

THE AMERICAN ARCHITECT

FOUNDED 1876

RESTORING THE STAINED GLASS TREASURES OF RHEIMS CATHEDRAL

By ORIN E. SKINNER

THE casual visitor to Rheims senses very little of the tremendous destruction which the Cathedral of Notre Dame has suffered. As one approaches from a distance its great mass continues to rise far above the city. Here and there corners are missing, but only upon close examination does one see the extent of the calcination and realize that much that appears to be still there is utterly destroyed. Even as the visitor stands at the barrier just within the western portal and looks toward the immense wall of masonry which has been erected across the nave at the crossing, he cannot see the chaos in the choir beyond and the gaping holes above.

For more than four years the Cathedral was under almost constant bombardment. Thousands of shells were hurled into the city in one day and the Cathedral alone was struck several hundreds of times. But the ancient builders had erected a structure that



DETAIL OF AN ANGEL HOLDING THE CROWN OF THORNS

(Copyright, 1927, The Architectural & Building Press, Inc.)

could not be destroyed even by a power greater than they could imagine.

The French are doing a wonderfully successful work in the rehabilitation of their most venerated Cathedral. Truly it is a tremendous task, and at first it was thought to be an impossible undertaking. Indeed many advocated leaving it as it was, a monument to grim war. But the structure was found to be in a dangerous condition, requiring immediate strengthening. The Bishop finally decided the question through an appeal for an adequate place of worship.

Under the able direction of the architect, Monsieur Henri Deneux, the work has been progressing for several years. It will be many more before it can be called, in any sense, completed.

One of the most difficult undertakings is that of restoring the ancient stained glass, the glorious company of kings and bishops that had looked down from the clerestory for nearly



seven hundred years, and the crowning glory of the Western Rose.

Here again the question was raised, "Can it be accomplished?"

The glass had suffered greatly in the early bombardment. During the war it was commonly thought entirely lost; but even in the time of greatest stress France did

not neglect her treasures. Soldiers were requisitioned. Under fire they removed what was left of the windows. German glasses would have detected scaffolding, so rope ladders were used. With cheesecloth pasted over broken pieces to preserve every fragment, the glass was hustled off to Paris, to be hidden in the crypt of the Pantheon. Perhaps no more famous remains have ever rested in this temple than these "glassy bones" of saints, kings and bishops of Rheims.

When the fighting came dangerously close to Paris the glass was again moved,—this time to Bordeaux, where it remained until the end of the war.

Then came the problem of what disposition should be made of these precious fragments. It was found that there was only one man adequately equipped to undertake this task, Jacques Simon, a native of Rheims. For generations his family had been taking care of the Cathedral glass. His father, Paul Simon, restored the great West Rose after the disastrous hail storm of eighteen eighty-six, an undertaking which was not completed until nineteen hundred and eight, shortly before it was again in fragments. His grandfather, Pierre, had watched over these same windows, and there were records

of Simons who had guarded the glass even in the Seventeenth Century.

Jacques Simon is an artist with a thorough training in stained glass. Having the invaluable assistance of one of the ablest craftsmen in France, Gaston Lassabe, who had also helped Paul Simon in the earlier restoration, Monsieur

Simon's greatest good fortune, above everything, is in the possession of volume after volume of tracings and rubbings of the ancient windows, the harvest of his father's foresight.

Many years ago, Paul Simon had made hundreds of careful patterns of every detail of his loved windows. He had secured records of each section by placing a sheet of paper over it, and copying every detail. He had made color notes of each piece of glass, so that with the help of these documents trained craftsmen could skillfully replace missing pieces with a remarkable degree of accuracy. So Jacques Simon has been entrusted with the task.

Last Summer, two American craftsmen in stained glass had the good fortune of gaining permission to work in his studio. He received them with the greatest kindness, and gave them every opportunity and assistance in studying the old windows and methods of restoration, even permitting them to paint some of the new glass that was being placed in the great West Rose.

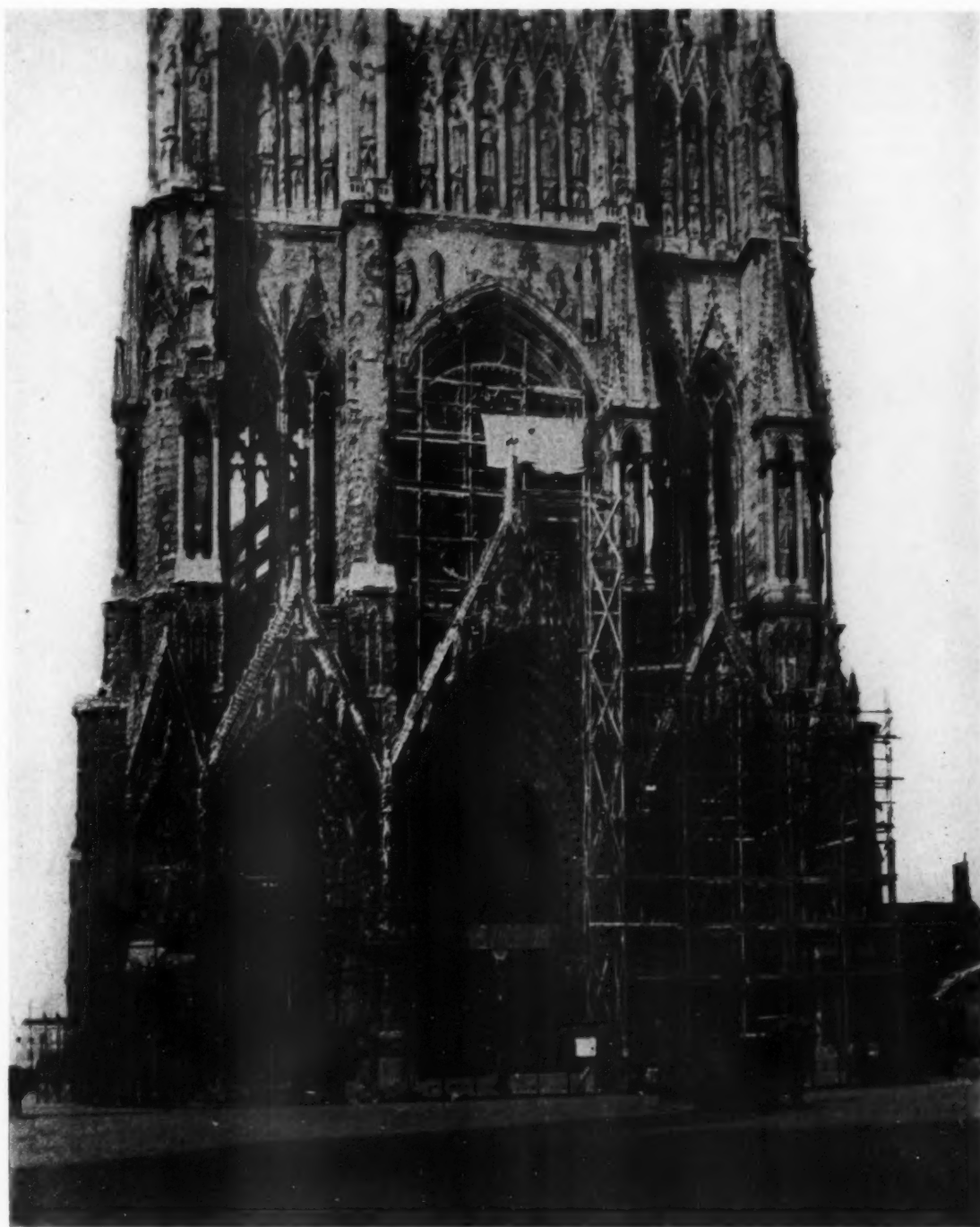
Restoration as an actual process, is being undertaken very carefully. Each section is taken individually. After a rubbing of the lead pattern is made, the glass removed from the old and weakened leads,



HEAD OF AN APOSTLE IN THE CHOIR CLERESTORY—
THIRTEENTH CENTURY



HEAD OF AN APOSTLE IN THE CHOIR CLERESTORY—
THIRTEENTH CENTURY



RHEIMS CATHEDRAL—THE SCAFFOLDING AT THE GREAT WESTERN ROSE

accumulation of surface dirt is carefully removed and the pieces of glass are laid out in their correct position on the pattern. Then glass of the required color is cut to replace the missing pieces. When this is all assembled, the new pieces are painted according to the old tracings. Every line of drapery and even every small detail of design are faithfully followed.

In much the same spirit and under conditions not so very different the windows were originally made nearly seven hundred years ago. The old craftsmen

or leaded, the window is placed in its new iron frame in the Cathedral, and now all the glory of these wonderful creations of ancient master craftsmen becomes visible. The great bold brush strokes on colored glass that seemed crude and harsh at close range are smoothed out and pulled together when placed in the lofty clerestory far above. Each color influences surrounding colors, some much more than others. The harmony of the whole is made manifest wherever one may look.



RHEIMS CATHEDRAL—CONSTRUCTION OF THE APSE

drew their designs in charcoal on table tops covered with whiting. With a hot iron they roughly cut the glass and then shaped it more carefully by slowly chipping off little pieces with a grozing iron. The glass assembled, they planed off the old drawing and were then ready for another attempt.

Today the drawing can be made on paper and the glass cut with a diamond or a sharp steel shell. But these are only the most superficial changes and, working there in the shadow of that mighty, age worn monument of the past, one could easily believe himself back in the Thirteenth Century.

After the paint is fired, and the sections glazed,

The clear pure blues begin to sing and the fine thread of silver confidently spreads its net over the entire window. Only now does one realize something of what the old craftsmen knew about their medium. How well they knew (perhaps by sad experience) the solution of every problem of halation and refraction, not in a scientific manner, but surely in a most practical and beautiful way.

Six of the nave clerestory windows are again in place; the ones nearest the transepts which were least damaged. The great western rose is almost complete and much of it has been replaced in the repaired stonework. Yet there still remains a great

number of empty windows, many of which will not be filled in one generation or perhaps two; but the work will go on.

True, this magnificent Cathedral, which has witnessed the coronation of so many French kings, can never be wholly "restored," can never be quite the



RUBBING OF SOME ACTUAL GLASS OF THE THIRTEENTH CENTURY IN RHEIMS CATHEDRAL

same. But it can and will be rebuilt and redecorated to stand again a great monument to Faith, Architecture, and Art. Although not the same, it will retain much of its original spirit of devotion and craftsmanship, to which will be added the finest of those qualities to be found in modern France—a reincarnation that will live to be the inspiration of future centuries.

NO SKYSCRAPERS FOR GERMANY

RECENT despatches from Berlin announce that the German Ministry of Health has absolutely set its face against the building of skyscrapers in that city and that Berlin will continue to remain a city of five-story buildings.

The Minister of Health holds that the building of tall structures in German cities would not allow dwellers on the lower floors sufficient light, or enough air essential to health and has therefore decided against permitting a relaxation in the existing building laws.

One cannot help wishing that New York would show a similar degree of intelligence and civilization.—*Housing Betterment.*

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THE WORK OF DWIGHT JAMES BAUM

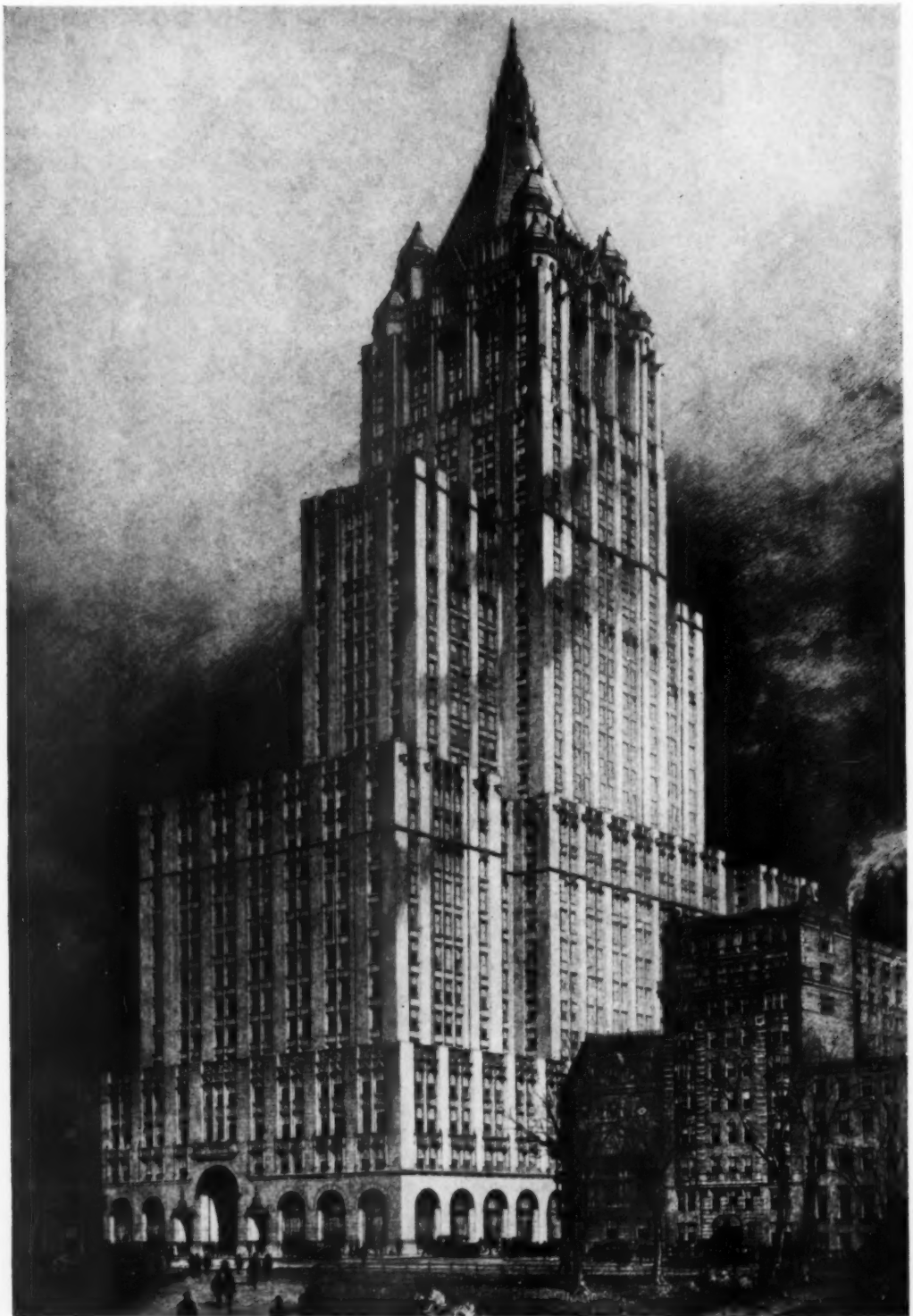
Published by William Helburn, Inc., New York. Price \$20.

AN elaborate volume of 192 plates, size 12½ x 16¼, of the work of Dwight James Baum has been issued. It is an unusual work. Unusual not because it for the first time presents in one volume the selected work of a successful architect, but because, having been compiled and arranged under the supervision of the architect himself, it shows the various subjects in a perfect architectural manner. Each subject selected has the usual general views and full page details, and in addition there are well poched plans and admirably well drawn full pages of measured drawings. In short, the architect has kept nothing back. He frankly shows his reader everything that is worth while knowing about the building.

Mr. Baum's work in this volume is grouped in types:—the Colonial, Formal Georgian, Italian and Dutch Colonial. Accompanying each one of these types is commentary text by Matlack Price. Mr. Price has also contributed an appreciative introduction. Interest to the work is further added by the foreword, contributed by Harvey Wiley Corbett, F.A.I.A. Mr. Corbett, now recognized as one of the most "literary" of architects, is very happy in this preface. It is worth while quoting from it. "Almost any old fiddler," writes Mr. Corbett, "can play one tune well if he plays it often enough, but it takes a *virtuoso* to play a Beethoven concerto, a Grieg sonata and a sentimental ballad by Irving Berlin all in the same evening. * * * It is only the exceptional architect who has the force of will and the adventurous spirit to roam through all styles and all periods and make himself master of them all. * * * This is the signal achievement of Dwight James Baum in the realm of domestic architecture." Entirely concurring with Mr. Corbett's opinion in this matter, we have borrowed his words for we can find no better of our own.

As is so completely shown in the examples selected, Mr. Baum's work is characterized by simplicity and charm. And recognizing these fine characteristics, The Architectural League in 1923 awarded him its gold medal for merit and distinction.

It will not be necessary to direct to the attention of architects the outstanding excellence of Mr. Baum's work. But, as has been set forth at the outset, it would be neglecting a duty to the readers of this journal if we failed to stress the point that in the selection of subjects, the manner of presentation and the excellent grouping, this volume is of larger suggestive value than any of this type we have seen. In fact, the architect's working library may truthfully be said to be incomplete without it.



OFFICE BUILDING FOR NEW YORK LIFE INSURANCE COMPANY, MADISON AND FOURTH AVENUES, 26TH TO 27TH STREETS, NEW YORK, BEING THE FORMER MADISON SQUARE GARDEN SITE

CASS GILBERT, P.N.A., PP. A.I.A., ARCHITECT

LANDSCAPE ARCHITECTURE AS SEEN FROM THE AIR

A SERIES OF LONG ISLAND ESTATES, JOHN RUSSELL POPE, *Architect*,

SHOWING AT A GLANCE THE LANDSCAPE DEVELOPMENT

OF THE HOUSE AND ITS SURROUNDINGS

*Critical Captions by CLARENCE FOWLER, Fellow American Society
of Landscape Architects*

NO. 1. The property of Mrs. Robert Bacon, Sr., at Westbury, Long Island, is particularly rich in detail, showing the road system, and the sloping lawn in front of the house with its massing of trees on either side. Near the house is a charming little garden, enclosed with a hedge, designed by Mrs. Martha Brookes Hutcheson, with a pool and primly trimmed evergreens suggestive of England. The two great trees at the foot of the slope below the garden make a beautiful vista looking through the hedge from the house. On the opposite side of the house are the service buildings and the charming rock garden with its walks, designed by Mrs. Bacon herself. In front of the house, looking over the sloping lawn to the open field, there is on the left a little lake with natural planting, while on the right there are trees and berry bearing shrubs to attract the birds.

NO. 2. The aerial view of the Commodore Gould place on Long Island gives a very good idea of the house and surrounding topography with a wooded hillside back of the house. It shows well the road plan, service buildings, and great stretches of informal lawn, with groups of small planting that will eventually form vistas from the house.

NO. 3. The aerial photograph of the property of Ogden Mills at Westbury, Long Island, shows a well developed formal plan along broad lines with formal vistas created by cutting through natural planting.

NO. 4. The arrangement of Mrs. W. K. Vanderbilt, Jr.'s place at Jericho, Long Island, is reminiscent of France. A central vista is formally treated with pools, statuary and clipped foliage, flanked on either side by shaded alleys verging into the natural landscape.

NO. 5. The residence of Middleton S. Burrill at Jericho, Long Island. The house itself is well placed, on the brow of a hill with a background of natural planting, accentuated by a road flanked with clipped foliage. In the foreground is shown the front of the house with formal parterres and steps leading to a well clipped lawn. In the photograph the spotting of conical trees does not add to the beauty of the composition. This is much more evident in an aerial view than it would be on the ground.

