

# THE AMERICAN ARCHITECT

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## TRAVELING WITH A FOUNTAIN PEN

By IRVING K. POND, F.A.I.A.

Past President, THE AMERICAN INSTITUTE OF ARCHITECTS

AN IMPULSE toward foreign travel stirs again within me and, yielding, I undertake the journey; only, this time I shall sail the seas and traverse the lands on the wings of the spirit, buoyed up and speeded onward measurably by memory refreshed by dips into the pages of the note and log books of a recent delectable cruise and by sketches made thereon. Were I to forego the substantial aid obtainable from these rich sources, I still could make the journey, and probably should; but the domain of fancy would without doubt entice me from the paths of fact; and in this case the mere facts are quite sufficient to enliven the journey, and the narrative, and intrigue the retrospective mind.

On that real cruise, of which this, then, is but a wordy shadow, I had companions and to spare; I got used to them, and, in certain instances, there

seemed to be mutual enjoyment in the companionship. I shall stifle an unfortunate native tendency toward social aloofness and hereby invite the gentle reader to accompany me on this shadow cruise and to travel with me as far as he will. I shall accept his presence with at least a semblance of joy, and shall try not to make the journey unnecessarily hard for him; for if the experience of reality gives any clue as to happenings in Shadow-land I am fated to have companionship whether I will or no; and in Shadow-land as in Substance-land it is just common decency to be a good sport and give the best, taking smilingly whatever comes. Some of what comes is bound to be good.

Early in the Summer of the year One thousand nine hundred and twenty-five it was borne in



THE INITIAL BOW OF MY TRAVELING COMPANION, THE FOUNTAIN PEN. RATHER AWKWARD AND IMPRESSIONISTIC AT FIRST, BUT HE'LL IMPROVE—AND SO SHALL I



"YOU SPEAK PRETTY GOOD ENGLISH," SAID MY FRIEND TO THIS MOOR IN GIBRALTAR. "YES," SAID HE, "I SPENT SOME YEARS IN AMERICA WITH BARNUM AND BAILEY, IN A TROUPE OF TUMBLERS"

ALGIERS, PORT OF  
PIRATES OF OLD AND OF  
ROMANCE. CALLS FOR  
PASSPORTS AND I USE  
MINE TO BACK UP MY  
SKETCH PAPER



IN THE TORTUOUS NAR-  
ROW STREETS OF SIDI  
OKBA, WHERE A SWERV-  
ING AUTO CAR WOULD  
CRUSH A DOZEN ARABS  
OR KNOCK DOWN A MUD  
HOUSE



BISKRA IN THE DESERT.  
ROSE - LAVENDER AND  
PURPLE MOUNTAINS  
COME DOWN TO MEET  
THE SANDS AT OUR  
FEET. ARABS IN SCAR-  
LET AND SILVER, PUR-  
PLE, AND GOLD AND  
VERMILION ROBES FILL  
THE SCENE, WHILE  
THEIR GARMENTS FLUT-  
TER LIKE BANNERS IN  
THE WIND

TR  
FEB 4 1926



BISKRA "CLOSER - UPS."  
SONS OF THE DESERT  
WHO ARE INTERESTED  
IN THE "COURSE" OR  
RACES. WITH THE MOVE-  
MENT AND COLOR, THE  
SCENE WAS KALEIDO-  
SCOPIC

TR  
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at the race Biskra

upon me that if ever I was to see certain sights and visit certain lands for which I had always longed—and which up to that time for some cause or other had been forbidden me—and if ever I was to take certain journeys—though the journeys were to be taken or undertaken for the sights and experiences they could furnish rather than for themselves,—time was about ripe, and that some one of the many advertised cruises could make the thing possible. I will say the idea of being a member of a cruise appealed even less to me than



LIFTING UP MINE EYES TO THE ETERNAL HILLS—THE FOOTHILLS OF THE SIERRA NEVADA—A SINGER SEWING MACHINE SIGN INTERCEPTS THE VISION

the idea of taking a journey for a journey's sake. Many, many years ago when I was a leisurely student of architecture in foreign lands I had seen with amusement, not untinged with a degree of contempt, droves of tourists hurtled and hustled through museums and galleries, through palaces and churches and over boulevards and battlefields, and I could not then see myself as one of such a bunch. However, I can so visualize myself now; for I have experienced the sensation—and at times it was a sensation. But I am now of two minds on the subject. I am still at heart the same independent youth I was when I enjoyed my leisurely travel period over forty years ago; and at the same time I realize that I never could have visited the places which I had so long desired to see had not the "Cruise" stretched out its helping hand and managed the physical disposition of my traveling bags and my corporeal being. But, had I not already known what I wanted to see and why I wanted to see it; had I not already known where it was and how and why it happened to be there, the cruise would have given me substantially little; little more, indeed, than a journey to be enjoyed or otherwise. This is all it seemed to give certain of the party who more or less reluctantly left our ship for the shore excursions. It was not impos-

sible to catch in passing some gem like this falling from the lips of a cruise-mate, "Come on! Let's go down and shop. The Alhambra is like all other buildings!" This from one who never had seen the Alhambra! Or: "I don't believe I'll go ashore here. There's nothing to see in Constantinople." This from one who never had been in Constantinople. Why do these people travel? Just to travel of course; just to be away from home.

My study of time tables and itineraries led me to take passage on the S. S. *Samaria* sailing on January twenty-eight, Nineteen hundred and twenty-six, under the auspices of the Raymond and Whitcomb Company, for a cruise of two months in the Mediterranean. I extended the time limit by a month and a half which was spent, some in France, but mostly in England and Scotland. My principal objectives were the Temples



I NEARLY LOST MY PARTY IN THIS MOST LOVELY AND ROMANTIC OF DESERT GARDENS WHEN I STOPPED FOR A MOMENT TO RECORD THIS BIT

of Egypt, Hagia Sophia at Constantinople, and the Athenian Acropolis. I took advantage of two of the proffered optional trips and spent some days in French North Africa and some days up the Nile—by rail to Luxor and by Nile-boat to Assouan and the Great Dam, where we rowed about beautiful Philae submerged to the necking of the capitals. But I am getting ahead of my story.

Having made up my mind to take the trip, I completed my travel arrangements; and, expecting that even on a hurried cruise one might find some opportunity for sketching, I laid in a supply of material—paper, colored pencils, Gillott's three hundred and threes, a bottle of black drawing ink and a water color sketch book. In Vevay, away

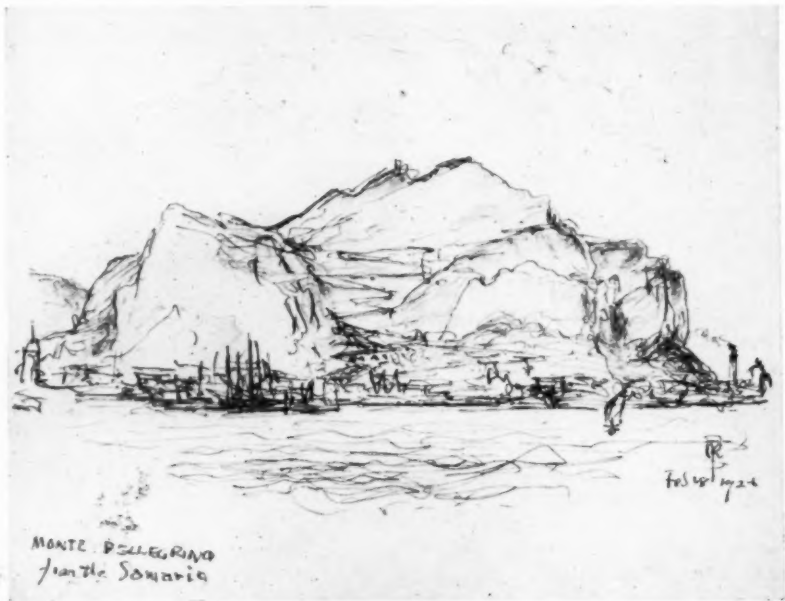
NO, THIS IS NOT AN  
AQUEDUCT OR THE  
PARAPETS WOULD HAVE  
BEEN LEVEL, WHICH  
THEY ARE NOT. IT IS A  
VIADUCT AND A WON-  
DERFUL BIT OF FRENCH  
ENGINEERING. "THE  
HIGHEST STONE BRIDGE  
IN THE WORLD"



I WAS GLAD TO EMERGE  
AT THIS POINT, FOR I  
HAD BECOME LOST IN  
THE TUNIS SOUKS. THIS  
SUNLIGHT AND THE  
FACE OF A MAN I KNEW  
WERE WELCOME. AS MY  
FRIEND BOUGHT OUT A  
BRASS SHOP, I MADE THIS  
SKETCH OF THE GATE OF  
MY DELIVERANCE

back in Eighteen hundred and eighty-three, I became the happy possessor of a vest-pocket water color kit, the most compact and ideal little affair of the sort I have ever seen. This has accompanied me upon many a journey since, and it enabled me in the present instance to bring back twenty water color sketches, one, each, of the principal Mediterranean and African ports of call; sketches reflecting the characteristic color and atmosphere of the ports at the times I visited them.

As I intended to do a bit of writing on the trip I took a scratch block, a bound note book and, better than all, as it transpired, a pad of linen writing-paper firmly woven and closely ribbed. For writing, and for such sketches as I might make on the margins or in the body of my letters, I carried my regular fountain pen, a Waterman, which has served me well for upwards of thirty years, and this I kept replenished



THE SHIP LAY QUIESCENT FOR A MOMENT AND PERMITTED THIS IMPRESSION OF MONTE PELLEGRINO WHICH MAJESTICALLY GUARDS THE HARBOR OF PALERMO. THE SUN WAS WARM, BUT THE WATER WAS A COLDER, PALER BLUE THAN I HAD EVER SEEN IN THE MEDITERRANEAN

with Waterman ink from a "traveler's filler." The first land trip aroused certain misgivings, and the second confirmed me in the opinion that it would be absolutely futile for me to carry on the shore excursions any sketching material which would not slip readily into a coat pocket, and which could not be employed while I was standing or even while walking. Therefore, excepting the score or so from my color kit, I relied entirely upon my fountain pen and had always handy in my pocket a few folded sheets from my linen paper pad, which, while sketching, I supported on the cover of my passport.

Few travelers are content with bringing back merely a memory, as the earnest scribbling in numerous log books attests, or even of returning with merely a package of verbal notes. The numerous cameras and motion picture outfits one sees among cruisers tell of the general desire to bring back some visual reminder



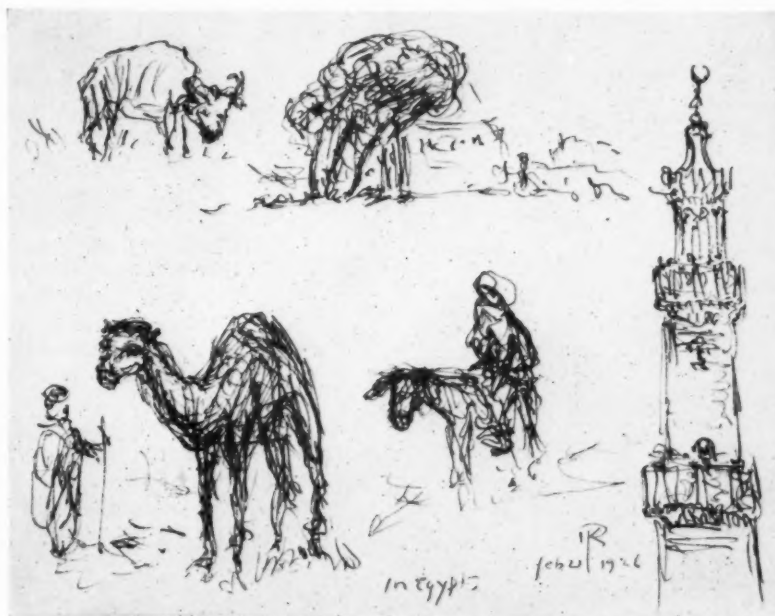
ON THE DOCK AT ALEXANDRIA THESE MYSTERIOUS FIGURES MOVED IN A GLOW OF COLOR AS THE NOTATIONS WILL SERVE TO INDICATE



FROM THE SWIFT AND SMOOTHLY RUNNING TRAIN I GLEAN THESE FIRST IMPRESSIONS OF THE LAND OF THE PHARAOHS, UNCHANGED THROUGHOUT THE BROODING AGES

of scenes enjoyed and activities participated in. Next to the photograph, and even better as a record of impressions, comes the sketch; and for the sketch I have found the fountain pen to be the best medium. The pen has this advantage: it hasn't to be unloaded and its product developed; it can be used in clear or dimming light; in sunshine or in shower; against the light or with it; on a stationary or a moving base. The one hundred and fifty pen sketches which I made in the three and one-half months of strenuous travel, one hundred and twelve of which I brought home, were made standing, on deck or on street paves; walking, so as not to lose the party; riding, on train or in motor car; sometimes in sunshine, more often, as it then seemed, in mist or shower. The first sketch was made in a mist which resembled rain. It was on deck in the early morning as we approached the an-

chorage off Funchal on the Island of Madeira. The sun had broken momentarily through the clouds as we rolled into the harbor under the double arc of a brilliant rainbow. The Island seemed most beautiful in its color and stability, especially in its stability. For we had rolled incessantly for nearly seven days in a rough following sea, with the racks on the tables continuously after the second meal,—and the passengers were getting fed up on rolls—at least I was—though I had not missed a meal, nor did I on ship or ashore during the trip from New York out and back again. But the rolling of the *Samaria* on that particular cruise was something to be taken into account in the activities of shipboard, from seating



AS THE TRAIN SLOWS DOWN I CAN OBSERVE A BIT MORE CLOSELY AND I SEE AND SKETCH THE FIRST TRULY EGYPTIAN MINARET

to juggle a bit, for amusement, not for exercise, dodging the rolls furnished that, but the balls would take their own courses, seemingly, altogether against my will—and erratic courses they were, dictated by Father Neptune. I defy any human intelligence to analyze the rhythm of the ocean on a rampage—or the best of bareback riders to throw a somersault on a bobbing cork.

But to return to the matter of the sketch. I was awaiting my turn to disembark. The lovely outlines and mysterious color depths intrigued me. What with the rainbow and the mist, the scene was elusive. "Anyway," said I, "I'll get a sort of an outline to remember it by." I took my pen and hastily sketched an outline. Then to soften the effect I tried a little trick which I had used as a young boy in school when I was imitating Japanese block prints with colored inks. I would get the shading by smudging the line with the finger tip. The process was quite satisfactory, from my



ONE OF THE GREAT COLONIAL CITIES OF THE ROMAN WORLD, WITH ITS BARE, COMELY BONES EXPOSED TO MODERN GAZE

point of view, in the case of Japanese maidens; and so I tried it on Madeira lying there in the misty distance. Technically the process was quite simple. The linen paper holds the ink so that a quite heavy line immediately smudged is all but obliterated and a surface is tenderly shaded; another line, a smudge, and the tone is deepened; another line, untouched, and the outline stands. It will be noted that no pencil point ever touches the paper in the process. The drawing in ink is

direct and a false line induced by a jar or a shock can be smudged out if touched instantly and be almost immediately redrawn. There is no time for erasures in sketching *en tour*. Two minutes, in many instances, was all the time which could be devoted to a single sketch. The drawing of Sainte Chappelle was made in but few seconds over that time. The average was well under five



THE HILLS OF NORTH AFRICA ARE WONDERFULLY WELL CULTIVATED AND OLIVE GROVES AND FORESTS OF CORK TREES DECORATE THE LANDSCAPE AND CARPET THE MOUNTAINS

minutes when with the party. One could not take longer than that without running a chance of losing the guide and missing one's way back to the ship. It was only when, later in the trip, I was "on my own" that I could take extra time and chances, and I spent some fifteen minutes on the sketch of the Dome of the Invalides. Ten minutes or so would probably be the longest devoted to any of the others. I am stressing the short time element not as an excuse for slipshod drawing, but as a positive virtue under the conditions of intensive travel. A camera, all primed, might record more rapidly in certain instances, but I was able to sketch where no camera could have clicked. However, one of my best reasons for preferring the pen to the camera, besides the fact that I like to do and to see what I am doing, is that in sketching, especially in rapid sketching, if one is to preserve a "likeness" one must concentrate and observe intently, not to say intensely, and the effort the better fixes the scene or object in the memory; the impression is the more lasting.



