

THE **AMERICAN ARCHITECT**



WITH WHICH IS CONSOLIDATED THE ARCHITECTURAL REVIEW

VOLUME CXXXI

MARCH 20, 1927

NUMBER 2517

CONTENTS

THE MARKNESS QUADRANGLE, YALE UNIVERSITY, ON A		
RAINY DAY	ontis	biece
THEATRE FOR YALE UNIVERSITY	nore	347
THEATRE FOR YALE UNIVERSITY		351
ELECTRICAL LAYOUT OF THE YALE THEATRE S. R. McCandless	***	365
THE STEEPLE OF THE CHURCH OF VILLEMOMBLE		371
EDITORIAL COMMENT		373
THE NEW SHAKESPEARE MEMORIAL THEATRE AT		373
Stratford on Avon, England		375
A CHURCH, A BRIDGE AND A FARMHOUSE		379
SKYSCRAPERS AND TRAFFIC CONGESTION		386
An Architect's Happy Hunting Ground Lansing C. Holden, Jr.		401
WHAT ARCHITECTS SHOULD KNOW ABOUT STEEL		
Inspection Elwyn E. Seelye		405
FORM AND COLOR AS APPLIED IN FURNISHINGS		413
Interior Designers Exhibit at the Architectural		1-3
League		416
PLATES		
THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN Blackall, Clapp & Whitten	nore	
	61	Plates
St. James M. E. Church, Chicago, Ill	4 1	Plates
St. Dominic's Church, Proctor, Vt	1]	Plate
Two Entrance Details Shown at the Recent		
Architectural League Exhibition	I J	Plate

OWNED AND PUBLISHED BY

THE ARCHITECTURAL AND BUILDING PRESS, INC.

E. J. ROSENCRANS, President and Treasurer

FREDERICK S. SLY, Vice-President

Publication, Editorial and Advertising Offices: 239 West 39th Street, New York City

EDITORIAL DEPARTMENT

WILLIAM H. CROCKER, Editor BENJAMIN FRANKLIN BETTS, Associate Editor R. W. SEXTON. Associate Editor, Department of Interior Architecture E. K. BRUNNER, Editorial Assistant

Board of Directors

H. J. REDFIELD

FREDERICK S. SLY

E. J. ROSENCRANS PAGE A. ROBINSON H. H. MINER G. E. SLY

WESTERN OFFICE: First National Bank Building, Chicago, PAGE A. ROBINSON, Manager LONDON OFFICE: DORLAND HOUSE, 14 Regent Street, S. W. I.

Yearly Subscription in the United States and Possessions, Canada, Mexico and Cuba, Six Dollars. Other Countries, Eight Dollars, Payable in New York Funds. Single copies (Regular Issues) 50 cents.

There is a HOLOPHANE

Lighting Specific for every situation

Holophane does not offer one single panacea for all lighting ills, but a Specific for special application in almost every lighting situation.

This policy and practice enables the user of Holophane products often to realize twice the effective illumination from a given source—or conversely an equal illumination from half the energy consumed by other devices.

When you are designing an interior which offers difficulties in the lighting, call in a Holophane Engineer for consultation—gratis.

HOLOPHANE COMPANY

New York and Toronto



Remember—

Beautiful lighting means making a place beautiful with light.

Holophane

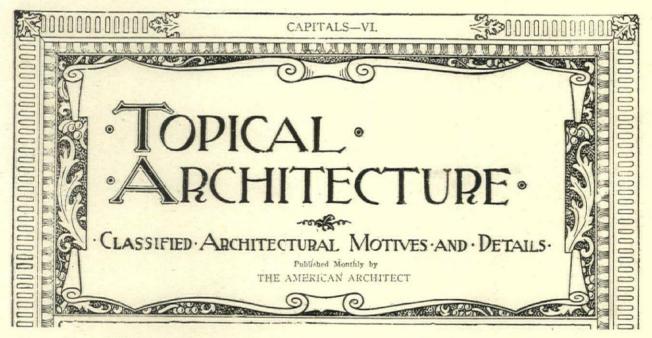
THE PUBLISHERS' PAGE

Announcing a New and Valuable Department

THERE is presented on this page a slightly reduced reproduction of the head of the cover page of a publication issued by THE AMERICAN ARCHITECT more than twenty years ago. Topical Architecture was a separate and distinct publication from THE AMERICAN ARCHITECT. It was edited and compiled by the late William Rotch Ware, and was discontinued at the time he retired as editor of this journal. of which he was the founder. Undoubtedly, many of the older subscribers to THE AMERICAN ARCHI-TECT will have in their library or in their office files. copies of Topical Architecture, as they will doubtless have felt regret that its publication was suspended and a valuable feature discontinued.

AMERICAN ARCHITECT a section of not less than four pages confined to a single topic or detail of architecture. These sections will be printed on art paper by the new offset process, and will constitute Part II of each issue of this journal. The main or regular section of the journal will hereafter be known as THE AMERICAN ARCHITECT-Part I. and no issue will be complete unless it contains Part I and the newly added feature of Topical Architecture-Part II.

It is the wish of the publishers to make this feature as valuable as possible, and they will be very glad to receive from subscribers suggestions as to topics to be illustrated.



REPRODUCTION OF A PART OF THE COVER OF A MAGAZINE, TOPICAL ARCHITECTURE, PUBLISHED BY THE AMERICAN ARCHITECT UP TO 1906.

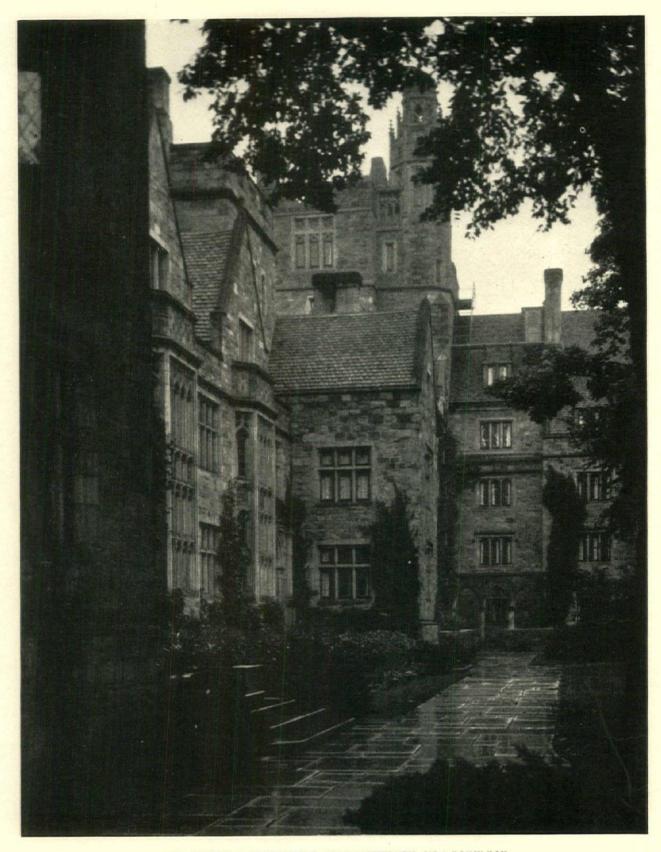
The idea was to present monthly a group series of illustrations confined to a single architectural topic. In fact, this publication was perhaps the forerunner of the special or topical issues of architectural journals today.

In an extended number of interviews with architects and draftsmen, with reference to the value of such a publication, we have received almost unanimous assurance that it would be a useful feature and one that would add importance to the journal publishing it.