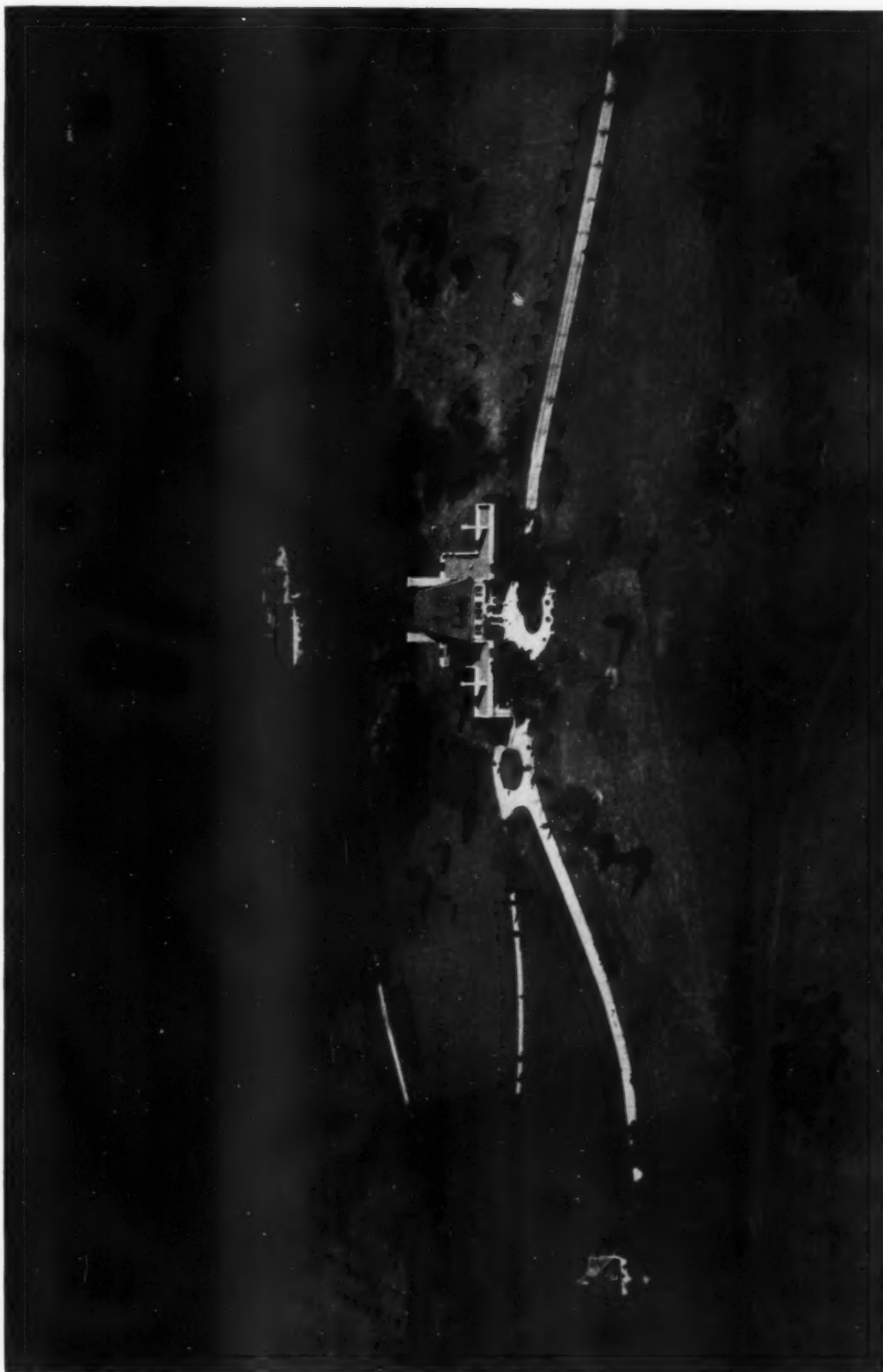


PROPOSED BUILDING FOR MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY, SPRINGFIELD, MASS.

KIRKHAM & PARLETT, ARCHITECTS



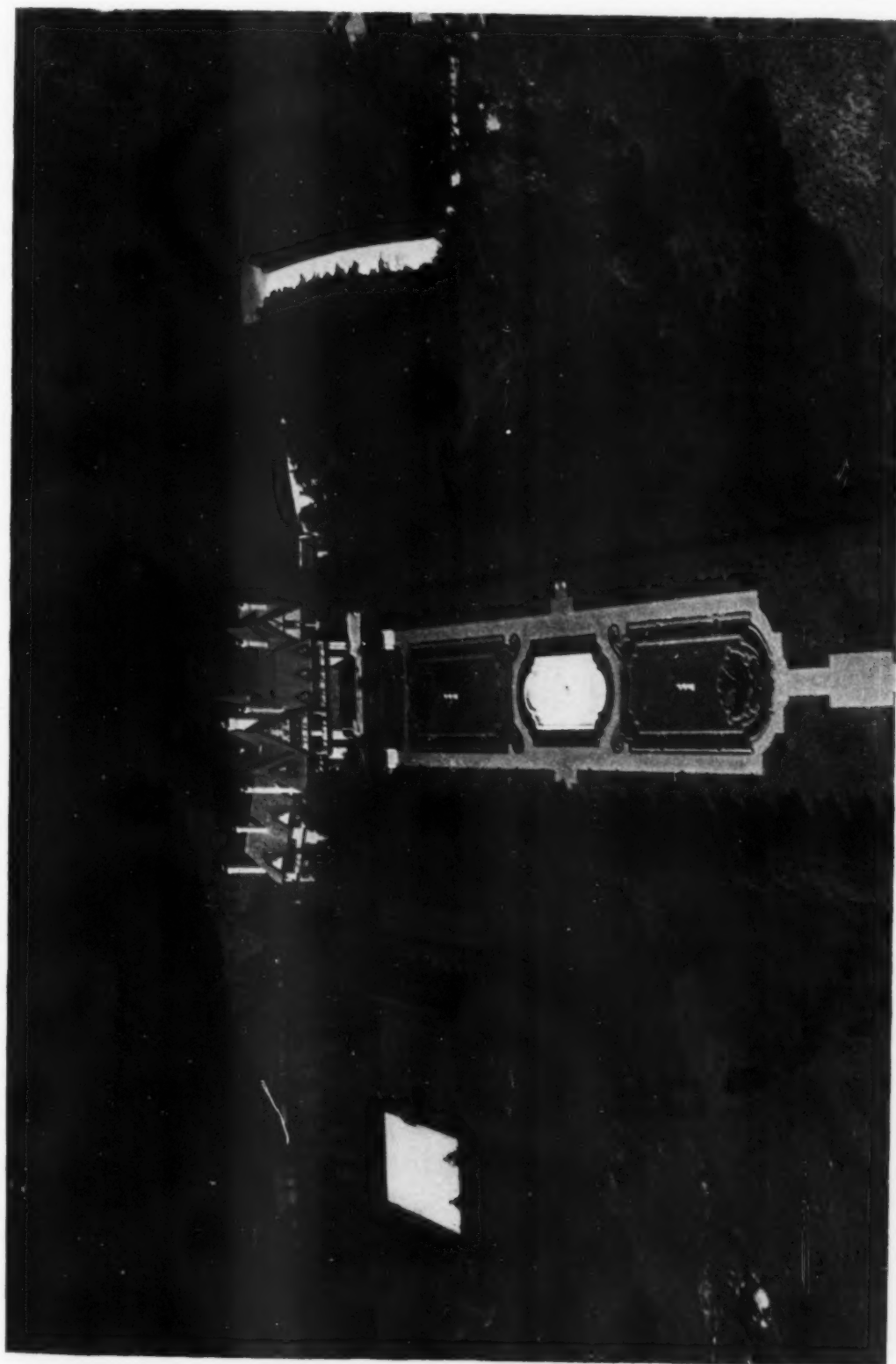
NO. 1. PROPERTY OF MRS. ROBERT BACON, SR., WESTBURY, LONG ISLAND
JOHN RUSSELL POPE, ARCHITECT



NO. 2. PROPERTY OF COMMODORE GOULD, LONG ISLAND, N. Y.
JOHN RUSSELL POPE, ARCHITECT



NO. 3. PROPERTY OF OGDEN MILLS, WESTBURY, LONG ISLAND
JOHN RUSSELL POPE, ARCHITECT



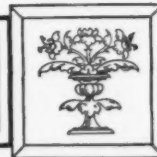
NO. 4. PROPERTY OF MRS. W. K. VANDERBILT, JR., JERICHO, LONG ISLAND
JOHN RUSSELL POPE, ARCHITECT



NO. 5. HOUSE AND LANDSCAPE SURROUNDINGS OF MIDDLETON S. BURRILL, JERICHO, LONG ISLAND
JOHN RUSSELL POPE, ARCHITECT



EDITORIAL COMMENT



REORGANIZATION of the Committee on Allied Arts of The American Institute of Architects as the first step in a movement to bring about nationwide union of effort in the arts of design is announced by Milton B. Medary, Jr., president of the Institute. The purpose, Mr. Medary explains, is to guide the thought and activity of the Institute more specifically toward the interests of architecture as an art. "We wish to make it plain," he says, "that we are more interested in contributing to the great architecture of the world than in standardizing brick and mortar of which it must be built."

C. Grant LaFarge of New York is chairman of the new committee, which for the first time now includes as members representatives of other arts. Representing the Institute are the following architects: Paul P. Cret, Philadelphia; J. Monroe Hewlett, New York; George W. Kelham, San Francisco; Everett V. Meeks, Dean of the Yale School of Fine Arts; Sidney Lovell, Chicago.

Sculpture is represented by C. Paul Jennewein of New York; mural painting by Eugene F. Savage of New York, a Fellow of The American Academy in Rome; landscape architecture by Ferruccio Vitale of New York, a trustee of The American Academy in Rome; and the craftsmen by Harry Wearne, president of the Arts-in-Trade Club of New York.

Working with this central committee from headquarters in New York will be committees from the Society of Mural Painters, the National Sculpture Society, the American Society of Landscape Artists, and the Arts-in-Trade Club, in addition to committees representing the Institute's fifty-seven chapters in all parts of the country. Committees have already been organized by the New York, Boston, Cleveland, Kentucky, and Indiana Chapters.

A national survey of schools and colleges to ascertain existing conditions in the teaching of the arts is contemplated. The ultimate aim is to effect collaboration among architects, sculptors, mural painters, craftsmen and landscape architects, for it is these arts of design which together produce the world's architecture. The viewpoint of the architect toward these other arts would be reshaped and the carrying out of present plans would mean a revolutionary advance. The Committee on Allied Arts may urge that the Institute open its membership to such representatives of these arts as possess recognized merit.

The whole question will come before the sixtieth convention of the Institute, which, it is announced, will be held in Washington on May 11,

12 and 13. The allied arts discussion has been scheduled for the morning of the opening day, when an elaborate report, which will recommend "the preaching of collaboration," will be submitted by Chairman LaFarge.

The committee has reached the conclusion that a "Credo" or statement should go forth from the Institute setting forth the real importance of the arts of design and the reason why the teaching of those arts should be given the position it deserves in a civilized community.

The committee also has under consideration the propriety of suggesting a new class of membership of The American Institute of Architects, this class to consist of individual practitioners of the allied arts chosen carefully because of their excellence.

The reason advanced for this suggestion was substantially the reason for the creation of a Committee on Allied Arts, whose function it is to direct the attention of the architectural body to the principle of collaboration, which can never reach its full development, except through the breaking down of many barriers and through actual fellowship amongst all those whose work is necessary to the finest and most complete and significant American architecture.

Those who are familiar with the editorial policy of *THE AMERICAN ARCHITECT*, as relating to the closest affiliation between architecture and the allied arts, will not need to be assured that this journal warmly approves of the action as proposed. As this topic will constitute the main one at the first day's session of the convention, and as many and widely divergent opinions will be expressed, further comment by us is deferred. But the matter is of such large importance, it seems proper to hope that every delegate will give it the careful thought it deserves in order that a proposal so fine in all of its aspects may be fully endorsed by the Institute during the convention.

President Medary makes a fine and correct distinction when he states, "We are more interested in contributing to the great architecture of the world than in standardizing brick and mortar of which it must be built." That really should be the aim, not only of the governing body of architecture in this country, but individually of every accredited architect practicing the profession of architecture. It is only by reason of such a well considered purpose kept constantly in mind that we may hold the high reputation for architecture in this country, and also steadily progress toward even higher ideals.

EVERYBODY'S BUSINESS

By FLOYD W. PARSONS

NOW we start on the final lap of an amazing era that will bring changes so radical that they are beyond the grasp of our present intelligence. Take your pencil and compound a normal yearly increase in population and you will find that there will be more than a billion people in the United States in 200 years. Barring calamity, there will not be room on the lands of the earth for people to stand erect in a little more than three centuries from now.

In the short, mad dash that lies before us, we will quickly reach and pass the peaks of production in fields now turning out many of the articles in most common use. There will be early days of reckoning in our supplies of ground oil and essential metals, particularly copper. Twenty or 25 years will probably see the end of American copper. Assuming that we have from 20 to 30 billion barrels of petroleum in the ground, and allowing for a 33 per cent recovery, which is double what we have been able to get in recent years on an average, it is clear that a decade will bring us near to the end of our present practice of getting oil out of ground wells. The job of adjusting ourselves to a supply of oil from shale rock will not only involve an effort that is tedious but will necessitate reorganizing our automotive industries on a basis of foreign supplies and a price two or three times as great as that now existing.

So far as the near future is concerned we are safe with respect to lead, silver, tungsten and sulphur, but we are a dependent nation already when it comes to nickel, tin, asbestos, graphite, manganese, potash, platinum and rubber. Our lumber resources are disappearing so fast that we will soon be compelled to regard the production of wood as we now do the production of corn or wheat, the only difference being that lumber will be harvested twice a century instead of every year.

From an excess of what we call life's essentials, we are moving rapidly to a time of deficits that will bring revolutionary changes in habits and customs. As civilization advances and population grows, we will be compelled to look more to the ocean and Arctic areas as sources of food supply. The disappearance of grazing areas will cause the substitution of reindeer meat for beef. It may also be necessary to use domestic animals to turn grass and grain into milk instead of mutton and sirloin.

Materialism will turn us from studies of abstract matters of small importance to such vital problems as that of diet concerning which there is astounding ignorance. Forty million wage earners in the United States lose nearly 10 per cent of their time on account of sickness; they pay out fifty millions of dol-

lars annually for cathartics; they spend six times as much for fire protection as for health protection; and of this great army of people in America more than a half-million die each year between the ages of 40 and 60 from old-age diseases that are entirely preventable and that have their origin in some part of the digestive tract. A chemist in a laboratory can mix together three or four substances that by themselves are not only harmless, but extremely useful, and the compound thus produced will become a death-dealing force. But after thousands of years of experience in eating, man knows nothing at all about the transformations that take place in good foods that turn into poisons when mixed together in the human stomach. The famous British physician, Sir William Arbuthnot Lane, tells us that the increase in cancer which horrifies the world today is due to self-created poisons, chiefly in the bowels.

We blame materialism for our ills whereas it is only through the cold reasoning of the materialistic mind that remedies will be found. We forget that we are part of nature and that nature moves steadily and surely toward definite ends without any regard whatever for the sentimental reasons which so largely control human actions. From now on materialism will become increasingly supreme and our thoughts and actions will of necessity conform to facts properly arranged in the order of their relative importance to public welfare as distinguished from the welfare of one individual or a single class. Materialism will eventually make the church more crowded than the theatre. It will so change educational methods and policies that the college professor will again receive a higher rate of compensation than bricklayers and locomotive engineers. Religion and education blame materialism for consequences that have resulted from their marking time instead of keeping pace with the procession.

We are starting in an era that really has no "today." It is a time when almost every thought must be given to the plans for tomorrow, and when this is done our "todays" automatically take care of themselves. The problems of yesterday seemed large, but they were of small moment compared to the tremendous questions that lie ahead, and some of these I propose to take up.

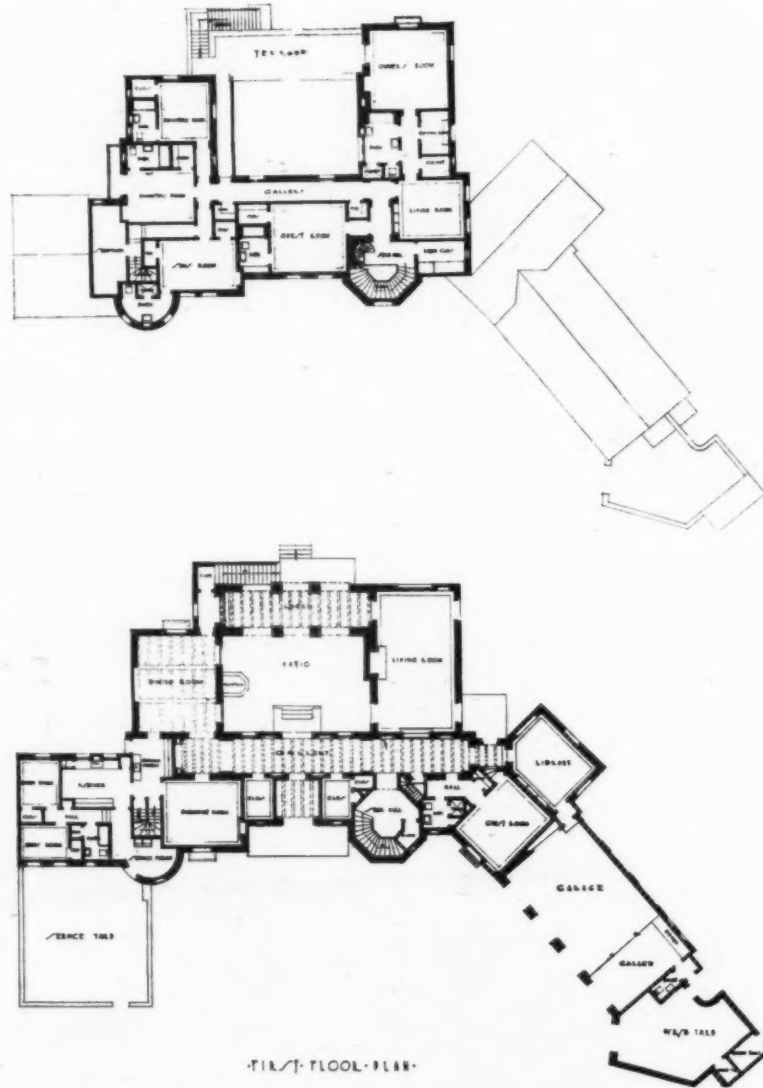
In the meantime, let us not forget that materialism stands for efficiency and conservation. This means that it is opposed to smoke because smoke cuts off God's sunlight which is the chief ally of health and long life. It is opposed to dirty morals, dirty air, dirty water, dirty streets, and everything else that means a waste of time, energy and wealth.



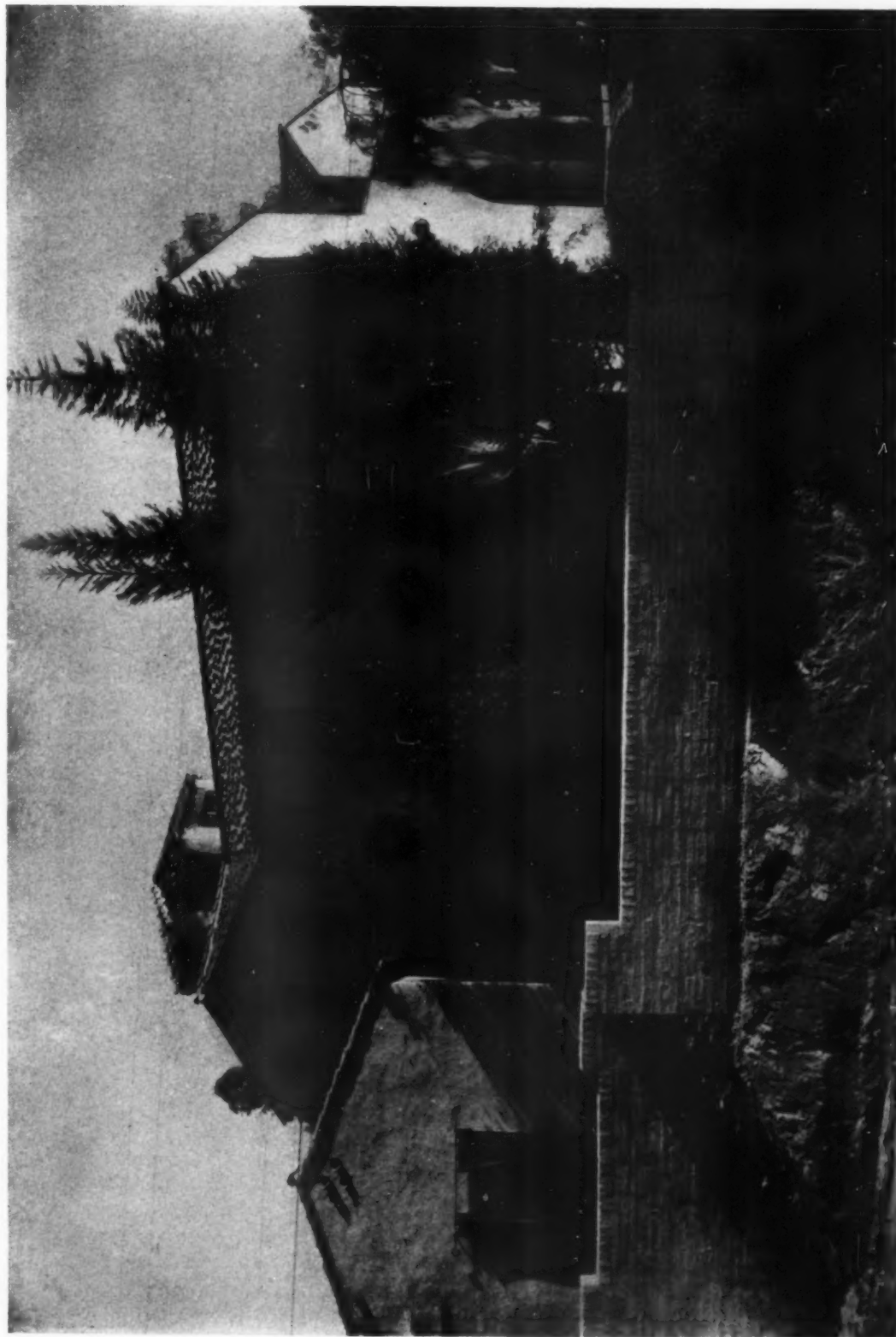
HOUSE OF M. J. SWETLAND, PASADENA, CALIFORNIA

MCNEAL SWASEY, ARCHITECT

(See plans on back)



HOUSE OF M. J. SWETLAND, PASADENA, CALIFORNIA
McNEAL SWASEY, ARCHITECT



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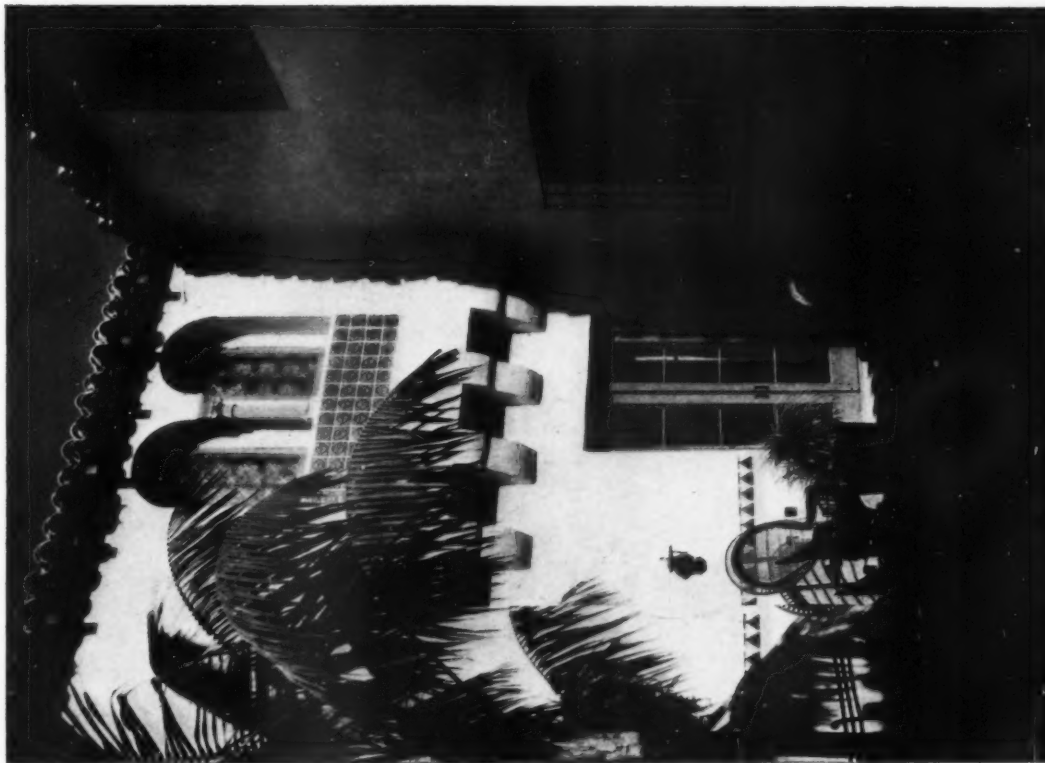


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BRIDGE AT TUCKAHOE, BRONX RIVER PARKWAY, N. Y.