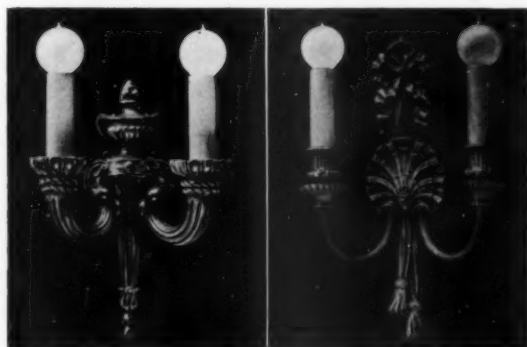
## INTERIOR ARCHITECTURE



### INTERIOR ARCHITECTURAL ALTERATIONS

AN alteration job is probably one of the most interesting, although one of the most perplexing, of an architect's commissions. Its interest lies in accomplishing, under certain fixed and established conditions, a transformation, just as there is always a fascination in making the old appear new. Architecturally, its chief difficulty lies in retaining in the revised scheme a structural character that comes so naturally (though unfortunately, so seldom taken advantage of) in the design of a new building. In the past, changes in schemes of interior architecture and decoration, as in exterior design, necessitated certain alterations to the structure which at the mere suggestion gave evidence of running into such great expense that the idea was often abandoned as not "worth its salt." To replace a wood floor with one of tile, for

the fabric of the building cannot be disturbed one iota. No argument is necessary to convince one that structural alterations are practically prohibitive in rented premises. Interiors of individual apartments are purposely designed devoid of dis-



CAST IN ORIGINAL WOOD-FIBRE FROM CARVED WOOD MODELS. THESE WALL BRACKETS REPRODUCE THE QUALITY AND TEXTURE OF WOOD

example, or even anything approaching tile in appearance, necessitated the tearing out of the wood and extensive alterations to the fabric besides. During the last few years, however, conditions have changed so that that statement does not hold good today. The nomadic tendency of the present generation away from actual ownership and toward rented premises has been largely responsible for the present existing state of affairs. A new and unusual problem in alteration work is presented to interior architects. It is not only necessary to transform overnight a Louis XVI salon into an English lounge, or a stately Italian parlor into an early American living room, but in the process



A TEXTURED SURFACE AND ORNAMENT. MODELED BY HAND IN RELIEF, OBTAINED BY A MODERN PLASTIC PRODUCT IN ONE OPERATION



WHILE DECORATIVE, MARBLEIZED WALLS LACK THE STRUCTURAL SIGNIFICANCE THEY SHOULD SUGGEST UNLESS APPROPRIATELY DESIGNED AND DETAILED



SECTION OF A COFFERED CEILING CAST IN A FIREPROOF, UNBREAKABLE MATERIAL, WHICH LENDS ITSELF TO ORIGINAL EXPRESSION



A WALL COVERING, HUNG LIKE PAPER, IN WHICH THE PATTERN IS BROUGHT OUT IN RELIEF, GIVING A TEXTURE TO THE WALL WHICH ADDS GREATLY TO ITS INTEREST AND IMPORTANCE



AN INTERESTING WALL TREATMENT OF STRUCTURAL VALUE BY THE USE OF A PRODUCT WHICH COMBINES IN AN ALMOST UNCANNY WAY CERTAIN PROPERTIES OF BOTH WOOD AND STONE



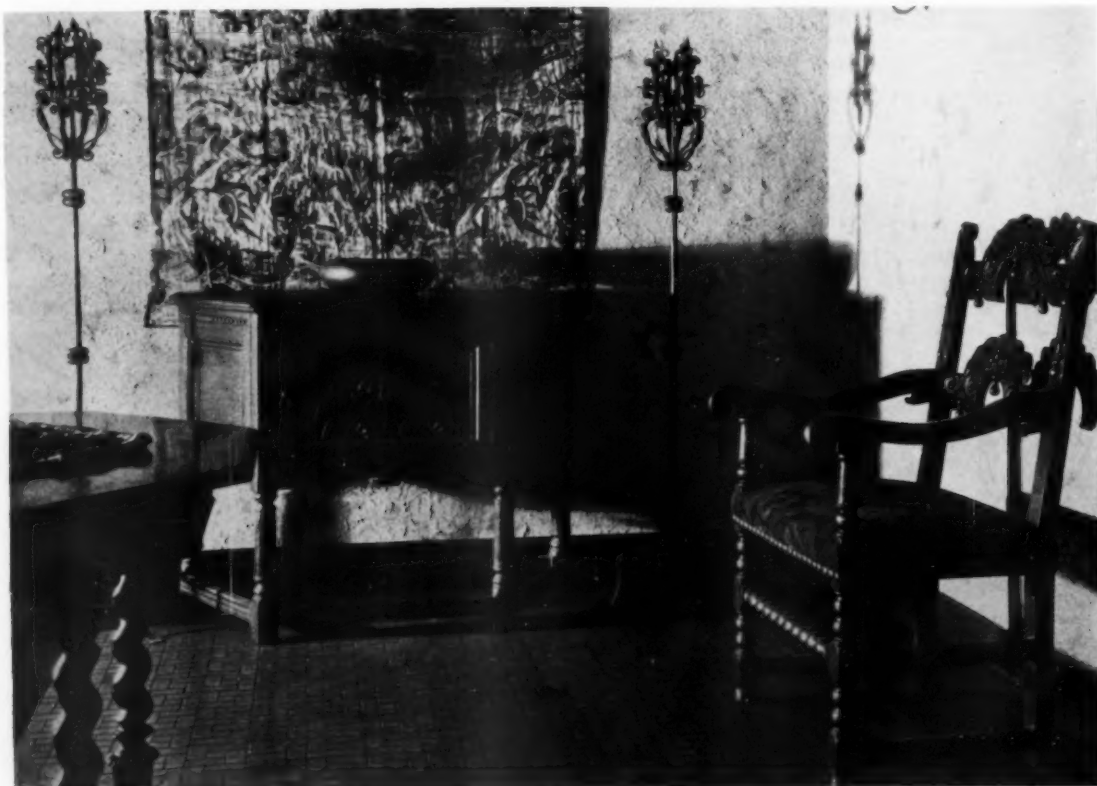
MARBLEIZED RUBBER TILE, LAID HERE IN A TESSELLATED PATTERN, HAS CERTAIN PROPERTIES WHICH OFTEN MAKE ITS USE MORE DESIRABLE THAN THE NATURAL PRODUCT WHICH ITS DESIGN AFFECTS

tinctive character in order better to allow the ever-changing tenant to "decorate" the rooms in conformity with his belongings and according to his individual and personal tastes in decorative design. Such decorations cannot bear the same structural value that they do in a house in which the design of the interior, as of the exterior, develops naturally from the structure. The decorations become somewhat superficial, to a certain extent. Yet, if a suggestion of structure is retained in the design of the various materials employed, the scheme possesses architectural significance and the selection of materials is therefore governed by architectural principles.

As the tendency toward rented premises increased, the architects' problem seemed to become more difficult: while there developed at the same time an opportunity of corresponding proportions for manufacturers. A successful solution necessitated new materials, easily and readily installed, which in their design would possess structural significance as well as decorative value. Modern invention and manufacture were put to the test. In many cases natural products offered inspiration: certain desirable structural properties of one product have been combined with decorative qualities

of another, so that materials have been developed that are actually more desirable than the natural product which they seem on the surface to suggest. Aside from effecting a successful and satisfactory solution of the problem in hand, modern manufacturers, as a result, have placed at the disposal of designers of interiors, materials which offer unusual opportunities for creative ability and original expression. These modern American manufactured materials are actually the foundation from which a modern American style in interior architectural design will eventually be developed. Structure is the very heart of architectural design. Design is dependent on structure, while structure at the same time, is actually determined by design. Many of the limitations put on design by the structural properties of certain natural products have been overcome in these materials of modern invention and manufacture. Their future possibilities depend on the use architects make of the opportunities now at their disposal.

Illustrations were supplied by the following firms: Armstrong Linoleum Company; Craftex Company; Falkenbach Manufacturing Company; David E. Kennedy, Inc.; Lincrusta-Walton Company; G. E. Walter; Zenitherm Company.

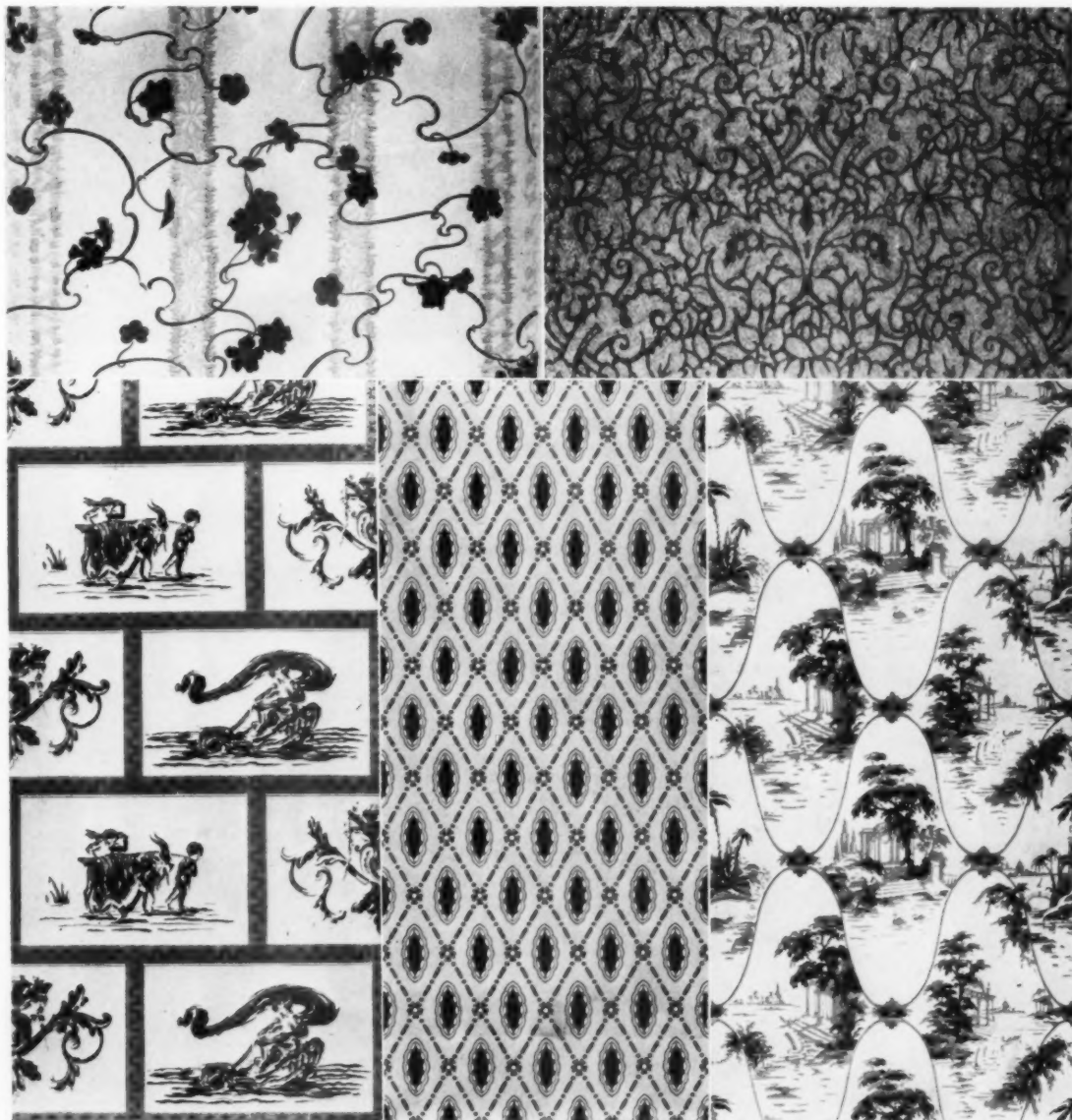


IT HAS BEEN FOUND POSSIBLE TO PRODUCE THE PATTERN OF LINOLEUM IN RELIEF, GIVING GREATER STRUCTURAL VALUE TO THE MATERIAL AND PREDICTING FURTHER ORIGINAL DEVELOPMENTS

THE NEW SEASON'S WALLPAPERS

THE designs of many of the wallpapers exhibited at the recent convention of the Wallpaper Manufacturers Association in New York suggest a greater appreciation on the part of the designer of the architectural value of decorative wall coverings. Architectural value does not necessarily lie in geometric patterns and conventionalized forms, although this seems to be the general impression. Rather, however, does a design have architectural value when there is a definite relation between certain lines, which represent the structure of the

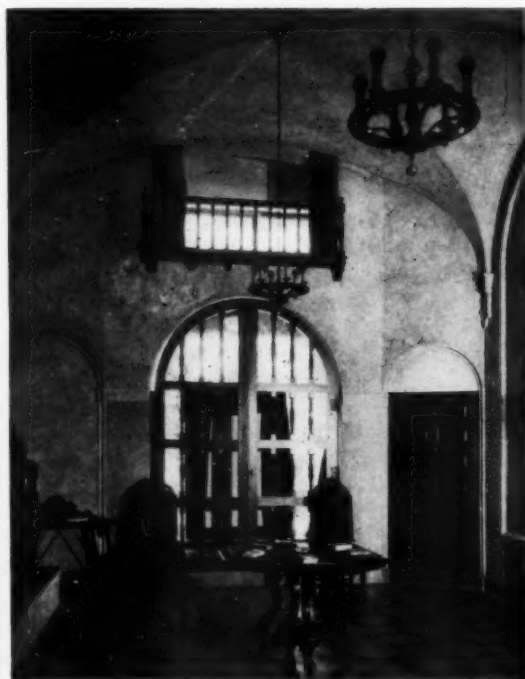
pattern, and the ornament. A striped paper, even though the stripe may be complemented or partially concealed by ornament, may serve an architectural purpose by emphasizing the vertical movement by which the architectural design is characterized. In their colorings, the new wallpapers have a tendency toward one extreme or the other: either the soft pastel shades, or the brilliant spectrum colors. Period designs are still evident, for they are still in great demand, but there is discernible an original quality in many of the most interesting designs.



A GROUP OF WALLPAPERS SELECTED FROM THE NEW SEASON'S SHOWING IN THE DESIGN OF WHICH THERE IS EVIDENT AN UNUSUAL APPRECIATION OF THE ARCHITECTURAL VALUE OF DECORATIVE WALL COVERINGS

## ARCHITECTURE AND MERCHANDISE DISPLAY

IN giving architectural value to settings for the display of merchandise, architects continue to demonstrate, in spite of all that has been said to the contrary, that art and industry can be combined. There is no suggestion of commercialism in the design of the architecture and decorations of the new showroom of the Ruud Manufacturing Company, New York City, of which Van F. Pruitt is the architect. Inspection of the mechanism of the various types of automatic gas water heaters on display takes on added interest amongst surroundings in which are featured a simple quatrepartite vaulted ceiling, rough finished plaster walls, a marbled tile floor and comfortable and attractive furniture. The main showroom is separated from the executive and sales offices by an arcade, while, facing the street at the other end of the showroom, a wood screen, of simple lines and pleasing proportion, is set in the circular headed opening to the show window. The merchandise displayed is so arranged that it in no way detracts from the architecture, although it is of such a nature that it has no real decorative value. The various models of water heaters are grouped on one wall, and the others are entirely free of commercial suggestion.



VIEWS IN THE SHOWROOM OF THE RUUD MANUFACTURING COMPANY, NEW YORK CITY

VAN F. PRUITT, ARCHITECT



## EDITORIAL COMMENT



**S**PEAKING at a recent meeting of the New York Building Congress, Henry H. Curran, formerly president of the Board of Aldermen, New York City, stated that the "skyscraper" as we have it in New York today, its breadth and its heights, with its collective clumps, is directly responsible for most of the discomfort we endure from the crowding of our streets and subways. During the course of his remarks, Mr. Curran reviewed various areas and conditions as they exist in this city. While these problems are, in a sense, local, they present conditions that every city of the first class may seriously ponder.

The theory is advanced that much of the congestion of high buildings in New York is due to the present zoning law. "It left," said Mr. Curran, "a two times and a two and a half times height district here and there, just because buildings already had gone up to those heights, and more than confirmed existing congestion. It encouraged more high buildings in those parts laid aside for high buildings."

Mr. Curran's statement finds confirmation in many districts on Manhattan Island and in none more insistently than in the "garment section" between 32nd and 42nd Streets, 6th to 9th Avenues in New York. There is daily crowded into that area a working population of large numbers. These workers live either to the North in the Bronx section, or on the lower East side of Manhattan Island. The congestion is further increased by the fact that it is through this district that direct access is had to the Pennsylvania and New York Central Railroad stations. During daylight, or working hours, the streets and roadways are congested to the limit of occupation. Mr. Curran believes that these areas of light manufacturing should have been located in suburban districts. That opinion was shared by many who attended the hearings before Mayor Hylan when it was first proposed to relocate these districts in the suburbs. The many advantages that would accrue, large open spaces, the creation of developments for working people's homes, and all the many advantages of schools and recreation areas, were plainly set forth. The idea was stoutly resisted by the representatives of labor organizations who fancied they detected an effort at segregation. Nothing was ever done about it. Today the congestion is so great as to constitute a menace to life and health.

Nor is this congestion confined to working hours. There are, it is officially stated, seventy-five theatres in the theatre district, practically adjoin-

ing the garment center. In all of these the curtain rises and falls at identically the same time. Perhaps fifty to sixty thousand people are at one time pressing toward the theatre of their destination and at another hour rushing to the subways and surface lines.

Effort is being made to create "stagger hours," so that this enormous body of people may be distributed over a longer period. It is not believed that such an effort will solve the problem. The remedy, it would seem, lies in the restriction of tall buildings, and the creation of outlying districts given over to certain industries.

Life on Manhattan Island is becoming more and more one of discomfort. The factors that create these conditions are allowed to grow, and the tall building is being erected in increasing numbers. Something will have to be done about it. In the doing there will arise economic problems so complex that it will be difficult to solve them.

Imagine, if we can, just what would occur in any of these districts if there were even the faintest tremor of an earthquake. Throwing the panic-stricken occupants of these tall buildings into the streets at one time would mean a loss of life so appalling that nothing that had ever before happened would equal it.

The tall building on Manhattan Island has grown to its present proportions mainly because of the physical conformation of the city. There has been no room for expansion of ground area, and through sheer necessity the buildings have grown in height in order that limited spaces might provide adequate room for the large population that must be accommodated. But in other cities where there are possibilities of growth over practically unlimited ground space, there does not seem to be any good excuse for buildings of excessive height. A mistaken idea of municipal pride and inter-city rivalry is creating conditions that will lead to no good end.

New York City is running wild in tall building construction. Many other large cities are doing the same thing. If we are to live and work in safety, if we are to keep our streets open for traffic, we shall have to curb the tall building and while it may not be possible to undo the damage already done, we should see to it that new and equally dangerous sections are not created.

**A**N illuminating engineer and manufacturer of lighting fixtures, in competition with other light-

ing experts, was recently invited to submit designs and estimates for new lighting fixtures for a prominent metropolitan church. He carefully looked the field over and somewhat astounded the committee of laymen to whom his report was addressed by his frank declaration that he could make no suggestions for new fixtures unless he were first allowed to revise the entire lighting scheme by changing the position of certain of the outlets, and adding certain others. It was not new lighting fixtures that the church needed, he said, so much as a new scheme of illumination. It is needless to say that, being the first of the competitors to call attention to this true state of affairs, he won the contract.

How few people, architects or laymen, appreciate the fine distinction that exists between the words lighting and illumination. A fixture is lighted in order to illuminate, or to aid in illuminating a room, complete illumination depending on the number of fixtures and their relative location. It

is, perhaps, too much to expect that the average layman should recognize the distinction without explanation, but it does seem as if an architect's education has been somewhat neglected if he uses the words as synonymous. Both lighting and illumination are vital factors in architectural design. The placing of the outlets—on which illumination of the room depends—is governed also to a very great extent by the architectural and decorative treatment of the walls and ceiling. The selection of the fixtures—which, when lighted, illuminates the room—is determined, too, by the architecture. The whole argument is further proof of the fact that the design of the interior in every detail is a problem in architecture. If one mind controls the placing of the outlets, and another, not in perfect sympathy with the first, selects the lighting fixtures, the room will not be correctly illuminated. In substance, a lighted fixture does not necessarily illuminate, but illumination is dependent upon lighted fixtures.

## THE FINE ARTS BUILDING

EXTRACT FROM AN EDITORIAL BY HENRY K. HOLSMAN, A. I. A., IN *The Leaflet* FOR SEPTEMBER, OF THE CHICAGO CHAPTER, A. I. A.

THE announcement of a gift of three million dollars to the restoration or utilization of the Columbian Fine Arts Building by one of Chicago's great benefactors has aroused new interest in one of America's greatest needs—Industrial Art.

Whether Mr. Julius Rosenwald's gift is for the better restoration of the structure, as some say, or whether it is the beginning of an endowment to make it a great industrial museum similar to that of Munich or South Kensington, as others have reported, is of very little consequence. Mr. Rosenwald's act is both potent and beneficent, for he and other wise, public-spirited citizens will eventually provide the talent and the means for making of the supreme gift from a former generation—the Fine Arts Building itself, in its magnificent setting in the center of the great Mississippi Valley—the nucleus of a university of American Industrial Art.

