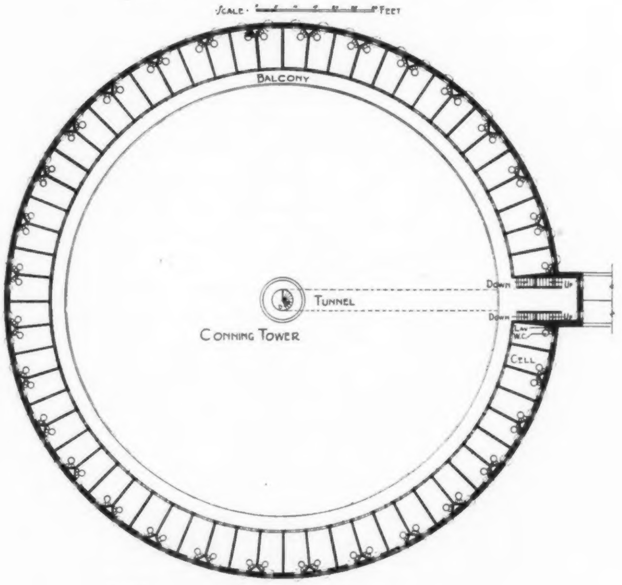


Fig 19· ·Floor·Plan·

CELL-HOUSE DETAILS—ILLINOIS STATE PENITENTIARY

MR. W. CARBYS ZIMMERMAN, *ARCHITECT*

conditions as almost unbelievable. It is said that Millbank was palatial compared with Newgate, situated in the same city. Little by little acts were passed and conditions were improved. The Act of 1823-24 forbade irons "except in cases of absolute and urgent necessity." Every prisoner was to have a bed and, if possible, a cell by himself. The jailers in many cases disobeyed the rules and in 1831 the House of Commons ordered an investigation and as a result Mr. W. Crawford was sent to America to study American prisons. About this same time the French government sent J. A. Beaumont and A. de Tocqueville to inspect American prisons. All these men spoke in high terms of American methods. America had then been working to solve the problem. From this time on it will be necessary to look at the development of American prisons, which, in many respects, are to-day considered the models of the world. The early prisons in America were as wretched as we will care to own. The first prison of Connecticut colony was an abandoned mine at Simsbury.* It was used from 1773 to 1827 and the prisoners were confined in pens some 70 feet below the surface of the ground and were subjected to the severest sort of discipline. It was known as "Newgate," probably named for the more famous English prison. Congress at one time applied for use (1781) of this place as a military prison, but fortunately the war closed before any of the unfortunate prisoners could be confined there. As late as 1828, the cells of the Maine state prison were pits entered by a ladder through an iron gate at the top. The jails of the time were quite as wretched and would not be tolerated at all to-day. With the signing of the Paris Treaty and the return of the country to a more peaceful state, the attention of the people was drawn to the reform of penal codes. A wave of reform was sweeping over the whole world, due to the reports of Howard and the work of Beccaria, to say nothing of the writings of Blackstone. In this country, the champions of the cause were Benjamin Franklin and Benjamin Rush, both of Pennsylvania, a state whose colonial laws had been based upon the ideals of William Penn, who held that the reformation of

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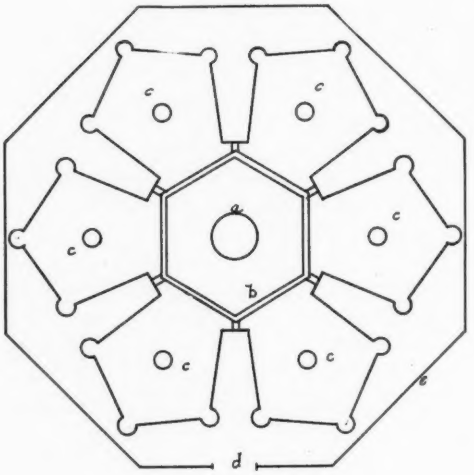
* Henderson, "Penal and Reformatory Institutions."



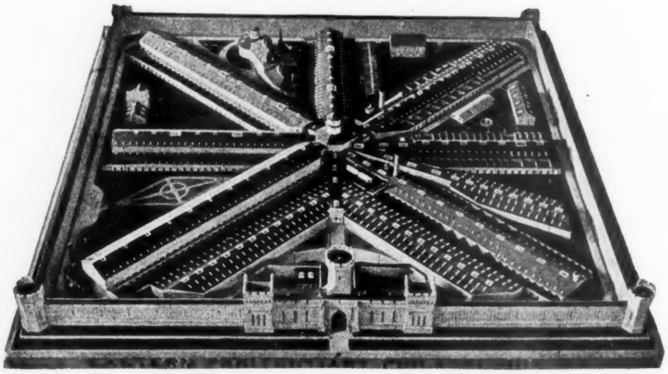
·BLOCK·PLAN·MILLBANK·PRISON·

a·Chapel· c·Cell Courts·
b·Hexagon· d·Entrance·
·FIG·7· e·Walls·of·Inclosure·

the criminal was more important than his punishment. Reforms in penal codes in many places made a substitution of the life term for the death penalty and consequently it was necessary to build better places of detention. Pettigrove says,* "At the time of the Revolution, Pennsylvania had eighteen crimes punishable by death, but before the close of the eighteenth century the penalty was abolished for every crime but murder in the first degree. Similar changes of a greater or less extent were made in the penal laws of other states."

The first attempt at the classification of American prisoners was made at Philadelphia in 1790, with the erection of a prison containing rooms where the prisoners were segregated by small groups, but not solitary. The sanitary arrangements were, of course, bad and the prison, although a great improvement, was never satisfactory.

New York was second of the American states to take up the revision of penal codes and the building of prisons. A bill was passed in 1796 providing for the erection of two prisons, one at Albany and one at New York City. The idea of a building at Albany was soon abandoned, however, and the whole appropriation applied on the building at New York. Pettigrove describes the building as follows:* "The site of the prison was on the bank of the Hudson River about two miles from the City Hall. The building fronted on Greenwich Street about 200 feet; from each end of this building a wing extended toward the river and from that two smaller wings were projected. The walls were made of freestone and the style of architecture was the Doric. There were 54 rooms for prisoners, each designed for the accommodation of eight persons. The establishment contained a chapel with galleries and there were suitable apartments provided for the keepers. One of the wings was assigned to the imprisonment of women and this had an entirely separate courtyard. The buildings and courts covered about 4 acres of ground and the lot was surrounded by a stone wall 23 feet high on the river side and 14 feet on the front. This prison was known as Newgate (Fig. 8) and was



PHOTOGRAPH OF MODEL
EASTERN PENNSYLVANIA PENITENTIARY

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* Henderson, "Penal and Reformatory Institutions."

* Henderson, "Penal and Reformatory Institutions."

(*Continued on page* 281)

CHURCH OF THE QUEEN OF THE MOST HOLY ROSARY, BRIDGEHAMPTON, L. I., N. Y.