For these reasons, and in order to make THE AMERICAN ARCHITECT of the greatest possible value to its large number of subscribers, it has been decided to resume, in a more modern form, the publication of this feature. In our issue beginning and a most comprehensive, the most valuable and the 5th, we shall present to every subscriber

Further, there will in future appear in each issue a more complete and comprehensive presentation of material that will be of value to the men in practice in the smaller cities and towns throughout the country. This feature, originated in the first instance by THE AMERICAN ARCHITECT and generously copied by its contemporaries, has been very warmly commended. It will be a distinctive section in each issue.

With the departments of Engineering and Construction, Interior Architecture, and the Law as to Architecture, together with the new feature of Topical Architecture and the reconstruction of our department of Minor Community Architecture, it is believed that THE AMERICAN ARCHITECT will be most helpful architectural publication in its field.



THE HARKNESS QUADRANGLE, YALE UNIVERSITY, ON A RAINY DAY

WORKING PHOTOGRAPHS—SERIES II

FROM THE ORIGINAL NEGATIVE BY DWIGHT JAMES BAUM, ARCHITECT



AMERICAN ARCHITECT

N.

FOUNDED 1876

THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.

BLACKALL, CLAPP & WHITTEMORE, Architects

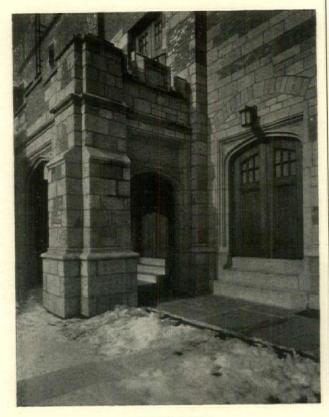
THE Department of the Drama is a function of the School of Fine Arts of Yale University. The University Theatre is a part of the School of Drama and an adjunct to the teaching and administering of all of the arts connected with the drama and the theatre, including everything from the writing of plays to the actual production thereof. It is not a public theatre in any sense, but is more like a laboratory, for a selected audience, and everything that takes place in the theatre being a part of the work of the Department. But being a laboratory theatre, it is arranged and equipped to give actual working conditions under which plays would be mounted and presented. It is in no sense a place for amateur performances, though such may be given, but it is a serious establishment of absolute standards in stage-

The exterior of the building is designed in a Gothic style intended to be in harmony with the Harkness Memorial, the more recent Harkness dormitories and the proposed Yale library, being carried out in combinations of cast stone of a warm buff color, Weymouth seam-faced granite with weathered faces and Holland brick of dull red and brownish yellow tones. The relative amounts of stone and brick vary from nearly all brick in rear to nearly all stone on the front. The photographs published show the building in its condition at this time, March, 1927. The drawings, however, show the front as it will be when completed during the coming Summer, the additional work consisting of a porch on the left of the facade connecting to a lateral cloister leading to the administration rooms. also including an archway on the right of the front connecting the theatre facade to the enclosure of the adjoining Chapter House which is in the same style, and also including niches to relieve the simplicity of the front and some incised ornament around the central portal. All of this additional work was con-

templated when the building was contracted for, but the actual execution was deferred until the final cost could be definitely determined. The mass of the tower which marks the portion over the stage is entirely of brick with the exception of a few slight bands and capping stones. The small turret at the corner of the stage tower encloses a 10,000 gallon sprinkler tank and is a practical necessity which is utilized to cover up the severeness of the stage tower. The low portions of the building on the left of the front are occupied by the administrative offices, the dressing rooms, etc. The entrance to the theatre is through the central portal on the front and through the porch on the left, the entrance to the offices being through the porch and cloister. The stage entrance is toward the rear on the side passage. The Yale Dramatic Association, an undergraduate organization entirely distinct from the School of the Drama, but with a notable history of its own, has quarters at the rear on the left with separate entrance.

The main entrance from the street gives into a small vestibule with ticket offices on each side. Beyond the vestibule is the main lobby extending across the front with stairs to the balcony at each side. The lobby is finished with a very simple plaster wall treatment, an arched, beamed ceiling and stairs of concrete with iron railing. The floor is of linotile in tile patterns, the whole being kept very quiet and simple. Beyond the lobby is the auditorium consisting of a parquet and a single balcony with total accommodation for 700 seats. The seats are from 20" to 24" wide and the rows from front to back are spaced 34", giving very liberal accommodation. No provision is made for orchestra, the seats being carried right up to the stage front. The interior of the auditorium was intentionally kept very simple and there is almost a complete absence of anything like an architectural treatment. The walls are plain plaster; almost the only woodwork consists of

the balcony front, which is of light oak, and the only decoration is afforded by some large Persian-Chinese tapestries, donated by Mr. Harkness and hung on each side of the proscenium. But there is no proscenium properly so called: there are no mouldings at all around the stage opening, and the



SIDE ENTRANCE

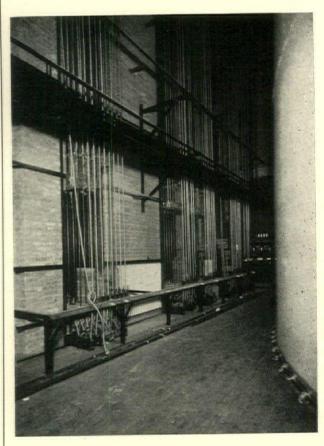
ceiling beams which traverse from side to side are kept as simple as possible, only a slight amount of cornice being carried around the side walls. It was intended that nothing in the auditorium should compete with or detract from the presentation on the stage, all the interest being concentrated in the play, even the sight lines being arranged so that the two sections of the house above and below cannot see each other. If only a small audience is present, as on some occasions, they could fill the entire floor without being conscious of the emptiness of the balcony seats, and the audience would count simply as spectators and in nowise detract the attention from the stage.

The stage curtain is of silk velvet unrelieved by any ornamentation, hung in simple, heavy folds and is of a dark, rich plum color, almost black in ordinary light, this particular shade having been chosen after repeated experiments with different colors of light. It is the only strong note in the auditorium. The curtain will lift up as a whole, loop back partially for curtain calls or loop back on the sides wholly if desired. The tormentors and the teasers are of the same material so that they go with

the curtain as a unit instead of competing with it. The colors in the auditorium are light, warm plaster tones, with stippled surface on the walls, light warm-colored oak on the front of the balcony and a dull glazed gold very deep in tone over the whole of the ceiling and the ceiling beams, this same tone being carried down over the slight cornice work on the side walls. The carpet in the aisles is a gray heather tone; the woodwork of the seats is a gray walnut and the upholstering of the seats is a neutral brown so that the whole effect is very quiet and unobtrusive, with no accent except the main curtain and the two tapestries.

The lighting of the auditorium is by fixtures of dull bronze hung close to the ceiling, arranged with lights to throw up for indirect lighting and some exposed lights for direct work. There are no brackets and no lights to shine in the eyes of the spectators.

Each of the beams across the ceiling is hollow, contains a runway accessible from the upper portion of the stage and is equipped with numerous pockets



COUNTERWEIGHT SYSTEM-STAGE

for spot lights to throw illumination on the stage at different angles. At the rear of the balcony there is a compartment which will be used as a moving picture booth when desired, and also serves as an observation stand for Professor Baker from which he can see the stage and be in telephone communication

with the stage manager. Also spot lights can be thrown on the stage from this booth. In addition to this the front of the balcony contains a continuous trough with outlets at frequent intervals in which connections can be plugged for spot lights to be placed on the front of the balcony and to illuminate the stage.