The structure is a fitting memorial of a vital epoch in American life—the awakening of the minds of this nation to the value of Art in Industry. The World's Fair in 1893 which erected this building, the most beautiful example of Grecian art since the Parthenon in Athens, was itself a temporary industrial art museum, and the fruit of the lessons in taste and design given by the World's Fair to hundreds of thousands of our people is seen throughout the land today in better furniture, textiles and machinery, in better homes and especi-

ally in better buildings. As the greatest of the World's Fair exhibits was the buildings themselves, so the finest effect of the exposition was the intelligent desire for better homes and buildings. So also better planned cities throughout the world took their impetus from this same World's Fair. The fact that the best exhibit of that wonderful "white city," the Fine Arts Building, should be at once a fitting memorial of the Columbian World's Fair epoch and at the same time be the perpetual embodiment of the spirit of Art in American Industry is too valuable a national asset to be overlooked by the men of leading minds and means in this great country. The people want it, and have voted of their means to preserve it. Others will follow to use it to the glory of a greater democracy of people of taste.

It is expected that architects should show the most interest in such a project. They are or should be leaders in taste and design. The creation of a beautiful building creates at once the appreciation of better things to go into it and better manners for its occupants. Architecture is the brooding mother of all the arts. Indeed, a group of America's foremost architects, under the leadership of the great Burnham, threw aside their comparatively petty tasks and, thoughtless of rewards, came together and enthusiastically created that inspiring exhibit of which the Fine Arts Building is the last physical survivor.



## THE UNIT SYSTEM AS A FACTOR IN ECONOMICAL CONSTRUCTION

By ROBERT TAPPAN, Architect

MY interest in the unit design of small homes dates back to an experience in Boston shortly before the World War. Ralph Adams Cram, of what was then the firm of Cram, Goodhue and Ferguson, had turned over to me a Japanese problem that had come into the office from the Boston Art Museum. Until then my thoughts had been largely concentrated on English and French Gothic. I got hold of all the books that I could find on the subject of Japanese architecture and building. One outstanding impression was derived from them — an impression that has influenced my work since that time. I could not get away from the surprising fact that in Japanese residential work, for centuries architects, material dealers and builders had all worked together in accordance with a system of unit design, manufacture and construction. Instead of working at cross purposes each man seemed to anticipate the needs of the other and to govern himself accordingly, with the result that a national system of building practice dovetailed into a system of design and was reinforced by the co-operation of the manufacturers of building materials. Japanese homes were primitive affairs compared with our modern complex structures, but the fact that the Japanese architect was willing to regulate his imagination in accordance with an accepted unit system seemed almost unreal.

In December, 1925, an opportunity was afforded to submit to Carl Fischer, a scheme for a working men's village at Montauk, Long Island. The Fischer interests cover practically the whole southeastern tip of Long Island, an area almost equal to

Manhattan Island. Montauk is a territory wild, primitive and beautiful, comprising a combination of moors, hills, forests, lakes and beaches, at present accessible only by a single track railroad and a cinder road. In order to carry out so tremendous

a scheme for the development of this virgin country, it was necessary, among other things, to provide homes for the men who were to do the construction work.

It was decided that the first group of houses should consist of three, four and five-room types. These types were all to be made of 100% interchangeable parts including plumbing, heating and lighting equipment.



PLAN OF WORKINGMEN'S VILLAGE AT MONTAUK BEACH, L. I.

ROBERT TAPPAN, ARCHITECT

The bill of materials of a typical unit house can be grouped as follows:

- Item 1. Merchantable materials taken from stock, such as rough and finished flooring, wall board, roofing, plumbing and heating fixtures, nails, paint, hardware, and similar items
- Item 2. Ready cut lumber and shop fabricated piping
- Item 3. Wall and partition units assembled complete on the bench

Many different materials are required to make up even an ordinary small cottage. The purpose of unit design is to reduce the number sent to the job and so to simplify the parts that they may be economically purchased, fabricated and assembled on the job without waste of labor or material. Observation of labor over a long period of time, leads me to feel that, due to the "cut, try and fit" methods in vogue since the middle ages, the aver-



UNIT CONSTRUCTION IS AN AID TO SPEED IN ERECTION  
AND REDUCES INTERFERENCE BETWEEN TRADES

age mechanic on house construction functions at about 40% of his true capacity. We pay him excellent wages to think out problems for us in the field that could be easily settled in the drafting room.

The accompanying illustrations indicate a unit system developed to settle these problems in advance of construction, to simplify work in the field, and secure increased efficiency from field labor. While the costs were not as low as expected, due to working difficulties, these could be materially reduced under better working facilities.

As a result of increased labor efficiency due to repetition, and the elimination of "cut, try and fit"

methods, a four-room cottage such as those built at Montauk can be built by unit methods at a saving of at least 25%.

Much of the preliminary fabrication is done under cover independent of weather conditions. Materials are not wasted. The shipping of extra material to the job is reduced to a minimum. Speed of erection is greatly increased, and each additional house goes up a little faster than the one preceding it, with the result that overhead costs are lowered appreciably.

The Montauk houses are designed upon units 4'-0" wide, made up of three 16" units. The only limitation introduced is that the overall size of the building and the size of the individual rooms must be multiples of 4'-0". While the same units are repeated time and again, there is no lack of variety between the individual houses, due to variations in plans, elevations and the placing of the houses in relation to each other.

In addition to maintaining sizes in multiples of four feet, all of the Montauk houses are planned around a standard living unit 16'-8" wide by 24'-0" long. This unit, consisting of a large room, that might serve as a living room and bedroom; a kitchen; and a bath, provides the essentials of shelter and comfort if no other rooms were added. Further, this unit is in the shape of a rectangle, that is economical to build, possesses good proportion and provides rooms of adequate relative size. It is



DETACHED COTTAGE AT MONTAUK BEACH, LONG ISLAND

ROBERT TAPPAN, ARCHITECT

a simple matter to add additional rooms to this unit as the requirements demand. These rooms can readily be arranged to serve as bedrooms or one may be arranged to serve either the function of bedroom or dining room as the occupants desire. The arrangement of these rooms with relation to the central or starting unit is largely a matter of ingenuity on the part of the designer, even to the matter of developing them as single or double houses. All closets are built as units outside of the house. This is an important feature of economy in planning and tends to eliminate waste space. Incidentally, closets built in this way may be incorporated as interesting features of the exterior and are also picturesque.

The construction of these workmen's houses may be briefly stated as consisting of concrete foundations, walls and partitions of units built of wooden studs covered on both sides with a wood fibre wall board, and slate roofs. The exterior walls are covered with metal lath and stucco. Interior walls and ceilings are plastered directly on the wall board, strips of wire cloth being used over the joints between the panels. Trim is of wood stained and waxed. Casements are of metal, standard sizes being used throughout. No basements were used under these houses. The space below the floor is ventilated by means of wire mesh covered openings left in the outside walls.

Economy dictated the placing of the bathroom and kitchen back to back, with the bath fixtures



UNIT CONSTRUCTION IS FLEXIBLE AND DOES NOT LIMIT VARIETY IN COMPOSITION OR DESIGN

on one side of the partition and the sink on the other. Fixtures used are simple, substantial and of standard design.

The heating system is hot water comprising the usual radiators and a radiator heater located in the kitchen. Domestic hot water is provided by means of an oil burning unit.

An interesting innovation in the electric wiring system is the elimination of base receptacles. A standard type of bracket fixture was designed for this particular group of houses. This fixture provides in one unit a light outlet and a receptacle outlet. The latter is located in the canopy below the light.

(Concluded on page 372)



TWO FAMILY COTTAGE AT MONTAUK BEACH, LONG ISLAND

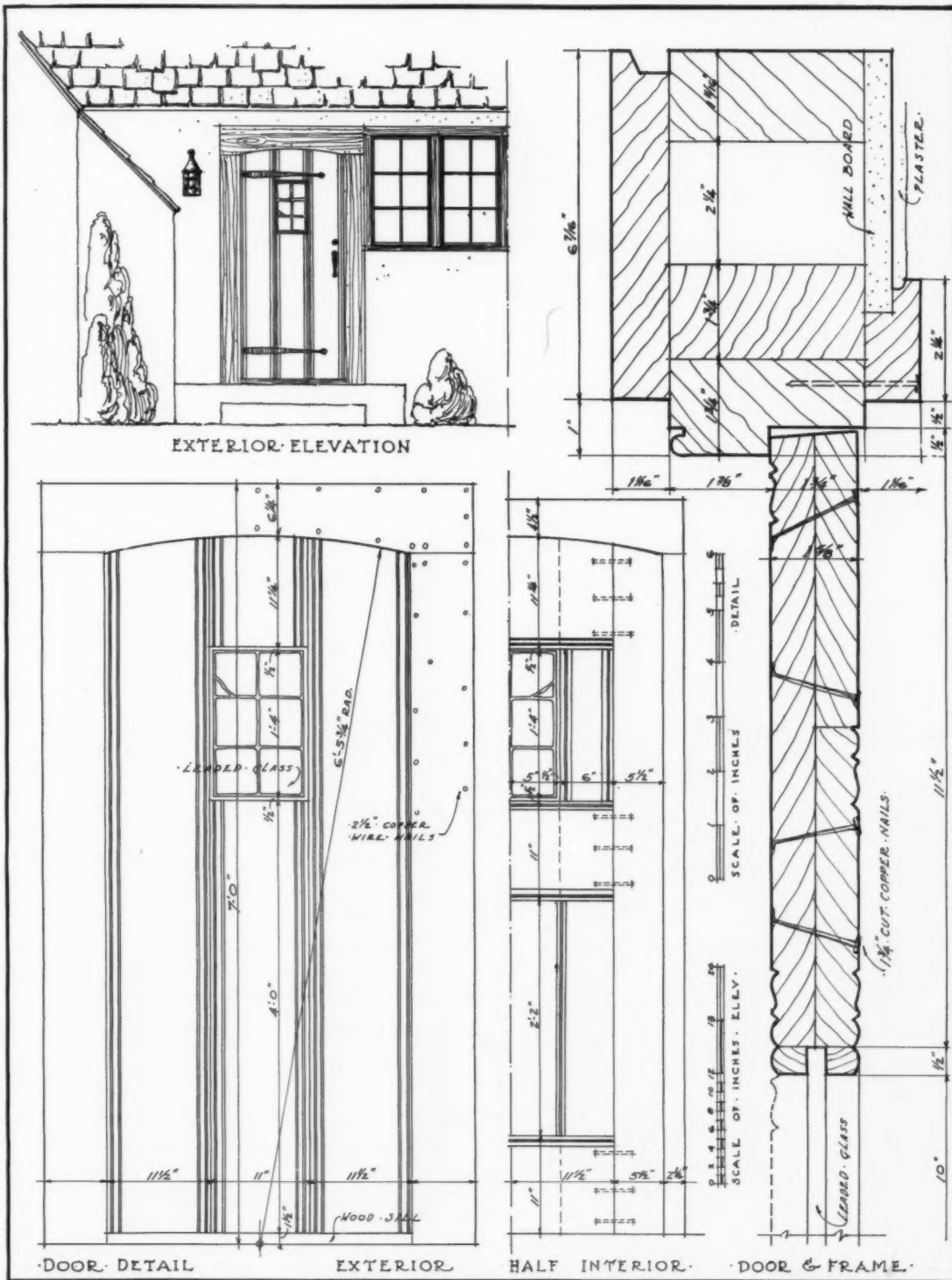
ROBERT TAPPAN, ARCHITECT



DETAIL OF A HOUSE AT MONTAUK BEACH, LONG ISLAND

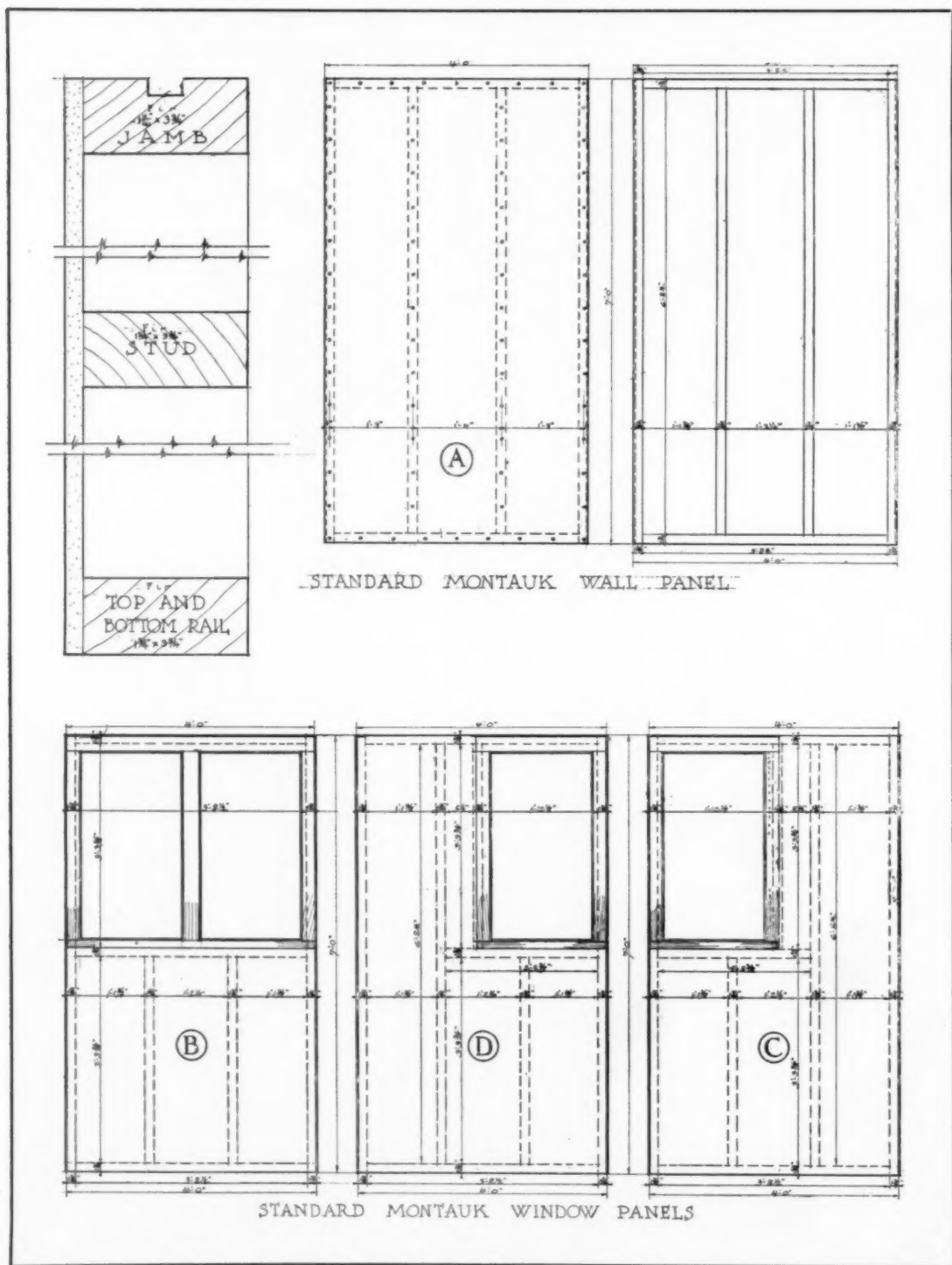
ROBERT TAPPAN, ARCHITECT

*(See detail drawing on opposite page)*



DETAIL OF DOORWAY SHOWN ON OPPOSITE PAGE

ROBERT TAPPAN, ARCHITECT



TYPICAL STANDARD UNITS, WORKINGMEN'S HOUSES, MONTAUK BEACH, LONG ISLAND

ROBERT TAPPAN, ARCHITECT

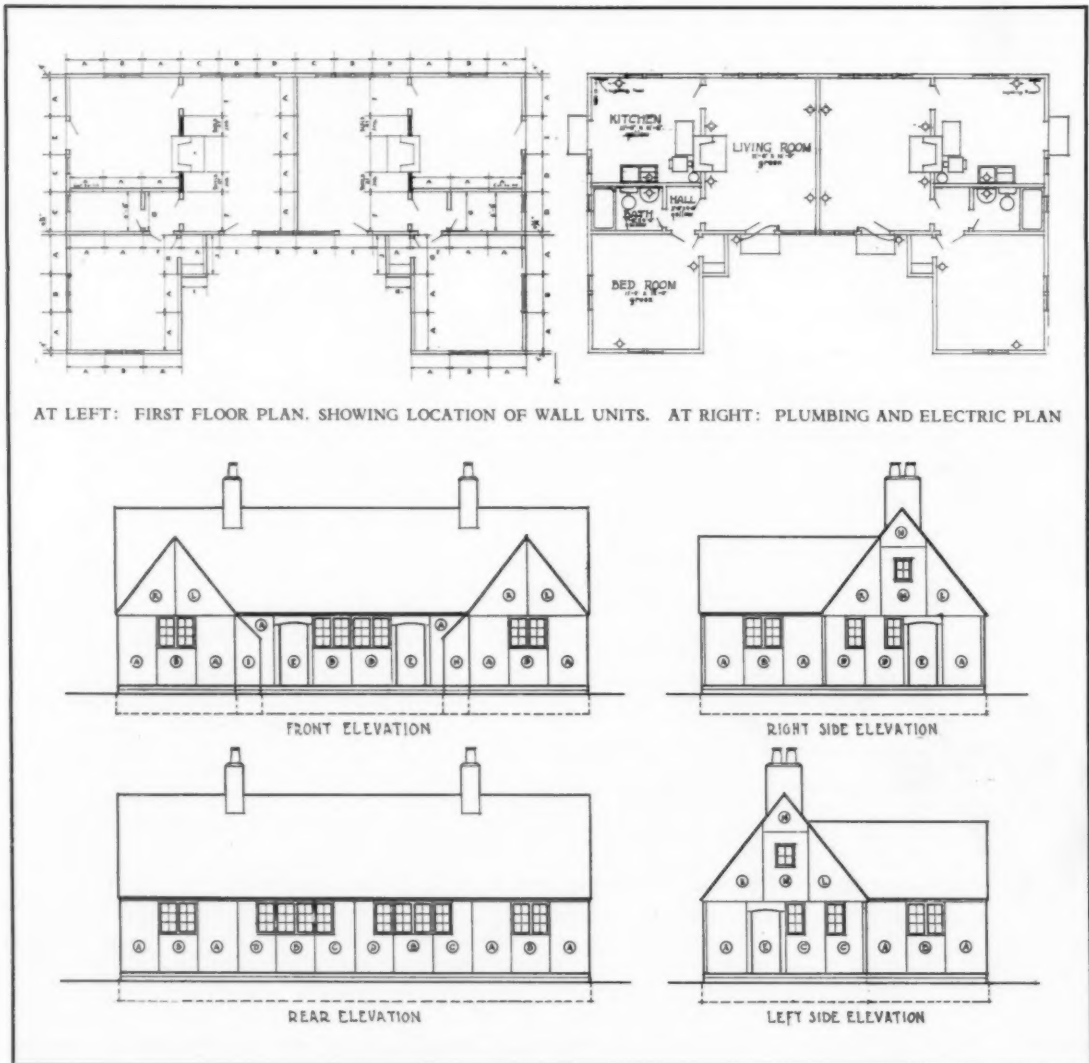


(Continued from page 367)

These small houses, while primarily intended for workmen employed in the Montauk development, are exceedingly livable, and thoroughly practical as year-round houses. They are substantial in construction and through a logical use of materials represent minimum upkeep and low first cost. They have demonstrated the practical application of unit construction to low cost housing. In group development they can be erected complete in an average of two and one-half weeks. While the idea has in this case been applied to relatively small houses, there appears to be no reason why it should not be enlarged to include much larger houses.