GILMORE D. CLARKE, LANDSCAPE ARCHITECT

(From the current exhibition of the New York Chapter of the American Society of Landscape Architects)



PERENNIAL GARDEN POOL, ESTATE OF COL. A. R. KUSER, BERNARDSVILLE, N. J.

BRINLEY & HOLBROOK, LANDSCAPE ARCHITECTS

(From the current exhibition of the New York Chapter of the American Society of Landscape Architects)



PATH, "THE HEDGES," ESTATE OF W. G. GALLOWHUR, SCARSDALE, N. Y.

CHARLES WELLFORD LEAVITT & SON, LANDSCAPE ARCHITECTS

(From the current exhibition of the New York Chapter of the American Society of Landscape Architects)

8

AN INTERESTING REMODELLING OPERATION IN BERLIN

WE have received from Arthur Woltersdorf, F.A.I.A., of Chicago, the accompanying photographs of a remodelled building in Berlin. This building is located on Moren Strasse and is for the Deutsch Südamerikanische Bank. This presents in its exterior a good example of the present tendency of architectural development in Germany, and breathes the spirit of 1926. The interiors, while perhaps along more conventional lines, show that the architect has not been governed by precedent, nor has he allowed himself to be controlled in the matter of base mouldings and other details, that here in the United States would more likely follow closely the rules for detail laid down by Vignola and Palla-

dio. The exterior is carried out in German tufa or travertine.

An intelligent critic of this remodelled building has taken exception to the flat arch treatment over the lower windows, claiming it was reminiscent of so much of the work now done in England. It was suggested that if Mr. Schuette had eliminated the flat arch and carried his courses through as lintels, the result would have been better. This, however, is a point of view, and may or may not be concurred in by the reader. To us the work seems fresh, full of refinement, beautiful in proportion and sparing in detail; but where detail does occur, it tells its story quietly and simply.



INTERIOR VIEW

REMODELLED BUILDING FOR DEUTSCH SÜDAMERIKANISCHE BANK, BERLIN
MR. SCHUETTE, ARCHITECT



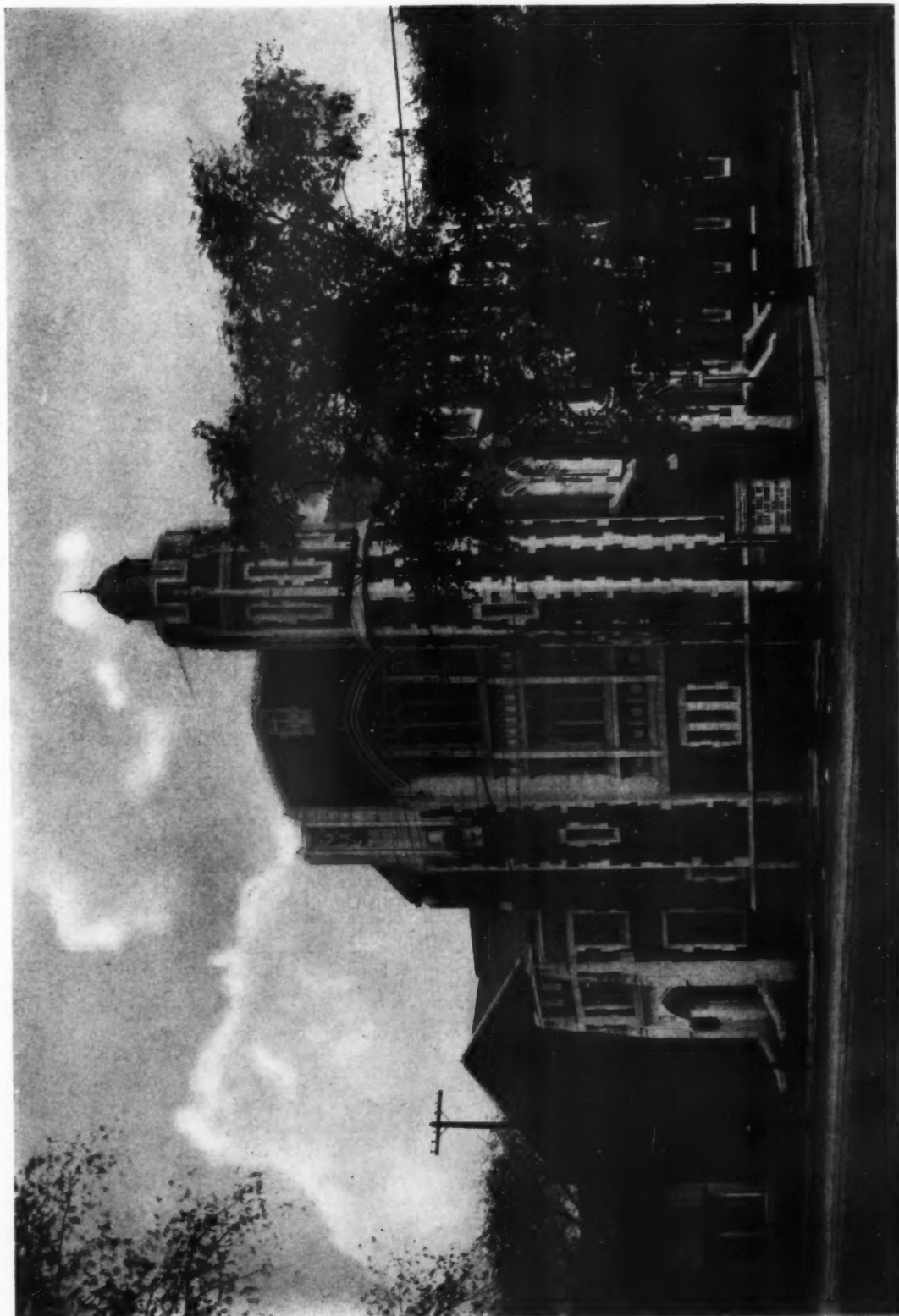
REMODELLED BUILDING FOR DEUTSCH SUDAMERIKANISCHE BANK, BERLIN
MR. SCHUETTE, ARCHITECT



REMODELLED BUILDING FOR DEUTSCH SÜDAMERIKANISCHE BANK, BERLIN
MR. SCHUETTE, ARCHITECT



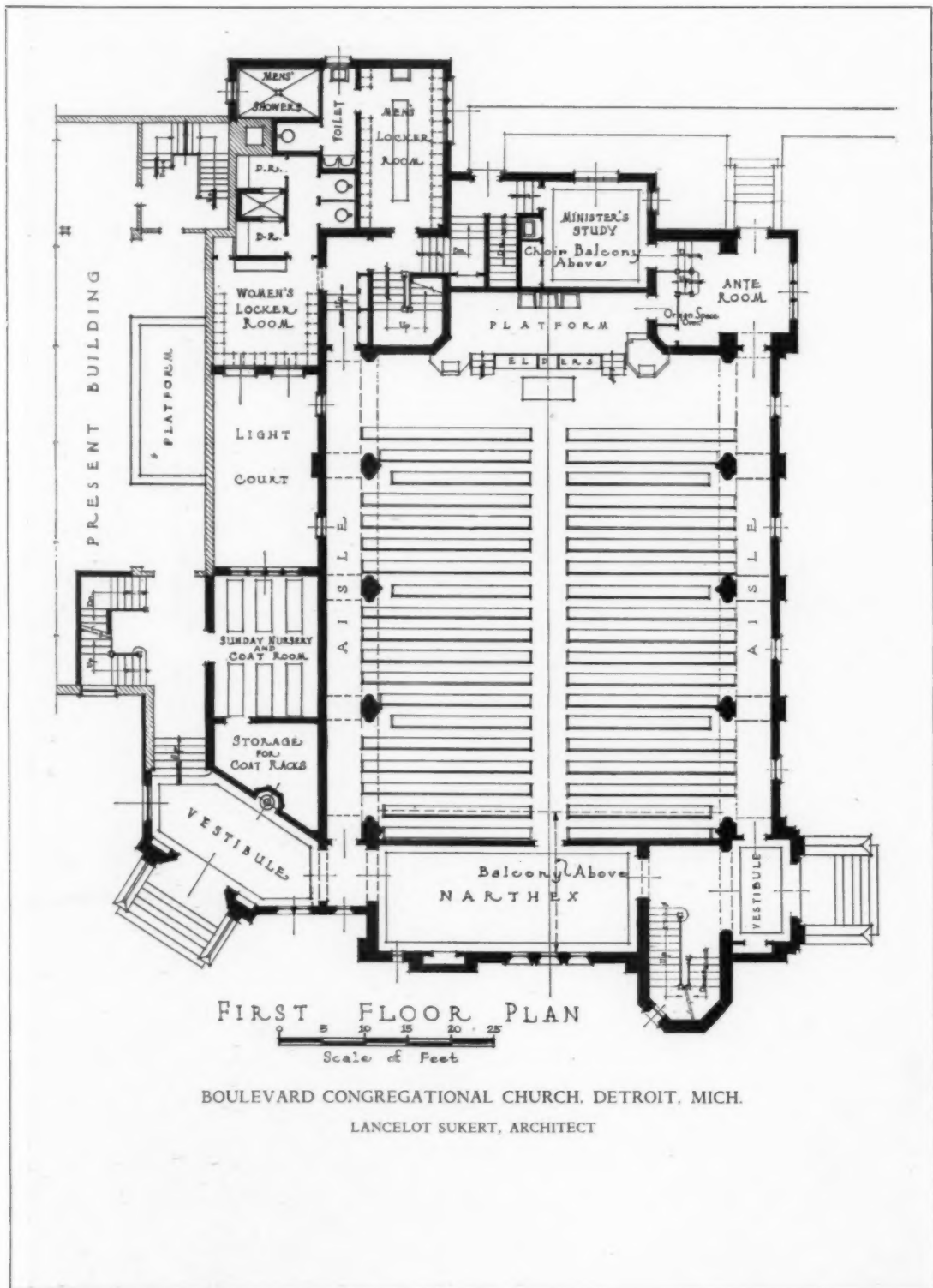
PRESIDENT'S OFFICE
REMODELLED BUILDING FOR DEUTSCH SÜDAMERIKANISCHE BANK, BERLIN
MR. SCHUETTE, ARCHITECT



BOULEVARD CONGREGATIONAL CHURCH, DETROIT, MICH.

LANCELOT SUKERT, ARCHITECT

(See plan on back)

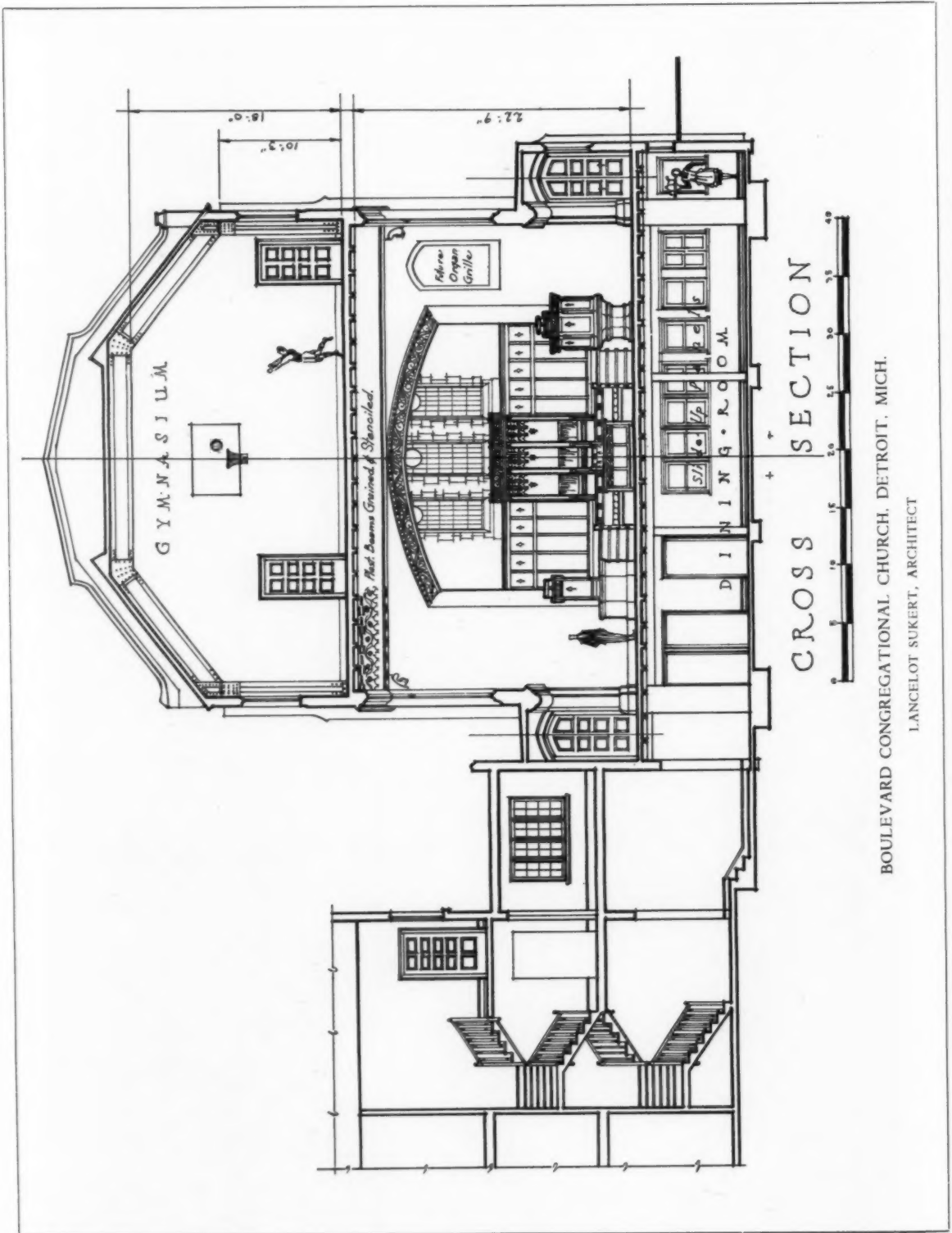




BOULEVARD CONGREGATIONAL CHURCH, DETROIT, MICH.

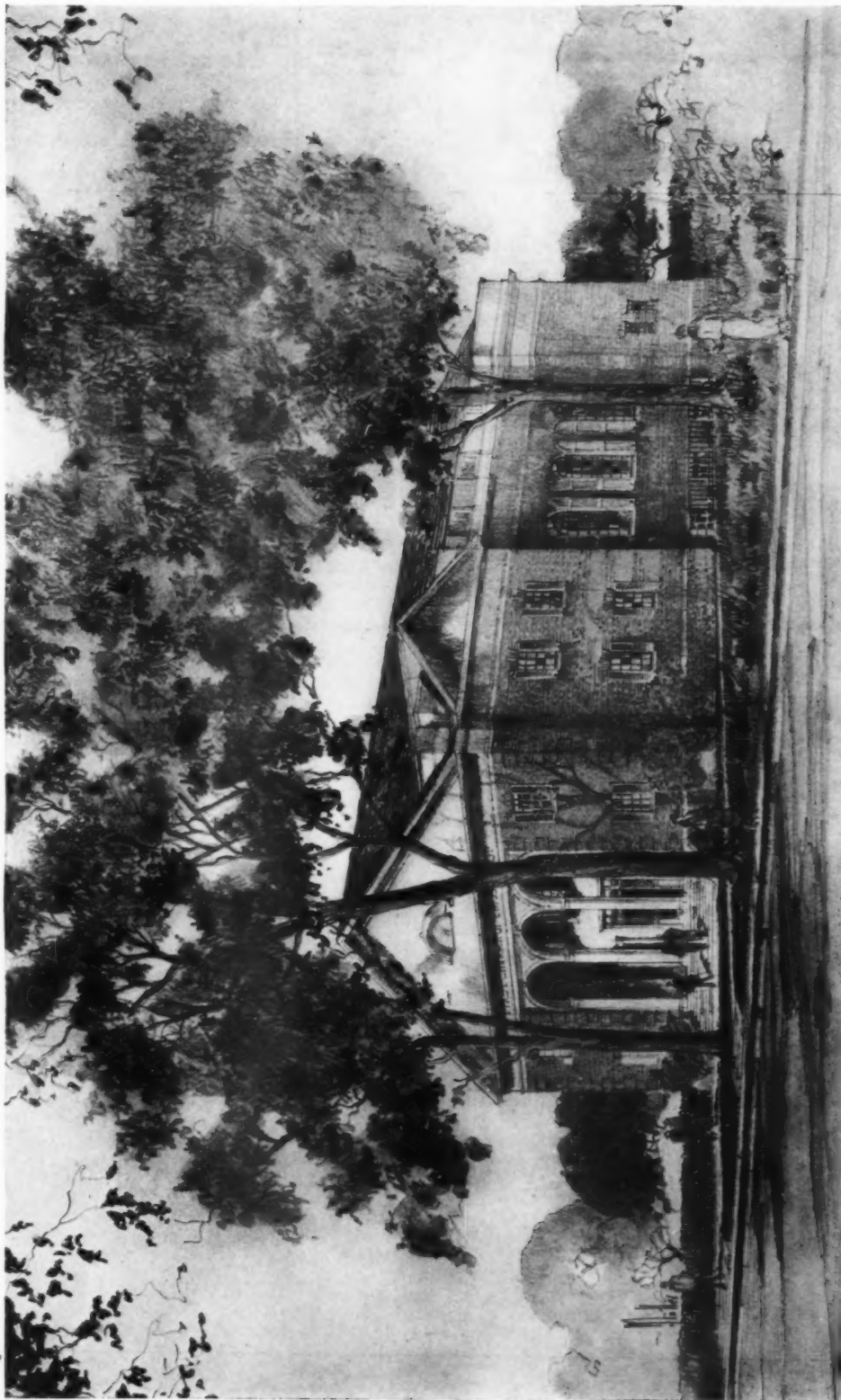
LANCELOT SUKERT, ARCHITECT

(See cross section on back)