The stage is 40 feet deep from the curtain line to the back wall and the full width of the house. The curtain opening is 34 feet wide and 24 feet high. There is a clear height from the stage floor to the gridiron of 75 feet with ample space above that to arrange the rigging, etc., and the usual ventilating skylight in the roof. There are no fly galleries. The rigging is carried down to the stage level with a counterweight system controlling border lights, the drops, etc., all operated directly from the floor, the curtain likewise operating from the stage level. On the left of the curtain opening is the stage switchboard. The stage floor throughout the central portion is built in sections, any one of which can be moved as desired for stage settings. On each side of



MAIN LOBBY

the proscenium beyond the curtain is a small door connecting directly to the stage and with the auditorium, intended to be used in the giving of Elizabethan plays when the actors pass in review in front of the curtain. At the rear of the stage is the scene dock and carpenter shop connected to the stage through a wide opening so that additional depth can be given to the stage when desired, to a total depth of about 70 feet. The scene dock and carpenter shop is equipped with a very complete set of woodworking machinery and has on one side wall a large paint frame which slides down into the basement in a wide slot and carries up to the roof of the second story, permitting the mounting and painting there-

in the main auditorium, this experimental theatre is available as a coat room or foyer, and in close proximity thereto are the public lavatories for men and women.

The space under the stage of the main auditorium is utilized as a rehearsal room. It has no special fittings, simply an undivided space available for this purpose.

The stage entrance is on the side street giving into a hall, with a custodian's office and stairs leading up and down, this hall leading directly to the rear of the stage. The Department of the Yale Dramatic Association also opens from this corridor. Adjoining this toward the front of the building is a Green



THE GREEN ROOM

on of any desired size of scene. Opening from one side of the scene dock is the electrician's room and property room, and in the rear on one side is a large room used for instruction and for the making of stage models. The stage manager also has an office at the rear of the scene dock.

In the basement under the main auditorium reached from the main lobby is what is known as the experimental theatre, used for rehearsals, tryouts, etc. It is equipped with a stage with the same curtain opening as the main stage but very much lower. This stage has as complete an electrical equipment as the space will allow and has a background arched overhead and rounded in plan to serve as a cupola horizon. The audience room would seat about 250 people. When performances are given

Room, a place of reunion for the students and the artists, equipped with comfortable chairs and tables. This Green Room connects directly with the stage and also toward the front connects with the business office of the Department, this business office also being reached from the cloister on the front. Professor Baker's private office adjoins the business office.

In the basement under the Green Room is a large recitation room used by the Department. In the rear under the Model Room is a complete cafeteria kitchen equipment which furnishes meals to the students, the tables being set in the rehearsal room under the stage. The balance of the basement under the carpenter shop is used for storage. The ventilating apparatus is located in a portion of the space under the main stage.

In the second story along the side are several private offices for the teaching force of the Department. Toward the rear is a library for the use of the students and beyond that are arranged the wardrobe rooms, costume rooms and a complete dye establishment, a large chorus room for women and one for men, and a number of individual dressing rooms with the necessary toilets, etc. Each dressing room is for two persons and has a bowl with hot and cold water, a steel make-up table, two mirrors and the necessary illumination. The walls of the dressing rooms are of terra cotta painted; the floors throughout are of concrete stained and varnished.

The construction of the building is fireproof throughout in strict conformity with the requirements of the Building Department and with the best usage in such constructions. The framework is of steel, the floors of reinforced concrete.

There is a complete system of heating and ventilation supplying fresh, warmed air to all public portions of the house and removing the air from the auditorium and the experimental theatre, the balance of the building being heated by direct radiation. Steam is taken from the University plant located at some distance from the theatre, brought to the building under pressure into a room under the porch. A tunnel is carried entirely around two sides

of the building for distribution of pipe, etc., and also to give access for supplies to future buildings which are contemplated in the rear. Electricity is taken partly from the City supply with an alternating current, and partly from the direct plant of the University. There is a stage switchboard for the experimental theatre and an unusually complete board for the main stage. The lighting of the stage, in addition to the projection lights previously described in connection with the auditorium, includes footlights of the X-ray type and tormentor bridge with almost unlimited capacity for attachment of spot lights, with tormentor lights on each side, also the usual provision for border lights overhead. There are also floor pockets on each side and in the rear. The total capacity for electricity in this theatre is more than the total capacity of all the rest of the buildings of the University put together, it being found desirable to provide for any desired amount of illumination in connection with the stage settings, though at no time would all of the lights be

The building was erected by Sperry & Treat Co., builders, of New Haven, Conn., from the plans of Blackall, Clapp & Whittemore, architects, under the immediate superintendence of D. W. Clark, Jr., of the said firm.

THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.

By Professor George Pierce Baker, Director of the University Theatre

ONE of the chief problems in planning the Theatre for Yale University was the proper placing of five or six units more or less intimately related so that both in the equipping and the placing, the most could be accomplished with the least expenditure of time and labor. There must be, for the faculty of the Department, offices close together with ready access to all other parts of the building, yet protected from noise or anything else likely to disturb the work of the teaching staff. The entrance to the Department of Drama at the end of the lateral cloister, is faced by the general office. Students of the Department are not allowed to use this entrance, entering the building by the stage door on the side of the building at the left. Visitors seeking general information about the school may find it at the general office. All messages for students and all guests of students are sent from the general office to the stage entrance. Persons who wish to see members of the faculty either pass into Professor Baker's office from the general office, or upstairs to the other offices of the faculty by a special staircase. That is, faculty members may enter or leave the building without being intercepted by students, and only persons who

wish to see members of the teaching staff can reach them. From a small lobby between the outer and the inner door of the entrance to the Department, a door opens into the theatre, and another leads by a stairway to the rehearsal rooms in the basement. As both of these can be opened by keys only in the hands of the faculty, the control of this part of the building is perfect and insures the greatest possible quiet.

In similar fashion, the Yale Dramatic Association, an undergraduate organization which for a generation has had a distinguished history of its own, has its quarters,—its separate entrance from the side street leading to an office and a Green Room on the first floor, a rehearsal room and storage space in the basement. Doors from the Green Room and the storage space make it possible for this organization, when it gives its occasional performances in the University Theatre, to go almost directly on stage from the Green Room, and to pass its scenery easily from its storage room through a trap at rear stage.

Students of the Department, entering through the stage door, may go directly ahead on stage, and so to workshops at the rear of the stage; may turn right, by the information booth to the Green Room, the central gathering place for all students; may pass downstairs to the rehearsal room, or upstairs to the library, the costume department, and the dressing rooms. That is, as far as possible, all departments in which the students are immediately interested are controlled by this door.

Just behind the stage, the design room where scenery is planned adjoins the carpenter shop and the paint frame so that within a few square feet the designing, the making and the painting of the sets partment, just at the left at the head of the staircase; on the right the storage room, on the left the office of the instructor opening into the large room for design which, in turn, opens into the dye room. This costume work was placed where it is because the dressing rooms, in a corridor by themselves, connect with the corridor which passes the costume department.

Two much used places, the Green Room and the library, have been placed, the Green Room on the first floor and the library on the second, between the



PROFESSOR BAKER'S OFFICE

take place. When the scenery is ready, two large iron screens between the stage and the back stage space may be raised, and the scenery pushed immediately on stage. At one end of the carpenter shop adjoining the stage, is a room for small properties and a room for electrical supplies other than the large apparatus. Beneath these workshops is the large storage space from which whatever is desired may be brought on stage through a trap. That is, only the work in costuming has been separated from the other work in stagecraft.