When low cost is a deciding factor it is advantageous to build these houses one story in height, otherwise there is nothing to prevent their being built one and one-half or two stories in height.

Unit construction and standardization are terms too often associated with the idea of standardization of design or the hampering and limiting of design. This is contrary to fact for units of reasonable size are an aid toward simplifying design and do not place limitations on variety or flexibility in arrangement or composition, and do effect economies obtainable in no other way. Economic laws require change in present practices to meet future demands.



AT LEFT: FIRST FLOOR PLAN, SHOWING LOCATION OF WALL UNITS. AT RIGHT: PLUMBING AND ELECTRIC PLAN

FRONT ELEVATION

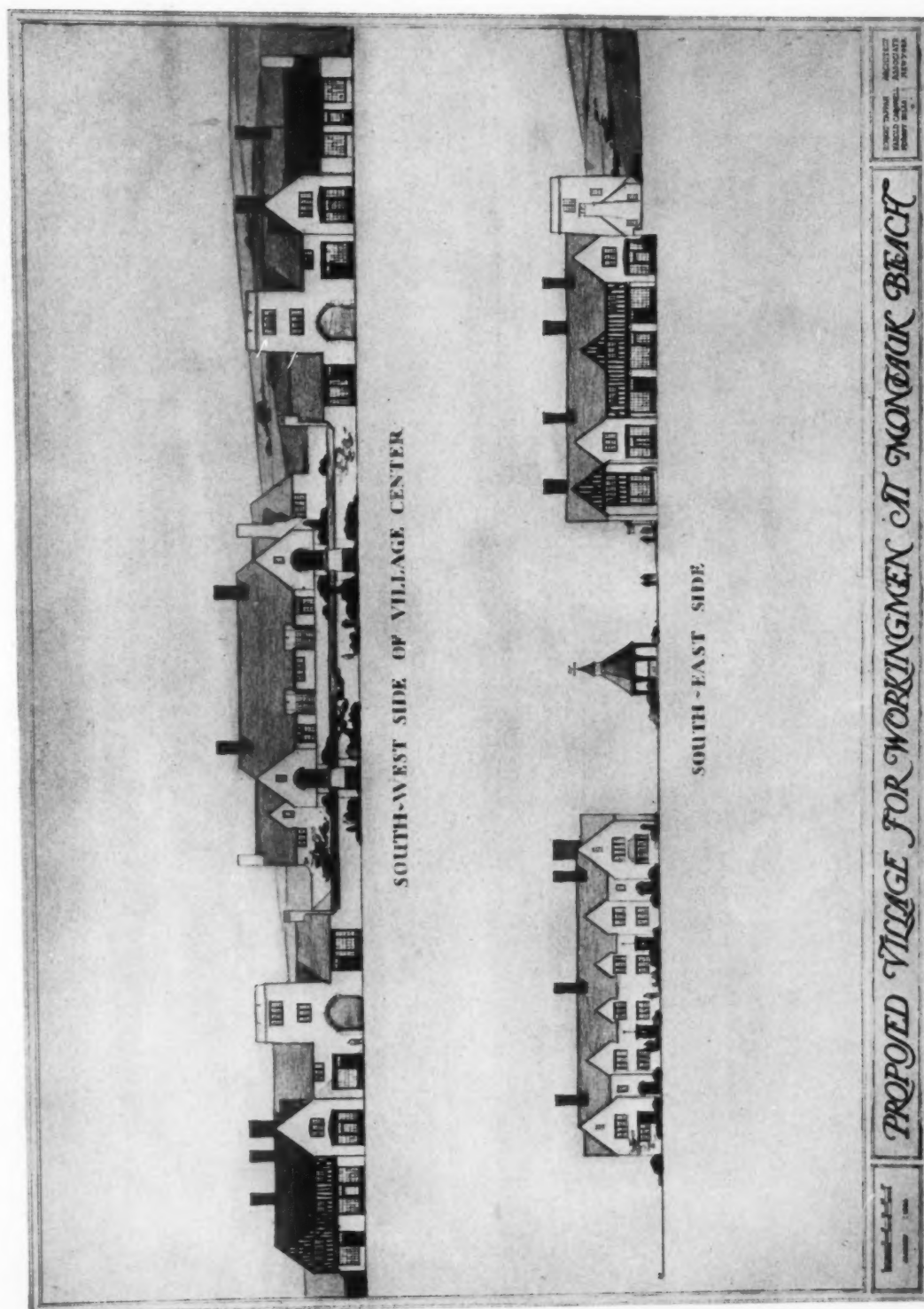
RIGHT SIDE ELEVATION

REAR ELEVATION

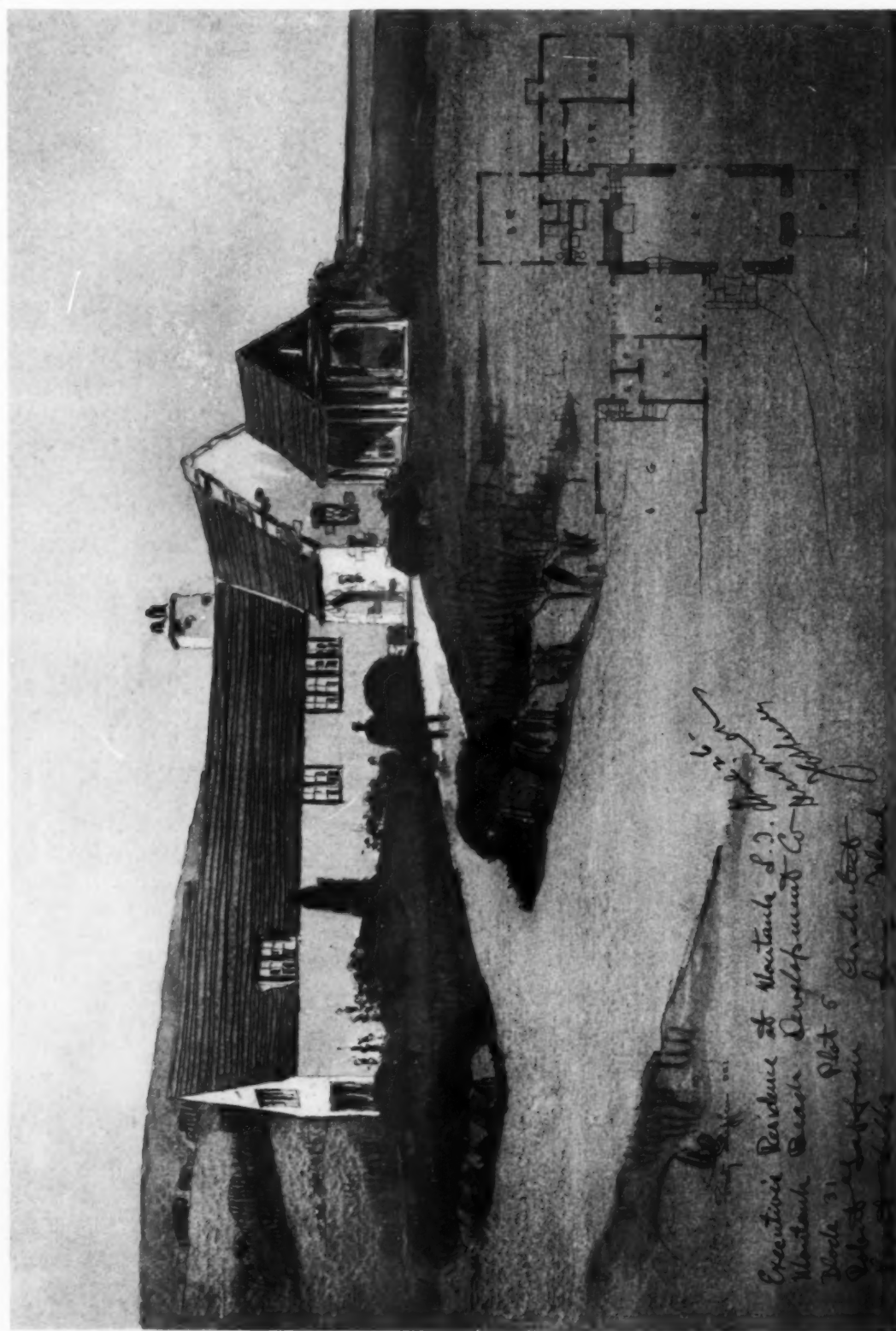
LEFT SIDE ELEVATION

PLANS AND ELEVATIONS OF A TWO FAMILY HOUSE AT MONTAUK BEACH, LONG ISLAND, SHOWING LOCATION OF UNIT PANELS

ROBERT TAPPAN, ARCHITECT



ROBERT TAPPAN, ARCHITECT



ROBERT TAPPAN, ARCHITECT



TYPICAL HOUSES, PROPOSED VILLAGE FOR WORKINGMEN, MONTAUK BEACH, LONG ISLAND

ROBERT TAPPAN, ARCHITECT



TYPICAL HOUSES, PROPOSED VILLAGE FOR WORKINGMEN, MONTAUK BEACH, LONG ISLAND

ROBERT TAPPAN, ARCHITECT



FORUM OF THE FOUNDERS, LOOKING TOWARD MAIN ENTRANCE

## HOW THE SESQUI-CENTENNIAL WAS DESIGNED

By JOHN MOLITOR, *Supervising Architect*

WHAT do they think? What do they say?—those millions of people who visit the Sesqui-Centennial Exposition at Philadelphia. The answers depend on what they are looking for. And just because of their varying points of view, the comments run the scale from harshest criticism to extravagant praise.

The Exposition's many visitors can be divided into two classes: the first, those whose sole interest is in what they see contained in the various exhibition buildings; the second, those who may have felt some curiosity, in greater or less degree, as to the Exposition as a whole; as to the investment value of its architecture; and how it developed as it did.

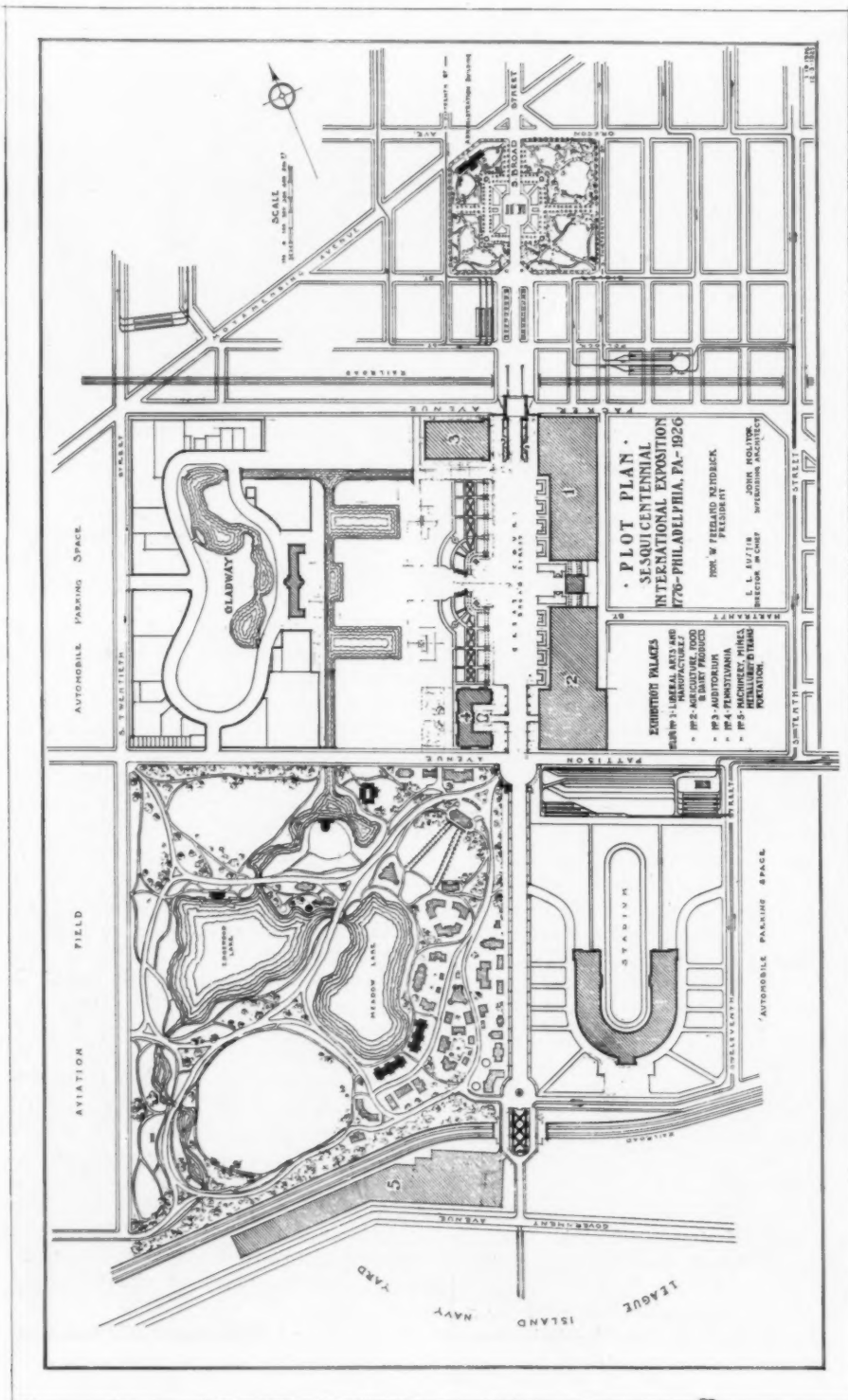
Just one man really made it happen—the Honorable W. Freeland Kendrick, Mayor of Philadelphia. He, assuming at the outset the title and office of President of the Sesqui-Centennial Association, visioned its inception and through his contagious optimism and enthusiasm inspired those to whom he necessarily entrusted the details of accomplishment; and they, ever loyal to their chief, but fighting against the pull-backs of apathy, delay, and insufficient financial support, did in the end, produce a result worthy the occasion that it celebrates.

Realizing at the start the immediate need for a definite plot plan as well as plans for buildings, the Mayor determined to use the already existing agency of the Office of the City Architect of Philadelphia and appointed the City Architect, John Molitor, the Supervising Architect for the Exposition.

As the Exposition's site had already been chosen, the problems of the Supervising Architect consisted in the determination of the number, size, and location of main buildings and in the selection of their styles and architectural and structural design. State and secondary buildings, gladway concessions and commercial booths, while originally intended to come under his supervision, were later withdrawn and were designed and erected without asking his approval. The Supervising Architect was, however, consulted by the Architect of the Pennsylvania State Building, the only one designed in harmony with the prevailing style of architecture and color treatment.

Because a portion of South Broad Street, a straight and wide avenue, was included in the site, the Supervising Architect decided that advantage should be taken of its already existing planting, curbing, and parking, and that it should be the Exposition's main north and south axis; that on this axis the principal buildings should stand and that their unity should be emphasized by arranging that their facades on one side should bound a long formal court whose other side should be a screened treatment separating the level of the courts formality from the freer motifs that would be appropriately expressed in the lower adjoining westerly area.

League Island Park also was included in the site of the Exposition. In its easterly section the permanent Municipal Stadium had just been completed, while the westerly section contained a system of winding roads and paths, trees and shrubbery, and two artificial lakes. In the charm-



JOHN MOLITOR, SUPERVISING ARCHITECT



AIRPLANE VIEW OF SOUTHEAST SECTION OF EXPOSITION  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.  
JOHN MOLITOR, SUPERVISING ARCHITECT

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THE NAVY YARD, BACK BASIN, SHOWING TRANSPORTATION BUILDING IN THE BACKGROUND, THE U. S. FRIGATE CONSTELLATION, AND DEWEY'S FLAGSHIP, THE OLYMPIA, ARE IN FOREGROUND

SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

JOHN MOLITOR, SUPERVISING ARCHITECT

*THE AMERICAN ARCHITECT*

November 5, 1926 PLATE 266





EXTERIOR VIEW. MAIN PORTICO. PALACE OF LIBERAL ARTS  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA. PA.  
JOHN MOLITOR. SUPERVISING ARCHITECT

THE AMERICAN ARCHITECT  
November 5, 1926 PLATE 267





SKETCH OF CORNER PAVILION, PALACE OF LIBERAL ARTS  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.  
JOHN MOLITOR, SUPERVISING ARCHITECT

*THE AMERICAN ARCHITECT*  
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INTERIOR OF MAIN PORTICO. PALACE OF LIBERAL ARTS  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.  
JOHN MOLITOR, SUPERVISING ARCHITECT