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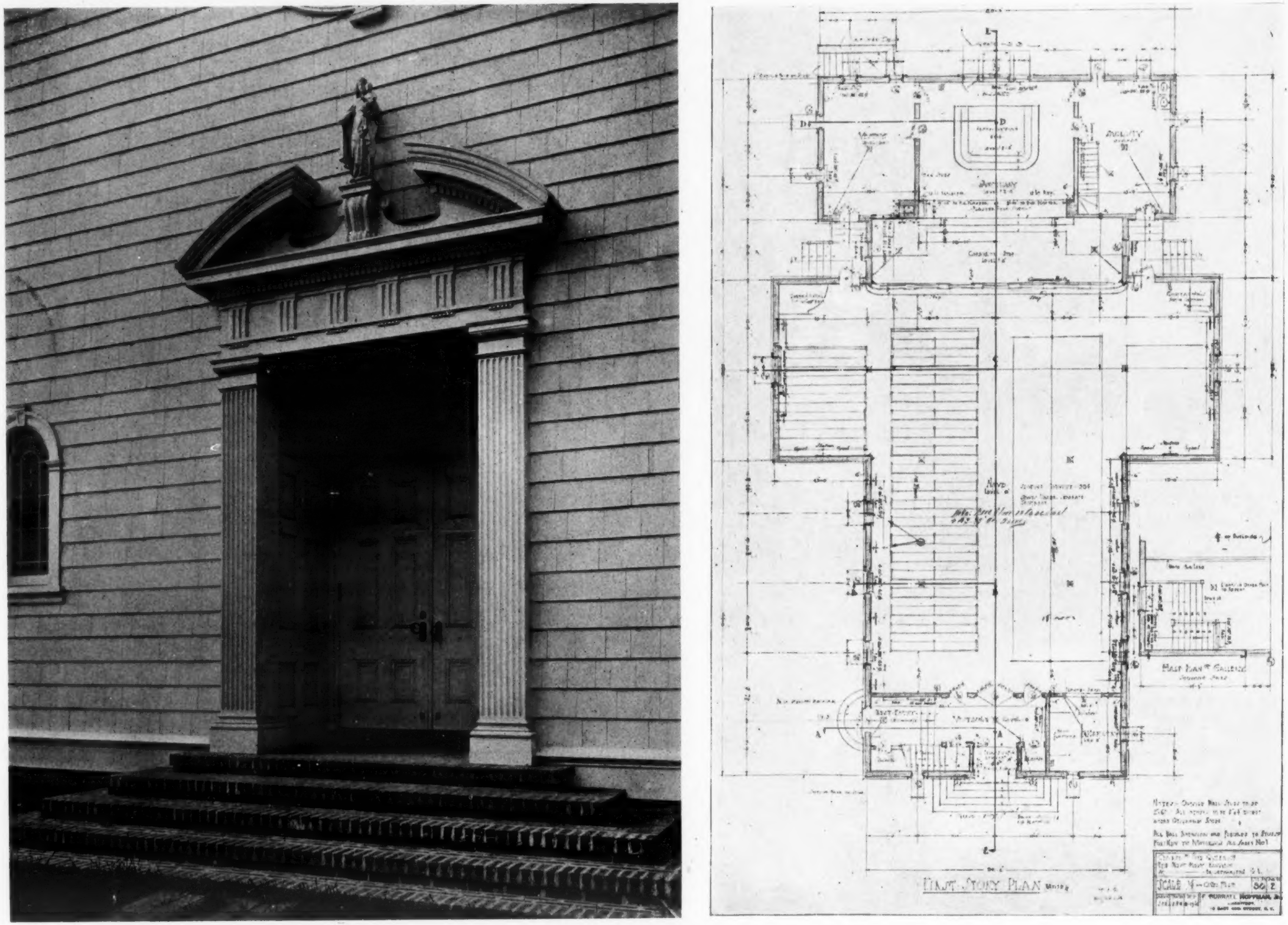

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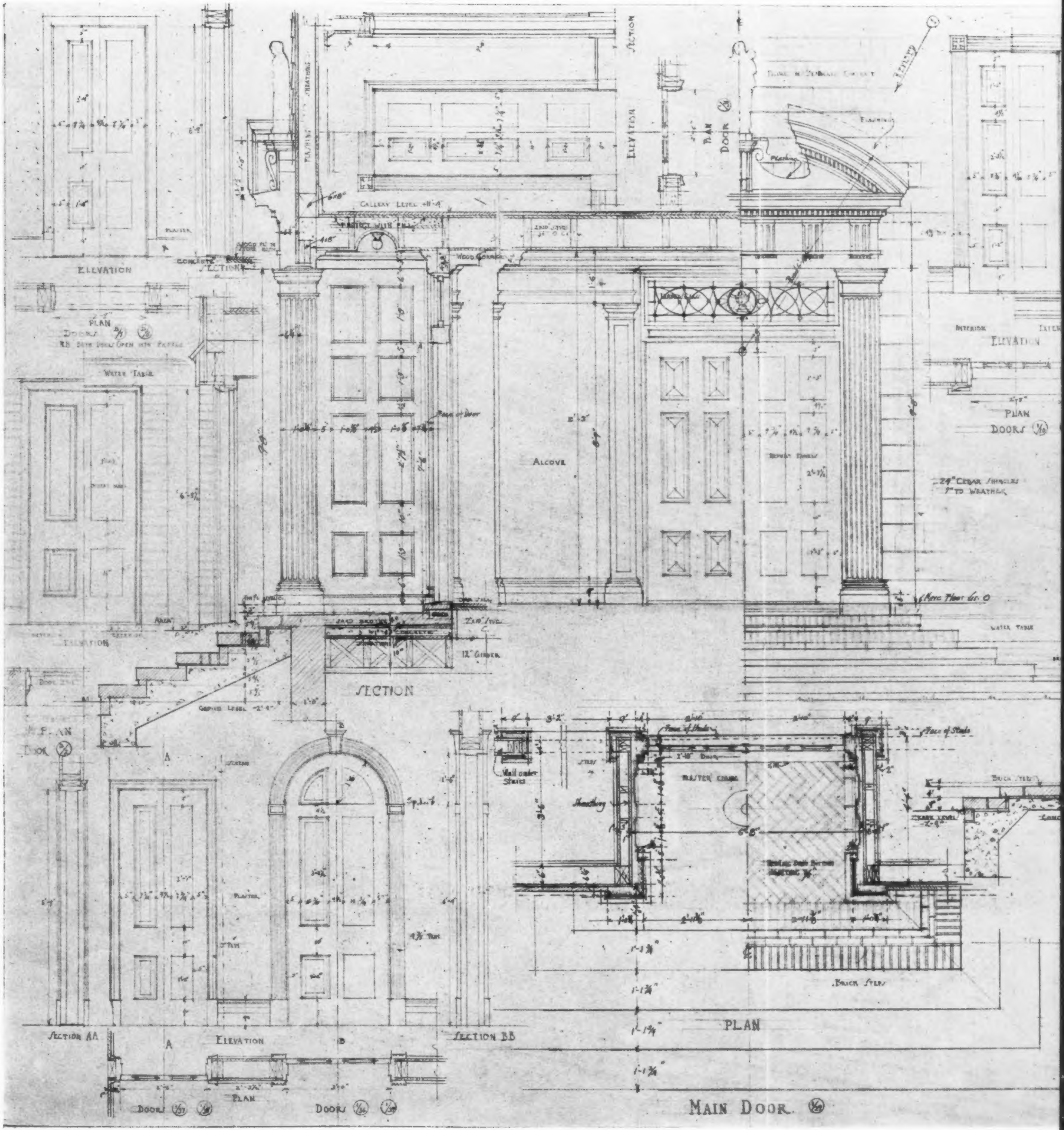