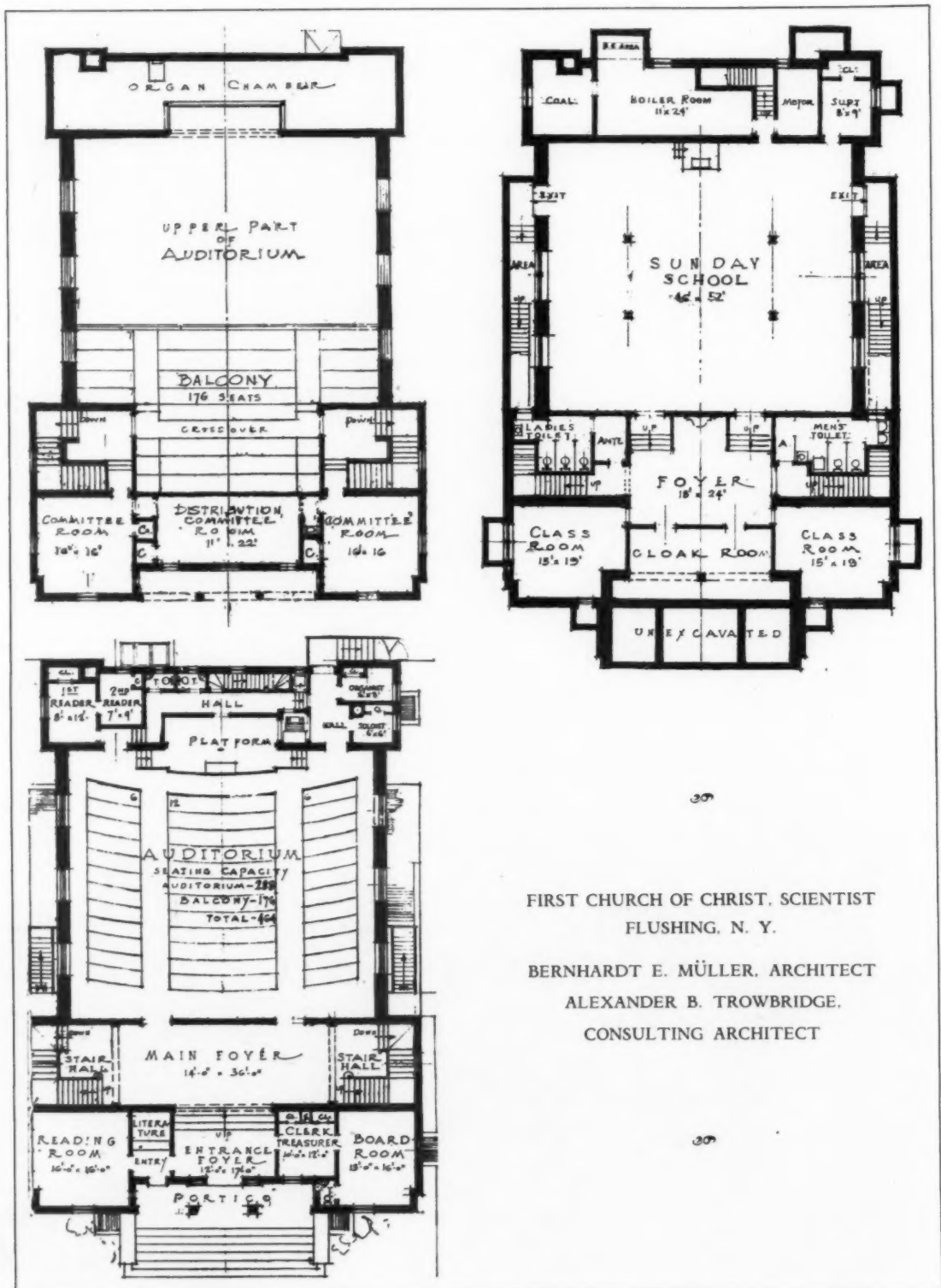
BOULEVARD CONGREGATIONAL CHURCH, DETROIT, MICH.

LANCELOT SUKERT, ARCHITECT



FIRST CHURCH OF CHRIST, SCIENTIST, FLUSHING, N. Y.

BERNHARDT E. MÜLLER, ARCHITECT; ALEXANDER B. TROWBRIDGE, CONSULTING ARCHITECT



THE ORIGIN OF THE SET-BACK*

MODERN American architecture, or that phase which treats more particularly with "skyscrapers," is characterized by set-backs, or a series of steps, controlled by zoning laws, which follow an imaginary line drawn from the center of the street to a fixed height on the building line and which impart a pyramidal form to the building on the street frontage. The idea was adopted to give more light and air to the streets as well as to the interiors of the buildings. It seemed to solve satisfactorily the perplexing problem of designing skyscrapers, which had for many years confronted architects of the larger cities of this country. Furthermore, it was at one time believed to be a distinctly modern idea and its adaptation resulted in the creation of a style of architecture which might truthfully be called American. The pyramidal shape applied to a building permits the architect to build higher and to build safely, which actually means that it allows him to build upon a broad base, so that weight of construction can be relied upon to give powerful aid toward overcoming gravity.

The ancient stepped pyramid near Memphis is based on this very principle. It is a mound with a broad base, which rises to the top by a series of terraces. It is, of course, a tomb and not a habitation. This pyramid is, perhaps, six thousand years old.

* Inspired by a recent article which appeared in the New York "Times."

Architects of later days accepted the principle of the terraced mound in designing buildings. The abbey on Mont St. Michel rises from a series of similar terraces, starting from the base of the rocky promontory and rising to the tower with its slender spire. And here appears the romantic spirit of the Middle Ages, which exalted ideals and lusted after them. It reaches high into the heavens not primarily to gain light and air, however, but to exalt the Deity and set the seal of conquest on their gods' own high places. The architects here were not so interested in a broad foundation as were the Egyptian architects of old, but rather were keener on going as high as they could. Similarly, many of the old cathedrals reached much higher in proportion to the ground they covered than any pyramid.

Comparatively speaking, the effect of the tall American set-back buildings might be likened to those of older times set against the side of a hill and climbing that hill in terraces. The terraced front presented by the Palace at Benares ascends from the level of the Ganges very much as do the stepped set-backs of our modern skyscrapers. The various steps of this ancient seat of Hinduism, where crowds of all classes spend the day in business, amusement and devotion, are backed by hundreds of temples. In extent and in embellishment it owes much to the influence of Mahratta ascendancy, for it possesses not a single structure that reaches back to the close of



SET-BACK STYLES IN TOWNS AND CITIES

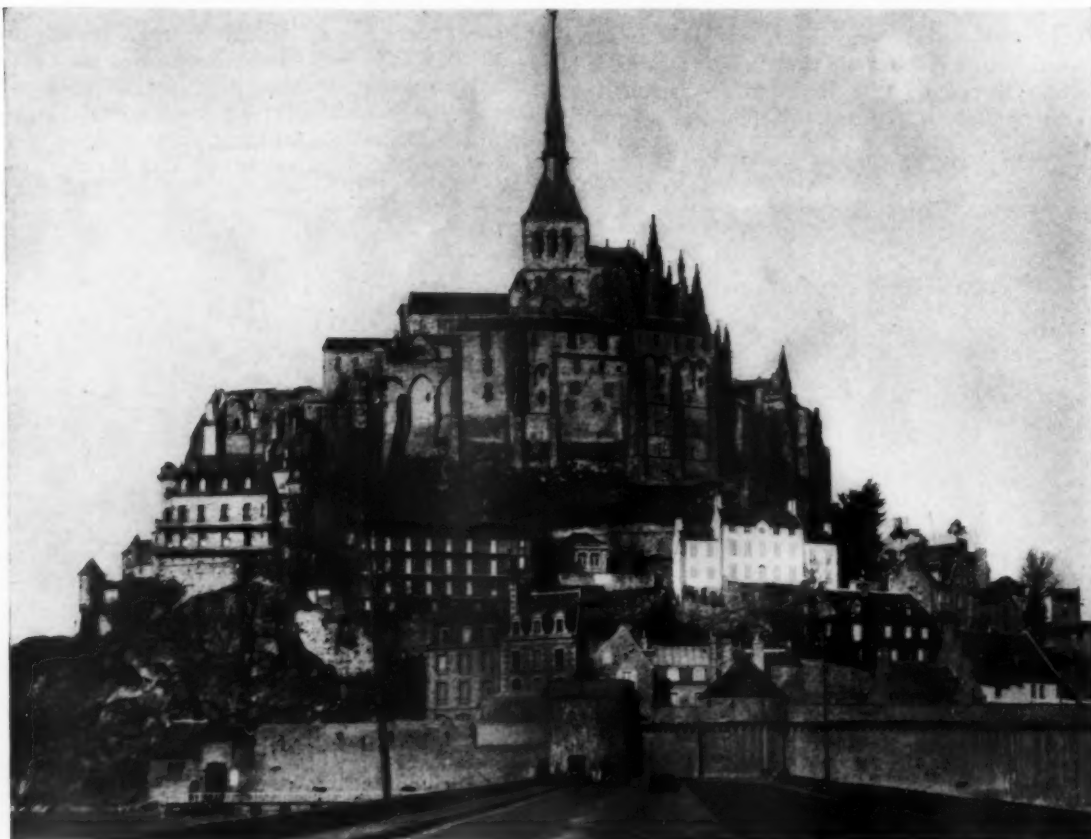
ANA-SYRA, ALSO CALLED HAUTE VILLE, ON SYRA, ONE OF THE CYCLADES GROUP OF ISLANDS (GREEK), RANKS FIRST AMONG BEAUTIFUL STAIR-STEP TOWNS. THE HOUSES ARE NEARLY ALL ATTACHED, LIKE APARTMENTS IN THE OLD INDIAN PUEBLOS IN THE UNITED STATES



IN TIKSY, TIBET, IT IS THE CUSTOM TO BUILD ON STEEP HILLS. VERY FEW WHITE MEN EVER LAID EYES ON THIS PLACE. THE PEOPLE OF THE REGION, LIKE NEARLY ALL OTHER TIBETANS, DO NOT WANT ANY VISITORS WHO MIGHT INTRODUCE NEW IDEAS

the sixteenth century. Ana-Syra, also called Haute Ville, on one of the Cyclades group of islands, represents a set-back town built on the side of a hill. The houses are nearly all attached, like apartments in an Indian pueblo. In Tibet it is the custom to build on steep hills. The illustration of Tiksy in the Lama mountains, one of the Himalayan ranges, is peculiarly characteristic. The set-back idea was inaugurated in this country by the Pueblo Indians. Here, too, was the earliest American apartment house. The adobe structures in Taos, New Mexico, are based on the principle of terraces.

A presentation such as this would seem to suggest that we are not as original as we had supposed. It might even go to prove the old adage that there is nothing new under the sun. In our adaptation of the set-back principle, we have only attempted a return to an earlier style of building. It surely was not normal to send up walls indefinitely so that once fairly broad thoroughfares, familiar with the sun at noonday, became dark and narrow canyons, as a tour of the Wall Street financial district in New York will readily prove. The same situation arose as in medieval walled cities. The question of light



MONT ST. MICHEL ON BRITTANY COAST, FRANCE

AN EIGHTH CENTURY EXAMPLE OF SET-BACK ARCHITECTURE WHICH FOLLOWS CLOSELY THE SLOPE OF THE HILL

was of much more importance than the utilization of every square foot of urban real estate. And, now, in returning to the normal solution of the problem which we must solve, architects have been given an opportunity to display their creative ability.

The modern American set-back building is an original expression. It has been developed to solve satisfactorily an economic problem. Whether the principle on which the terraced wall is based is as old as building itself, matters little, for never before was it called upon to serve such a purpose as it is called on to do at present. The very fact that the set-back is established on precedent gives greater value to our adaptation of it to our modern needs and requirements. Besides giving more light and air to the interior of tall buildings, it gives them more grace of line and greater beauty from an architectural standpoint, and that is what counts most.

The future status of the set-back building seems to hang just now in the balance. Harvey W. Corbett, architect, and Henry H. Curran, economist, have staged a number of informal debates on its



TAOS PUEBLO, NEW MEXICO, IS ONE OF THE EARLIEST SET-BACK TOWNS IN THIS COUNTRY. THE APARTMENTS HOUSE ABOUT TWO HUNDRED FAMILIES

value. Mr. Corbett sees in the tall building a solution of the intricate problem of traffic congestion which is perplexing the large cities of the world.



SET-BACK BUILDINGS IN INDIA

LIKE A GOOD MANY AMERICAN OFFICE BUILDINGS, THE PRINCE OF DELHI'S PALACE, OVERLOOKING BATHING GHATS ALONG THE SHORE OF THE GANGES, AT BENARES, IS A STRUCTURE OF IRREGULAR OFFSETS



STEPPED PYRAMID NEAR MEMPHIS, THE OLDEST PYRAMID IN EGYPT. IT WAS THE TOMB OF KING LOSER, 3RD

Mr. Curran, on the other hand, argues that the present street congestion is due to the skyscraper. We would not express an opinion of the outcome while two such master minds are still discussing this topic. Without the skyscraper, there is little use for us in the set-back. The future will tell. But, should the skyscraper continue or pass, it seems quite certain

that some unknown method of construction will eventually arise which the world today does not even think of.

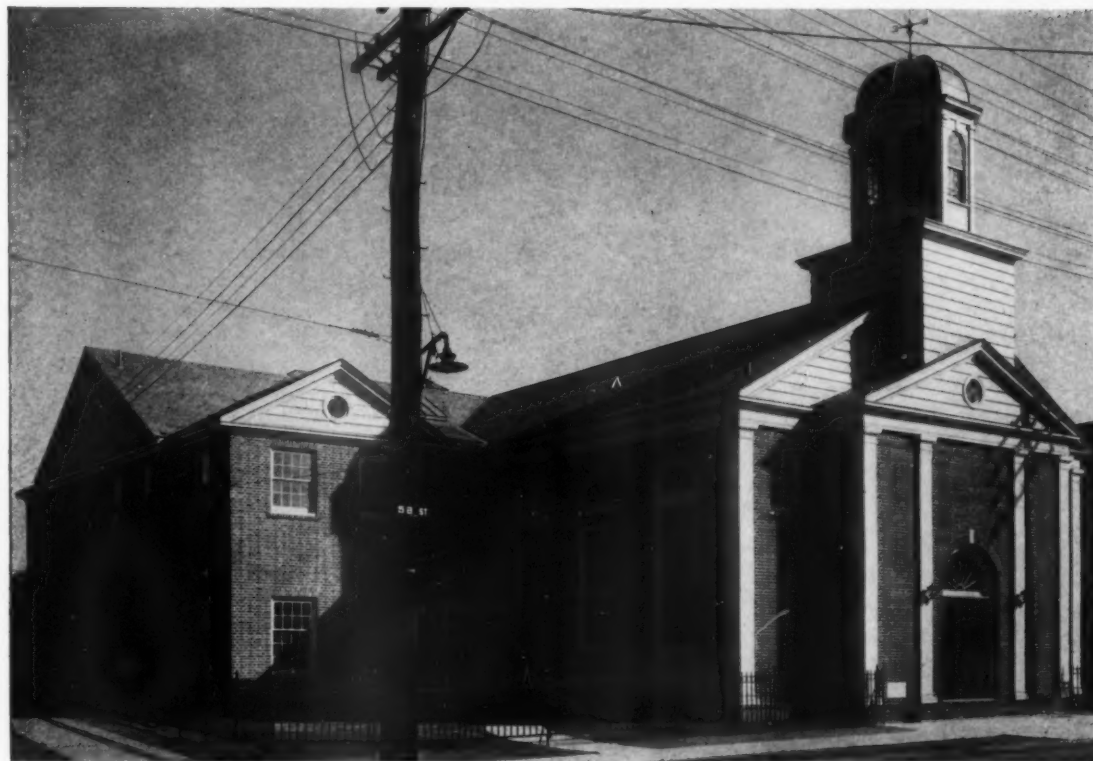
The illustrations accompanying this article were reproduced from original photographs by Ewing Galloway.

EXCAVATION WORK IN JERUSALEM

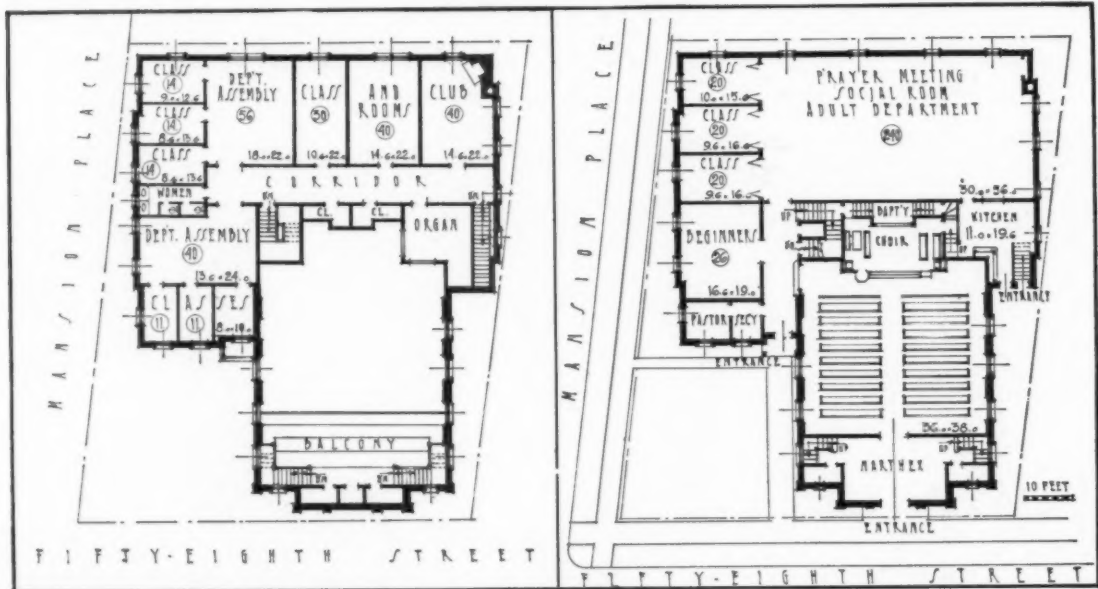
EXCAVATION in and about Jerusalem has been very greatly facilitated since the English occupation, and many uncertainties which have perplexed both antiquarians and pilgrims may be removed by the gradual unearthing of further evidence of the ancient city walls. The third wall, built by Agrippa to enclose the northern suburb, was at one time incorrectly identified with the present north wall of the city, but excavations undertaken by Dr. Sukenic and Dr. Meyer, of the Jewish Archaeological Society, have revealed foundations of a wall running outside the present city wall between St. Stephen's Dominican Convent and the Russian Square. A report in the *Times* states that the

whole northern part of the wall is now traceable. One practical reason why Jerusalem, like other Oriental walled cities, should have walls in different places at different periods is that the immemorial practice of dumping offal and rubbish on what is, normally, the leeward side of the town, leads to the migration of all but the poorest inhabitants to more savory quarters. Immense deposits of debris were encountered by earlier excavators on the south and east sides of the city, where—until the Turks were driven out, at all events—the refuse of the whole population was pitched out toward Siloam. "Cool Siloam's shady rill" is an expression in which poetic license arrives at its limits.—*The Architects' Journal*, London.