*THE AMERICAN ARCHITECT*  
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ADMINISTRATION BUILDING



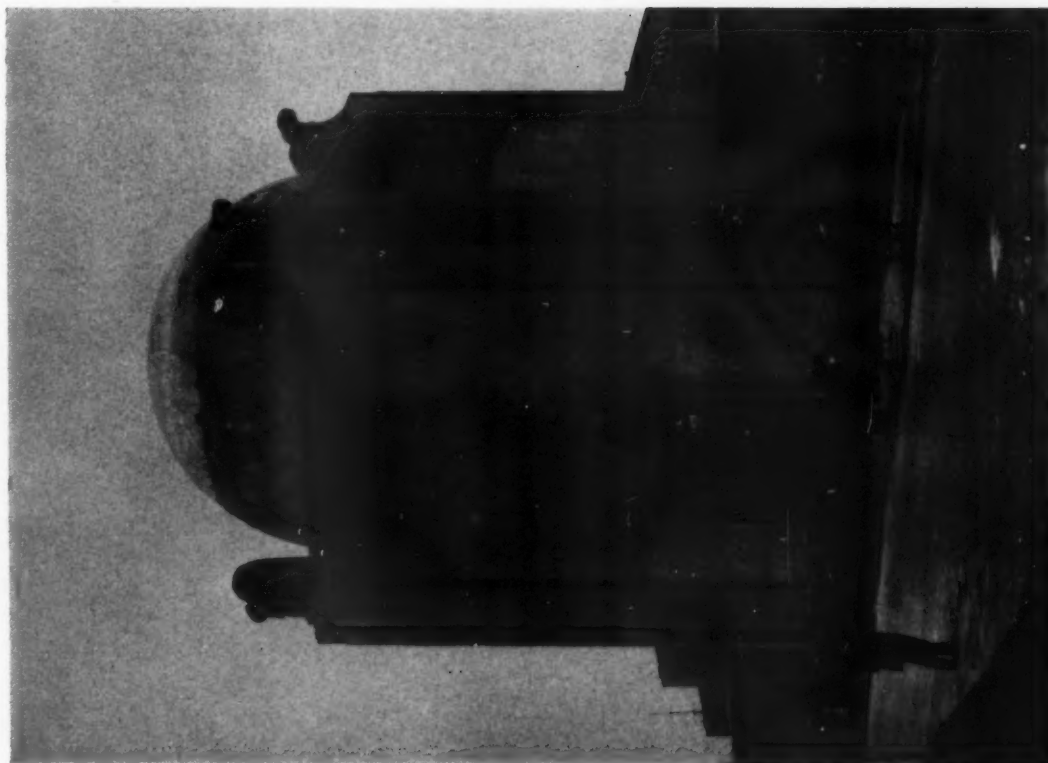
AN ENTRANCE TO PALACE OF LIBERAL ARTS

SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

JOHN MOLITOR, SUPERVISING ARCHITECT

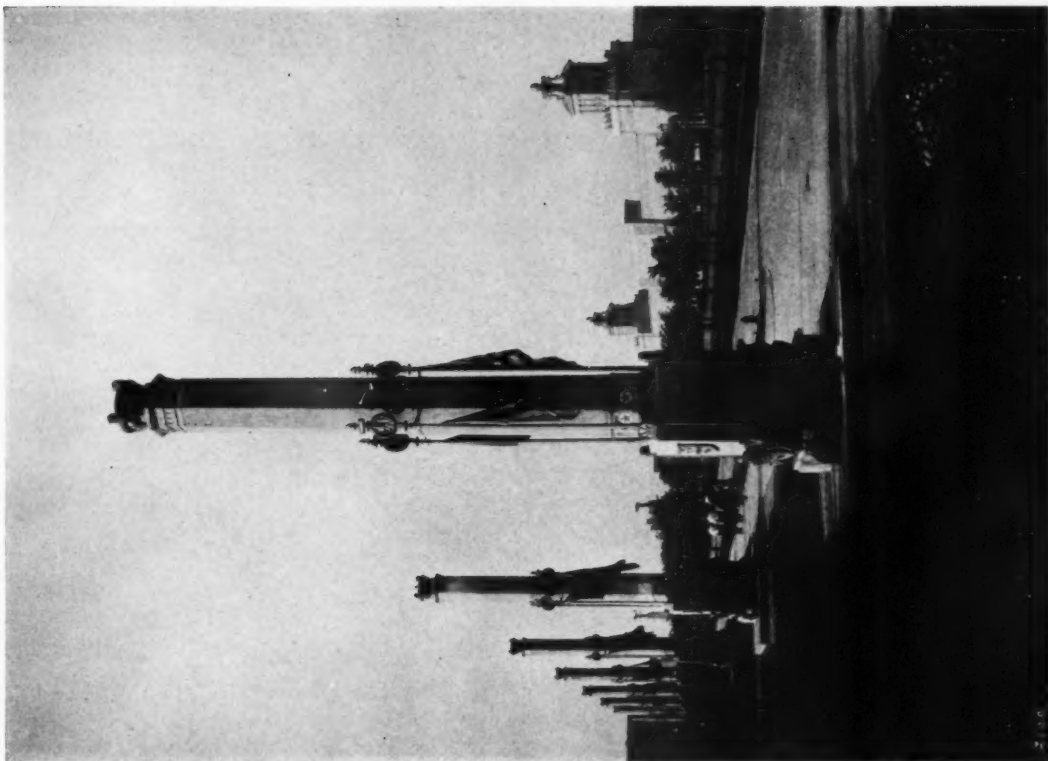
*THE AMERICAN ARCHITECT*  
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TRANSPORTATION BUILDING

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COLUMNS OF "THE SIGNERS"

SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

JOHN MOLITOR, SUPERVISING ARCHITECT





MAIN ENTRANCE, PALACE OF FINE ARTS

SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

JOHN MOLITOR, SUPERVISING ARCHITECT—ALEXANDER BOWER, DIRECTOR, DEPARTMENT OF FINE ARTS

*THE AMERICAN ARCHITECT*

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ENTRANCE HALL, PALACE OF FINE ARTS

SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

JOHN MOLITOR, SUPERVISING ARCHITECT—ALEXANDER BOWER, DIRECTOR, DEPARTMENT OF FINE ARTS

*THE AMERICAN ARCHITECT*

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COLONNADE IN COURT OF PALACE OF FINE ARTS

SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

JOHN MOLITOR, SUPERVISING ARCHITECT—ALEXANDER BOWER, DIRECTOR, DEPARTMENT OF FINE ARTS

*THE AMERICAN ARCHITECT*

November 5, 1926 PLATE 274





THE PERSIA BUILDING—CARL A. ZIEGLER, ARCHITECT  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

*(See page 383 for description of this building)*

THE AMERICAN ARCHITECT  
November 5, 1926 PLATE 275

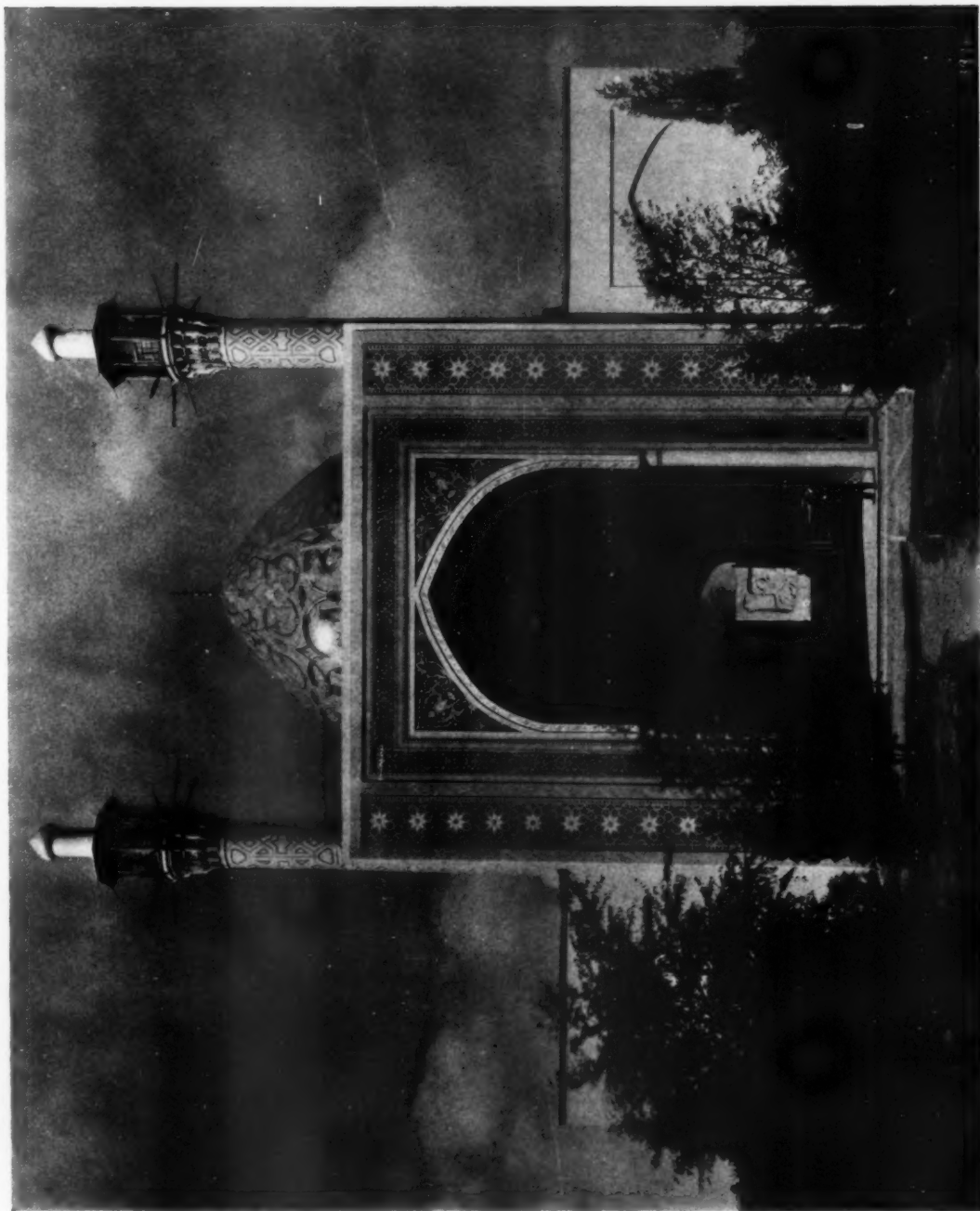




THE PERSIA BUILDING—CARL A. ZIEGLER, ARCHITECT  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

*THE AMERICAN ARCHITECT*  
November 5, 1926 PLATE 276





THE PERSIA BUILDING—CARL A. ZIEGLER, ARCHITECT  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

THE AMERICAN ARCHITECT  
November 5, 1926 PLATE 277

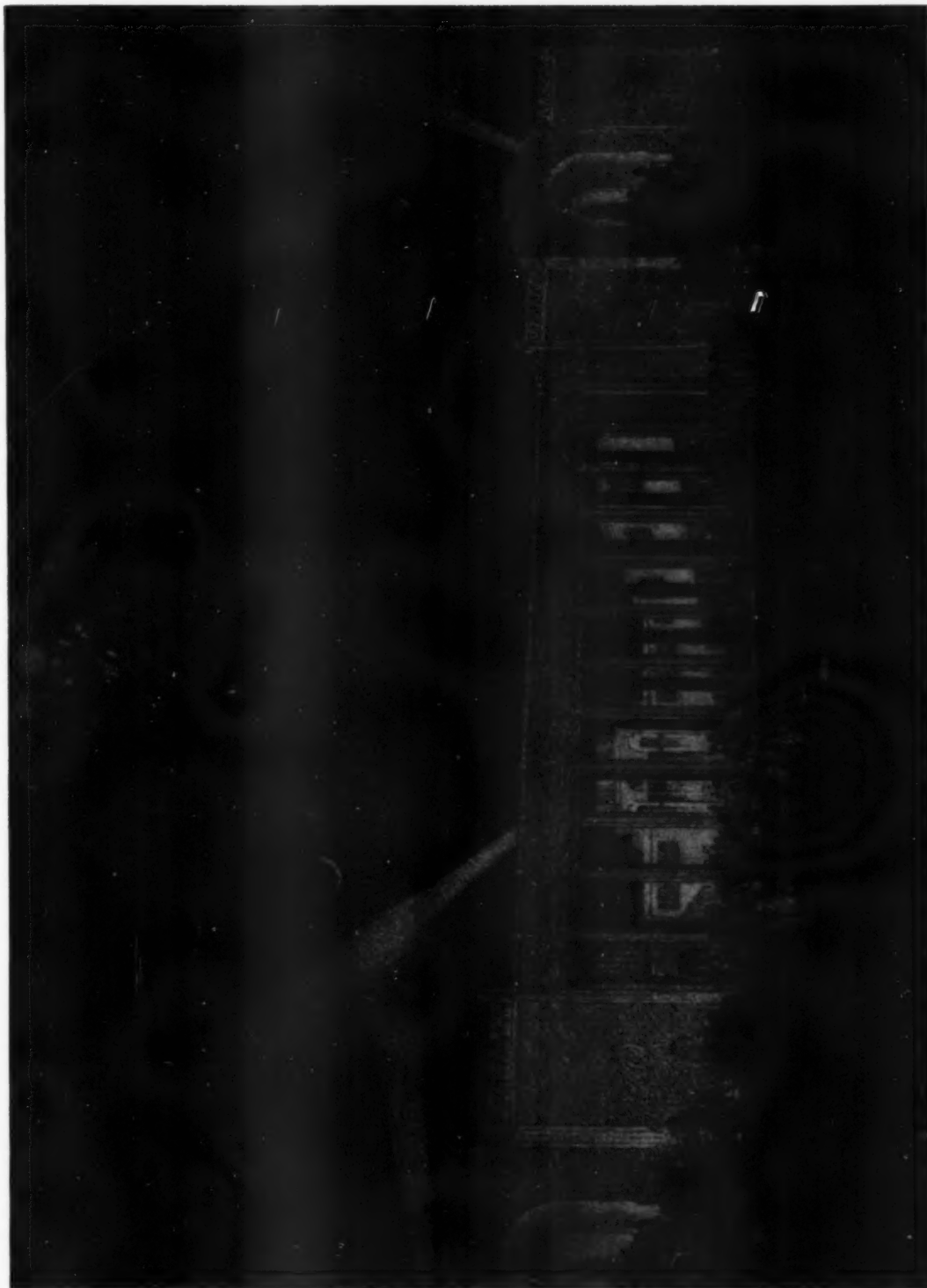




THE PERSIA BUILDING—CARL A. ZIEGLER, ARCHITECT  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

*THE AMERICAN ARCHITECT*  
November 5, 1926 PLATE 278





THE PENNSYLVANIA STATE BUILDING—RALPH B. BENCKER, ARCHITECT  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.  
(See page 384 for description of this building)

THE AMERICAN ARCHITECT  
November 5, 1926 PLATE 279





THE PENNSYLVANIA STATE BUILDING—RALPH B. BENCKER, ARCHITECT  
SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

*THE AMERICAN ARCHITECT*  
November 5, 1926 PLATE 280





GENERAL VIEW, SHOWING AGRICULTURE AND FOOD PRODUCTS BUILDINGS

ing informality of this park, a restful contrast to the regularity of the main portion of the site, to the north, it was determined to set those separate buildings of States and foreign governments which deserved to stand somewhat apart, each in its own setting.

While the questions of the number, size, and locations of buildings were of concern to the Supervising Architect, it soon became apparent to him

that the predominant question was one of use—a question to be answered by other departments of the Exposition Association—and that even “how many” and “how large” and “where” were details not for his decision. What did remain, however, for the Supervising Architect’s study and development were the big questions of design, architectural and structural, and the most open question of all—style.



THE AUDITORIUM

In a city such as Philadelphia, where the precedents of what is known as the Colonial style abound, it might have been thought that this style should have been selected as the Exposition's keynote, and, indeed, much thought was given to its appropriateness. When, however, the scale of the buildings that were to accommodate the tremendous demands for exhibition space, and to dominate the site of a thousand acres, began to be realized, it was apparent that any style depending upon the delicacy of its ornament and the refinement of its detail would be inadequate. A few buildings, indeed, intended to be replicas of Colonial mansions, are to be found here and there about

long and the other 392 feet long be so composed as to retain an effect of bigness in a setting of big things if its treatment was not to be big?

If, then, it should be asked in what style have the principal buildings been designed, the answer might be "a new style"—"an exhibition style"—which was evolved for the occasion—to give impressions of beauty and dignity softened to meet a holiday mood. While the precedents of previous expositions have been considered, a result has here been achieved based upon a free use of the contrast to be derived between great unbroken wall surfaces and the "accents" of embellishment, proportion, and color, provided by pavilion, tower, and en-



GENERAL VIEW, SHOWING PALACE OF FINE ARTS

the Exposition grounds, not interfering with the general scheme, but each in itself commemorating most appropriately some special aspect of the struggle for Independence. The Administration Building, also, it was felt, because of its setting, unrelated and at a distance from other buildings, would be most fittingly designed in the Colonial manner.

But the main Exposition buildings, the Palaces of Liberal Arts, Agriculture, Transportation, Fine Arts, Education, and the Auditorium were too vast to be considered fitting subjects for such a regulated and conventional treatment as the application of Colonial architecture would have imposed. How could a building with one of its facades 970 feet

trance opening; the mass, in other words, was made to prevail, and the interest was sought through a pleasing relation of solid and void, the former in great sweeping extents of tinted textures, the latter in concentration of color and elaborated detail. And all of this was controlled by the ever-present considerations of economy and rapidity of construction.

Indeed, so great was the necessity to rush the job, that construction had to go hand in hand with design. The shop drawings of the steelwork for the columns, girders and trusses proceeded side by side with the architectural ornamental details. And even after the main buildings had been erected, vast



PRINCIPAL ENTRANCE TO EXPOSITION



EDUCATIONAL BUILDING

SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.

JOHN MOLITOR, SUPERVISING ARCHITECT

areas of swamp were still being filled in, where other buildings should have to stand. There was danger that the press of practical necessities would lead to mediocrity of treatment and insipidity of effect. To escape these dangers, it was felt there was demanded nothing less than a bold originality of design emphasized by a vividness and verve of texture and color.

Color—what tone should prevail?—and, then, what tints? There had been other expositions of other days, each with its characteristic color effect, the most successful, perhaps, being the Chicago World's Fair in 1893, which was known as the "White City." But none of the precedents fitted this case, where the haste of construction made it necessary to treat undried stucco in a dusty atmosphere. Partly for this reason, but chiefly to secure the maximum of effectiveness both by day and by night, a scheme of variegated tints of yellow, pink, and salmon in pastel shades was evolved, and the Sesqui was christened "The Rainbow City." These color effects in the plaster were heightened by a bold, apparently accidental, stroking of the trowel to produce a wall texture in keeping with the immensity of scale.

## THE PRESERVATION OF RURAL ENGLAND

UNDER the above title Professor Patrick Abercrombie has written an excellent little book in which he urges that we ought to take immediate steps to insure the preservation of the amenities of rural districts, states *The Architect and Building News*, London. New buildings, new roads and new industries are bound to come, but the manner of the coming should be regulated so that old and new may be linked up as parts of one consistent whole. Professor Abercrombie suggests that there should be a Regional Committee which should be the statutory authority for administering a plan in rural districts unless a rural council is able and capable, otherwise the authority should fall on the county council, which is not at present a town planning authority. It is dangerous to delay, as the momentum with which disfigurement is at work is constantly increasing. We believe this work is in reality even more urgent in the country than in our towns, for, after all, the area of the country very much exceeds that of urban districts and a little bad building or unwise development may completely spoil the appearance of every square mile in a beautiful locality.



PALACE OF FINE ARTS

## THE PERSIA BUILDING AT THE SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION

CARL A. ZIEGLER, *Architect*

*See Plates Nos. 275 to 278 inclusive, in Plate Section*

TRANSPORTED on a magic carpet, as it were, out of the fourteenth century and deposited beside the lake at the Philadelphia Exposition is the building erected by the Imperial Government of Persia, under the direction of the Persia Society of New York. Over the road entrance is an inscription which, translated, reads as follows:

This building has been erected by the Imperial Persian Government as a symbol of an ancient civilization, and in celebration of the one hundred and fiftieth anniversary of the Declaration of Independence of the United States of America, and as a token of the everlasting friendship existing between these nations.