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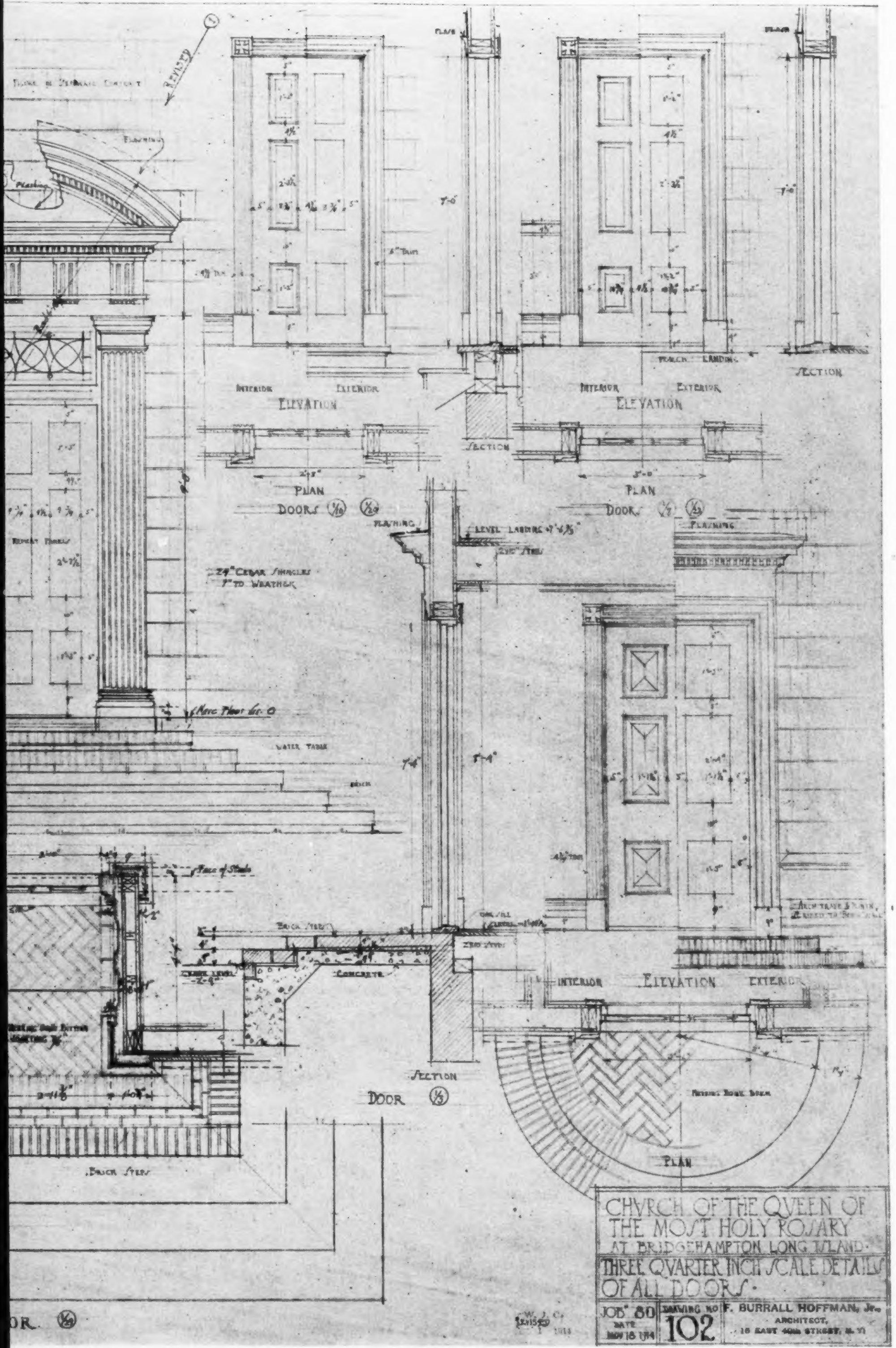

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THE AMERICAN ARCHITECT

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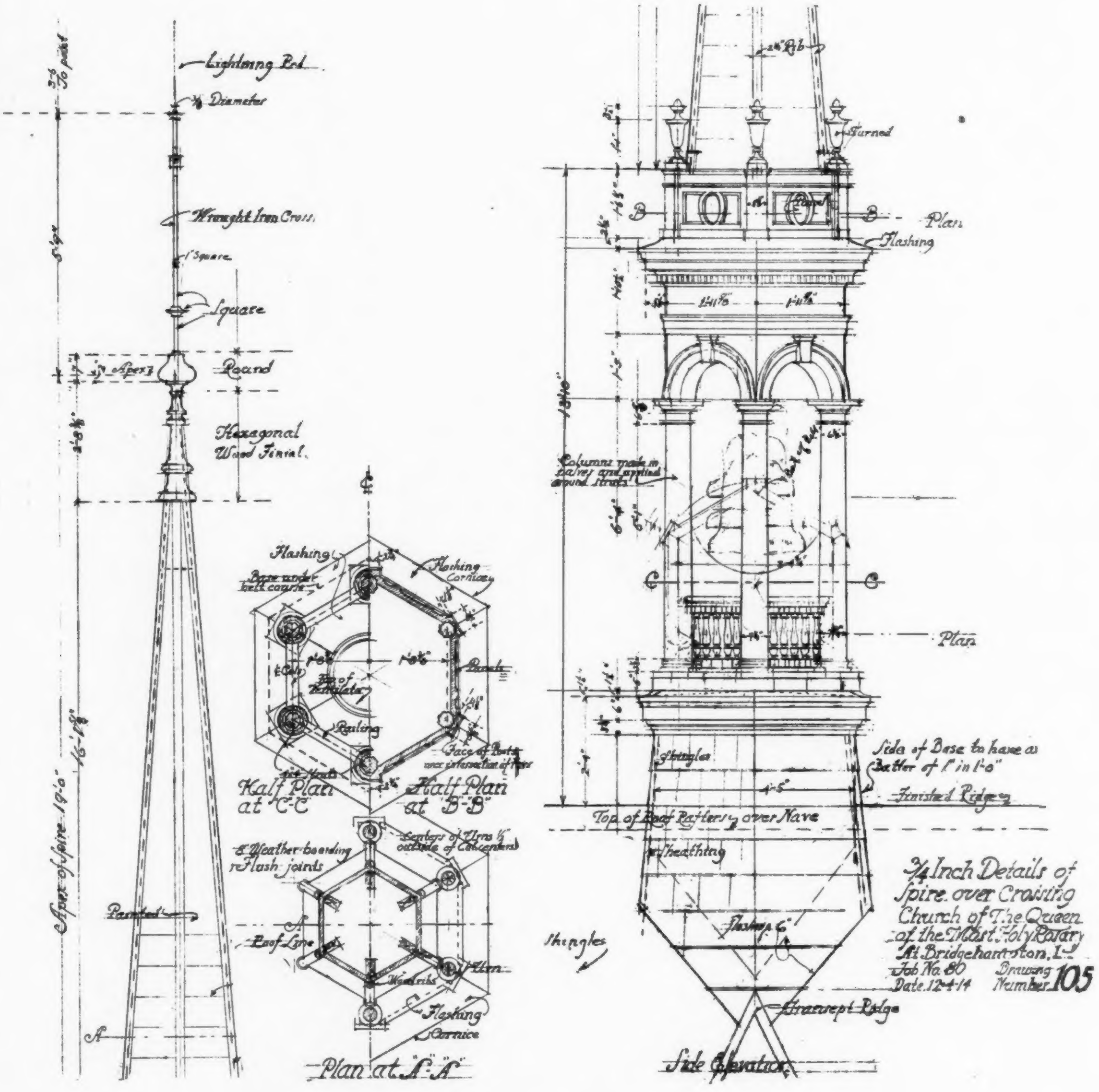