A GROUP OF
BUILDINGS OF MODERATE COST
WITH DETAILS OF CONSTRUCTION, MATERIALS AND CUBIC COST

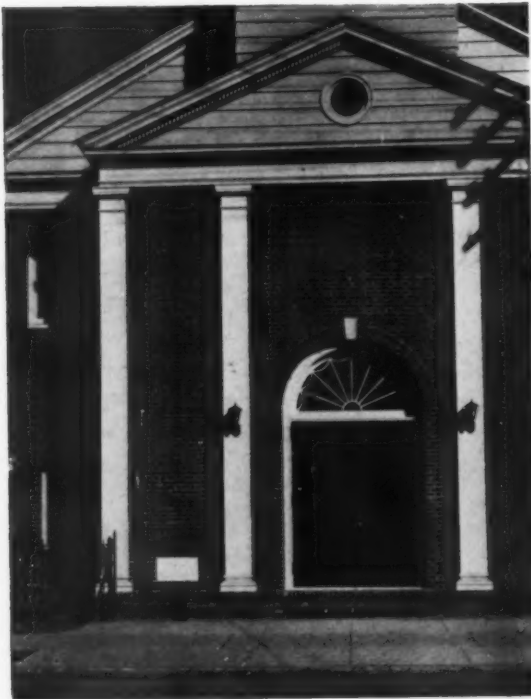


WOODSIDE BAPTIST CHURCH, WOODSIDE, L. I., N. Y.—ALBERT HUMBLE, ARCHITECT



PLAN OF SECOND FLOOR

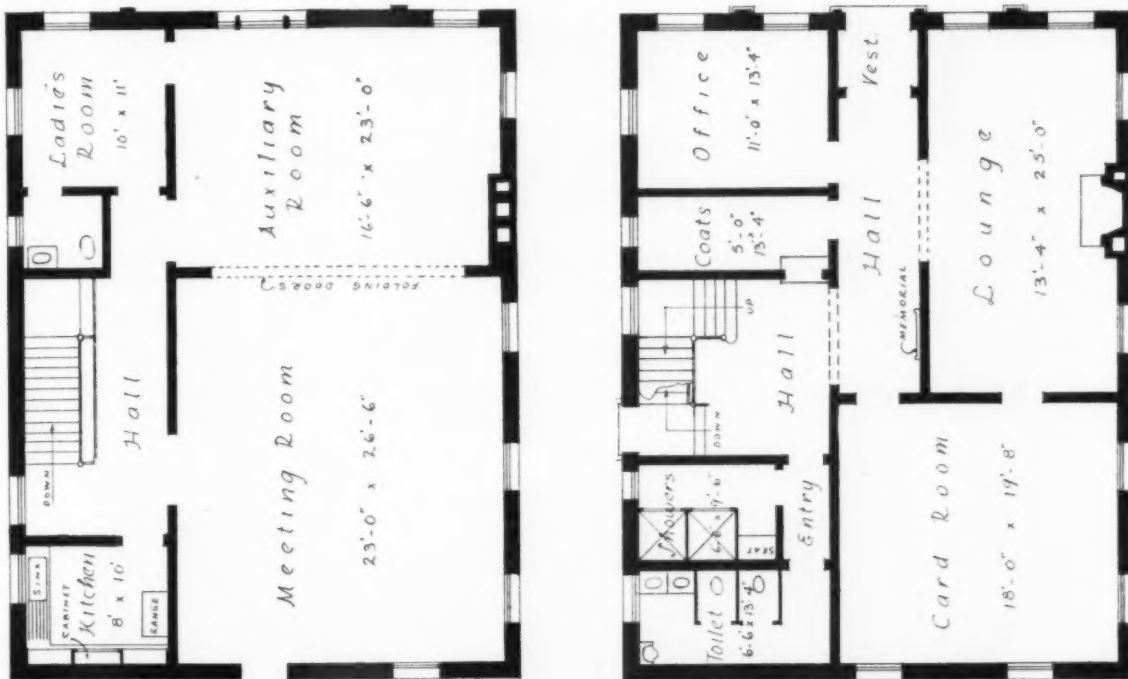
PLAN OF FIRST FLOOR



DETAIL OF ENTRANCE

EXTERIOR WALLS ARE CONSTRUCTED OF BRICK AND HOLLOW TILE AND COVERED WITH BRICK VENEER. THE ROOF IS OF SLATE. PARTITIONS ARE OF WOOD, COVERED WITH PLASTER, AND FLOORS ARE ALSO OF WOOD. DOORS, WINDOWS AND TRIM THROUGHOUT ARE OF WOOD, THE TRIM PAINTED IN CREAM WHITE. THE BUILDING IS HEATED BY STEAM AND SEWER SYSTEM OF DRAINAGE IS INSTALLED. THERE IS A PUBLIC WATER SUPPLY. THE BUILDING WAS ERECTED IN 1925 AT A COST OF 39 CENTS PER CUBIC FOOT

WOODSIDE BAPTIST CHURCH, WOODSIDE, L. I., N. Y.—ALBERT HUMBLE, ARCHITECT

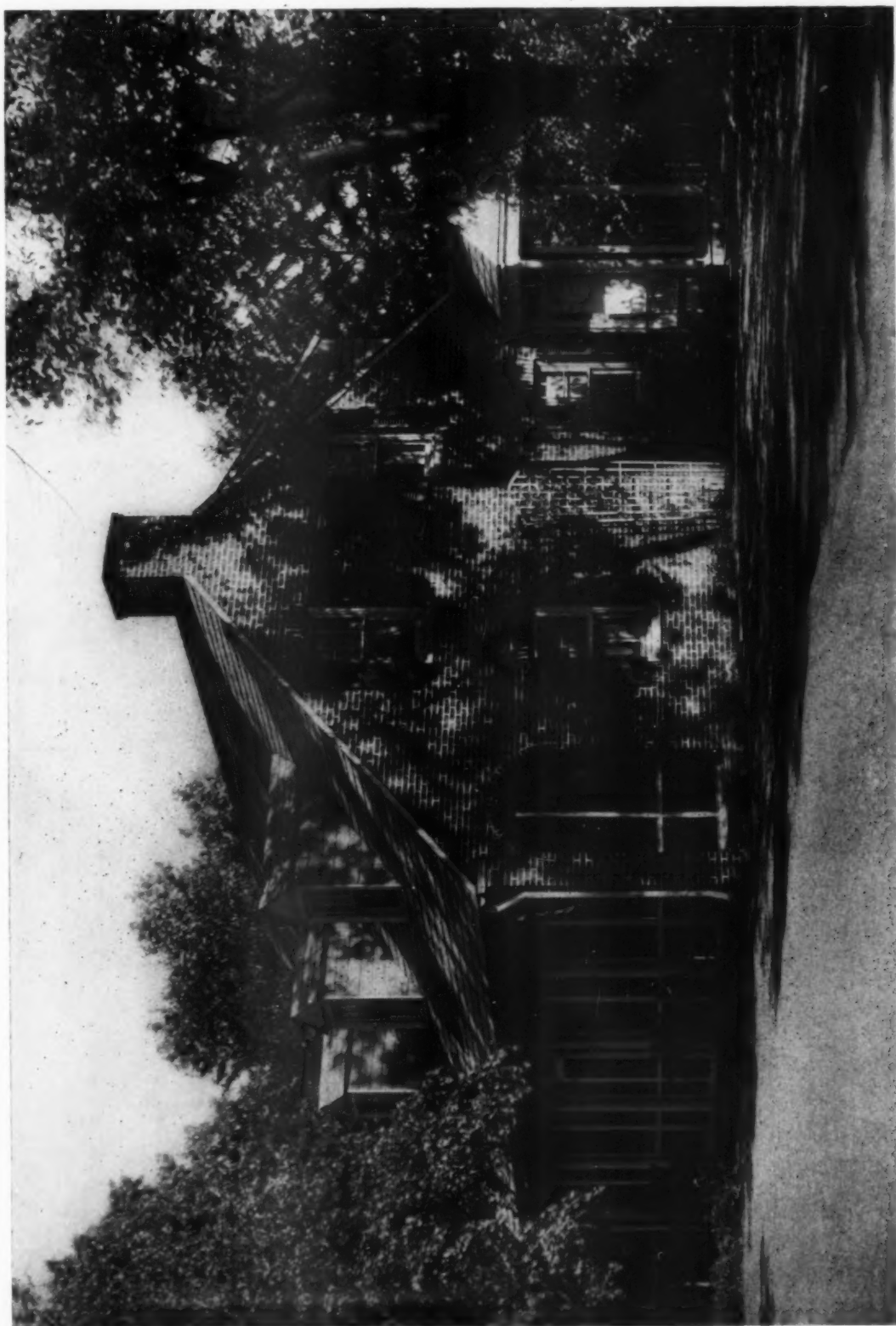


AMERICAN LEGION MEMORIAL BUILDING, KINGSTON, N. Y.
CHARLES S. KEEFE, ARCHITECT

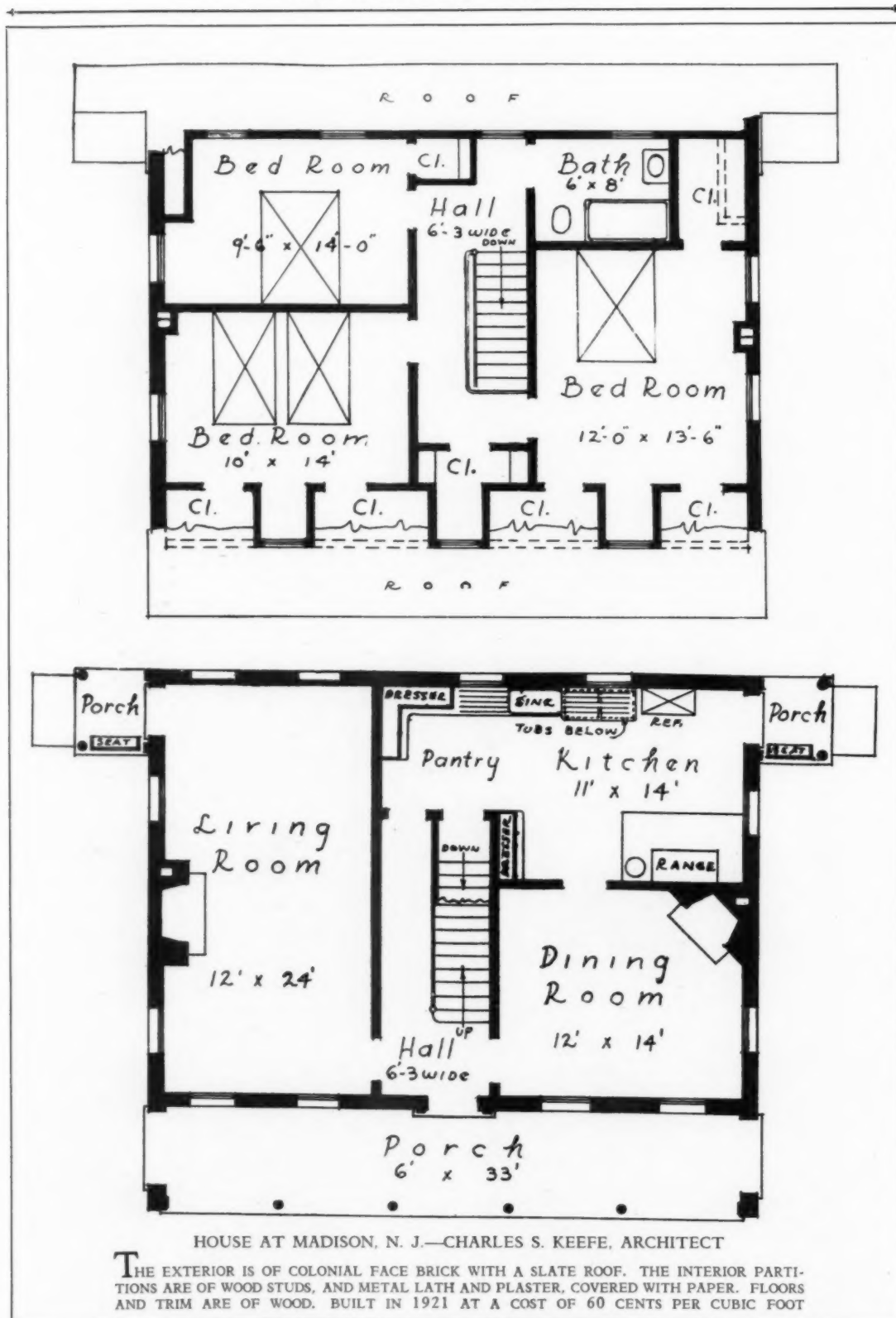


MEMORIAL TABLET

AMERICAN LEGION MEMORIAL BUILDING, KINGSTON, N. Y.—CHARLES S. KEEFE, ARCHITECT



HOUSE AT MADISON, N. J.—CHARLES S. KEEFE, ARCHITECT



HOUSE AT MADISON, N. J.—CHARLES S. KEEFE, ARCHITECT

THE EXTERIOR IS OF COLONIAL FACE BRICK WITH A SLATE ROOF. THE INTERIOR PARTITIONS ARE OF WOOD STUDS, AND METAL LATH AND PLASTER, COVERED WITH PAPER. FLOORS AND TRIM ARE OF WOOD. BUILT IN 1921 AT A COST OF 60 CENTS PER CUBIC FOOT

INTERIOR ARCHITECTURE

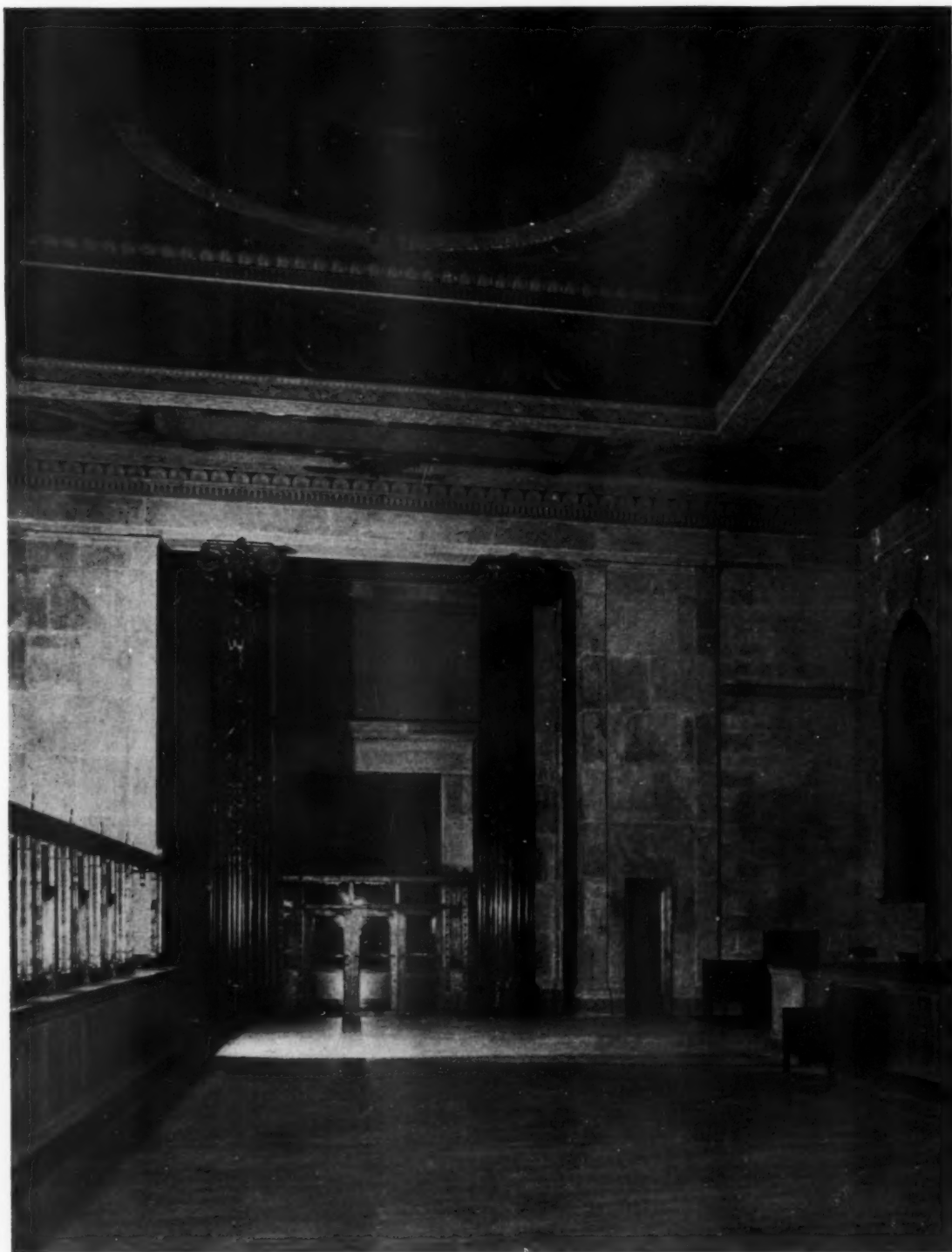
BANKING ROOM OF THE SOCIETY FOR SAVINGS, HARTFORD, CONN.

DENNISON & HIRONS, *Architects*

Illustrated and Described by Photographs and Captions



REPRODUCTION OF THE ORIGINAL SKETCH MADE BY THE ARCHITECTS.
SHOWING GENERAL TREATMENT OF THE INTERIOR



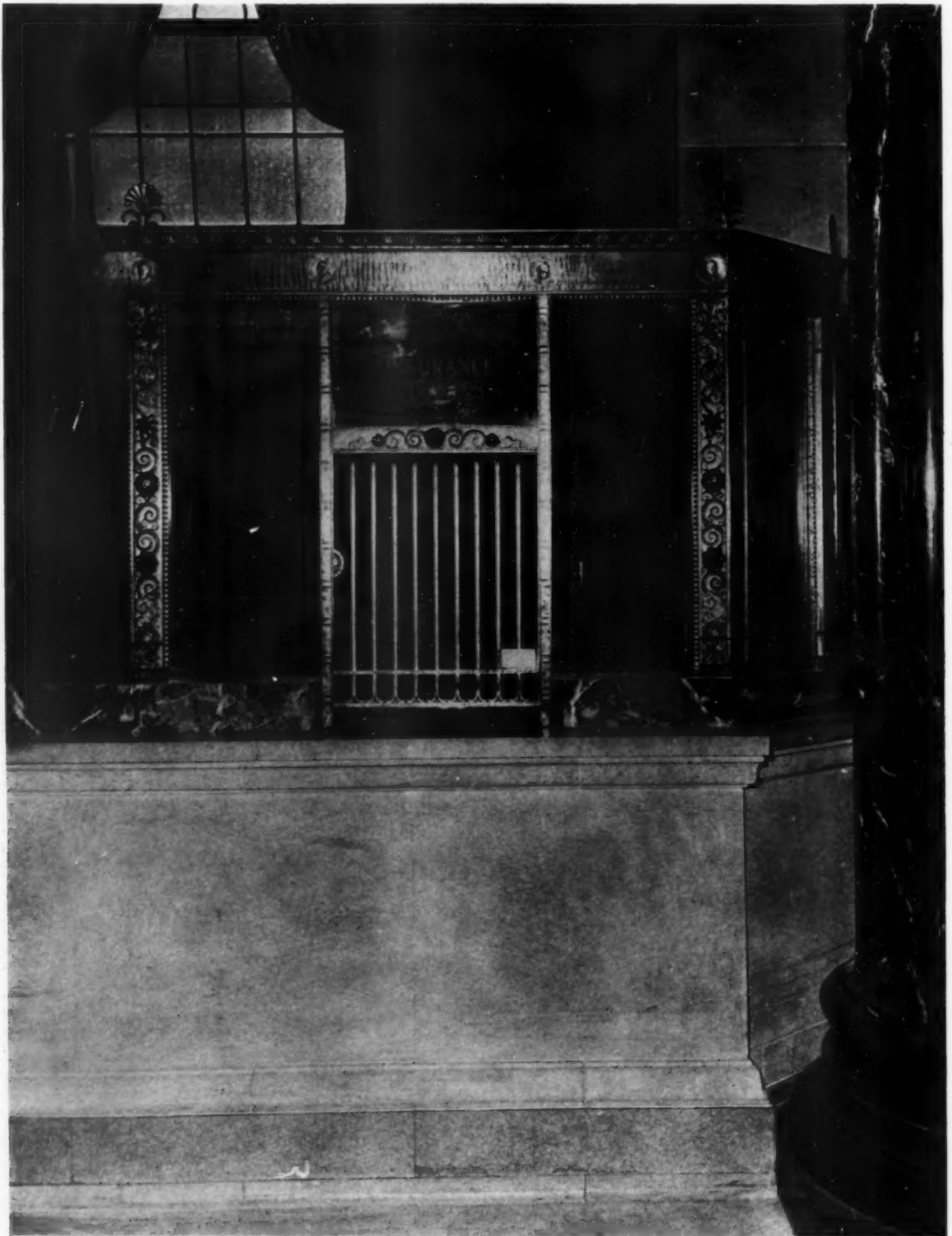
GENERAL VIEW OF BANKING SPACE LOOKING TOWARD ENTRANCE DOOR. THE ROOM MEASURES SIXTY FEET WIDE BY ONE HUNDRED AND TWENTY FEET LONG. THE TWO MASSIVE COLUMNS AT EITHER END ARE OF VALCERINO MARBLE, WITH BLACK MARBLE BASE AND BRONZE CAPS

SOCIETY FOR SAVINGS, HARTFORD, CONN.—DENNISON & HIRONS, ARCHITECTS



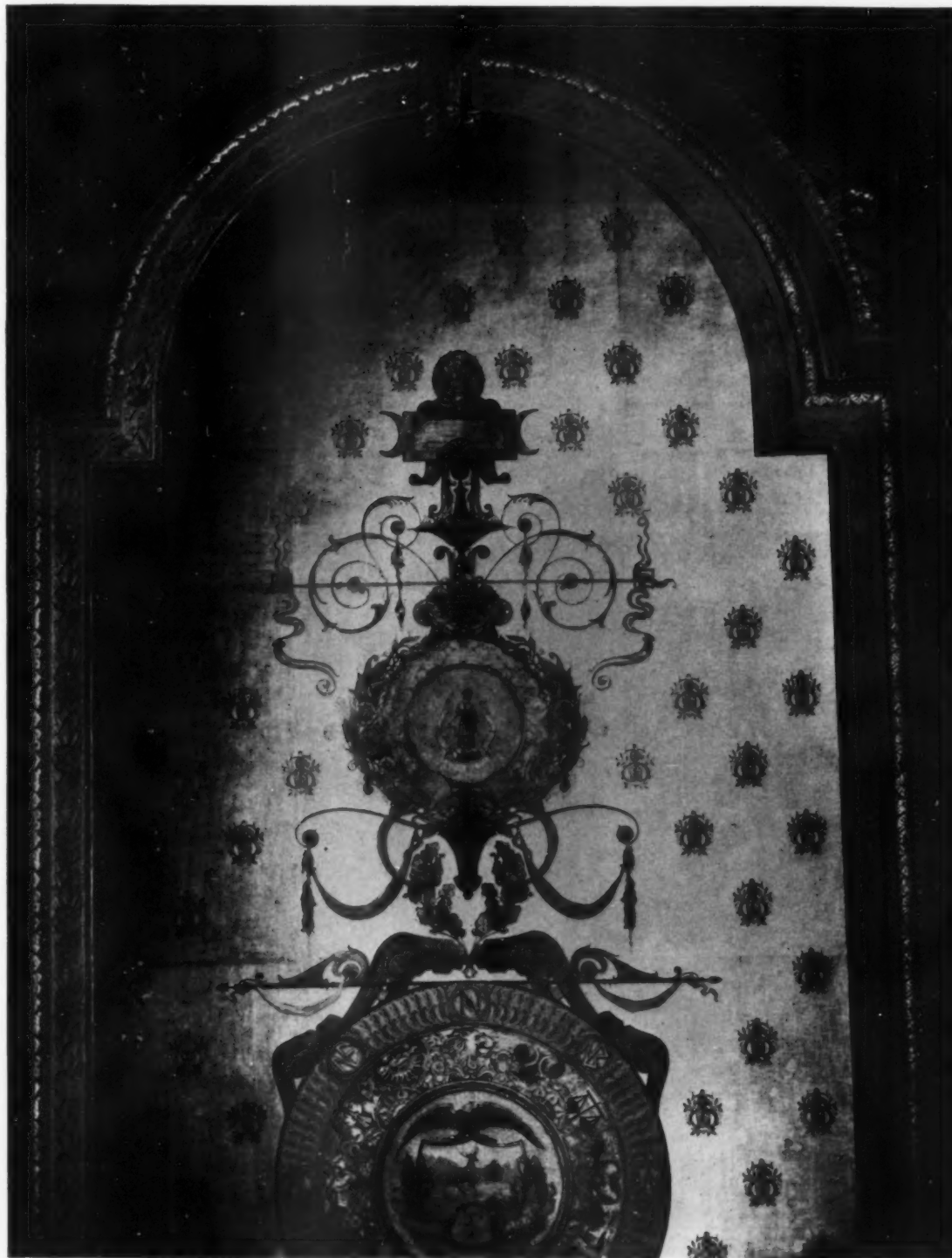
THE ENTRANCE IS OF WROUGHT IRON IN INTERESTING DESIGN. THE CASING OF THE DOOR OPENING IS OF INDIANA LIMESTONE. THE WALLS OF THE BANKING SPACE ARE OF INDIANA LIMESTONE WITH A MIXTURE OF ABOUT TEN PER CENT OF BRIAR HILL STONE