The gesture is a noble one and to the Persian mind with its background of centuries of culture it could only be accompanied by a perfect example of Persian art. Could anything be more splendid than the expression of so gracious a sentiment through the medium of an architecture that is noted throughout the world for its poetic quality?

The building should be preserved, not only for its architectural beauty, but as a lesson on how to express sincerity through the medium of art. If you will remember that the word sincerity is derived from the latin words "sine" (without) and "cere" (wax), which were used by the Romans in their building contracts to prevent the contractors from filling up the defects on the face of marble work with wax, we may also see that to commemorate a great national event with shoddy architecture, shows a lack of sincerity.

The Persia Building is not a copy of any particular building, but is studied from the Persian mosques of the fourteenth century. The dome, so different in contour from the bulbous domes of India and Turkey, is the principal feature of the design, and always there is the screen over the main portal, flanked with minarets at either end. This screen has the effect of giving an interesting perspective to the dome when seen from the front. The minarets usually contained stairways by which the muezzin mounted to the balcony to call the faithful to prayer.

The Persia Building, although comparatively small, has maintained a splendid scale, the main portal being 40 feet in height and the dome 65 feet from the ground. In plan, the structure contains the main portal toward the lake with an octagonal rotunda under the dome which is lighted by windows in the drum, and on either side of the rotunda are two large exhibition rooms. The building was constructed of frame, covered with wood sheathing and expanded metal lath and plastered with cement stucco. The work, including the very tedious painting, was done in about five months.

The decoration for the building was studied from fragments of fourteenth century faience mosaic which were sent over from Persia, and so well has this work been done, that it is difficult even on close examination to tell that the material is not tile.

The dome is of a turquoise blue background on which the design is worked out in cobalt blue, emerald green and corn yellow and this, when mirrored in the lake, is a thing of beauty difficult to describe.

The doors are all carved antique doors of the fifteenth and sixteenth centuries, some of which are carved out of solid blocks of wood, the carving being of the most exquisite design. The Persian doors are so small that eight doors had to be framed together for each of the main entrances to the building.

The illustrations in this issue will give some idea of the beauty of the building, but it is impossible to describe the effect of the color which causes a reaction in one's mind that is beyond words. It is interesting to note, however, that no red was used in the decoration, as fourteenth century Persian tile does not contain that color, probably because they were unable to make a permanent red at that time. The colors used are turquoise and cobalt blue, emerald green, corn yellow, black and white.

The building was designed by Carl A. Ziegler, architect, of Philadelphia, and the decoration was done by the Chapman Decorative Company.

The achievement of Persia will long be remembered.



## THE PENNSYLVANIA STATE BUILDING AT THE SESQUI-CENTENNIAL INTERNATIONAL EXPOSITION

RALPH B. BENCKER, *Architect*

*See Plates Nos. 279 and 280 in Plate Section*

IN the building which represents the Commonwealth of Pennsylvania at the Sesqui-Centennial Exposition, there are symbolized all of the glories of its contribution to the past history of our country,—all of the wealth and progress which characterize its present position among the States. In its design no forms have been borrowed from European prototypes to make it "Classic," nor has it followed "Colonial" precedent, thus relegating itself to a single past expression of our national life. Its trend is modern, and its dominant note the "vertical" motif which is gradually asserting itself as the typical American contribution to architectural expression. Thus, being expressly American, it serves not only to memorialize an event of 150 years ago, but as well the present greatness of the state in industry, resources, culture, government and art. Here are displayed the by-products of activity in these phases of our state life, and the gracious hospitality which characterizes its people.

The building, which is one of a group of four (including the Liberal Arts and Manufactures Building, Agriculture and Food Products Building, and the Auditorium), is on the northwest corner of Broad Street and Pattison Avenue, fronting on Broad Street. This lofty structure in rose-tinted stucco is built around a court 120 feet square, the general height of the building being about 43 feet, the total width 330 feet and the depth 225 feet. The court is entered from Broad Street through a wide colonnade of thirteen bays, typifying the original Colonies of which Pennsylvania was the Keystone State. Flanking the court and extending the full depth of the building are two exhibition halls 93 feet wide, generously supplied with light and air by huge motor-operated monitor sash in the roof. Across the back of the court and between the exhibition wings lie the administrative offices grouped around the great sixteen-sided reception rotunda which soars aloft to a height of 75 feet. Access to the exhibition halls from the rotunda is through two large square foyers. On the south side of the rotunda facing the court is the hostess room and its ante-chamber, with an assembly room across the foyer to seat about 212 people. On the north, similarly disposed, are the commissioners' room and its ante-chamber, with an adjacent lecture hall with a seating capacity of 256. Ample toilet facilities are located in this wing. Between the exhibition wings and the court run low arcades, intimate in their scale, serving to accentuate the dignified height of the building in general.

The Broad Street facade comprises two exhibition halls with gabled ends, joined by the tall colonnade. In each gable are immense niches sheltering heroic groups of sculpture representing industry and agriculture.

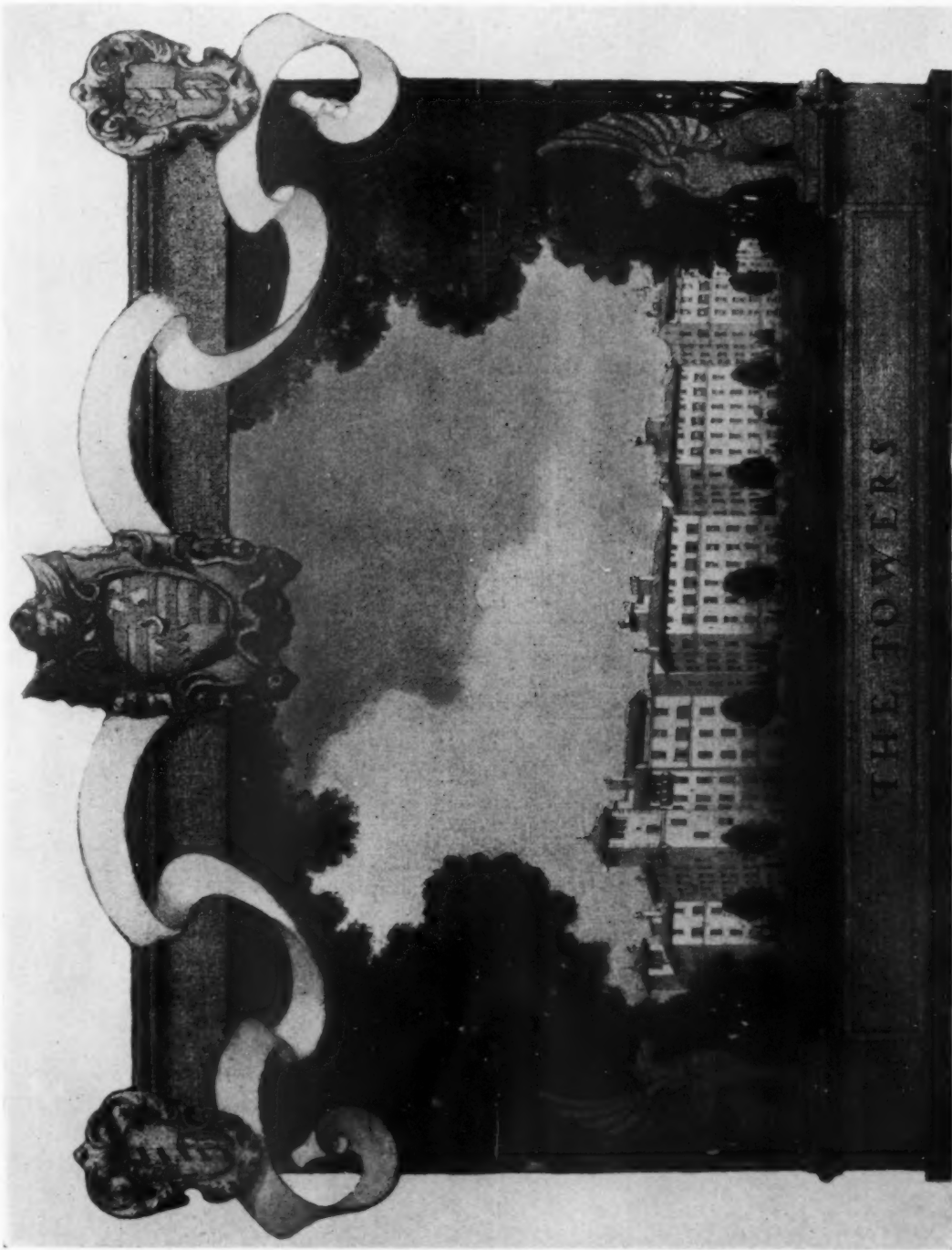
As one passes through the colonnade with its richly colored ceiling, high overhead are caught glimpses of the towering central portion of the rotunda, its gilded clerestory pierced with designs of keystone shapes filled with vari-colored glass.

The central feature of the court is an immense pool, keystone-shaped, in which one sees reflected the fourteen wall panels depicting in low relief figures of heroic size, the scenes of our notable history from the time of Penn to the present age; and in the center of all, the entrance porch to rotunda, its two side pylons each containing a colossal sculptured figure in higher relief,—one a male, the other a female, suggesting the equality of the sexes.

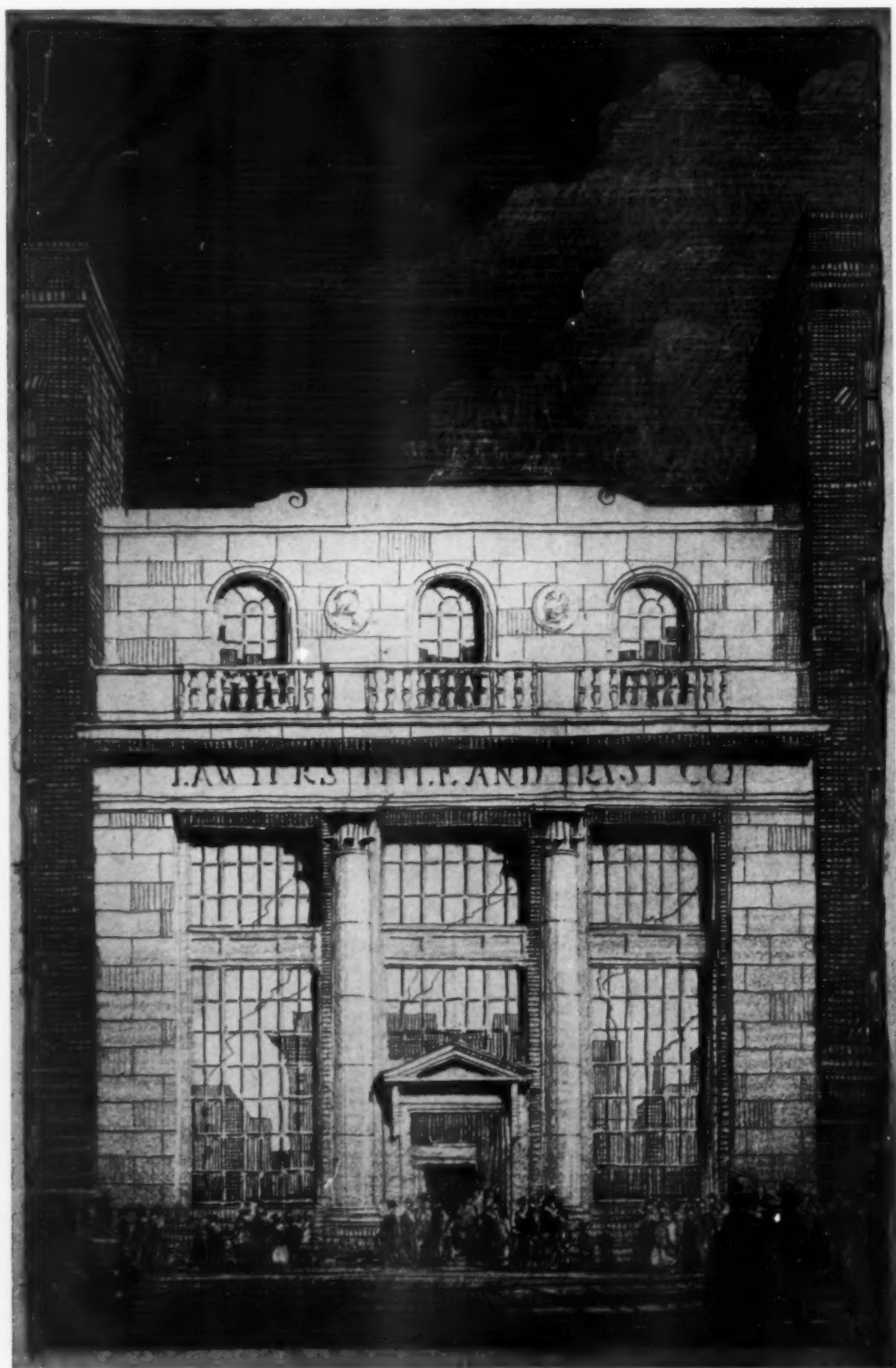
In a panel above the two thin graceful columns of the porch is the coat-of-arms of Pennsylvania, carved in colored cement. Above the doorways is a sculptured frieze of figures representing the progress of mankind since Pennsylvania became a State, and this procession is taken up and continued above the numerous groups of doorways providing adequate entrance and exit for the several parts of the building. Over the front and rear entrances to the rotunda are great screens of pierced plaster,—the deep openings filled with glass in delicate interweaving keystone designs.

Rich color is lavished on the interior, but everywhere in harmony and restraint. Around the sixteen-sided rotunda run two nine-foot aisles of slender columns supporting arches which mount higher and higher until, in the roof of central portion which is about 50 feet in diameter, beamed and paneled in plaster, the final crowning color note is reached. The floor is laid off in patterns of color and the walls toned down by a stencil design.

At night the building will be "painted with light" from concealed reflectors. The lower portions are to be a study in pleasing contrasts with the light values silhouetting the sculpture on the front and displaying the panels in the court. Above, the intensity is gradually increased until the great rotunda tower becomes a glowing torch. Lesser beams are also directed through the skylights which roof the side aisles of the rotunda so as to create the same pleasant glow of soft light that plays about the walls and columns by day.



THE TOWERS APARTMENTS, JACKSON HEIGHTS, N. Y.—ANDREW J. THOMAS, ARCHITECT  
FROM THE ORIGINAL SKETCH BY THOMAS C. STAPLETON



LAWYERS' TITLE AND TRUST CO., JAMAICA, N. Y.—ANDREW J. THOMAS, ARCHITECT  
FROM THE ORIGINAL SKETCH BY THOMAS C. STAPLETON

# HEGGIE-SIMPLEX

ELECTRIC-WELDED STEEL BOILERS



JAMES G. HEGGIE  
who in 1892 founded the Heggie Organization and  
today is President of the Heggie-Simplex Boiler Co.

## For 34 years Heggie has justified public confidence

**T**HROUGHOUT a third of a century, the organization headed by James G. Heggie has so consistently maintained high quality in the fabrication of boilers and steel plate work of all kinds, and has dealt with such unfailing, unvarying integrity, that it is frequently said in the trade, "If Heggie makes it, it must be right!"

To justify the Heggie name, the Heggie-Simplex boiler had to be outstanding. A boiler whose design throughout is based upon scientific heating principles, free from tradition. A boiler that combines in one portable steel unit the recognized advantages of all earlier types. A boiler built to Heggie standards in every detail, so as to be "The Quality Boiler of the Market."

### HEGGIE-SIMPLEX BOILER COMPANY, Joliet, Illinois

#### Representatives in

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| Akron            | Chicago        | El Paso         |
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| Baltimore        | Dallas         | Houston         |
| Birmingham       | Davenport, Ia. | Indianapolis    |
| Boston           | Dayton         | Jacksonville    |
| Buffalo          | Denver         | Joliet          |
| Casper           | Des Moines     | Kan. City, Mo.  |
| Charleston, S.C. | Detroit        | La Crosse, Wis. |
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|                  | Chattanooga    | Elmira          |



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| Memphis     | Racine, Wis. | Syracuse         |
| Milwaukee   | Raleigh      | Tampa            |
| Minneapolis | Rochester    | Toledo           |
| Nashville   | Rockford     | Tomahawk, Wis.   |
| New Haven   | San Antonio  | Tulsa            |
| New Orleans | Savannah     | Youngstown, O.   |
| New York    | Schenectady  | Washington, D.C. |
| Okla. City  | Scranton     | Waterloo, Ia.    |
|             | Omaha        | Shreveport       |

Just look up "Heggie-Simplex Boiler Co." in the phone book in any of the above cities for representative's number and address.

Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual

## A SCHEDULE OF PROFESSIONAL CHARGES

WE have received from Charles Kyson, President of the Architects' League of Hollywood, California, a pamphlet setting forth a schedule of professional charges for architectural services.

Mr. Kyson writes:—

"This document has received very careful study from a number of architects who are members of the Architects' League of Hollywood, with the purpose of making it clear what should be charged for adequate architectural service, and endeavoring to clarify the relation between architect and owner in regard to a number of points which frequently result in controversy, ultimately leading, in many cases, to a court of law, an unhappy situation which could have been avoided if many of these points of contractual relationship had been clearly understood in the beginning.

"Our belief is that this should be incorporated as part of the architect's contract with the owner. It makes a fair and equitable contract for both the owner and the architect, and for that reason it should receive the careful consideration of the architects of America.

"A suggested use of this sheet would be as follows: To write a letter to the owner stating that the architect is proceeding in accordance with the attached Schedule of Charges as Arranged by the Architects' League of Hollywood, and at the bottom of the letter state 'The above proposition is approved and accepted,' and have the owner sign. This makes a very simple form of contract but a very effective one, and one which is comparatively easy to get signed."

The circular is as follows:—

SCHEDULE OF PROFESSIONAL CHARGES AS ARRANGED BY THE ARCHITECTS' LEAGUE OF HOLLYWOOD, CALIFORNIA  
Based Upon the Schedule as Established by The American Institute of Architects

The usual professional services of an architect consist of necessary conferences, the preparation of preliminary studies, working drawings, specifications, large scale and full size detail drawings, draft of forms of proposals and contracts, the issuance of certificates of payment, and supervision of construction work. The architect endeavors to guard the owner against defect and deficiencies in the work of the contractors, but does not guarantee the performance of their contracts.

NOTE: It is very essential that the architect and client thoroughly understand the difference between *supervision* and *superintendence*. Architectural supervision is the usual service consisting of time spent in the office and visits of inspection to the building during its construction, and is extraneous to the service encompassed by the drafting, and said visits shall be at the discretion of the architect as and when he may deem necessary. Superintendence is continual service on the job and is a position held by an assistant directly representing the architect. He is employed by the architect and his salary is paid by the owner in addition to architect's fees.

The architect will, if the client so desires, make or procure preliminary estimates on the cost of the work or any part

thereof and will endeavor to keep the actual cost of the work as low as may be consistent with the purpose and character of the building, and with proper workmanship and material. No estimate at any time procured or submitted by the architect is to be considered in any way a representative agreement or guarantee on the part of the architect of the correctness of such estimate or that the work can or will be done for the amount thereof.