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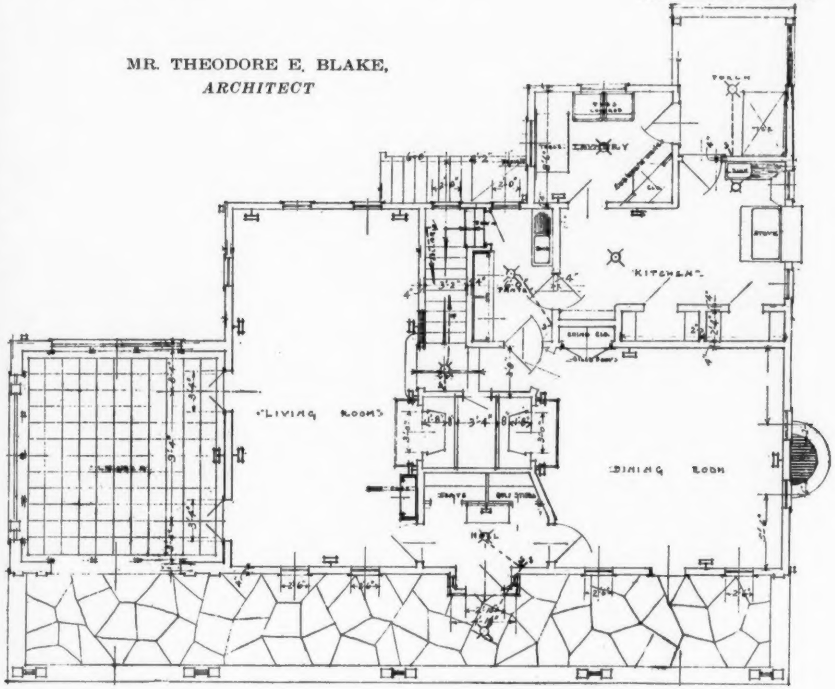

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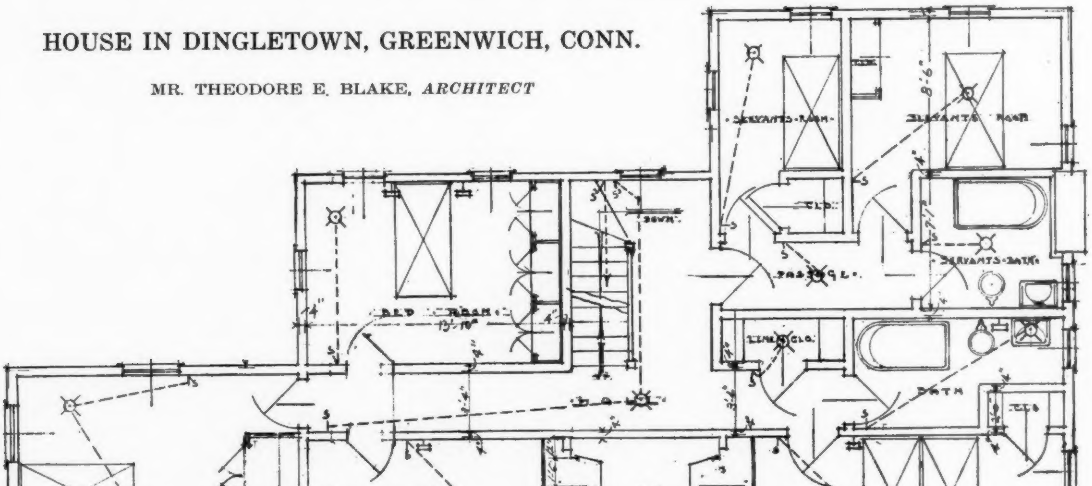

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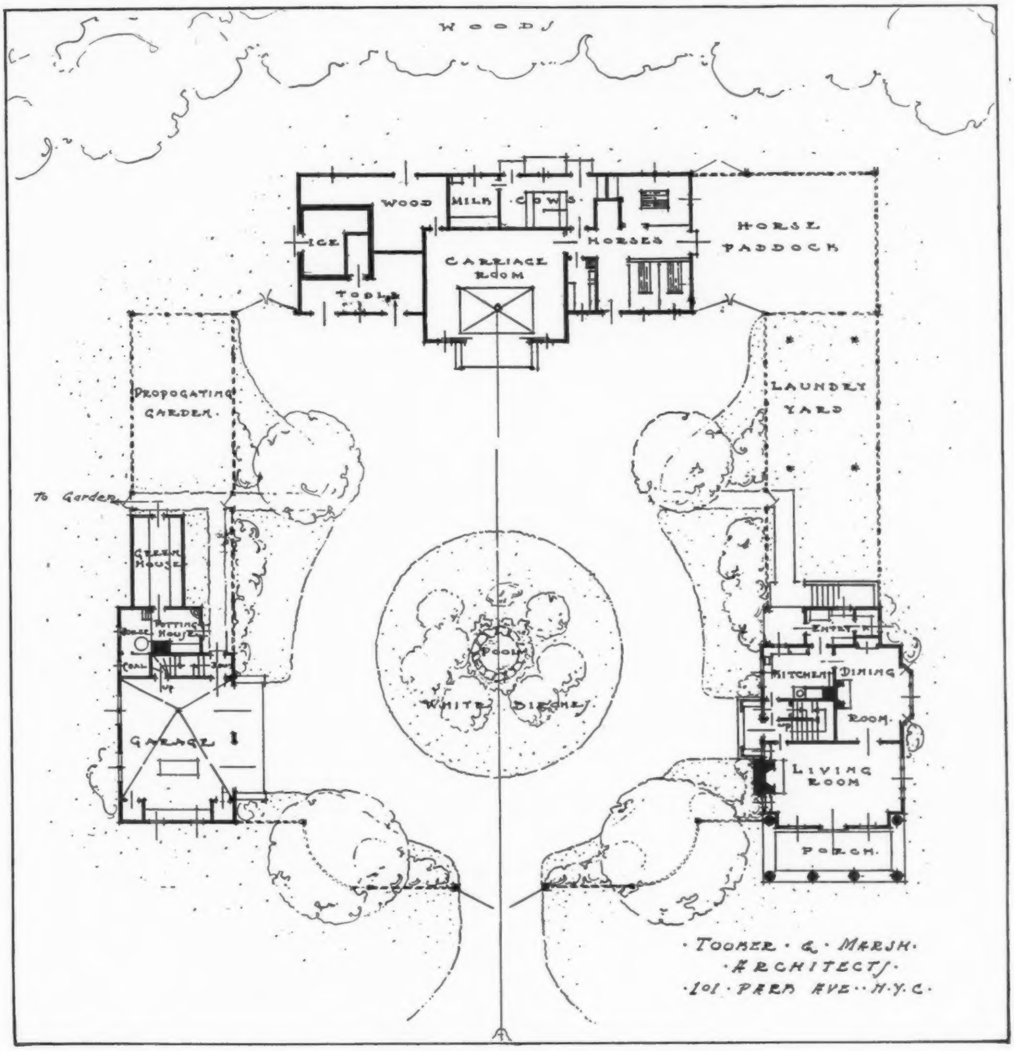