SOCIETY FOR SAVINGS, HARTFORD, CONN.—DENNISON & HIRONS, ARCHITECTS



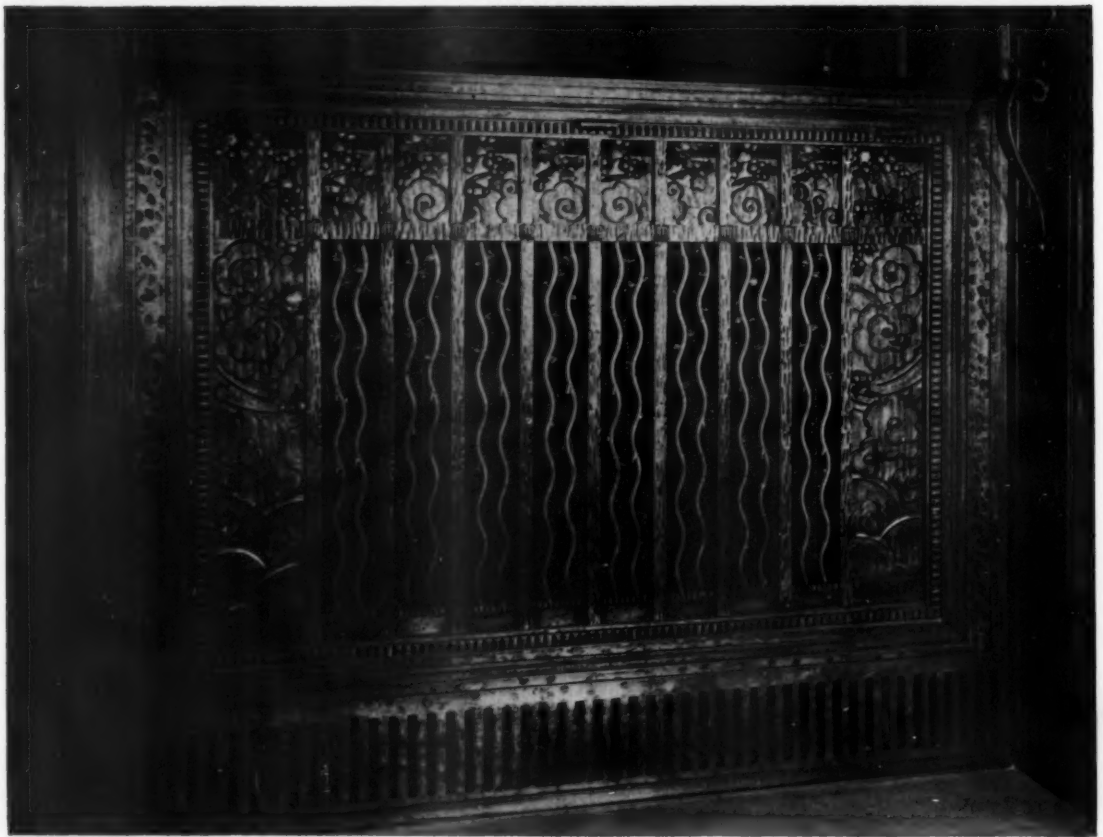
DETAIL OF BANKING SCREEN. THE SCREEN ITSELF IS OF WROUGHT IRON MOUNTED ON A BASE OF VALCERINO MARBLE. THE LOWER SCREEN IS OF BRIAR HILL STONE. THE FLOOR OF THE BANKING SPACE IS OF GRAY TENNESSEE MARBLE. THE ORNAMENT IS OF INTERESTING DESIGN

SOCIETY FOR SAVINGS, HARTFORD, CONN.—DENNISON & HIRONS, ARCHITECTS



A PORTION OF THE PAINTED PANEL ON THE CEILING. THE DESIGN IS BROUGHT OUT IN VARIOUS COLORS ON A GOLD GROUND. THE SEALS OF HARTFORD AND OF THE STATE OF CONNECTICUT ARE WOVEN INTO THE DESIGN. THE PANEL WAS PAINTED BY H. L. SCHLATERMUND

SOCIETY FOR SAVINGS, HARTFORD, CONN.—DENNISON & HIRONS, ARCHITECTS



TWO RADIATOR GRILLES INSTALLED IN THE BANKING SPACE. THE GRILLES ARE OF WROUGHT IRON WITH OCCASIONAL BRASS ORNAMENT INTRODUCED. IN DESIGN THEY ARE SUGGESTIVE OF THE MODERN INFLUENCE. THE METAL WORK WAS EXECUTED BY RENNER & MARAS, INC.

SOCIETY FOR SAVINGS, HARTFORD, CONN.—DENNISON & HIRONS, ARCHITECTS



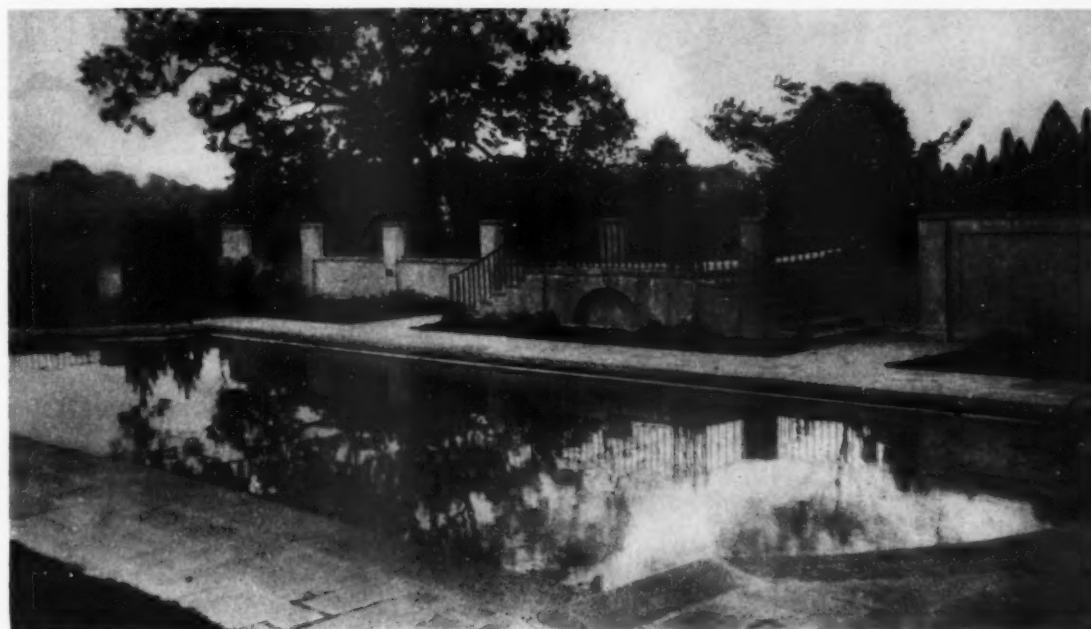
SWIMMING POOL CONSTRUCTION

SWIMMING pools are classed as to use as competitive and non-competitive, and as to location as outdoor, basement and upper floor. Further classifications might be private and public. Construction essentials consist of a structural shell and sanitary lining. Accessories include spring boards, ladders, and other apparatus, according to individual requirements. Equipment comprises filters, heaters, sterilizers, pool cleaning apparatus and such valves as may be required in connection with the water supply circulation and drainage systems.

Swimming records are recognized only when made in a pool of regulation size. The minimum dimensions of pools established by intercollegiate rules for swimming contests are 20 x 60 feet. A more satisfactory length where space permits is 75 feet. Swimming lanes for races are 5 feet wide and for this reason the width of the pool is made a multiple of this dimension as 20, 25 or 30 feet. The rules specify a minimum depth of 3 feet at the shallow end and 7 feet at the deep end. For diving contests a depth of not less than 8 feet nor more than 10 feet should be provided at or near the deep end.

Swimming lanes are marked on the bottom of the pool with contrasting colored lines 3 inches wide, spaced 5 feet on centers. Distance and depth numerals located at 5 foot intervals are required on either side of the pool. Safety lines should extend across the pool and up the sides at 5 foot intervals. Turning lines extending across the bottom and up the sides are located 5 feet from each end. Jackknife limits are located 6 feet from the end of the diving board. These extend across the curb and below the normal level of the water.

Non-competitive pools may be made any size or shape desired. Public or private pools may be competitive or non-competitive and their size and shape of necessity depend upon their purpose. Where the depth of water is less than 6 feet there should be no sudden changes of slope. From the shallow end to the 6 foot point the slope should preferably be not greater than 1 foot to 15 feet. The side walls of the pool should be built vertically. The report of the Joint Committee on Bathing Places of the American Public Health Association states that data collected in its investigation on the proportioning of



SWIMMING POOL ON ESTATE OF VICTOR EMANUEL, MANHASSET, L. I., N. Y.
A. F. BRINCKERHOFF, LANDSCAPE ARCHITECT

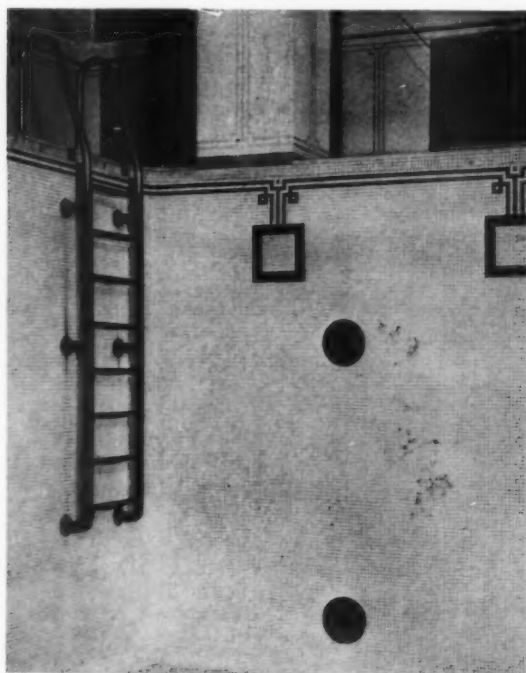
the area of the pool to the expected number of bathers indicates that a maximum allowance of 12 persons may be permitted within a radius of 10 feet of each diving board and that an average of 27 square feet should be provided for each swimmer in addition and beyond this area. Where the character of the pool is such that a large percentage of the users are non-swimmers, an allowance of 10 square feet per bather should be provided in the shallow area arranged for their use.

The structural shell is a matter of engineering design to withstand unbalanced hydraulic pressure when the pool is full of water. The shell of outdoor and basement pools may also be required to withstand earth pressures from the outside when the pool is empty. The shell is commonly built of reinforced concrete and formed to accommodate the lining, gutter and curb. Upper floor or elevated pools are usually constructed within a riveted or welded steel tank or box. The steel tank is considered advantageous in preventing cracks in the pool should settlement of the building occur. Conditions occasionally warrant the use of steel tanks for pools built in the ground to prevent infiltration. The steel tank is regarded as a container in which the pool is constructed with a reinforced concrete shell designed to resist the pressure of the water.

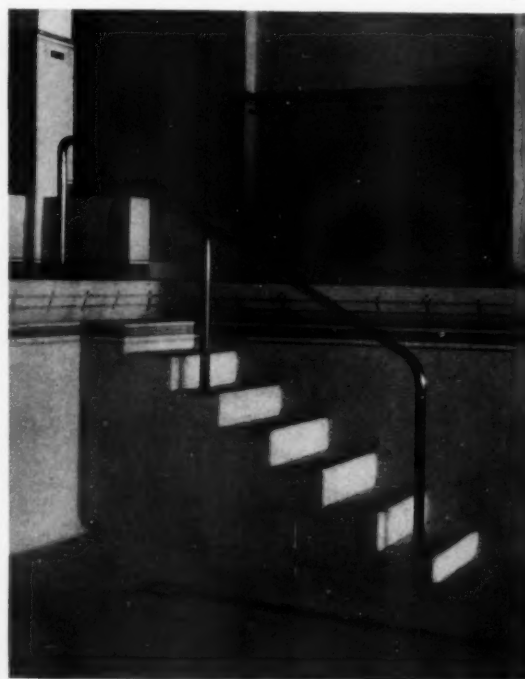
The lining of the pool should present a smooth,

impervious surface that is easily maintained in a clean condition. The materials employed are cement, enameled brick and tile. Concrete pools may be built with shell and lining integral or with a cement plaster finishing coat. When monolithic, the exposed surface of the walls is rubbed down with carborundum stone. When the plaster coat method is used, the forms should be removed as soon as possible, the walls roughened and finished with two coats of rich cement plaster to which 10% by volume hydrated lime has been added. A concrete mix that will result in a dense, impervious mass should be used for the shell. Density is improved by vibrating the forms by hand or by means of a pneumatic hammer. Floors are laid in two operations: a concrete slab base and a $\frac{3}{4}$ or 1" top course. The top course should be installed while the base is soft. The wall footings and the floor should be so constructed that they are independent. This can be accomplished by coating the top ledge of the footing with asphalt before the floor or base course is laid. Scum gutters and curbs can be run in a manner similar to those made of tile or terra cotta.

Enameled brick is laid with a 4" backing of common brick between it and the shell. The enameled brick for the floor is laid on the concrete base course without the brick backing. Specially shaped bricks are used to provide a sanitary cove at all interior



CENTRAL Y. M. C. A., CHICAGO, ILLINOIS
MUNDIE & JENSEN, ARCHITECTS



LIBERTY HIGH SCHOOL, BETHLEHEM, PA.
VERUS T. RITTER, ARCHITECT

AT LEFT: TYPICAL BRASS LADDER WITH HAND RAIL EXTENDING OVER CURB. CIRCULATION INLET AND OUTLET ARE SEEN IN THIS ILLUSTRATION. AT RIGHT: TYPICAL STAIRWAY WITH BRONZE HAND RAIL USED AT SHALLOW END

angles. Various patented forms of scum gutters, life rails and curbs are made of glazed terra cotta for use with enameled brick linings.

While conditions may warrant the use of a brick backing inside the concrete shell, when a tile lining is used, the commonly accepted and recommended practice is to set the tile in a cement plaster coat applied directly to the concrete shell. Gutters, life rails and curbs may be developed in ceramic mosaics or terra cotta made in special shapes for this particular purpose may be used.

The waterproofing of swimming pools depends upon the location of the pool and the type of construction used. A pool of average size contains a large volume of water, and to conserve it waterproofing against seepage may be highly desirable. Pools built where considerable ground water is present will probably require waterproofing against infiltration. Drain lines may also be necessary to carry this water away from the walls of the pool. The pool may be so located that leakage from the pool would cause property damage to others or to the building, and proper protection must be provided. Waterproofing may also be needed to prevent water from working in back of the lining and causing it to separate from the shell. When a lining of enameled brick is used, a membrane waterproofing consisting of felt and asphalt should be used be-

tween the concrete base and brick of the floor and between the concrete shell and the common brick backing of the walls. An integral waterproofing compound is often mixed in the plaster coat applied to the concrete shell when tile is used as a lining.

The size of an official diving board is 20 inches wide and 12 to 13 feet long. The height of the board is not less than 2' 6" or more than 4' 0" above the surface of the water. For high diving contests diving platforms are 14 to 16 feet and 24 to 27 feet above the water level. The report of the Joint Committee on Bathing Places of the American Public Health Association states that no public diving board or platform should be located more than 10 feet above the water level and that at least 12 feet unobstructed head room should be provided above the diving board. The fifth report of this committee establishes the following as safe depths of water for diving from various heights:

Elevation of Diving Platform	Minimum Safe Depth of Water
1 foot	5 feet
3 feet	6 "
5 "	7 "
7 "	8 "
10 "	9 "