1. The proportion allotted to each branch of the professional services is as follows, and should the works be stopped for any reason whatsoever, the architect shall be remunerated according to the services he has rendered based upon the percentage quota for each division of service as segregated hereunder:

|                        |                   |
|------------------------|-------------------|
| Sketch Plans .....     | 20% of total fees |
| Working Drawings ..... | 50% of total fees |
| Details .....          | 10% of total fees |
| Supervision .....      | 20% of total fees |

2. The proper MINIMUM charges for such services are as follows:

- In the case of warehouses, factories, and large plain buildings, involving no detailed interior finish, five per cent of total cost of the works
- In the case of public buildings, schools, hospitals, libraries, office buildings, banks, hotels, clubs, apartment buildings, and other buildings, except as hereinafter mentioned, six per cent of the total cost of the works
- In the case of churches, eight per cent of the total cost of the works
- In the case of residences, ten per cent of the total cost of the works
- Alterations up to \$5,000, twenty per cent of the total cost of the works; over \$5,000, fifteen per cent (minimum) of the total cost of the works

NOTE: The words "total cost of the works" mean the total cost of the finished and completed building, not including the architect and engineer's fees or the salary of the clerk of the works.

3. Payments are due as follows:

- A retainer fee as may be agreed upon but should not be less than one-half of one per cent of the proposed total cost of the works
- Balance up to twenty per cent of the architect's fee based upon the estimated cost of the building upon instructions to proceed with the working drawings
- Balance up to forty-five per cent of the estimated total cost of the works when working drawings are half completed
- Balance up to eighty per cent of the estimated total cost of the works when working drawings, scale details, and specifications are completed
- Final balance, namely twenty per cent, to be paid pro rata as and when the certificates are issued by the architect to the contractor

4. In the event of the architect being required to supervise the works under the separate contract system as distinguished from a general contract, then his fees for these extra services shall be increased at least fifty per cent of the fees agreed upon for usual architectural services.

5. For selecting and purchasing of furnishings, draperies, etc., a fee of five per cent of the total cost of same shall be made.

6. For designing decorative interiors, fittings, furnishings, monumental or other special work outside the scope of usual architectural details, the fee will be regulated by special circumstances and conditions, but in any event not less than ten per cent of the total cost of same.

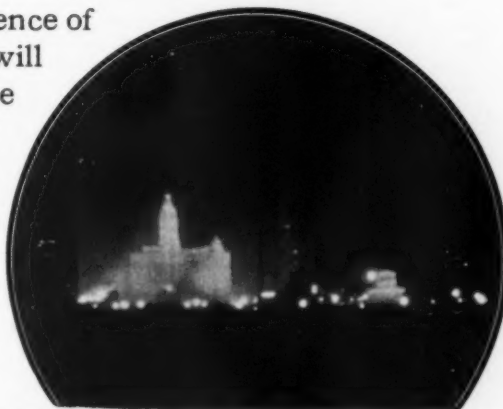
# The Finishing Touch to a Beautiful Building . . . . . *Floodlighting*

In any metropolitan area, even the most beautiful structure will be lost at night unless it is properly floodlighted. The same reasons for carefully planned exterior appearance are reasons for floodlighting, especially when floodlighting can be so easily laid out to reproduce the best daylight effects.

With the development of floodlighting practice, a number of architects and their clients have found that the expense of an installation is more than justified by tangible results. The extension of the appearance value of a beautiful building is but part of the return.

Increased rental value, prompt establishment of a new building in the public consciousness, advertising returns, are all tangible returns on the floodlighting investment.

Facts based upon actual experience of architects and building owners will be gladly provided. Assistance in planning a correct floodlight layout is available from the Pyle-National engineering staff.




---

## The Pyle-National Company

### *Floodlight Headquarters*

GENERAL OFFICES AND WORKS:

1334-1358 North Kostner Avenue, Chicago, Ill., U. S. A.

BRANCH OFFICES:

3509 Grand Central Terminal, New York City  
310 S. Michigan Ave., Straus Bldg., Chicago  
815 Boatmen's Bank Bldg., St. Louis, Mo.  
311 Builders Exchange Bldg., St. Paul, Minnesota

CANADIAN AGENTS:

The Holden Company, Ltd.  
Montreal, Winnipeg, Vancouver, Toronto  
EXPORT DEPARTMENT:  
International Railway Supply Company  
30 Church Street, New York City

AA11-5 Gray

*Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual*

7. When it is necessary to have supervision other than the architect's usual supervision, the architect will appoint a clerk of the works whose salary shall be paid by the owner in addition to the commission paid to the architect.

8. None of the fees above enumerated cover charges for professional services rendered in connection with litigation in consequence of the delinquency or insolvency of the owner or of a contractor.

9. Where heating, ventilating, mechanical, electrical and sanitary problems are of such a nature as to require the services of a specialist the fee will be increased to cover the cost of such services. Chemical and mechanical tests, when required, shall be paid for by the owner.

10. The services of an architect do not include any legal work necessary in the preparation of contracts or any negotiations with respect to property, party walls, or such matters.

11. No deduction is made from the architect's fees on account of the use of old materials, penalty, liquidated damages or other sums withheld from payments to contractors.

12. Clients shall furnish and pay for property surveys, contour maps, building permits, and all other similar disbursements.

13. In matters calling for charges by the day, the charges per day will depend upon the architect's professional standing, but the minimum shall not be less than Fifty Dollars per day, or part of a day.

14. All the foregoing commissions and charges are for services rendered within the city or town in which the offices of the architect are situated. For service beyond these limits a charge per day for the architect's services and his assistants may be in addition to the abovementioned minimum schedule for fees, and all his traveling and other incidental expenses shall be paid by the client.

15. If after a definite scheme has been approved the owner makes a decision, which, for its proper execution, involves extra services and expense for changes in or additions to the drawings, specifications, or other documents; or if a contract be let by cost of labor and materials plus a percentage or fixed sum; or if the architect be put to labor and expense by delays caused by the owner or a contractor or by the delinquency or insolvency of either; or as a result of damage by fire or other casualty, he is to be equitably paid for such extra service and expense.

16. Drawings and specifications as instruments of service are the property of the architect, the copyright in the same being reserved to him, but the client is entitled to a set of prints of the plans and specifications of the building as a matter of record.

17. When labor or material is furnished by the owner, below its market cost, or when old materials are re-used, the cost of the work is to be interpreted as the cost of all materials and labor necessary to complete the work, as such cost would have been if all materials had been new, and if all labor had been fully paid at current market prices when the work was ordered, plus contractor's profits and expenses.

#### CHICAGO TRIBUNE SMALL HOMES COMPETITION

AN architectural competition for designs for two classes of small homes has recently been announced by the Chicago Tribune. A five room home with two bedrooms, and a six room home with three bedrooms are the two classes to be considered. Architects, architectural draftsmen and students are invited to submit one, but not more than one, design in each class. Architectural draftsmen, whether licensed or not, are eligible.

Among the members of the jury of award will be John Mead Howells and Raymond M. Hood,

architects. Earl H. Reed, Jr., A.I.A., will act as professional adviser.

Prizes aggregating \$7,500 will be awarded as follows:

|                                                                   |         |
|-------------------------------------------------------------------|---------|
| For first prize design in each class at \$1,000 each.....         | \$2,000 |
| For second prize design in each class at \$750 each.....          | 1,500   |
| For third prize design in each class at \$500 each.....           | 1,000   |
| For fourth prize design in each class at \$300 each.....          | 600     |
| For fifth to tenth prize designs in each class at \$200 each..... | 2,400   |

Twenty cash prizes, totaling..... \$7,500

This competition will close at 5 P. M. Wednesday, December 1, 1926. For full information and copies of the program, which has been approved by The American Institute of Architects, address the Chicago Tribune Small Homes Competition, Tribune Tower, Chicago.

#### MOSAIC DECORATIONS

AN attractive booklet on mosaic decorations is being distributed to architects by Ravenna Mosaics, Inc., of New York. The book is in the shape of a folio of plates, illustrating some of the more important mosaic decorations executed by this concern in Europe and this country. Some of the most interesting illustrations are those which show the mosaic in detail. Amongst the illustrations are details from the Golden Hall in the City Hall at Stockholm, and ornament in Aix La Chapelle. The plates are preceded by a short introductory article, and the cover is a reproduction in full color of a mosaic pattern.

#### EXHIBITION OF LIGHTING EQUIPMENT

PRELIMINARY announcement has been made by the Artistic Lighting Equipment Association of the first annual national exhibition and convention of this association to be held in Cleveland, Ohio, January 31st to February 5th, 1927. It is the intention of the association to make this yearly exhibition the greatest educational and promotional exhibit of modern designed lighting equipment and quality parts and supplies in the history of the industry. Its purpose is to raise the standard of design, quality, finish and workmanship of all types of lighting equipment, and to create more thought to its artistic and decorative effect on the surroundings. While on certain days and during certain hours the exhibition will be open to the public, it is hoped that the attendance will be largely composed of architects, builders, manufacturers, as well as buyers, dealers, jobbers and electrical contractors.

**In line shafting hangers—  
Ball Bearings reduce power  
loss 10% to 15%**

The actual loss of power in hangers with plain bearings runs up into big figures. The use of ball bearings in these hangers reduces the power loss to a minimum. Most shops and factories are now equipped with ball bearing hangers.

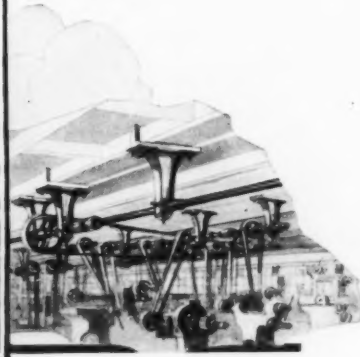


**Saint Vincent's Church**  
Los Angeles, California

**Albert C. Martin, Architect**  
Construction under the direction of  
**Wurster Construction  
Company**

Cost, over one million dollars

Stanley Ball Bearing Butts used  
throughout.



## U. S. Bureau of Standards tests prove the need of Ball Bearing Butts

**T**HE following extracts\* from an article in Hardware Age by Mr. Fairchild of the U. S. Bureau of Standards, speak for themselves:

"In general, where conditions warrant the use of bronze or brass butts, the ball bearing type should be specified, especially for frequencies estimated to be greater than 15,000 cycles per year, since *the service they give outweighs the differential in cost over the other types tested*. . . . Ball bearing washers of the visible type are preferable to the concealed type of ball bearings as now made. . . . There is little difference between the wearing qualities of steel butts with visible bronze washers and steel-bushed bronze butts, but *both types are*

*decidedly inferior to Ball Bearing Butts.*"

Stanley Ball Bearing Butts are standards of design and quality. They are made of either cold rolled steel or wrought bronze and include all the refinements of Stanley's 75 years of experience in the manufacture of fine hardware.

The Stanley trade-mark is on every butt.

The *Architect's Manual of Stanley Hardware* contains information which will aid you in selecting and specifying the correct hardware. We will gladly send you a copy. A description of the Stanley line of Butts and Hinges can be found in Sweet's Catalogue, pages 1556 to 1568.

\* A copy of the complete article will be sent upon request.

THE STANLEY WORKS, NEW BRITAIN, CONN.  
New York Chicago San Francisco Los Angeles Seattle



## STANLEY BALL BEARING BUTTS

STANLEY

(S.W.)

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## BOOK NOTES

### MEXICAN ARCHITECTURE

MEXICO has for so long been a war-torn country that it has not been a safe nor an agreeable place of resort for tourists, and particularly the architectural tourist who likes to wander through highways and byways in search of the picturesque and the motives of design that will enable him to create something that would be a positive type and as having its origin on this continent.

A few years ago, Alfred C. Bossom journeyed to Mexico and on his return published a work in which he embodied the result of his research. We have now before us a large book of reproduction of photographs personally made by Atlee B. Ayres, a practicing architect of San Antonio, Texas. This work comprises a series of more than four hundred plates. As the subjects were selected particularly with a view to their architectural treatment, by an architect whose long residence on the Mexican border has fitted him with knowledge that enables him discriminatively to select, they are of unusual importance and value.

Innumerable works of a similar nature as relating to different countries, have been published. As a rule, the material presented lacks novelty by reason of its many times previous presentation. But Mr. Ayres has made his way into many places, only accessible to one who knows the language, the temperament and the customs of the natives. His photographs are marked by knowledge of the correct viewpoint and he has selected for detail the motives that would be best suited for adaptation to modern work. Withal, the book is unusual.

It is worthy of comment that while this wealth of material has for years been at our border, it has all that time been unnoticed, save perhaps by the archaeologist whose only interest is in its historic value. The work now being done by Bossom, Ayres, Totten and other architects, to familiarize their brother architects with this valuable material is one that should receive recognition and its value acknowledged.

*Mexican Architecture, Domestic, Civil and Ecclesiastical.* By Atlee B. Ayres. Full cloth; size 12 x 16 inches, with 426 illustrations. Price \$25.00. New York, William Helburn, Inc.

### STRESSES IN SIMPLE STRUCTURES

STEEL Structures—Stresses in Simple Structures, is the title of a recent volume of interest to those who have occasion to design structural members for buildings. The authors are Leonard Church Urquhart, C. E., professor in charge of structural engineering, and Charles Edward O'Rourke, C. E., assistant professor of structural engineering at Cornell University.

The fundamentals of stress calculation in simple structures are clearly set forth without reference to the economics of design. The authors plan to consider the economic aspect of structural design in a future volume. This volume in general gives both graphic and analytical analyses of the problems involved in determining the stresses of various structural members. Theory and its application to numerical examples are given.

The book is conveniently divided into chapters on definitions and principles; fundamental principles of graphic statics; roof trusses; stresses in framed bents, bridge trusses, moving loads on trusses, beams and girders; and influence lines and displacement diagrams for trusses.

Stresses in Simple Structures is a valuable engineering book for students and for those who have occasion to design simple structures at such intervals that the memory needs refreshing as respects the theory and principles of structural design, necessary toward designing safe buildings.

*Steel Structures—Stresses in Simple Structures.* By Urquhart and O'Rourke. Full cloth, size 6 x 9 1/4 inches, 278 pages. Price, \$3.50. McGraw-Hill Book Co., Inc., New York.

### THEORY OF MOULDINGS

C. HOWARD WALKER, F.A.I.A., Associate National Academy and Doctor of Fine Arts, University of Pennsylvania, has recently written an interesting and instructive book entitled, *The Theory of Mouldings*.

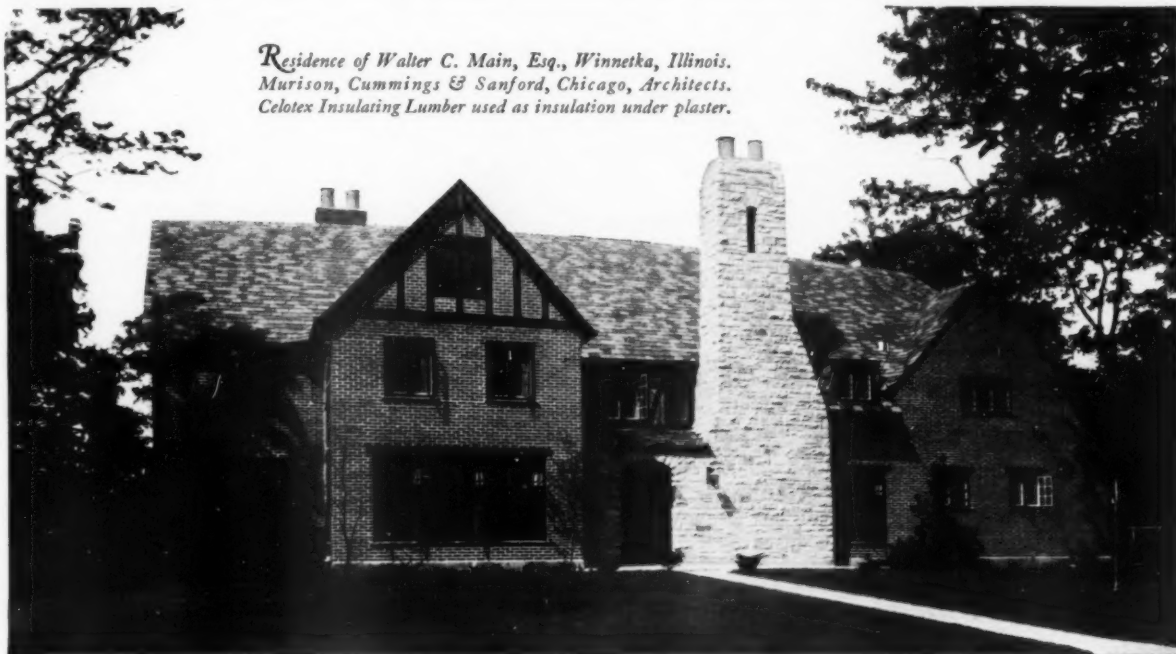
Mouldings in some form find almost constant use in buildings. Their size and profile often play an important part in the design of a structure in part or whole. A building otherwise excellent in design often falls short of its mark through poorly designed mouldings and details. The design of mouldings is not as generally well known and often not as carefully considered as its importance warrants.

The Theory of Mouldings is a valuable contribution to a phase of architecture on which comparatively little has been written. It may well find a place in the library of every architect. The purpose of this book as stated in the introductory chapter "is to indicate when, how, and of what materials mouldings were produced and when and how they are of value."

The various chapters cover mouldings in general, their structural derivations, the genesis of types, effect, nomenclature, analysis of shapes, position and other interesting phases connected with the subject. Illustrations throughout the volume are in the form of drawings.

*The Theory of Mouldings.* By C. Howard Walker, F.A.I.A. Published by J. H. Jansen, Cleveland, Ohio. 144 pp. Illustrated. Size 6 1/4 x 9 3/4 inches. Price \$3.50.

*Residence of Walter C. Main, Esq., Winnetka, Illinois.  
Murison, Cummings & Sanford, Chicago, Architects.  
Celotex Insulating Lumber used as insulation under plaster.*



## Celotex stands severe test . . .

*Murison, Cummings & Sanford,  
Chicago, report an incident showing the  
unusual strength of Celotex Insulating  
Lumber when applied under plaster*

MR. MURISON writes: "We used Celotex as insulation under plaster in the ceiling of the second floor in the Walter C. Main residence, Winnetka, Illinois. The plastering was done in zero weather with temporary heat. Due to the cold, the windows were kept closed, which caused a great deal of condensation and dampness. This caused much cracking from twisted lath on the sidewalls, where wood lath was used. The Celotex, however, stood up under these trying conditions. Although some of the brown coat was frozen, there were no cracks in it.

"After this severe test we are glad to specify Celotex under plaster."

Celotex is made from the tough fibres of cane into broad, strong boards. Its thermal conductivity is only 0.33 B.t.u. per hr., per sq. ft., per °F., per inch thickness. It is sound-deadening, scientifically sterilized and water-proofed.