Upstairs from the stage door, is the costume de-

student and the faculty units because they must be used frequently by both groups.

At the present moment, six one-act plays and one long play are in active rehearsal, with four different producers. With a view to making this possible, rehearsal space was carefully arranged, and everything has been done to make comfortable the work of the producer. Not only may the main stage and the experimental stage be used for rehearsing, but also, of course, the rehearsal room under the main stage where the work may be done to the scale of the stage

(Continued on page 365)



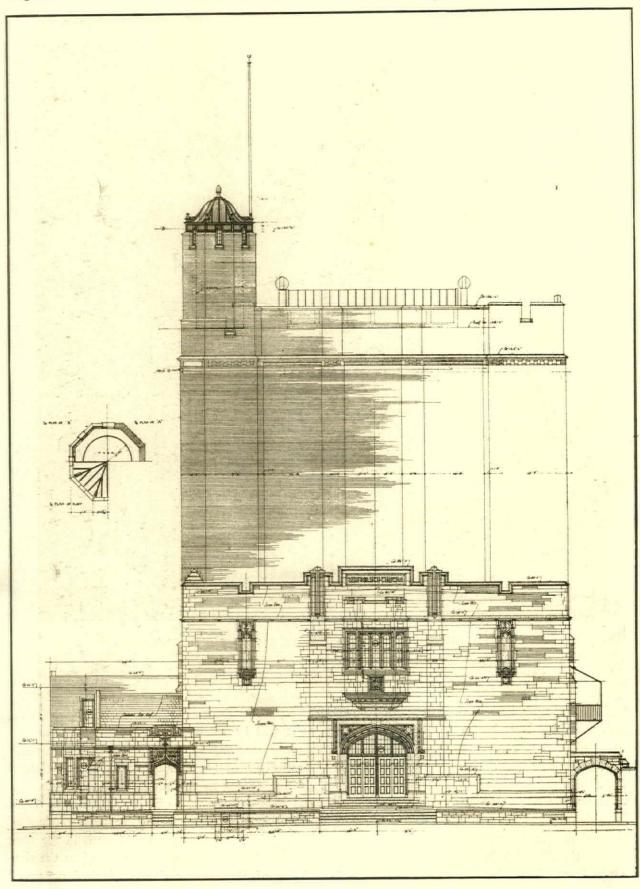
THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.

BLACKALL, CLAPP & WHITTEMORE, ARCHITECTS

(See detail on back)

THE exterior of the building is designed in a Gothic style intended to be in harmony with the Harkness Memorial, the more recent Harkness dormitories and the proposed Yale library, being carried out in combinations of cast stone of a warm buff color, Weymouth seam-faced granite with weathered faces and Holland brick of dull red and brownish yellow tones. The relative amounts of stone and brick vary from nearly all brick in rear to nearly all stone on the front. The photographs published show the building in its condition at this time, March,

1927. The drawings, however, show the front as it will be when completed during the coming Summer, the additional work consisting of a porch on the left of the facade connecting to a lateral cloister leading to the administration rooms, also including an archway on the right of the front connecting the theatre facade to the enclosure of the adjoining Chapter House which is in the same style, and also including niches to relieve the simplicity of the front and some incised ornament around the central portal.



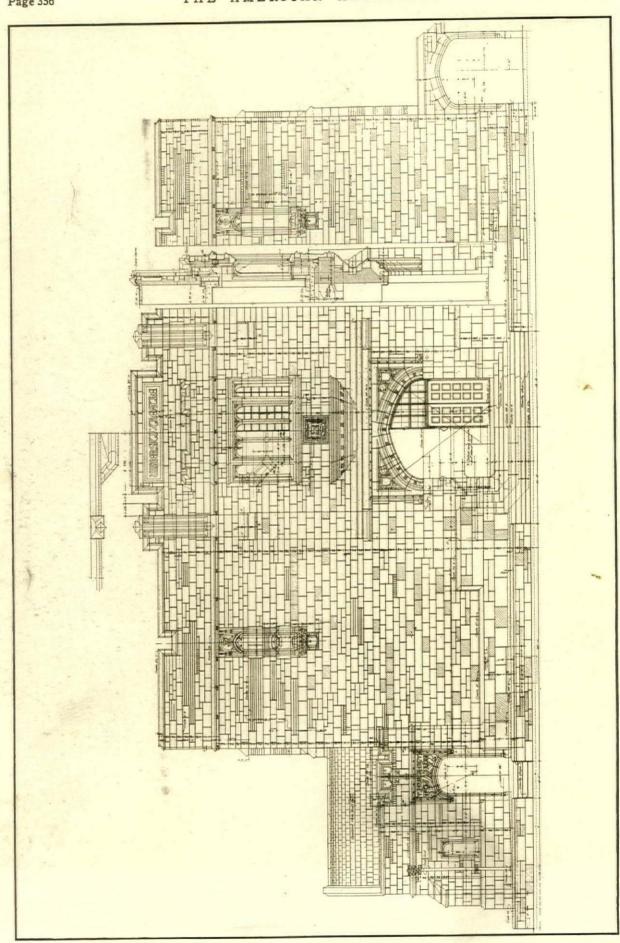
THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.
BLACKALL, CLAPP & WHITTEMORE, ARCHITECTS

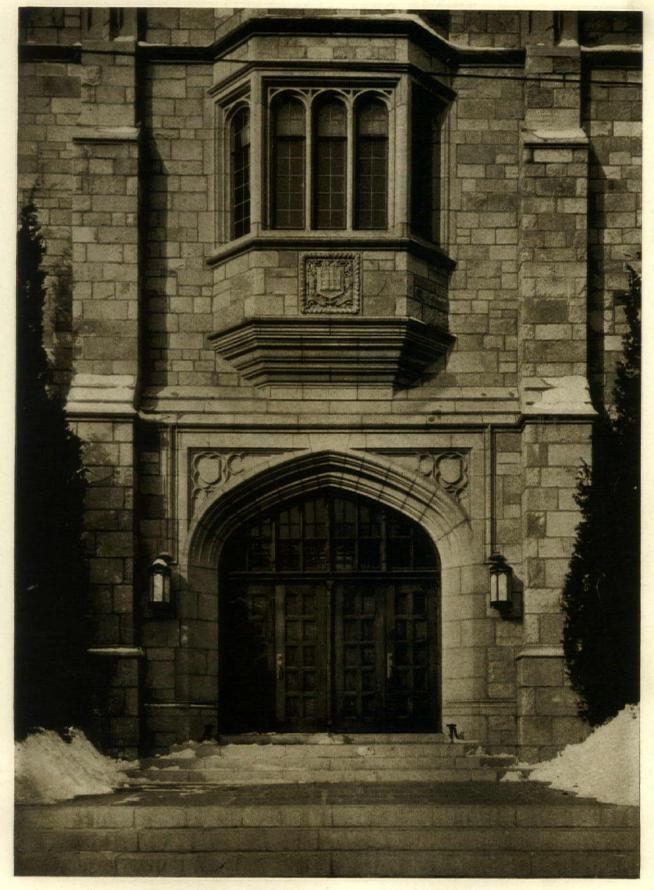


SIDE VIEW

THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.
BLACKALL, CLAPP & WHITTEMORE, ARCHITECTS

(See detail on back)