Diving boards are made of hickory planks and

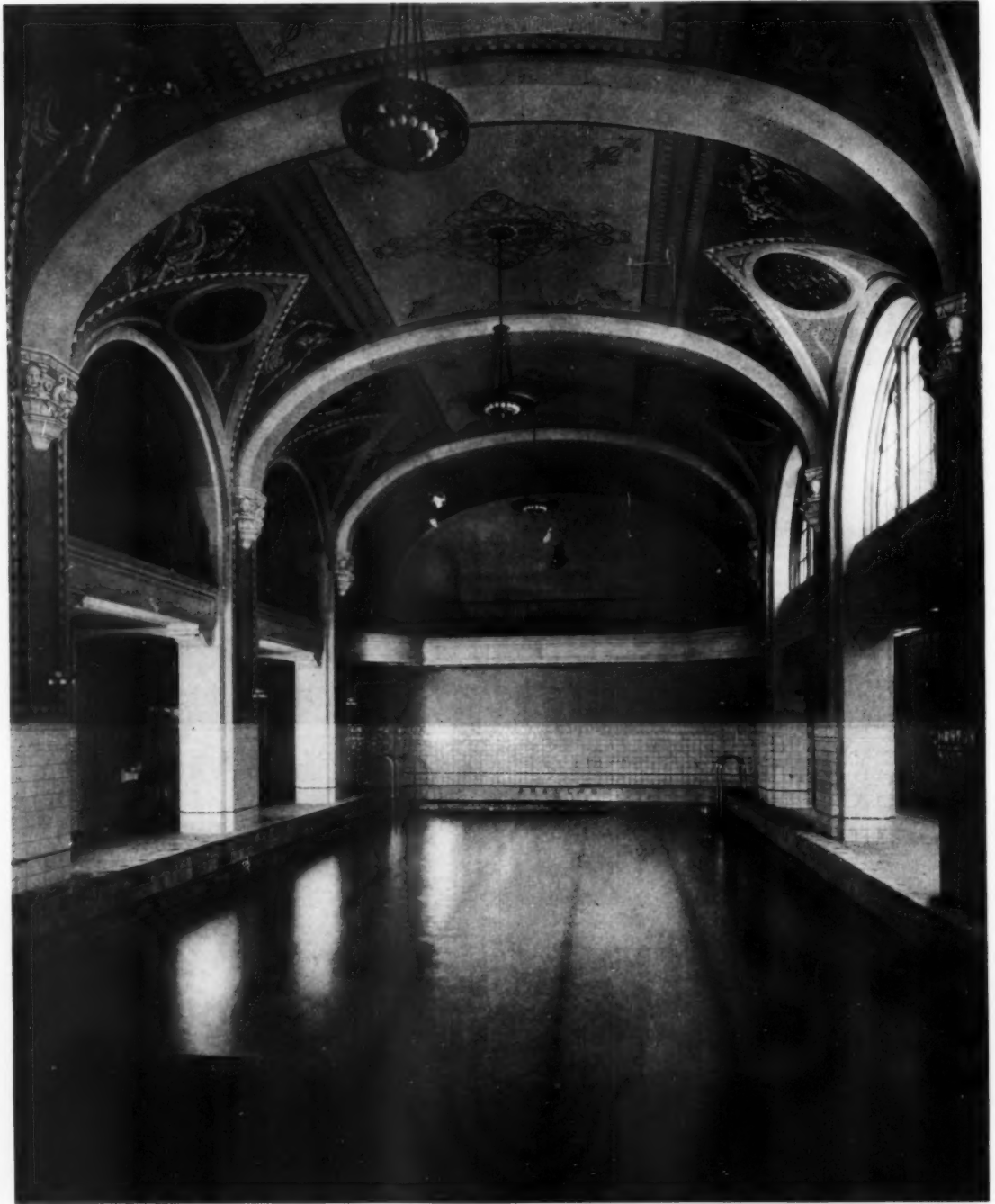


LIBERTY HIGH SCHOOL, BETHLEHEM, PA.
VERUS T. RITTER, ARCHITECT



D. G. DERY RESIDENCE, CATASAUQUA, PA.
NICHOLS & SMITH, ARCHITECTS

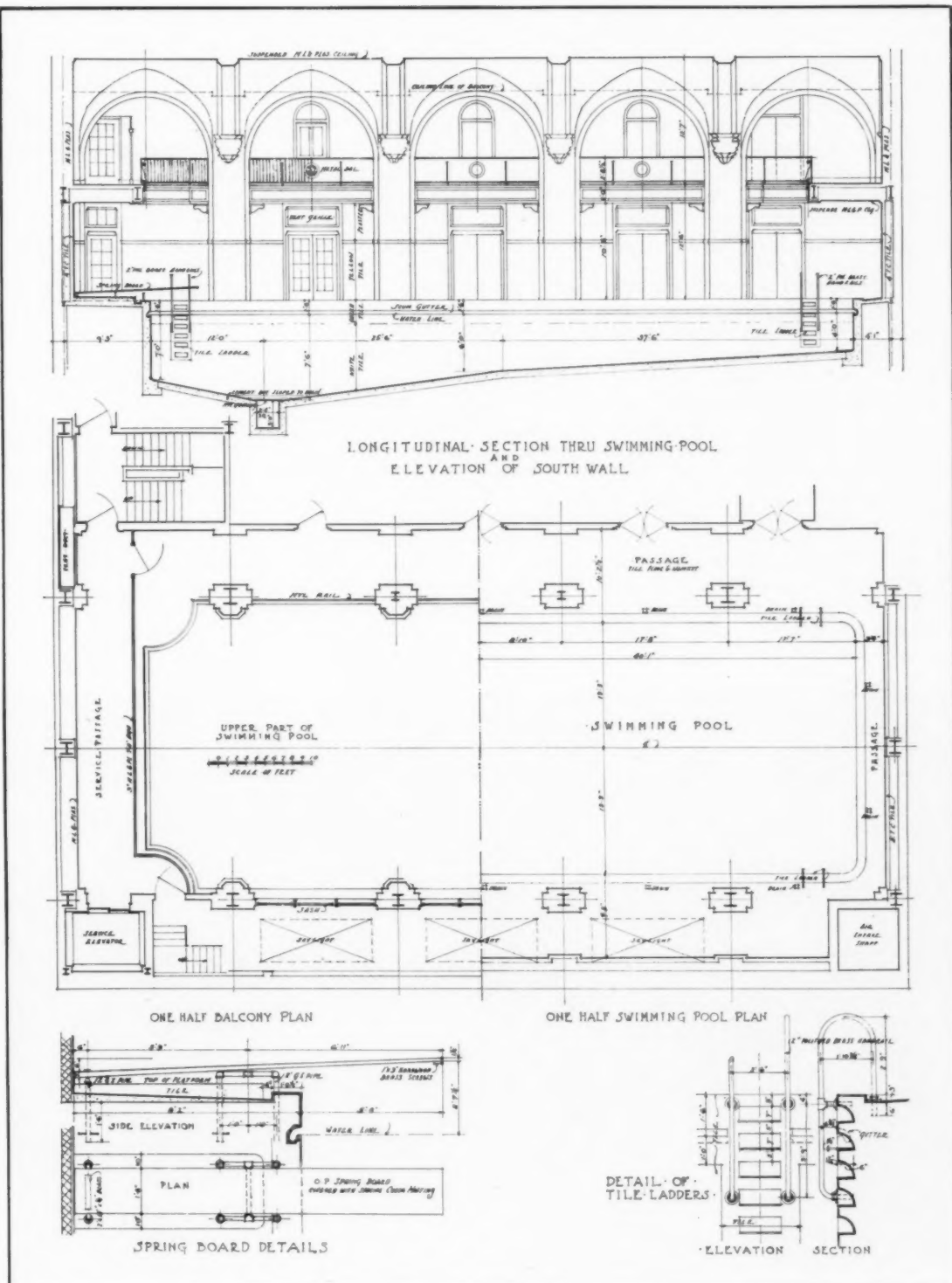
AT LEFT: TILE LADDER WITH BRONZE PULL-OUTS AT DEEP END OF POOL. AT RIGHT: RECESSED TILE STEPS WITH BRONZE PULL-OUTS. NOTE THE UNUSUAL USE OF A DOUBLE SCUM GUTTER



SWIMMING POOL IN ELKS CLUB, SAN FRANCISCO, CALIFORNIA

FREDERICK H. MEYER, A. R. JOHNSON, ARCHITECTS

THE POOL IS LOCATED AT THE NORTH END OF THE BUILDING. THE EFFECT OF ARTIFICIAL SUNLIGHT HAS BEEN CREATED BY THE USE OF YELLOW WALL TILE. PLASTER WALLS ABOVE THE TILE ARE A TONE OF POMPEIAN PINK, AND THE CEILING IS OF BRILLIANTLY COLORED MOSAIC. RUNWAYS SURROUNDING THE POOL ARE OF HAND-MADE RED TILE. THE WALLS OF THE POOL FOR A DISTANCE OF TWO FEET SIX INCHES ARE LINED WITH BRILLIANT GREEN TILE. BOTTOM AND SIDES OF THE POOL ARE OF WHITE TILE.



DETAILS OF SWIMMING POOL, ELKS CLUB, SAN FRANCISCO, CALIFORNIA

FREDERICK H. MEYER, A. R. JOHNSON, ARCHITECTS

should be covered with rubber matting except the end which is usually provided with a coca mat.

Where swimming lessons are given beginners, provision should be made for supporting and anchoring the wire cable on which the belts used to support the students run on pulleys. The manner in which the pool will be used will determine whether emergency equipment such as pole hooks, ropes, and buoys, and a first aid kit will be required. By considering these in advance, cabinets or recesses can be advantageously planned in conjunction with the rest of the plunge room. Ladders or steps should be provided at either end of the pool. These are preferably arranged in recesses so that they do not project into the pool. Tile or specially designed terra cotta step holes, and steps, or ladders are commonly used.

Mechanical equipment may be located adjacent to or remote from the tank. This is a question of administration and convenience in planning. All piping is preferably arranged so that it is readily accessible for repairs. The mechanical equipment required is largely determined by the character of the water supply, its availability and cost. A pool 20 x 60 feet contains in the neighborhood of 70,000 gallons of water. In most cases the water cost prohibits frequent emptying and filling of the pool with a fresh supply. As a result a recirculating system is commonly used. Equipment usually pro-

vides for a complete turnover of the tank capacity once in 8 hours. The circulation rate depends largely upon the extent to which the pool is used. A "turnover" in 12 to 16 hours may be satisfactory under light loads but when the pool is being used to its capacity, a 6 to 8 hour turnover may be required. As a general rule, the total number of bathers using the pool during any period of time should not exceed 20 for each 1000 gallons of clean water added to the pool during that period.

Most available water supply contains some dirt, bacteria and chemicals. Some knowledge must, therefore, be had of the nature of the supply to properly select the required equipment. The equipment usually required is a filter to cleanse the water. Pressure filters are commonly used since they require a minimum space. A battery of two or more filters should be installed so that at least one is constantly available. Other types of filters that can be used are the slow sand and rapid gravity types. The size of the pressure filters and the required floor space, working area and head room should be determined before the plans are too far advanced so that sufficient area can be provided to secure a satisfactory installation. Water containing a high percentage of objectionable chemicals may require further treatment with alum, other coagulant or water softening apparatus to clarify and soften it.

Treatment by filtering, coagulation and soften-

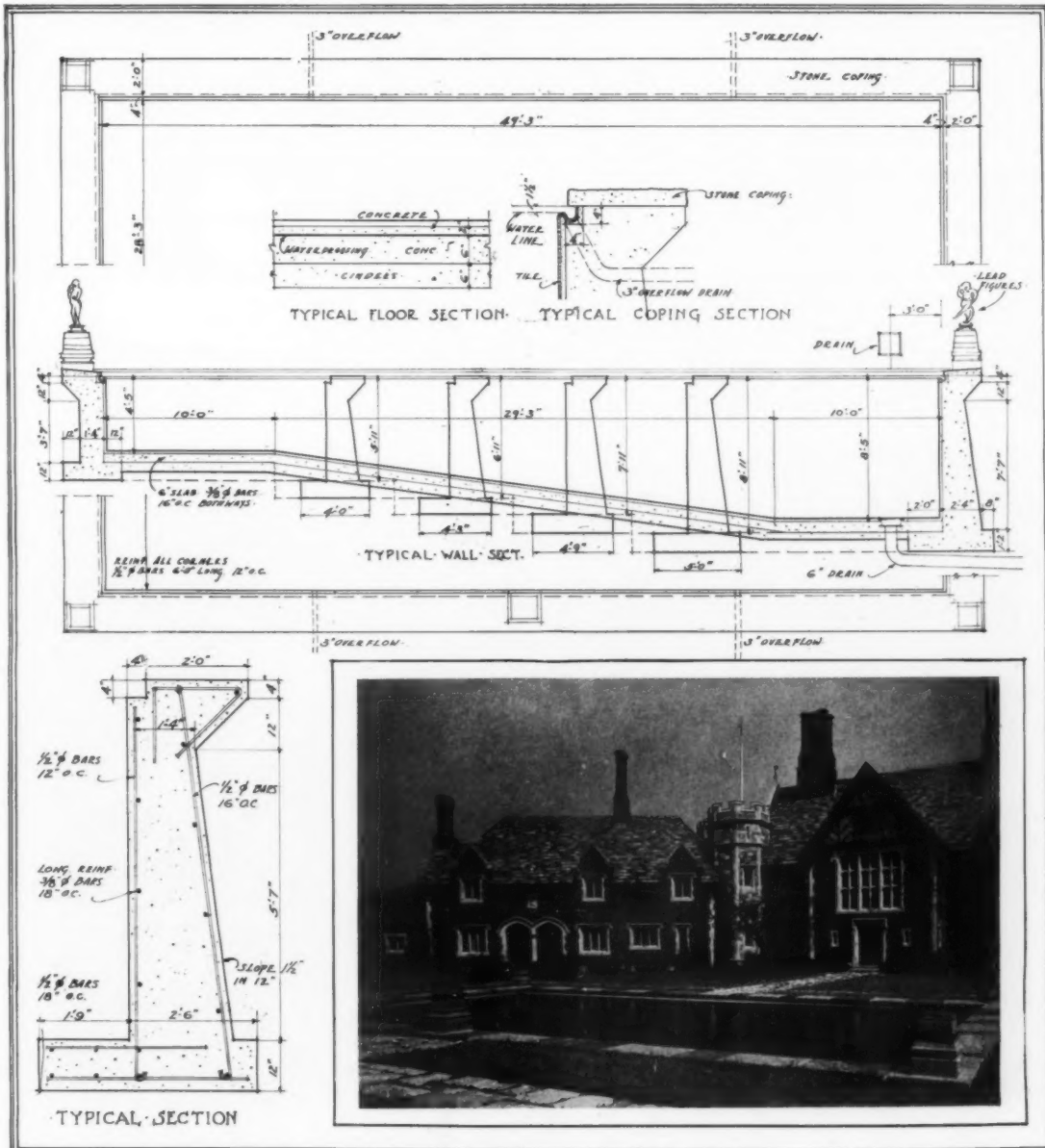


SWIMMING POOL ON ESTATE OF H. T. PARSONS, WEST END, N. J.

BOTTOM OF THE POOL IS FINISHED WITH WATER GREEN TILES. THE SIDE WALLS ARE FINISHED WITH 4 INCH GREEN FAIENCE AND DECORATIVE HAND RAIL AND GUTTERS. TILE LADDERS AND BRONZE PULL-OUTS ARE SEEN AT THE DEEP END OF THE POOL ILLUSTRATED ABOVE.

ing is a cleansing operation and does not remove the bacteria. It is, therefore, essential that the clear water should be sterilized. There are several types of sterilizing apparatus available. These are based upon the use of chlorine gas, electro-chlorine water solution, ultra-violet rays or ozone. Copper sulphate may be used in conjunction with the disinfecting system to control the growth of algae. Copper salts alone should not be used for bacterial control of the water supply in swimming pools.

The temperature of the water should be maintained at room temperature of 70 to 75 degrees F. This is preferably accomplished by means of a water heater, thermostatically controlled and connected with the recirculation system. Electric drive centrifugal pumps are usually preferred for recirculating the water. When a suction cleaner is operated from the same pump, a type of pump that will develop a good vacuum must be used. Since the filters are cleaned by reversing the flow of water daily at



DETAILS OF OUTDOOR POOL, HOUSE OF ROBERT LAW, JR., PORT CHESTER, N. Y.

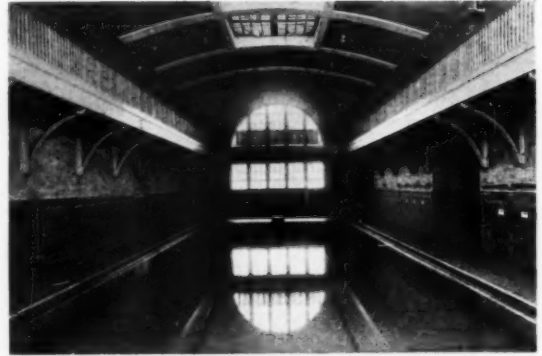
DWIGHT JAMES BAUM, ARCHITECT

much higher rates than for filtering, the pump or pumps must be of ample capacity. After passing through the filters and being heated and sterilized the water enters the pool through inlets provided about one foot below the water level at the shallow end or along the sides. Circulation outlets are provided at the deep end in the side or end walls near the bottom. One or more main outlet drains should be located at the low point in the floor. These connect with the sewer and are used to empty the tank completely. Drain outlets from the scum gutter and curb connect direct with the sewer.

Cleaning outlets are located from 6 to 12 inches below the water level to prevent the entrance of air which would break the suction on the centrifugal pump. These outlets can be arranged to work under suction for cleaning the pool while filled or under pressure for washing down the sides and flow when the tank is empty. The vacuum cleaners may be arranged to operate from the circulation pump, or a smaller auxiliary centrifugal pump may be installed for this particular duty.

Adequate heating, ventilating and the reduction of condensation are essential to a properly designed indoor pool. Heating should be based upon about 12 changes of air per hour. Ventilation is absolutely essential to prevent condensation. This an-

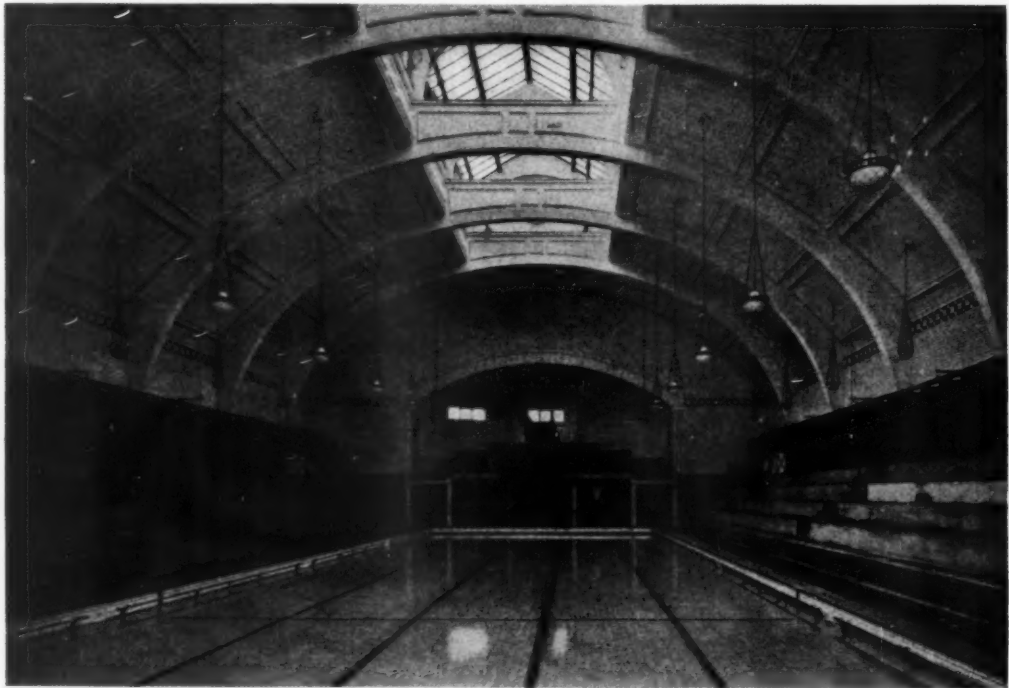
noying condition is further eliminated by maintaining the room and incoming water at practically the same temperature. Air spaces in the walls and the insulation of the ceiling are also helpful and in some cases essential since condensation is due to a temperature difference between the moist air and the surrounding wall and ceiling surfaces.



Y. M. C. A., PASSAIC, N. J.

JOHN F. JACKSON, ARCHITECT

END AND TOP LIGHTED ROOM WITH SPECTATORS' BALCONY ABOVE THE LEVEL OF THE POOL



WOODCOCK STREET BATHS, BIRMINGHAM, ENGLAND

ARTHUR McKEWAN, ARCHITECT

SEATING ARRANGED ON THE AMPHITHEATRE SYSTEM, WITH DRESSING-BOXES ON THE UPPER LEVEL

(Courtesy of The Architects' Journal of London)



B. F. KEITH



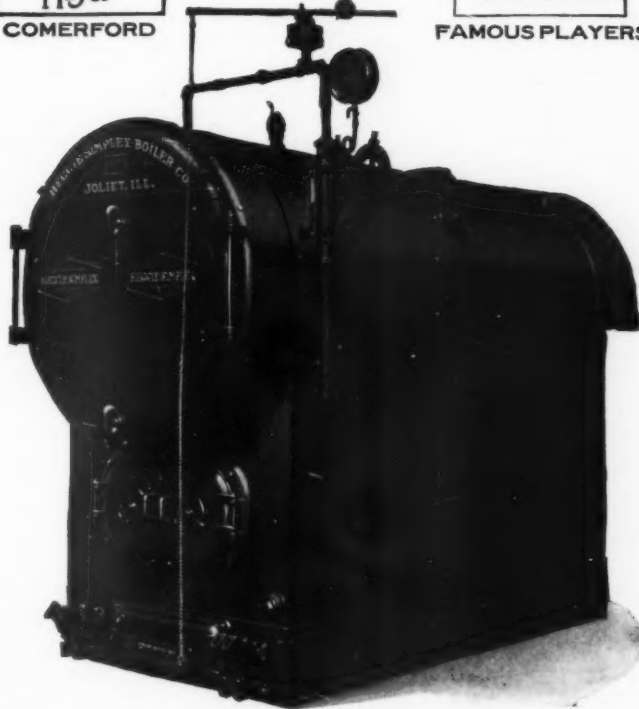
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FOREIGN TRAVEL AND ARCHITECTURAL DEVELOPMENT*

THE influence of close study of the work of other countries and ages may be said to be the most important factor in determining the character of the architecture of the eighteenth and nineteenth centuries.

Inigo Jones visited Italy where he studied the works of Palladio, and Wren's visit to France and his meetings with Mansart and Bernini unquestionably influenced the nature of his subsequent work. From the earliest periods of the Renaissance the infiltration of foreign ideas gradually modified our standards of design but it was not until the eighteenth century that the architect began to consider a tour in Italy or Greece as the necessary climax of his education. The work of Chambers, the Brothers Adam, Carr of York and the Woods of Bath remains distinctively English, influenced but in no sense copied from that of other countries. The buildings of Soane and Nash form a connecting link with the more closely imitative period of the Greek revival. But the work of the Inwoods, Smirke, and others was directly imitative, and that of Cockerell, Bassevi, and Donaldson was in the main dictated by Greek and Italian influence, and shows direct traces of copyism. Side by side with this the Gothic Revivalists added their contribution to the effort to build up a national architecture on the foundation of the achievements of the past.

During the last fifty years we have seen the direction of design determined in its type by passing phases of admiration for the work of the Elizabethan epoch, that of the Netherlands and the earlier phases of the French Renaissance.

Burges stated that in designing a building he first thought of how it would have been carried out in the 13th century. Crossland when asked by Holloway what he would do were he given the commission of building a college declared that he would measure Chambord. He obtained this commission on the understanding that he would do so and when Holloway discovered that he had omitted to measure an attic story, he was promptly sent back to repair his omission before being allowed to commence his design.

The nature of Crossland's work at Holloway College may be said to have been very largely determined by the wish of a client, but architects know and have reason to dread their clients' demands after a visit to a foreign land. Often the returning pilgrim may be described in W. S. Gilbert's phrase "as the idiot who praises in enthusiastic tones every century but this, and every country but his own." The architect will be pressed to incorporate into his work features which have

been seen and admired for the alchemy of the designer is considered all-sufficient to combine the outstanding features of opposed styles into one perfect whole, and while the architect in some periods of the past has doubtless attempted to skate over very thin ice his client will often wish him to walk with firm footsteps over water. The architect who has to deal with a travelled client should be a polished diplomatist or a hypnotist.