PLOT PLAN

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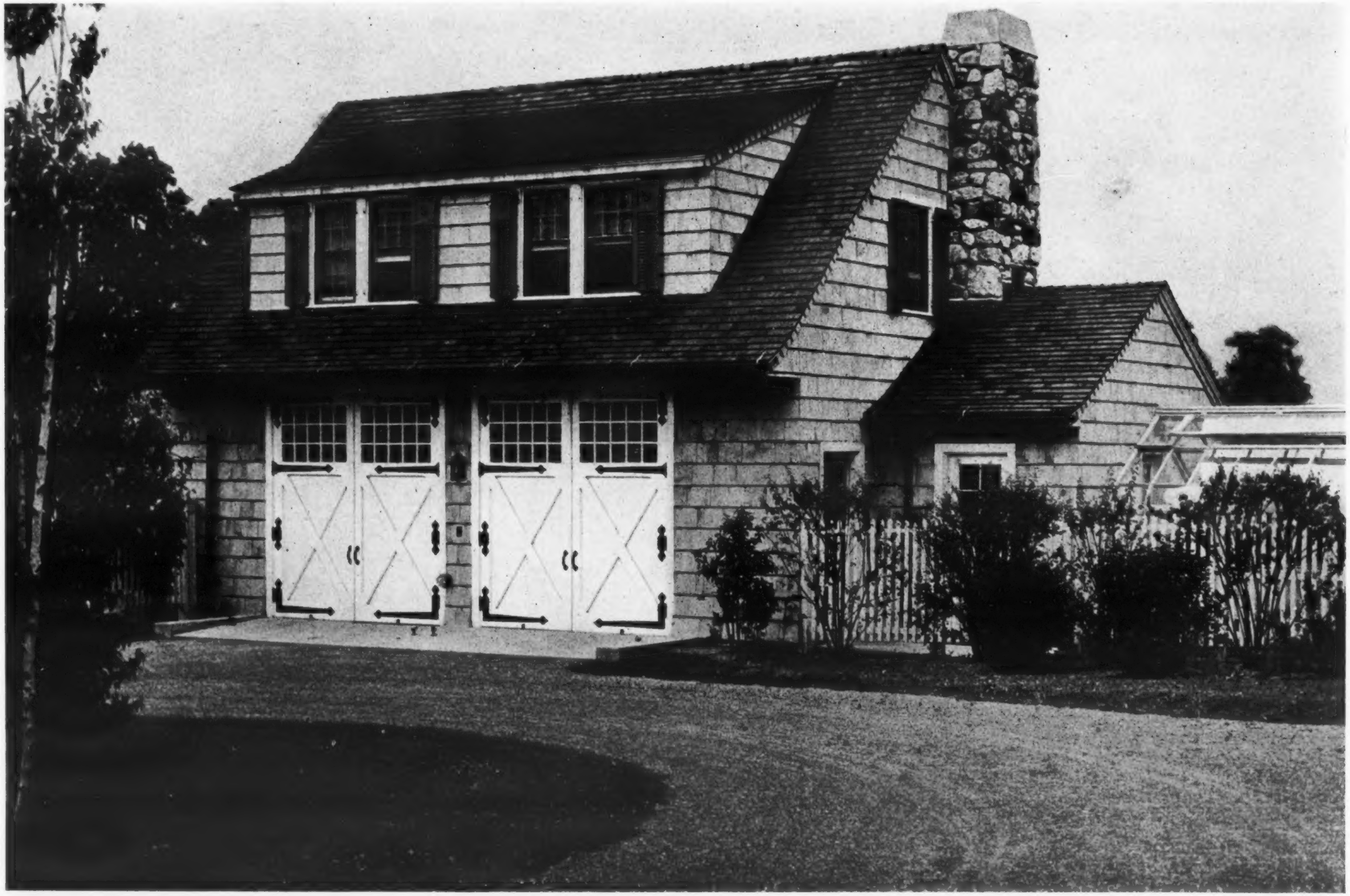

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LIVING ROOM

DINING ROOM

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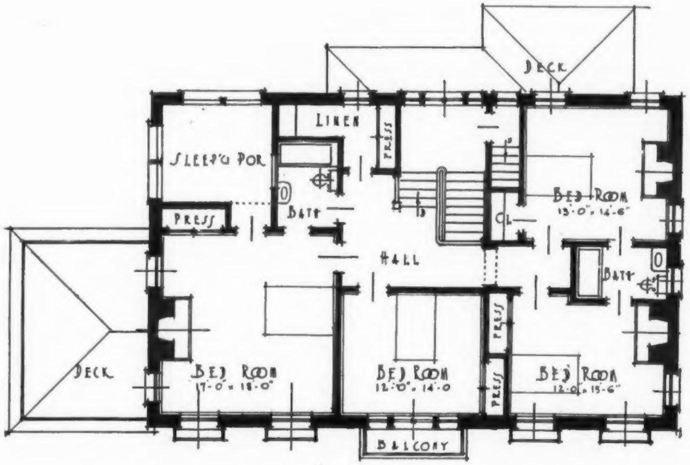

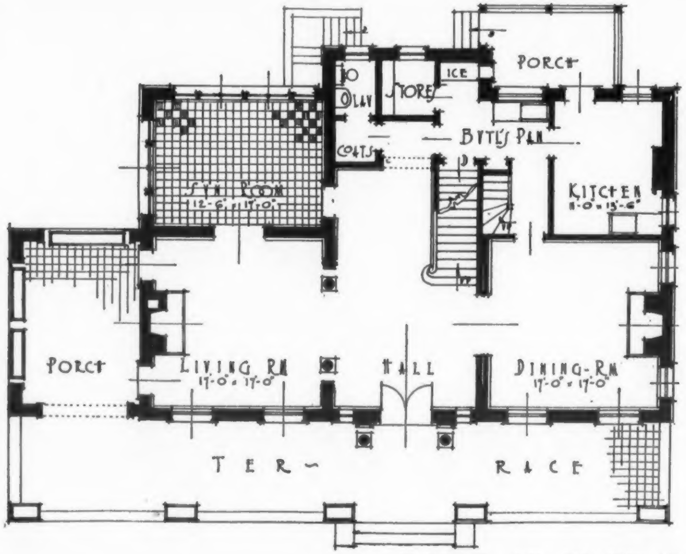

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THE AMERICAN ARCHITECT
Founded 1876
PUBLISHED EVERY WEDNESDAY BY
THE AMERICAN ARCHITECT (INC.)
No. 50 Union Square, New York
(Fourth Avenue and 17th Street)
G. E. SLY, PRESIDENT
E. J. ROSENCRANS, SECRETARY AND TREASURER