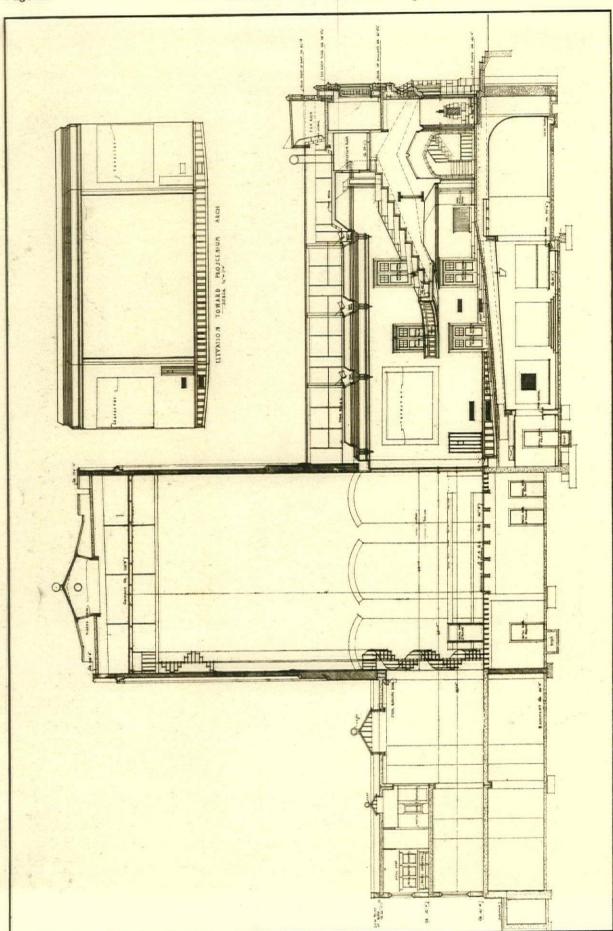




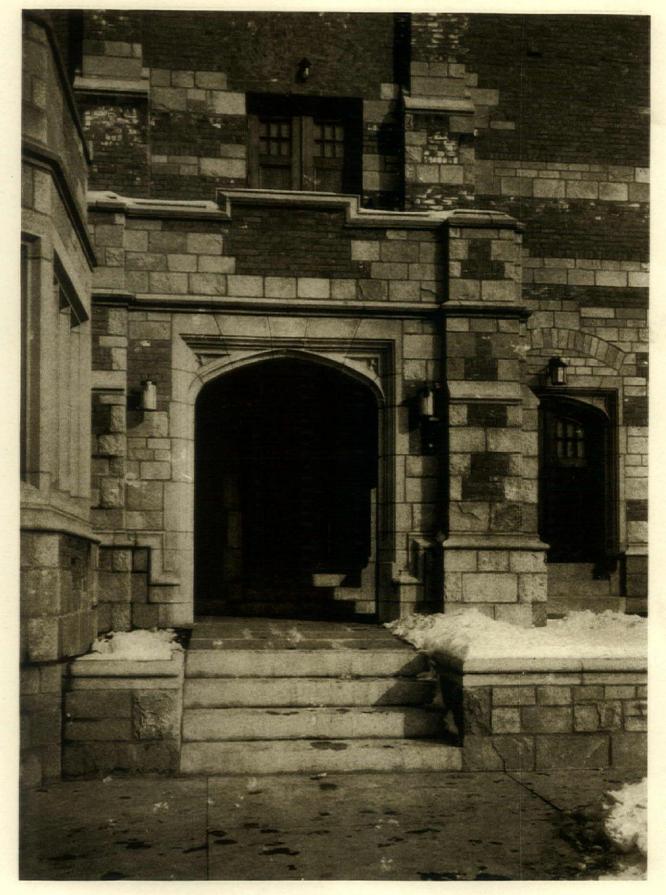
DETAIL OF MAIN ENTRANCE

THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.
BLACKALL. CLAPP & WHITTEMORE, ARCHITECTS

(See section on back)



THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.
BLACKALL, CLAPP 8 WHITTEMORE, ARCHITECTS

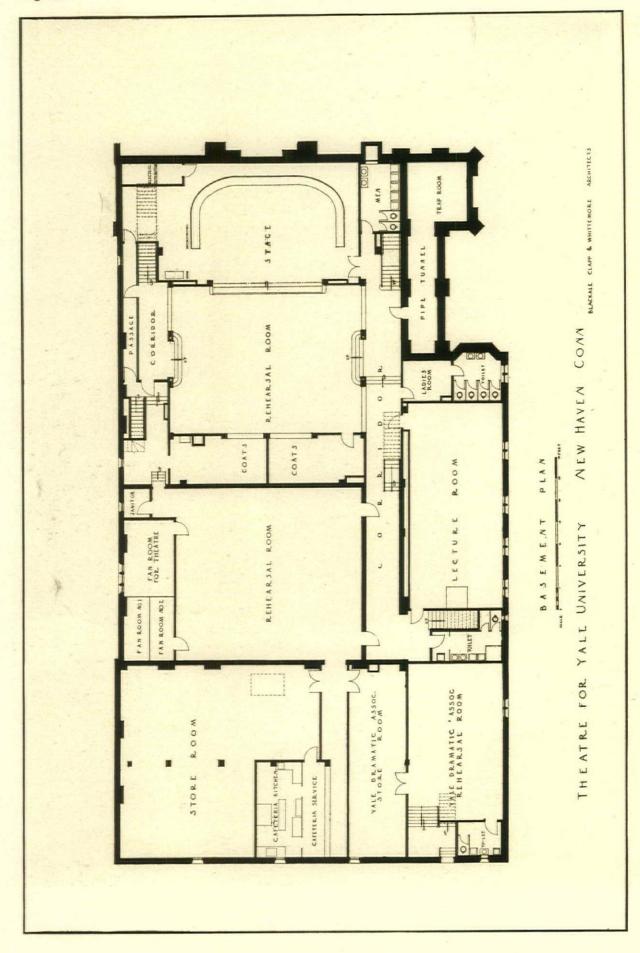


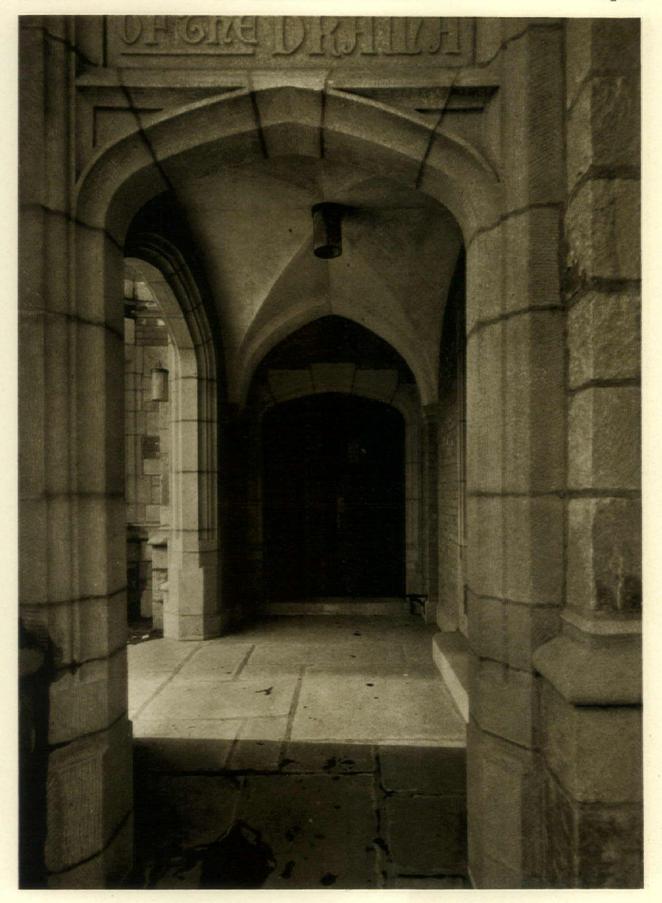
SIDE DOORWAY

THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.