On inside walls and ceilings Celotex

is nailed directly to studs or joists, replacing lath, and prepared gypsum or wood fibre plaster applied directly to its surface. Because of the great bracing strength of the broad Celotex boards, the whole wall section is strengthened and made more rigid.

Plaster bonds with Celotex far more strongly than it keys with lath. The bond between Celotex and plaster will resist a pull of between 800 and 1200 lbs. per sq. ft.; while the keys that hold plaster to lath are broken by a pull of from 200 to 300 lbs. per sq. ft.

Used in this way, Celotex costs a few cents per yard more than lath and plaster . . . but the advantages are well worth this small difference. This construction produces an insulated wall which is far less likely to crack or stain and it eliminates ugly lath marks.

Celotex also serves as sheathing, replacing wood lumber and building paper, and adding nothing to build-

ing costs. Numerous tests by Robert W. Hunt and Company and other authorities prove that the resistance of Celotex to lateral distortion in wall sections is several times that of horizontal wood sheathing.

In the roof, either under or over the rafters, Celotex provides insulation where it is most needed at but slight additional cost.

All of these uses are approved by the Investigating Committee of Architects and Engineers, New York, when Celotex is applied in accordance with our specifications.

We have prepared portfolios of detail sheets in A. I. A. bulletin form which contain simple specifications and detail drawings for various applications of Celotex. May we send you one?

THE CELOTEX COMPANY, CHICAGO, ILL.  
Mills: New Orleans, La.

Branch Sales Offices in many principal cities  
(See telephone books for addresses)

Canadian Representatives: Alexander Murray & Co., Ltd.  
Montreal, Toronto, Halifax, Winnipeg, Vancouver

**CELOTEX**  
INSULATING LUMBER

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## ARCHITECTURAL LEAGUE NOTES

ONE of the most stimulating and amusing evenings ever held at The Architectural League of New York occurred October 14. A somewhat indefinite announcement stated: "There will be an exhibition of Modern Art by Alfred Maurer. Mumford and others will speak." As has often happened, those members who preferred to remain at home rather than take a chance on a vaguely announced program, missed a good thing. Perhaps interest in modern art was not keen enough to bring out a record-breaking crowd, but the audience of about seventy had a most interesting time.

On the walls were water colors, chiefly still life groups of flowers, painted by Alfred Maurer, one of the first Americans to be lured from conservatism by the French leaders, Cezanne, Matisse, and Picasso. The paintings were loaned by a Mr. Weyhe. Following the dinner there were addresses by Lewis Mumford, author of "Sticks and Stones," Dr. Walter Pach, who wrote "Masters of Modern Art," Mr. Zigrosse, who is Mr. Weyhe's right hand assistant, as well as comments by a dozen architects, painters and sculptors, members of the League.

Mr. Mumford led and ended the discussion. He is a brilliant, fearless defender of the new art. Never have architects been criticized so severely as they were by this, to them, new champion of the modern movement. They were vigorously assailed for their inability or unwillingness to accept or initiate new, fresh forms in their work. The speaker took his audience to task for copying antique architecture which, in his opinion, is still going on in the same stupid way in which it had always been going—he did not stipulate for how long. The audience did not know whether to resent the attack or to laugh. Mr. Pach followed in a calmer, more judicial mood, telling why he had ardently admired this new effort to escape from dominating precedent. Mr. Zigrosse spoke briefly. Here and there, from the unsympathetic audience, was heard a partially submerged "ouch" or an expletive somewhat stronger.

The visitors, however, were not allowed to have things all their own way. One after another of the listeners hit back and, because of the frankness of the attack, the other side felt free to reply with equal freedom and vigor. The paintings were termed caricatures on art, horrors, and other even more picturesque titles. In the midst of it all, Mr. Maurer sat smiling broadly at each thrust. The irrepressible and irresistible Lentelli, whose sculpture had received a tremendous knock by Mr. Mumford, came forward toward the end of the evening and delivered an oration which, for coherency of argument and picturesque gestures, could not easily be equalled. Those who have listened to Lentelli when he is aroused, will understand what a really

good time those people who were present had.

Mr. Mumford, in his closing statement said, "I came here tonight expecting to shock you, but I find that the tables are turned and it is I who am shocked to find you unresponsive to the appeal of this new art expression, and unable to appreciate it." There was no referee and no decision was announced. No knock-out was scored by either side, though there were some powerful hits straight from the shoulder, which jolted.

What can be the outcome of such a meeting? It is probable that direct results may never be traced to it, yet one may conclude that Mr. Mumford, by his daring attack must have started some listeners toward a more liberal attitude in their reception of new forms of art. One of the audience summarized it well in saying: "I confess that I like these pictures better now than when I came into the room, and I am conscious of a fear that I may grow really to like them in time."

In contrast to this program, was that of October 21, when Henri Courtais showed an interested audience how to make flower silhouettes and paper batiks. At meetings of this type, the audience looks on at first, with absorbed interest, but with diffidence in the matter of active participation. By ten o'clock, there are not enough brushes and other supplies to go around. Every man who could worm his way to a table edge was trying his hand at both types of decorative painting. Paper batiks are made in a process similar to the fabrication of cloth batiks, except that, in the paper product, gasoline does not have to be used for the removal of wax. An electric flat iron and a newspaper used as a blotter were sufficient for the purpose.

Programs already tentatively planned for Fall meetings include tie dyeing; a talk by Charles R. Knight of the American Museum of Natural History on Prehistoric Animals; a ladies' evening, when fencing bouts will be featured, and another ladies' evening when the League members who are particularly interested in dramatics will put on a play of their own composition.

30

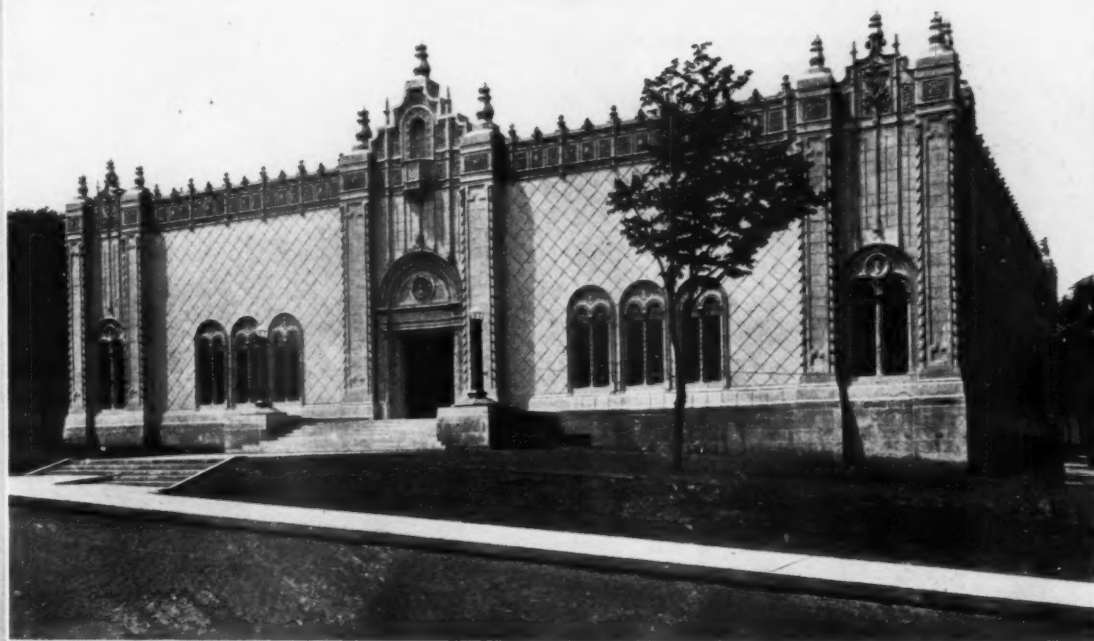
## WATCH THE THERMOMETER

MILD Autumn weather can build up a sense of false security in the mind of a concrete contractor that may easily prove his undoing. Without warning, the mercury can—and often does—drop sharply. Then the contractor who has freshly placed concrete is in difficulty unless his tarpaulins are in place and his salamanders are ready to fire.

Freshly placed concrete hardens more and more slowly as the temperature approaches the freezing point and there it is damaged. Protection should be available when the thermometer may read in the fifties, forties, or thirties.







Walker Art Gallery, Minneapolis, Minn.  
Long & Thorshov, Architects

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NEW YORK BUILDING CONGRESS AWARDS CERTIFICATES FOR SUPERIOR CRAFTSMANSHIP

THE outstanding skill of eleven mechanics who have been working on the new building for the N. Y. Academy of Medicine was recognized by the New York Building Congress when certificates of superior craftsmanship were recently awarded to them. At the same time they were informed by R. H. Shreve, President of the New York Building Congress, who presented the certificates, that they automatically became honorary craftsmen members of the Building Congress and were invited to participate in its work.

William O. Ludlow, Chairman of the Committee on Recognition of Craftsmanship of the Congress, in introducing the speakers, said that the Building Congress represented all the elements in the building industry and that the Congress, believing that labor's part in the erection of buildings had heretofore not been sufficiently recognized, were presenting these certificates to the man in each trade who showed quality workmanship.

Dr. Linsley Williams, the Director of the N. Y. Academy of Medicine, representing the owners, said that the owner had been exacting in the requirements of this building and expressed his appreciation of the splendid work and co-operation all along the line.

Louis Ayres, of the firm of York and Sawyer, architects, expressed the sentiment that although the architect could make beautiful plans and paint beautiful pictures, it was only through the mechanic's skill that they could be carried out.

John J. Collins, of the Tunnel and Subway Constructors' Union, and a representative of labor on the Congress Committee for Recognition of Craftsmanship, said that the spirit of industry is just what we want to make it; that craftsmanship means skill which is outstanding among men; and that the man who receives this certificate must take pride in his work.

ANNUAL CONVENTION OF THE ORNAMENTAL IRON AND BRONZE MANUFACTURERS

THE nineteenth annual convention of the National Association of Ornamental Iron and Bronze Manufacturers was held at the Hotel Pennsylvania, New York City, October 5 to 8, inclusive, President R. P. Liphart, of Richmond, Va., presiding. Aside from the regular business, the reports of various committees, and general open discussions, addresses were made by men of national reputation both in the trade and allied lines which were especially valuable in their suggestions for improving the business of the industry. The feature of the afternoon session of October 7 was an address by Jules Bouy, of Ferrobrandt, Inc., New York, on the

subject of Modern Ironwork. Mr. Bouy illustrated his talk with lantern slide reproductions of the work of Edgar Brandt, the French iron master craftsman, and called attention to his technique and original ideas in design. The following afternoon Harvey Wiley Corbett, of New York, addressed the convention on "Ornamental Iron and Bronze in Modern Architecture," in which he pleaded for a closer co-operation between the architect and the manufacturer, and stressed the important part played by the ornamental iron and bronze manufacturer in the efforts of the architect to attain success. The convention closed with the report of the nominating committees and the election of officers for the ensuing year, as follows: President, R. P. Liphart, Richmond, Va.; Treasurer, Fred Galster, Detroit, Mich.; Commissioner, Chas. F. Waltz, Cincinnati, Ohio; Editor, F. J. Stippe, Chicago, Ill.

PERSONALS

William K. Bartges, architect, is now located in his new offices in the Mercantile Bank Building, Berkeley, California.

Charles G. Eichholz, Jr., architect, is now located in Room 220, State Capitol Theatre Building, Union City, N. J.

Frederic A. Fletcher, architect, has moved his office from 407 North Charles Street to 13 West Franklin Street, Baltimore, Md.

Emery Roth, architect, has moved his office from 119 West Fortieth Street to room 2470, 1440 Broadway, New York City.

R. E. Smith, architect, announces the removal of his Middletown, Ohio, office from 201 K. of P. Building to Room 16, Sorg Opera House Building, and requests that all future correspondence be sent to the Hamilton, Ohio, office, which remains at 646 East Avenue.

John H. Liebau, architect and engineer, has opened an office for the practice of architecture and engineering in the Lyric Theatre Building, 167 Main Street, Hackensack, N. J., where he would be pleased to receive a full line of manufacturers' catalogs and samples.

The Department of Buildings & Grounds of the Detroit Board of Education desires catalogs and samples on all materials and equipment for elementary, intermediate and high schools, to complete its files. These should be addressed to E. O. Fox, assistant director, 1354 Broadway Avenue, Detroit, Mich.



**STEEL SHEETS** that *resist rust* give a new measure of life and value to sheet metal work. The destructive enemy of sheet metal is *rust*. It is successfully combated by the use of protective coatings, or by scientific alloying to check and retard its progress. It has been proved that an alloy of copper makes Steel Sheets last longer.

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*BUTLER'S Pantry and Kitchen in the residence of Mr. J. H. Brewer, Grand Rapids, Michigan. Floored with light blue Linotile, with quarter-inch white border strip. Linotile also used on shelves, with brass edging.*

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Linotile is a cork composition made in square and oblong tiles of many sizes and in twelve colors. It is nonabsorbent of moisture and not readily stained or marred, and does

not become dull or hard, but retains its freshness and resilience undiminished by time or wear. Linotile needs no varnishing or refinishing, and it will not splinter, warp, shrink or crack.

Linotile may also be used with excellent results (as in the kitchen illustrated above) for the tops of tables, drainboards, and work shelves. It is clean and sanitary and its resilience lessens "kitchen clatter" and breakage.

The use of Linotile in the home is fully described with complete specifications in the 28-page book, "Linotile Floors for Residences." A copy and a sample tile will be sent on request. Address ARMSTRONG CORK & INSULATION COMPANY, Division of Armstrong Cork Company, 162] TWENTY-FOURTH STREET, PITTSBURGH, PA.

# Linotile Floors

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## THE PUBLISHERS' PAGE

THE Barclay-Vesey Telephone Building, illustrated and described in this issue, is presented in a manner worthy of an outstanding architectural and engineering achievement. Every department of construction, every phase of decorative treatment and all the successive stages through which the design passed toward its final adaptation, are most exhaustively presented.

In presenting this architectural landmark to readers of this journal, there has been a disposition to accent as far as possible the splendid display of teamwork on the part of the architects and those in their employ associated with them on the work. Where enthusiasm exists to the degree that was everywhere noticeable to the editors of this journal during a long preparatory period, success is a certain result.

Mr. Samuel Chamberlain's monthly article, that would have in sequence appeared in this issue, is deferred until our issue of December 5th. Mr. Chamberlain has visited Vitre and Dinan, and has prepared a descriptive article of large architectural interest. His sketches are, of course, brilliant and suggestive, and convey the most perfect impressions of a section which he describes as "two architectural show places in Brittany."

Mr. Chamberlain will also have an article in issue of December 20th, and will, unless otherwise announced, appear in issues of the 20th of each month during 1927.

The series of five articles "Traveling with a Fountain Pen," by Irving K. Pond, past president, The American Institute of Architects, begun in issue of November 5th, will run serially into 1927. Mr. Pond has supplemented a clever series of quickly done pen and ink sketches by an accompanying text equally clever. Aside from the unusual literary and artistic character of Mr. Pond's articles, there is a decided educational value. They present to architects a ready means for quickly jotting down fleeting things. When done as well as Mr. Pond has made them, they are even more valuable than the usual "snapshot." They become records of outstanding things and even after the passage of years, serve to bring vividly before one the correct and lasting impression of things otherwise forgotten.

The "Roxy" Theatre in New York is one of the newer types of theatre buildings that are springing up in our large cities. Its planning is unique and its engineering features, particularly as to framing, are interesting and present good solutions as to the hanging balconies. Mr. Arthur T. North, long time associated with this journal as its Engineering Editor, has prepared an article that sets forth in text

and illustration the steel balcony framing of the Roxy Theatre. This article will appear in issue of December 5th.

THE AMERICAN ARCHITECT Specification Manual, Volume 8 for 1926-1927, is now off the press and is being distributed as rapidly as possible. With each succeeding year, this invaluable help to specification writing has grown in size and increased in value. The present volume, now larger and better than ever before, is yours for the asking. One copy will be sent to any individual architect or firm writing on professional letterhead.

In this manual of standard specifications, prepared by makers of standard advertised goods, there has been compiled in convenient form the expert advice of America's representative producers. While some of these specifications have for a long time been available to architects, others are entirely new. In this manual, all these specifications have been brought together to facilitate the handiest reference.

Supplementing this manual is the Specification Service Department of THE AMERICAN ARCHITECT. This service, rendered without charge, has aided many architects in the solution of specification problems. It is through the extension of this service that the publishers believe they can be of great assistance to the architectural profession.

*The Charette*, which calls itself "A little journal of rejuvenation, published every month by the Pittsburgh Architectural Club," is a sprightly magazine, and presents in each issue reading matter and illustrations of current interest. In a recent issue *The Charette* publishes the following letter, which so lucidly presents the proper attitude of the material salesman toward the architect, that we print it in full. The letter states:

### TO THE BUILDING MATERIAL SALESMAN

Dear Sir: Replying to your favor of the 3rd inst. asking me to tell you such experiences as I have had, coming in contact with architects, beg to offer the following which I feel certain is known to all, but practiced by few. The first thing I would do if I were a salesman would be to learn my material or product from every angle. I would defy any architect to corner me about the article I handled. My first call upon an architect would be for an appointment at his leisure. I would work on the theory that hand shaking be encouraged by the architect rather than the salesman. If reports of the architect's work were procurable, I would ascertain the possible installation of my material before calling on him. As an example: If I were selling elevators, I would keep away from the architect that is designing a \$15,000.00 residence. I would work on the theory of striking while the iron was hot, but I would endeavor to catch the architect when he was cool, and I would try to leave him in the same condition. Last but not least, I would recognize the faults in my material or product the same as I would its merits. And I would never recommend the use of my product in instances where I knew results would be contrary to those required. Please, Mr. Salesman, get this: Practically every architect wants and needs the salesman to call on him, but at the right time, with the right material and with as little loss of time as possible.

Sincerely yours.—A Nut—



### A VISION OF NEW YORK

FROM THE ORIGINAL OIL PAINTING BY N. C. WYETH

**I**N Diedrich Knickerbocker's History of New York, Washington Irving tells of the vision that came to Oloffe Van Kortlandt. He was one of the Dutch pioneers who had reached New York harbor seeking a place to settle.

Stranded on what is now the Battery, Oloffe had a strange experience which Diedrich Knickerbocker describes as follows:

*"And the sage Oloffe dreamed a dream, and lo! the good St. Nicholas came riding over the tops of the trees—and he lit his pipe by the fire and smoked, and the smoke spread like a cloud overhead. And Oloffe hastened and climbed up to the top of one of the tallest trees, and saw that the smoke spread over a great extent of country and assumed a variety of marvelous forms where in dim obscurity he saw shadowed out palaces and domes and lofty spires, all of which lasted but a moment and then faded away until nothing but the green woods were left."*