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SINGLE COPIES (Regular Issues), 25 CENTS

CHICAGO OFFICE, *Insurance Exchange*
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Entered at the Post-office, New York, as Second-class Matter

VOL. CX NOVEMBER 1, 1916 No. 2132

MISUNDERSTANDINGS OFTEN A RESULT OF ABSENCE OF WRITTEN CONTRACT BETWEEN ARCHITECT AND OWNER

WHILE it is difficult to understand, the fact remains that many an architect, who insists upon the strictest business methods being employed in the protection of an owner's property and interests, will proceed to spend his own time and money to the extent of thousands of dollars on his client's account, without so much as a written word to show the basis upon which his service is rendered. The desirability of executing a definite contract is undoubtedly appreciated by the majority of architects, and the only explanation that seems to in any measure account for the situation is the danger that an architect instinctively feels in approaching an owner on this subject at the time when he is in a sense offering his confidence. There is no doubt but that the suggestion of a contract being desirable at such a juncture is a matter that must be handled with the greatest delicacy. It should be remembered, however, that the average owner would not ordinarily consider for a moment entering into business relations involving the expenditure by him of any material sum of money without executing a contract designed to cover the transaction in the minutest detail, and his failure to demand one with his architect may be considered to be due in some degree to his experience with other professional men. He would scarcely demand a contract with his doctor, and he fails perhaps to appreciate the different conditions governing his employment of an architect.

There are other possible reasons for this absence of contracts between architects and owners that have been more than hinted at in various discussions of this subject. One is contained in the charge that when presented these contracts frequently contain inequitable provisions and display a tendency toward unfairness. We have heard owners complain that their architect's plan for carrying on a building operation eliminated them effectually; that the owner seemed to have no part or right in the entire transaction except to honor the certificates issued by the architect. If provisions were actually contained in a contract that deprived an owner of "the right of free speech" in connection with his own work it can readily be imagined that there might be some difficulty in securing its acceptance with the best of feeling. It is, after all, the owner's money that is being expended, and this fact renders him an important, if not a large, factor in the transaction, and it would seem that it might be possible to present an agreement that would contain those elements of reason and justice, without which no contract can succeed, and containing which it will commend itself to any right-thinking individual, provided he is made to understand the need for it.

The dangers of carrying on a commission without a written agreement are many and real, even though many practitioners report no losses on that account. One client will claim, for example, that the work done by the architect was voluntary; that it was never authorized. Another will be under the impression that the work was done contingent upon approval: while a third cheerfully maintains that, in the event of his ever proceeding with the operation he will, of course, expect to compensate the architect, but to do so in the meantime when the plans are of no use to him is out of the question and was never contemplated.

There are, as every architect is aware, a number of forms of contracts that have been proposed for use. Some of them have the approval of architects who have given the subject much thought. There are probably some objections to all of them, but the architect who does not, by one method or another, obtain definite authorization for the work he performs, and an agreement as to the price to be paid by the owner for the services rendered, that will represent a meeting of minds and a thorough understanding on the part of both parties, is risking the loss of both clients and commissions in a manner wholly unwarranted.

PRELIMINARY ESTIMATES

CONSIDERING the vast number of subjects upon which an architect's opinion is continually being asked, and the immense amount of information which he is supposed to possess and impart to his client offhand upon inquiry, it is little short of marvelous that his reputation for accuracy has not actually dwindled to the vanishing point. Among the various demands for prompt and dependable data, probably the question "How much will it cost?" is asked more frequently than any other, and upon the answer depends, to a very considerable degree, the architect's standing with his client after actual costs have replaced and cast their illuminating rays upon the "preliminary estimates."

A client frequently approaches his architect with the request that he design a building that will provide a certain number of rooms of indicated sizes and with equipment and finish that are described in the most general terms. No sooner have these brief outlines been jotted down on paper than the client demands to know how much it will cost. The architect probably applies the usual rules of thumb, figures out roughly the building's cubical contents, multiplies it by a cost per cubic foot—determined by judgment and experience with similar work—and registers his guess; it can be considered nothing else. There seems to be no way of avoiding going on record in this manner, and yet the instances in which a rough estimate, given under the conditions outlined above, have later caused dissatisfaction on the part of the owner, and some degree of embarrassment on the part of the architect, are too numerous and familiar to all members of the profession to require specific mention.

Perhaps one architect's preliminary estimates may be more accurate than another's, but they are all mere guesses and must in the nature of things remain so until actual figures based upon complete drawings and specifications can be secured. If these figures must be given—and a client will rarely go forward until he has some idea, real or fancied, of the probable cost of the work contemplated—an architect should at least fortify his position by explaining fully and in detail the character of the estimate which he has furnished, and the degree of dependence that can properly be placed upon it. Failure to do so at the time the figures are given only adds to the probability of dissatisfaction developing at a later stage of the work at which time any explanations as to the character of the preliminary estimate have little effect.

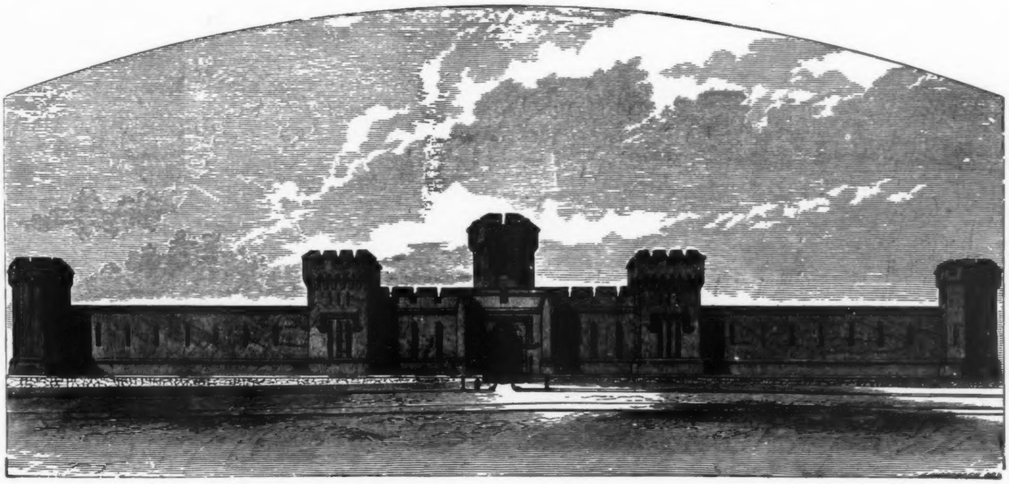
The Evolution of the Prison Plan

(*Continued from page* 278)

mentioned by that name in many old reports." This prison was occupied in 1797 and was completed in 1799. Boot and shoe making and nail manufacture were introduced and two new industries were thus added to the industries carried on in American prisons.