BLACKALL, CLAPP & WHITTEMORE, ARCHITECTS

(See plan on back)



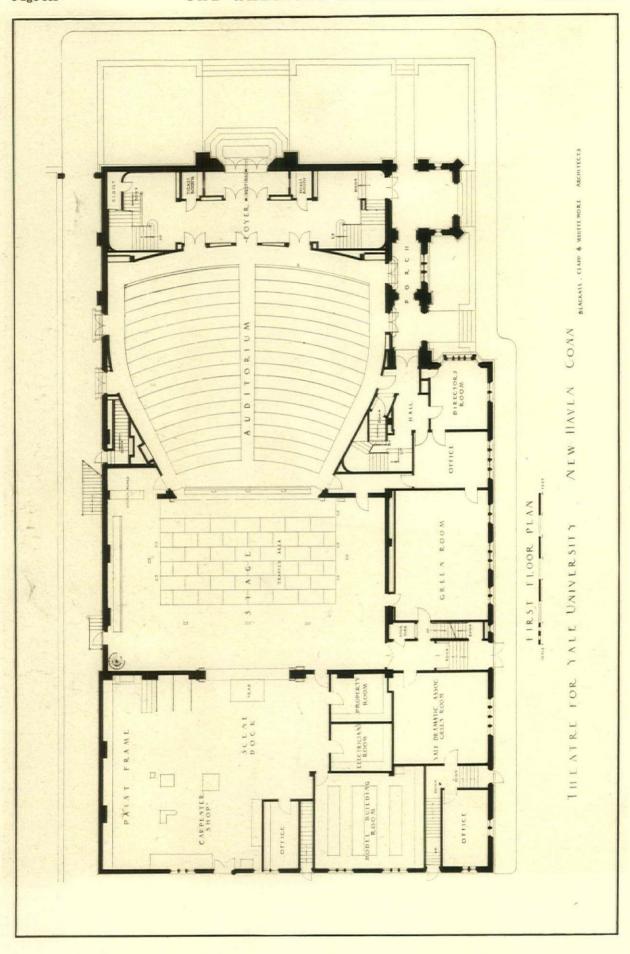


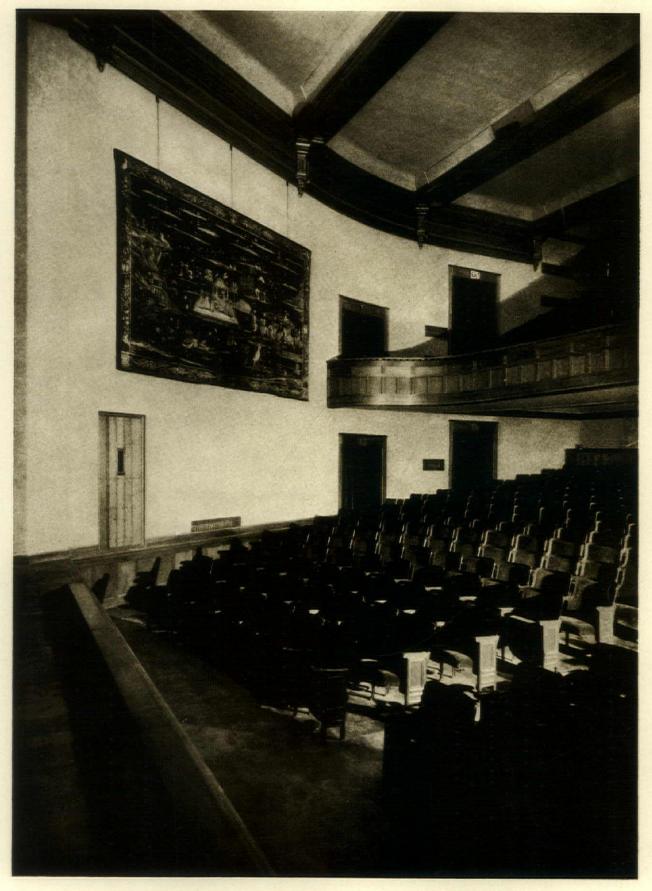
CLOISTER

THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.

BLACKALL, CLAPP & WHITTEMORE, ARCHITECTS

(See plan on back)



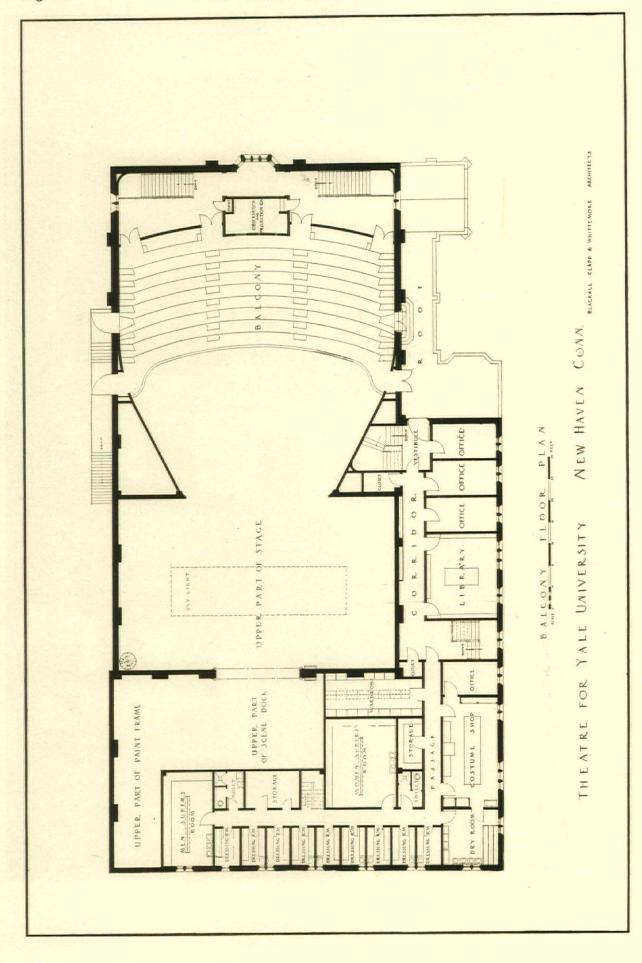


INTERIOR OF AUDITORIUM

THEATRE FOR YALE UNIVERSITY, NEW HAVEN, CONN.

BLACKALL, CLAPP & WHITTEMORE, ARCHITECTS

(See plan on back)



(Continued from page 352)

above. In addition, it is entirely possible to rehearse in the lecture room. All these places are so close together as to make it easy for actors wishing to go from one rehearsal to another, and also for producers.

In the main auditorium, a portable house telephone which may be fastened to the back of any seat has been provided. When this is plugged in at either the right or the left side of the auditorium by means of a long cord, a producer may reach back stage or any part of the building without interrupting the actors and halting the play. From a booth at the back of the balcony, intended ultimately to hold two motion picture machines, a producer may watch a performance through a window which exactly frames the stage, and by a house telephone ready to his hand, may quietly communicate with any part of the building, particularly the stage, at will.

In brief, the architects have so satisfactorily met the problem of the necessary units that it is possible to do the necessary work of the Department with half the labor that has been accepted as necessary in the past, with at least equal effectiveness and twice the speed.