Sir Ernest George's work as we know it in London was largely the direct outcome of his summer sketching tours and we can tell the direction of his last visit by French, Flemish or other detail which marked the buildings he was engaged in designing.

Norman Shaw, influenced though he was by the prevailing methods of his time, was too strongly individualistic to yield to it as completely as did most of the men of his date, and in his buildings there is always a suggestion of scale and architectural quality which give his work a character exceptional in the age in which he lived.

What have been the results of this period of close imitation and direct copying?

We should define these as being chiefly the creation of a school of ecclesiastical design which has no counterpart elsewhere and the building up of a very sound tradition of domestic architecture. This latter may be defined as coming under two heads, first, that based on the picturesque traditional work marked by mullioned windows and pleasing roof lines, and secondly, that in which more formal Georgian lines were adopted. Both are equally pleasing and both are distinctly English in their character, and each influences the other.

In the field of public buildings we have been less fortunate, possibly because traditional examples either here or abroad gave us no sure basis on which to build up a type, while the requirements of modern civilization imposed a larger unit of building than any known in the past.

We look with some envy on the magnificent achievements of American architecture in this field, achievements made possible by the enormous wealth and rapid expansion of America, the more consistent and thorough nature of the education of the American architect, and perhaps by the fact that he is not fettered by the chains of the past but has been able freely to select classical types which are wholly suitable climatically to American needs.

But American architecture, like our own, has been chiefly the outcome of a more or less direct copyism, though it is now developing characteristics of its own.

What place should the study of the past and of the work of other countries hold in an architect's education?

We can now see by the failures which surround

* Reprinted from *The Architect and Building News*, London.



Court-Rensen Building, Brooklyn, N. Y.
Architects, Schwartz & Gross, New York City
Stanley Ball Bearing Butts used



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Architects, Perry & Bishop, New Britain, Conn.
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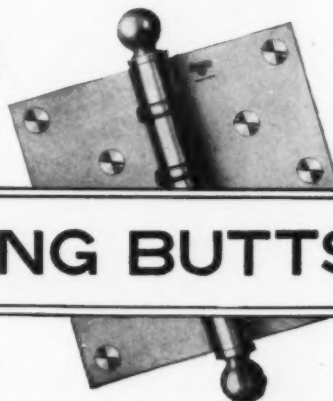
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us that direct translation is wrong. A building like Holloway College, careful and thorough as it is, will now be placed in a category which might begin with Strawberry Hill, but both these works were considered excellent in their day.

At the other end of the scale we have the exponents of l'Art Nouveau and of Mendelssohn who are trying to create out of their inner consciousness a new architectural language but the study of which calls to mind the adage *ex nihilo nihil fit*.

We believe that our immediate architectural ancestors were undoubtedly right in the study they gave the other buildings of other countries and ages. They did not study too much but they made the mistake by directly imitating forms rather than absorbing the spirit of the work they imitated.

Culture has been defined as the knowledge of what we have forgotten and in the same way we should be inclined to say the architect should sketch, measure and study, then forget that he has ever done so. In designing he should think only of the problem before him and what he has absorbed and assimilated will come to his aid. He will have acquired a language in which he can freely express himself and it is those who are least fettered by questions of detail who will be able to design best.

We do not want to be hampered by a want of

knowledge of what may be called the architectural languages, we do not want to try to build up an architectural Esperanto or Volapuk, as we know by analogy that the most original thoughts can be expressed in the oldest language.

But we should remember that the achievements of each generation may be said to be only possible because of the failures of the last. An era of copyism was a natural phenomenon in countries which had lost the continuity of mediæval tradition and in which craftsmanships had died out.

We see the errors of the Gothic Revivalists but those very errors have been an instrumental cause in making the achievement of Liverpool Cathedral possible.

We spend our lives in an endeavor to achieve, but success and failure are in most cases merely relative terms, and the outcome of what we do can only be fairly judged by those who succeed us in after generations.

A CORRECTION

AT the time of going to press, the authorship of the entrance detail of a house at Ida Grove, Iowa, published on page 399 of our issue of March 20th, was not known to us. We now learn that this was executed by Bernhardt E. Müller, architect, 527 Fifth Avenue, New York City.



PRIVATE GARAGE, BLIND BROOK LODGE APARTMENTS, RYE, N. Y. VAN WART & WEIN, ARCHITECTS



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PROPOSED FELLOWSHIP FOR RESEARCH IN THE
HISTORY OF AMERICAN ART

THE Committee on Colonial and National Art of the Archaeological Institute of America is prepared to assign a grant or fellowship of \$1,000 for the year 1927-28, for research in the history of art in the original area of the United States, either during the Colonial period or the early period of the Republic. The field of research may lie in architecture, painting, sculpture, or the crafts. This grant will be open to persons of unusual attainments in advanced study, as shown by the previous publication of contributions to knowledge of high merit, or by exceptional aptitude for research, who shall submit plans for their proposed study. It is the intention of the Committee to finance some work of permanent value which could not otherwise be accomplished. Accordingly applications will be entertained from established scholars, as well as from younger applicants. In any case candidates will be expected

to have capacity for independent research, as distinct from supervised research ordinarily done toward the degree of Doctor of Philosophy. Projects which have already been begun, and in which the prospects of success can thus be more readily appraised, will be gladly entertained.

As it is the expectation that those applying will have completed their formal academic training, and be of responsible maturity, there is no requirement of residence in any seat of learning; neither is it requisite that an entire academic year be devoted exclusively to this study. On the other hand, the candidate would be expected to give his whole time to the work during the proposed period of study, which should be adequate to accomplish the object desired.

Applications giving particulars of the candidate's age, education, published work, and proposed plan of research should be sent to the Chairman, Memorial Hall, Fairmount Park, Philadelphia, as early as possible, at any rate before June 1st.



LAWN, ESTATE OF ROBERT McK. THOMAS,
BERNARDSVILLE, N. J.

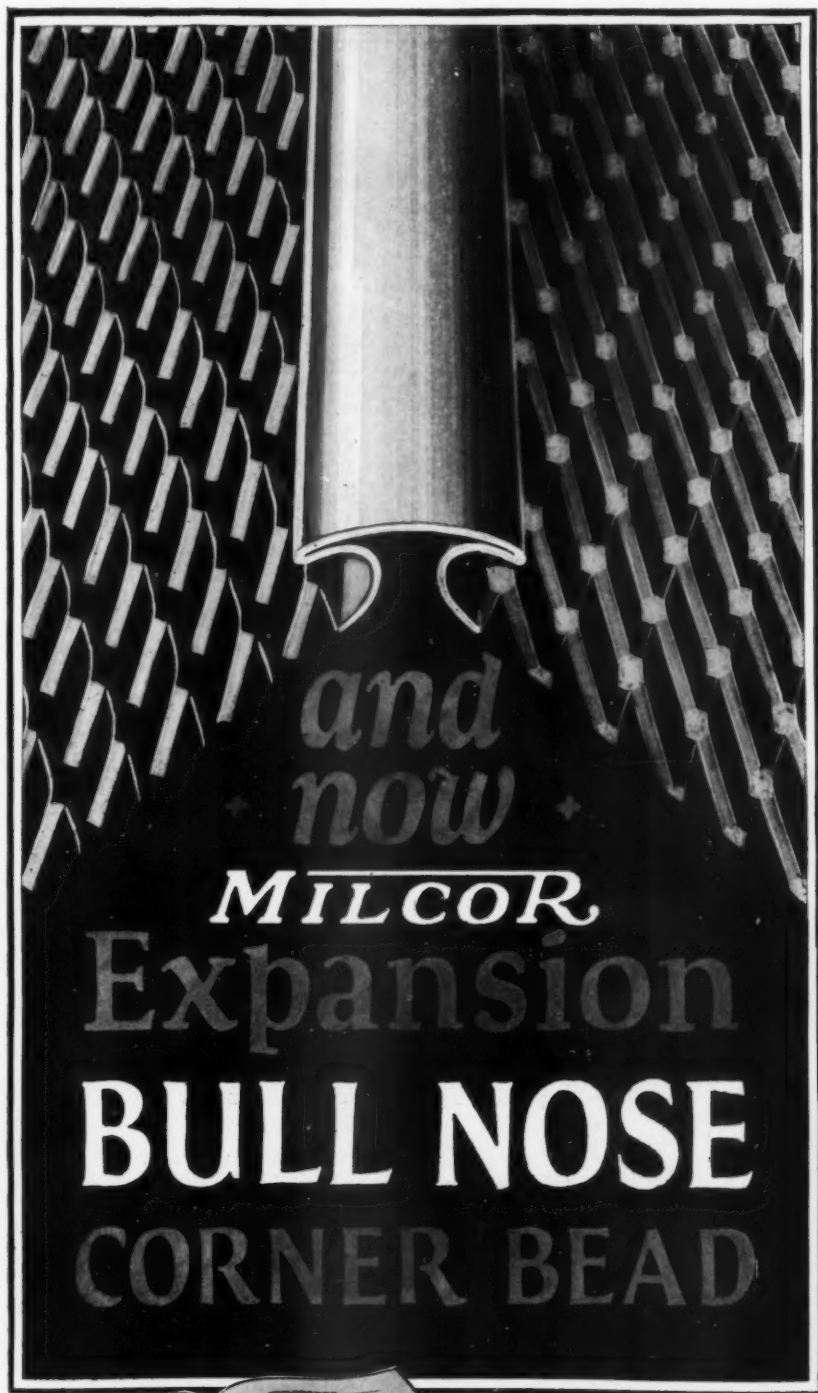
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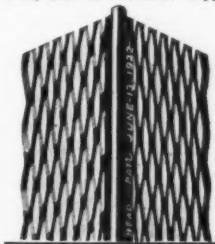
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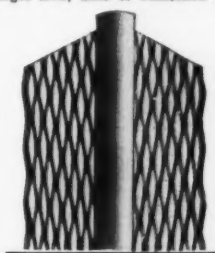
Pat'd. June 13, 1922 and Jan. 6, 1926
This modern metal trim for doors and windows eliminates costly, clumsy, unsanitary wooden trim. Furnished in four styles of moldings. Made from Galv. Steel, ARMCO Ingot Iron, Zinc or Anaconda Copper.



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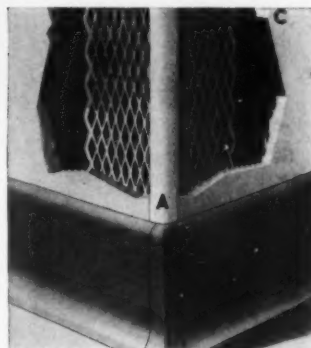


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COLOR IN RUSSIAN ARCHITECTURE

MEMBERS of the architectural profession, especially those who are skeptical as to the value of color in the design of facades of buildings, would have profited by a visit to the Anderson Galleries a fortnight ago, where was exhibited a group of paintings by Leonid and Rimma Brailovsky. The entire collection was valuable as demonstrating the intelligent use of color in architectural design. The group, entitled "Visions of Old Russia", are more true to the soul of Russia than exact representations of vanished facts. Leonid Brailovsky is both a painter and an architect, and his paintings are invariably of architectural subjects. In every case, architectural forms play an important part in the



REMODELLED BUILDING FOR DEUTSCH SÜDAMERIKANISCHE BANK, BERLIN

MR. SCHUETTE, ARCHITECT

(See duotone page 591)

composition. He shows some of the old palaces and churches of Russia that are alive with color. In these paintings one is brought face to face with old Russia—with its fantastic, bulbous architecture, its teeming populace, its barbaric splendor. The Byzantine tradition in both line and color is evident in many of the compositions. Mrs. Brailovsky, with her deep knowledge of Russian peasant art, contributes the strong national feeling for rich coloring and design. She has made a name for herself in a field of decorative art as a connoisseur of Russian peasant works.

FRENCH TRAVELING FELLOWSHIP, A.I.A.

MARCEL GOGOIS of Paris has been selected as the first holder of the French Traveling Fellowship of The American Institute of Architects.

M. Gogois, a native of Amiens, received his architectural education in the Ecole des Beaux-Arts, Atelier Deglane, and won the diploma in architecture from the French government.

The annual value of the scholarship, the donor of which is Julian Clarence Levi of New York City, is \$1,500. Paul Leon, Director of Fine Arts at the French Ministry of Education, was chairman of the committee which appointed the fellow, who will spend part of his time in travel and part in employment in the offices of prominent American architects.

PERSONALS

James B. Tracy, architect, has changed his address from 1056 Bay Street to 603 First Avenue South, Post Office Box 3852, St. Petersburg, Fla.

Thomas H. Scott, architect, has moved his office from Middletown, Ohio, to 230 Fifth Avenue, Room 808, Pittsburgh, Pa. Manufacturers are requested to send catalogs and samples.

The office of Casey & Fant, architects, 112 North Main Street, Anderson, S. C., has recently been damaged by fire and water. Manufacturers' catalogs and samples are desired to replace those destroyed.

Bertram N. Marcus, architect, has opened offices at 58 Larchmont Avenue, Larchmont, N. Y., for the general practice of architecture, where he would be pleased to receive manufacturers' catalogs and samples.

Alfred Granger and John C. Bollenbacher announce that Frank L. Venning and John O. Merrill have become associated with them in the practice of architecture. The new firm will continue to operate under the name of Granger & Bollenbacher, architects, with offices at 332 South La Salle Street, Chicago, Ill.

THE AMERICAN ARCHITECT

IN TWO PARTS

PART II

MAY 5, 1927

TOPICAL ARCHITECTURE SECTION

INTERIOR DOORWAYS



W & J. SLOANE. DESIGNERS

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ELECTUS D. LITCHFIELD, ARCHITECT



FREDERICK JUNIUS STERNER, ARCHITECT



W. & J. SLOANE, DESIGNERS

THE PUBLISHERS' PAGE

THAT our newly added feature, Topical Architecture, is a valuable addition is shown by the large number of letters that have been sent to us by subscribers. These letters not only cover the entire United States, but we are also beginning to receive the most flattering endorsement from European readers. Even an architect practicing in Egypt sends his message of approval and some suggestions for betterment which will be promptly considered.

Another subscriber, writing from Japan, dwells at some length on the rather poor character of the buildings that are replacing those destroyed by the recent earthquake. He believes that if Japan is to feel the value of Western influence, that influence should be of the very best. And he is good enough to say that the wide circulation of this journal in Japan is a good influence on design in that Empire, and that he is of opinion that features along the line of Topical Architecture are just what the Japanese architect needs.

In a recent issue we referred to a letter received from a subscriber in antipodian Australia. It may be recalled that so widespread is the use of American made material that the foreign subscriber to this journal found very large help in the advertising pages. Two letters, one each from South America and Germany, repeat this assurance. Our foreign brethren, designing after a Western style, naturally use Western made materials as far as they are obtainable.

A subscriber who has been a reader of THE AMERICAN ARCHITECT for forty-one years, writes: "I desire to express my appreciation of the reappearance of Topical Architecture. The new presentation expresses, I believe, what is apparent to every one of those who subscribed to the original issues of Topical Architecture,—the great advance which THE AMERICAN ARCHITECT has made and is always making in the selection and presentation of articles and illustrations."

Frank J. Forster, who won the Architectural League's 1927 medal, has been on a journey to Normandy. Mr. Forster made a great many interesting snapshots, particularly of details. These, of course, show the results that are always apparent when a trained architect holds the camera. The point of view is right and the subjects chosen are those that will interest architects. By arrangement with Mr. Forster a series of these excellent photographs will be presented in THE AMERICAN ARCHITECT. Mr. Forster will contribute a fully illustrated article, setting forth his experience as an architectural explorer. There will be a series of these pictures presented in Topical Architecture, while our department of Buildings of Moderate Cost will show types

of construction from the Forster collection of photographs, that will present material of the most suggestive value.

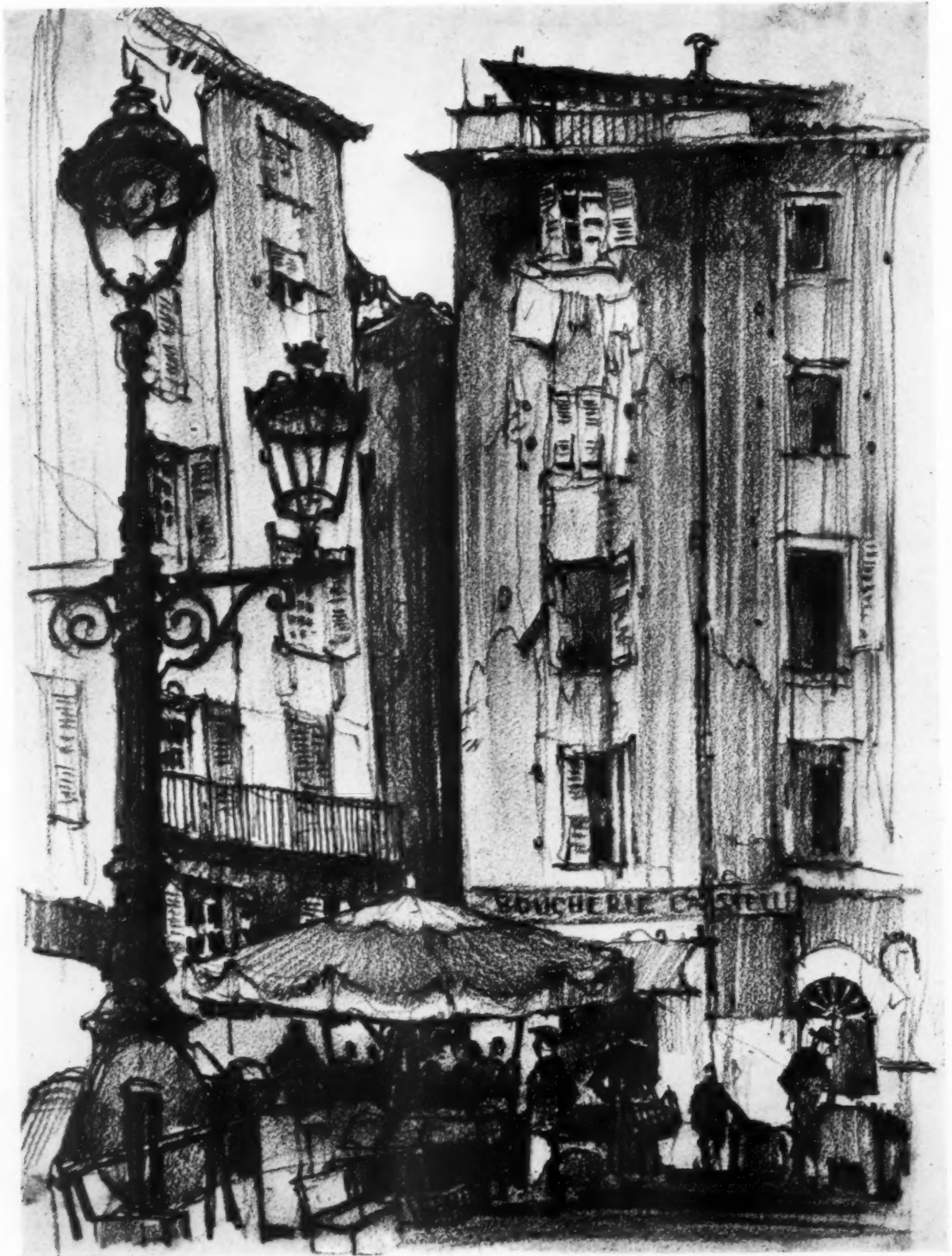
During the Summer, our special European correspondent, Samuel Chamberlain, will visit Italy, Belgium, and certain little frequented parts of France. He will describe and illustrate his travels in his usual interesting way. This series will be published as far as possible in issues of the 20th of each month.

Our next issue, June 5, will feature the sixtieth annual convention of The American Institute of Architects. It is proposed to present the proceedings of this important gathering in the field of architecture with the same thoroughness that has marked our annual issues for the past twenty years.

The practical elements as relating to architectural practice are yearly receiving increased attention by these conventions. Constructively, during the past three years, there have been many reforms set afoot and action to bring all those who contribute in the building industry into closer interrelation. The important matter discussed at the convention just closed was the relation of architecture and the allied arts.

An alteration job having peculiar interest to architects will appear in issue of June 20th. The problem of reconstructing an old house so that it will retain its character and yet function according to our modern ideas of living, is one which requires careful study. A New York architect, Bradley Delehanty, was recently presented with such a problem. The old house was on Long Island, and dated back over one hundred and fifty years. The original house will be illustrated, accompanied by reproductions of photographs showing it in its altered state.

If one goes back far enough into bridge history, it will be found that master architects of the period were bridge builders as well. As architecture and engineering gradually evolved into two separate professions, to conform to modern complexities, bridges were viewed as strictly engineering problems and their architecture as of minor importance. In a few instances, architects have been called upon to collaborate with engineers to the end that the bridge might have beauty as well as strength. In our issue of June 20 a number of bridges of importance and of varied character that indicate marked architectural consideration as well as engineering skill, will be shown in the Department of Engineering and Construction.



MARKET SCENE, NICE

FROM THE ORIGINAL SKETCH BY SAMUEL CHAMBERLAIN

THE AMERICAN ARCHITECT