Thomas Jefferson, who was himself architect of Monticello and the first University of Virginia buildings, became interested in the prison plans designed by an architect of Lyons. Jefferson was at this time the representative of the young American government in Paris. The plans were based upon the solitary confinement program. Having procured a copy of the plans, Jefferson proceeded to draw from them a prison adapted to Virginia's needs at the time, with provisions for future additions. Latrobe, the architect of the Virginia Penitentiary, carried out in principle at least the ideas as suggested by Jefferson in his plan. Thus Virginia adopted the idea of solitary confinement and work. The prison built at the time is the present one at Richmond and enjoys the distinction of being the oldest used prison in the United States. The building is different in plan from any building in the United States, and in general plan is circular with the cells opening directly* upon an inner court. The first rooms were designed to accommodate from two to twelve prisoners.

Newgate was scarcely more than well completed when it was found to be inadequate on account of the lack of room for incoming prisoners, but steps were not taken until 1816 to relieve the conditions. This date marks the beginning of the great prison at Auburn, and in 1817 some cells were ready for occupancy. The first cells were designed for two prisoners and there were apartments with room for from ten to twenty prisoners each. The system was at first similar to that at Newgate, that is, day work in shops, the nights spent in groups, but the officials soon saw that the discipline could not be maintained with the group plan of housing at night. The necessity called into being the system known today as the "Auburn Plan," which has been the basis of most American prison schemes. The first warden, William Brittain, designed the arrangement of the solitary cell adopted, and in 1819 the state legislature passed a law compelling separate imprisonment. This was the first law compelling separate imprisonment.



EASTERN PENNSYLVANIA PENITENTIARY— FROM AN OLD PRINT

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* Henderson, "Penal and Reformatory Institutions."

GARAGE
EASTERN PENNSYLVANIA PENITENTIARY

The Auburn system as worked out by Lynds, Brittain's successor, provided for day work in common in large workshops, with night separation only—absolute silence was observed at all times, however. Lockstep, flogging and meals in the cells were features of the early Auburn system that have subsequently been much modified. Lynds was a strict disciplinarian and with convict labor built the famous Sing Sing Prison, a feat unheard of up to that time.

INDUSTRIAL BUILDING
EASTERN PENNSYLVANIA PENITENTIARY

STORE HOUSE
EASTERN PENNSYLVANIA PENITENTIARY

The observance of silence, as far as it could be enforced at Auburn, was a form of separation, but, of course, it could not be complete and as a consequence the Pennsylvania system of cellular isolation was introduced as an experiment. A block of 81 cells was built in 1821, but as the system produced bad results, with tendencies toward insanity and impaired health, it was abandoned in 1823. It might be mentioned, however, that no work was provided and the system may have failed from this very reason. At any rate the solitary system received an almost fatal blow at the time and has never been popular since.

EMERGENCY HOSPITAL
EASTERN PENNSYLVANIA PENITENTIARY

INTERIOR OF NEW CELL BLOCK
EASTERN PENNSYLVANIA PENITENTIARY

(To be continued)

Egyptian Tomb 5,000 Years Old

An exhibit of interest has recently been set up in the Metropolitan Museum.

It is placed in the Egyptian section and is the tomb of Perneb, a lord chamberlain, of the Fifth dynasty, about 3,000 B. C.

The tomb, as now set up, includes a vestibule, a main offering chamber, an adjoining offering chamber and a statue chamber. The walls are decorated with colored paintings. The bones which were scattered on the floor of the tomb when discovered are now inclosed in a glass case.

Alabama Polytechnic Institute

According to an announcement recently made by the Institute, the Department of Architecture of the Alabama Polytechnic Institute was established in June, 1907, to encourage students to take up a profession which could be followed only after a term of study, facilities for the pursuit of which did not before that time exist in the South. The regular four-year course leads to the degree of Bachelor of Science in Architecture, and in addition a two-year special course is offered primarily for the benefit of draftsmen. Post-graduate work is encouraged by means of "fellowships" paying $250 annually.

As the ability to design is considered the first requirement in architecture, the greatest possible amount of time is devoted to this subject. A general course in building construction and superintendence is followed by special work in the various engineering departments of the college, along such lines as heating and ventilation, wiring and illumination, reinforced concrete and steel frame construction. History of architecture is taught by lectures and lantern slides. Some form of freehand drawing runs throughout the course.

An architect's success depends perhaps as much on broad cultural training as technical equipment, and to give the fundamentals of this, courses in languages, pure science, history and economics are made a part of the required work. Tuition is free to residents of Alabama, and to others a nominal charge of $20 per session is made.

The Canberra Competition

The movement by English and Colonial architects to secure a postponement until after the war of the competition for the Federal Parliament building at Canberra has not been successful. The secretary of the R. I. B. A. has, it is stated, received the following letter from the High Commissioner in London:

> Sir:—With reference to the deputation which waited upon the High Commissioner from your Institute *re* the competition for the Federal Parliament House at Canberra, I am directed by the High Commissioner to state that, having communicated by cable with the Commonwealth Government, he has now received a cablegram in reply as follows:
>
> "With reference to your telegram of September 5, the Government, after careful consideration of the whole matter, including the objections of Victoria and British architects to approved resumption of the competition, considers it advisable to proceed owing to the fact that after the war the rebuilding of Europe will occupy the attention of British and Continental architects to such an extent that they will not be prepared to compete. Further postponement will only accentuate the difficulty, and meanwhile the large expenditure which has been incurred renders early occupation of the capital very desirable. The work will also provide employment for hundreds of Australians after the war."

Commenting on this communication, *Building News* states:

"Everyone will recognize the desirability of early procedure with the work, but the delay asked for would surely not have hindered that greatly. Meanwhile, it is pretty obvious that if a design is chosen at once it will scarcely be possible to commence operations while workmen are almost all engaged in the defense of the Empire, and while materials are scarce and costly."

R. L. Daus Dies in Paris

R. L. Daus, architect, formerly in practice in New York, but who during the last eight years has lived in Paris, died in that city on October 10.

Mr. Daus was born in Mexico and received his architectural education in this country and Germany, finally graduating from the Ecole des Beaux-Arts in Paris.

He served on important industrial commissions in the United States. He was a Fellow of the American Institute of Architects.

R. Phené Spiers, English Architect, Dies in London

R. Phené Spiers, architect, died in London October 4. Mr. Spiers, in addition to being an architect, was well known as an archæologist, having done much research work in eastern lands. He was an honorary associate of the American Institute of Architects.

M. Spiers was the author of notable works, among which are: "Architectural Drawing," "The Orders of Architecture," "The Architecture of Greece and Rome," "Architectural Essays on Sassanian Architecture," "Domed Churches in Perigord," "Mosque at Damascus," "Architecture, East and West," and he wrote also on other subjects. He edited Pugin's "Normandy," and also Fergusson's "History of Architecture."

Texas State Association of Architects

The annual meeting of the Texas State Association of Architects, in session in Galveston, adjourned on October 14 to meet next year in Waco.

A new constitution and by-laws were adopted. The members were practically unanimous in their support of the three legislative subjects discussed in the sessions, namely, legislating for control of the practice of architecture, the creation of the office of State architect and uniform building laws for the State.