ELECTRICAL LAYOUT OF THE YALE THEATRE

By S. R. McCandless, Instructor in Lighting

A THEATRE, from the structural point of view, is a specially designed instrument for dramatic production. Intelligent planning of the building will allow for special features which help eliminate the tremendous physical limitations that are imposed on the use of light as dramatic medium. The inevitable compromise between the fixed structural features which we specify today, and what we shall want tomorrow, can only be justified by the broad application of the principle of flexibility. Unencumbered space of ample proportions into which temporary structural features can be built, and portable equipment that can easily be replaced by later developments, are the elements of flexibility that are required in the theatre today. A university theatre is essentially a laboratory which is built to last for some time, and as such, it must be built for the future much more than the professional theatre, where experimentation and perpetuity are, of necessity, somewhat limited.

Like all buildings of its class, the Yale Theatre has a well planned auditorium and a stage on the main floor. The stage room is somewhat deeper and higher than the average, and the auditorium is plain and unassuming, so that its architectural treatment will be in harmony with almost any style of production. The proscenium arch, in its simplicity, blends into the setting, or acts as definite picture frame, depending upon the production. In the basement, under the auditorium, as an aid to experimentation, there is a small stage and auditorium which can be used to try out plays and effects which are not ready for the larger stage. Here, due to the low head room, a plaster dome-horizon has been installed. Its possibilities and limitations, as a possible equipment for little theatres where overhead space is at a premium, can be studied and the difficult matter of the necessary lighting instruments determined. These two stages, the work rooms, and the store room, comprise the experimental elements of the building where the students work out the principles laid down in the class room. And what is most fundamental, they learn through their work on performances what can be done in production. The little stage, with its limited space, inspires ingenuity, while the large stage allows for breadth of expression in the technical features of production. The unhampered space adapts itself to the use of a great number of built-up forms and light patterns. The permanently built-in part of the lighting equipment is reduced to a minimum. The switchboard is set flush with the front wall of the stage to the left of the proscenium. Just back of the teaser is a movable light bridge, and all over the stage, in the scene dock, in the beams of the ceiling of the auditorium, on the face of the balcony, and in the footlight trough are outlets for plugging in the lighting units. The outlets are grouped in fours so that the four color system can be used when desired; however, no units are fixed, all are portable, so that any type of unit, in a number of different positions, can be used. Flexibility of space and equipment, within reason, has been the aim so that not only the immediate problems of production can be met with greatest ease, but also those of the future.

The local lighting company furnishes alternating current for lighting the stage and the building, while the University power plant furnishes direct current for the power apparatus and the arc pockets. There is a house communicating telephone which connects with the observation booth, two places in the auditorium, both sides of the stage and all the various important rooms in the building. The prompt board, located on the curtain line at the right of the proscenium, has a call-and-answer cue board with extension so that the scene dock, the gridiron, both sides of the stage, the switchboard, and the curtain lines can be signalled from any place within twenty-five feet of the board itself. An act call button which rings chimes in the lobbies, the lounge, the green

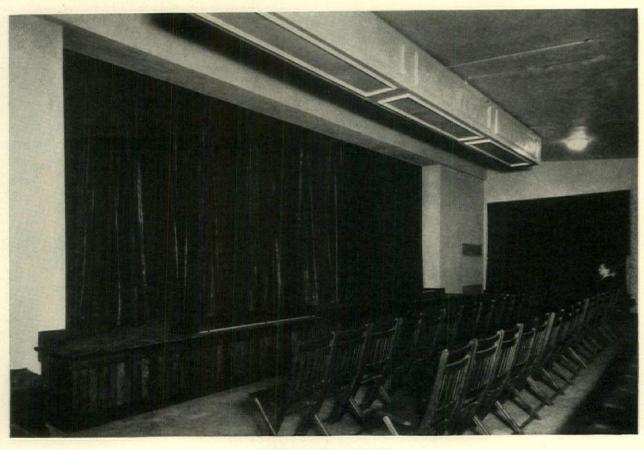
room, and the dressing room section, is mounted above the signal control. And next to this is a dressing room call board with electric answer drops which connects with each of the dressing rooms. Around the building, where extra lights of large capacity might be used for experimental purposes, such as the paint frame, the design room, the costume room, the lecture room, and the lighting instructor's office, large plug outlets have been installed.

THE EXPERIMENTAL THEATRE

The problem of handling an exterior scene on a stage with low head room where masking pieces or borders are not desired seemed to indicate that a full fledged dome-horizon should be used. Therefore, a plaster dome of special shape, laid out by Munroe Pevear of Boston, has been installed. At the base of the dome is a light pit for four color light strips. It is so arranged that the dome is lighted from below and from the front, thus allowing scenery to be built up to within eighteen inches of the ceiling and mounted even as far back as two feet from the vertical walls without casting a shadow. The surface is spattered with yellow, magenta, and cyan-blue. In the ceiling are mounted six plugs which fit smoothly in sockets flush with the surface so as not to be visible when pulled up, and from which can be suspended a flat ceiling in case a box set is called for. Laid out according to the designs of the head of the astronomy department, so as to be in proper arrangement and size, are some sixty minute star openings in the surface of the dome. The strip lights at the base of the dome can be controlled in three sections so that sunset effects can be obtained.

The stage floor has four, four-pocket outlet boxes; adjacent to the proscenium opening are six pockets; at the front of the dome are two fourpocket outlet boxes; over the first border are two more four-pocket outlet boxes and pipe battens for hanging instruments. The footlight trough is merely a metal lined trench with removable traps and steel shields. Into this can be placed three sections or less of a special direct-indirect four-color footlight strips, which are interchangeable with the main stage. The trench is wired for three sections of four colors each. Just in front of the proscenium in the ceiling of the auditorium is a long sliding spotlight box with two four-pocket outlet boxes. Thus light can be projected to the stage from a number of positions for one scene and an entirely different layout of units can be used for the next. No instruments

On the side of the stage near the proscenium opening is a large company switch to which the portable switchboard is connected. All the circuits to the various outlet boxes around the stage are run to a junction box on the stage right proscenium wall. Here they are connected to long flexible pigtails which are racked, and lettered as to the position they lead to,



EXPERIMENTAL THEATRE

over the plug pockets on the portable board. By simply inserting the plug at the end of the pigtail into any pocket on the portable board that circuit is furnished with current and controlled by a switch and a dimmer. The lights of the auditorium are controlled by a dimmer mounted at the end of the portable board. Inasmuch as 15 amperes is normally the maximum that is carried on one circuit, pin-connectors of that capacity are used for the plugs and the pockets. All the outlet pockets are equipped with tyrex cable pigtails with 15 ampere female pinconnector ends on both the experimental and main stages. This allows for standardizing the leads from the lamps to the pockets by using pin-connector ends. The only exceptions are the arc pockets which have the regular 50 ampere spring plug receptacles.

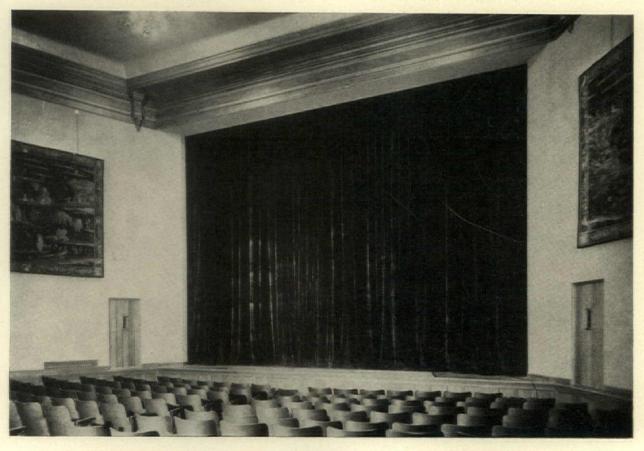
THE MAIN THEATRE

In place of a dome-horizon, on the main stage a three-color spattered linen cyclorama 48x90 feet is suspended from the gridiron in a broad sweep across the back and down each side. This can be raised or lowered by the counterweight system so that in the scene changes large set-pieces can be rolled under it.