Officers elected were: O. J. Lohren of Houston, president; H. A. Overbeck, Dallas, first vice-president; C. C. Bulger of Dallas, second vice-president; Roy Lane of Waco, third vice-president; R. Adelsperger of College Station, fourth vice-president; H. F. Davis of Galveston, fifth vice-president, and F. E. Giesecke of Austin, sixth vice-president. Fred Teich of Houston was re-elected secretary-treasurer.

Alameda (Cal.) Architectural Exhibition

The exhibition of the Alameda Society of Architects, announced in a previous issue, was, owing to a very pronounced popular demand, extended for a period of one week beyond the date originally set for closing.

Record of an Interesting Experiment in Cement Floor Construction

The Springfield, Mass., *Republican,* in a recent issue, prints the following:

"When the new city library on State Street was built five years ago, an experiment in one detail of construction was made. This consisted of mixing sawdust in the top layer of cement on the floors for a thickness of about an inch so that the cork carpet or linoleum floor covering could be nailed direct to the cement. After various trials the proportions of one part of cement and two parts of sand and three-quarters part of sawdust were found best, the object being to make the resulting material as hard as possible and at the same time permit the penetration of ordinary nails. If too much sawdust is used the cement is unduly absorbent and is liable to crumble.

"The period of nearly five years' use has now offered a fair test of the sawdust cement. On the whole it has been satisfactory. There is one small place where the nails have not held well and the cement has shown a slight tendency to crumble. This was probably due to too large a proportion of sawdust at this particular point. Elsewhere throughout the building, however, the nails have held and the result has been good. Cement is apt to absorb water which runs down the seams in the cork carpet when the floors are mopped, and the sawdust perhaps increases this tendency. It seems probable that a coat of waterproof paint on the cement before the cork carpet was laid would be an improvement."

Beaux-Arts Institute of Design

A free course of instruction in Mural painting and the painting of Ornament, will be conducted by a joint committee of the Society of Mural Painters and the Beaux-Arts Institute of Design.

The course of study offered includes a life class in drawing, a class in nature study, and monthly exercises in the composition and execution of ornamental and monumental painting. Competitions for the actual execution of mural paintings will be held throughout the year.

Students may register with the Secretary at any time during the year. There are no fees of any kind.

It is further announced that under the joint auspices of the Beaux-Arts Institute of Design and the National Sculpture Society there will also be conducted a free school of Sculpture for men.

Full particulars of these important classes may be secured by application to Fred B. Clarke, Secretary, 126 E. 75th Street, New York.

To Standardize School Architecture

A movement has been undertaken by the Department of School Administration of the National Education Association to standardize school architecture, or rather to determine minimum essentials in the general plan and construction of school houses. The committee is headed by Mr. Frank Irving Cooper of Boston, and includes in its membership Mr. C. A. Challman, school building commissioner for Minnesota; Mr. C. E. Chadsey, superintendent of schools, Detroit; Dr. Louis M. Terman, professor of hygiene at Stanford University, and Dr. Leonard P. Ayres of the Russell Sage Foundation.

The committee will find a wide field of useful investigation. While some essentials of classroom size, stair width, etc., have been fairly well established, we have no data for judging the economy of a building, either for layout or construction. There are no figures to show whether a building is wasteful in corridor space, whether special rooms are too large, whether the fireproofing is reasonably adequate, whether the cost of the heating plant is out of proportion to similar plants, whether the finish and ornamentation are extravagant, whether the exit facilities are fully safe, or whether the sanitation complies with minimum requirements.

While absolute standardization of school houses cannot be hoped for as a result of the committee's efforts, there is much that it should do. Its findings should form the basis not only for practice in individual cities and towns, but should be utilized in outlining state legislation.—*School Board Journal.*

Personal

Messrs. Robert M. Wright and Russell L. Hohl, Cleveland, Ohio, have formed a partnership for the practice of their profession, under the firm name of Wright & Hohl, with offices in the American Trust Building. They will be pleased to receive manufacturers' samples and catalogs.

Mr. J. B. Wallach has opened an office for the practice of architecture at 171 Madison Avenue, New York City, and will be glad to receive manufacturers' samples and catalogs.

Messrs. Whitehouse & Fouilhoux, architects, Portland, Ore., have moved their offices to 619 Railway Exchange Building, that city, and will be glad to receive manufacturers' samples and catalogs.

INDUSTRIAL INFORMATION

Freight Elevator Gates

The Paterson-Leitch Co., Cleveland, Ohio, has issued a booklet describing Steelite, designated as a new standard for freight elevator gates. The Steelite gate has been designed, it is stated, by practical elevator men of wide experience to meet a need which has been forced upon their attention in their every-day work. The gate itself and all equipment used in connection with its installation are made entirely of metal and conform to all modern elevator ordinances. It is claimed that the gate is as light as wood, and almost as cheap. It is more rigid, of better appearance, and less expensive than the ordinary built-up metal gate. Instead of being built up from angle or channel iron, the Steelite gate is pressed from a piece of solid sheet steel, and so shaped as to make it very rigid and capable of withstanding hard and continuous service. Being cut from one piece, there are no joints to spring, and the gate cannot sag or get out of shape. The gate is made in one or two sections. The two-section gate operates on one set of guides the same as a single section gate, the lower half operating in close-fitting steel guides attached to the upper section. The absence of swelling and sticking, greater strength and rigidity, saving of repairs and greater protection are all urged in favor of this gate for freight elevator shafts.

Copy of the booklet or any desired information will be sent upon request.

Asbestone

The Franklyn R. Muller Company, Chicago, Ill., has issued a booklet describing Asbestone, manufactured by this company and guaranteed to be a fireproof, durable material for floors, bases and wainscoting.

Asbestone, according to statements made by this company, is composed of the highest grades of materials procurable for the manufacture of a composition flooring. It is laid in a manner similar to that employed in laying cement. It is light in weight, weighing 3 lb. to the square foot when laid ½ in. thick. It is applied either to new or old wood, cement or steel underfloors, and produces when finished a floor, base and wainscoting in either one or more colors that is one-piece, sanitary, fire- and germ-proof, extremely durable and attractive in appearance.

Asbestone is manufactured in practically any color. The cost of the material is said to be about one-half the cost of ordinary tile. In moderately warm weather the material hardens in about twelve hours.

Copy of this catalog, which gives in addition to an extended description of the material, illustrations of various buildings where it has been used, may be had upon request.

Multiblade Fans

The Clarage Fan Company, Kalamazoo, Mich., has issued Catalog No. 5, illustrating and describing the Clarage Kalamazoo Multiblade Fan. It is stated that this fan has been developed as the result of a series of tests and experiments extending over more than two years. The results of these experiments have been verified in numerous installations. The fan, it is claimed, shows an unusually high efficiency, and is noted for quietness of operation, and every wheel is guaranteed to be amply strong for working against static pressures as high as 5 in.

The catalog contains illustrations of a number of fans of various sizes and capacities. Tables are given for the use of engineers in working out their requirements. Dimension tables of fans are also printed. Copy of this catalog may be had upon request.

PULPIT, CATHEDRAL OF ST. JOHN THE DIVINE, NEW YORK

MR. HENRY VAUGHAN, *ARCHITECT*