The three beams of the auditorium ceiling are equipped with removable slides, on the stage side, across their entire width so that spotlights mounted on battens in back of the openings can be used to light the acting area at suitable angles. The observation booth is equipped with projection service and

two independent arc pockets. The top of the balcony rail is hinged so that spotlight boxes can be hung and connected at any position along its face. The house lights are arranged with direct and indirect circuits in each fixture so that when desired colored lamps can be used in the indirect to tone the auditorium in harmony with the lighting on the stage. The fixtures are designed so that no large lamps appear in the line of vision and they are mounted close to the ceiling in order not to interfere with the rays of the spotlights in the beams. The footlights are arranged the same as those for the experimental stage except that the trench is longer. The stage floor has nine four-pocket outlet boxes and two two-pocket arc outlets. Each side of the proscenium has ten pockets mounted on the wall within easy reach. A long movable bridge hangs just back of the teaser and is equipped with four fourpocket outlet boxes, two arc pockets, and battens and stands for mounting lighting units. The first border batten has three four-pocket outlet boxes and the second and third one four-pocket outlet box each. On either side of the gridiron are two pockets. The cyclorama lights are fed by six thirty-ampere circuits. In the scene dock, just back of the large door to the stage are two arc pockets that can be used for projection purposes. These numerous positions for lighting have been installed to allow for the greatest flexibility in directing light rays.

The switchboard is virtually a multicapacity,



PROSCENIUM

interplugging, distribution board. It has been designed to be as compact and easy to control as is possible using stock equipment. At the top of the board are the fuse panels behind self-closing doors. Then in the center are four dimmer handles which control the direct and indirect circuits in the house lights. At the end of this row is a master interlocking handle. Ranked on either side are six arc pocket switches and eight double-throw, parallel-series, color group-master switches. There are four banks of dimmers back of the metal face of the board. Each plate has a disconnect switch and spring stops at the ends of the throw of the arm. They are mounted four inches on center, but are controlled in two rows at the face of the board by handles placed two inches on center. Each control now is split into two sections and mastered by a master interlocking lever and a contactor pilot switch mounted in the central control panel. The dimmers in the top control row are grouped according to capacity in fours with a master plate which can be used in series with the four, or in parallel as an individual plate, depending upon the throw of the master double throw switch. Mounted as a unit with the dimmer control handle, which can be interlocked on the master lever shaft, is a double throw, single pole switch and a pilot light. The capacities of the plates run from 250 watts to three 6000 watt dimmers, which are generally used to control the cyclorama lights. The neutral side of all the branch circuits running to the various pockets about the stage is run through solid. The hot side, on the other hand, must be connected to a dimmer and a switch to get current. Thus, just below the lower control row is an interplugging

panel with four rows of female pockets which are fed by the upper and lower throw of the two rows of the individual double throw switches. Each four pockets in the above rows are placed vertically directly below the switches which control them. In this same panel, but below the female pockets, are four rows of male pockets which are the ends of the branch circuits that run to the various pockets about the stage. Current can be carried to these male pockets by a portable jumper with a male plug on one end and a female on the other. The board thus becomes a sort of telephone switchboard with which almost any combination of controls can be used. The final feature of the board is a cross-control, slow motion wheel which operates the master interlocking levers. It is obvious that a new set-up of the plugging section is necessary for each performance and great care must be taken to plug in a certain wattage lamp on a like capacity dimmer. One must be thoroughly acquainted with the board and its possibilities to get the best possible control out of it. For a school where flexibility and long use are essentials, it seems to follow the right principle, but it could hardly be recommended for a professional or hired theatre, where operators are changing every few days.

The science and art of stage lighting are developing so rapidly that any fixed equipment is apt to become a liability rather than an asset for the best means of obtaining dramatic effect. Therefore, the entire lighting layout of the theatre has been designed to permit flexibility and control of equipment in order that the problems of tomorrow may be met as easily as those of today.

THE BOULEVARD HAUSSMANN

THE President of the French Republic recently opened the completed portion of the Boulevard Haussmann, in Paris, named for the great Prefect of the Seine under Napoleon III, who planned it in 1857.

Upon the opening of this connecting link with the famous grand boulevards, a new east-to-west thoroughfare, nearly three miles long, running in almost a straight line from the Place de la Republique to the Place de l'Etoile, is given to Paris.

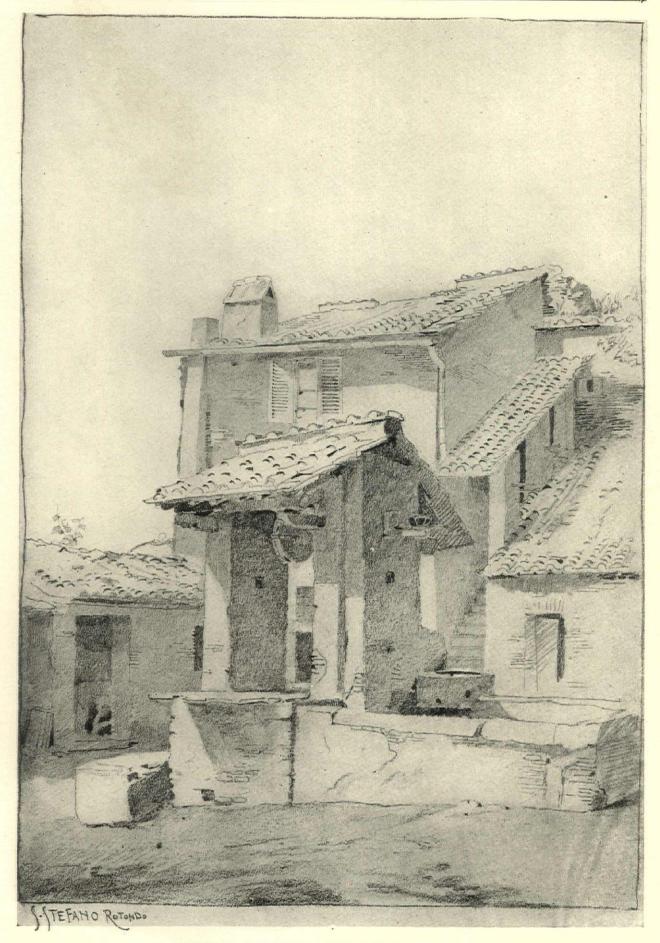
When American visitors arrive next Spring and Summer they will find that the completion of the boulevard has created a new center in the heart of Paris, for the highway construction required the demolition of large blocks of ancient structures, upon the site of which have risen large hotels and office buildings. One of the hotels, said to be the largest in Europe, has 600 rooms and baths and is modeled on American lines. Many new structures give the section a decidedly American appearance.

It was Baron Haussmann, famous as a pioneer in city planning, who was responsible for making Paris one of the most beautiful of national capitals, and the ceremony attending this occasion marks the completion of the finest system of boulevards in the world and the realization of the Baron's dream of seventy years ago.

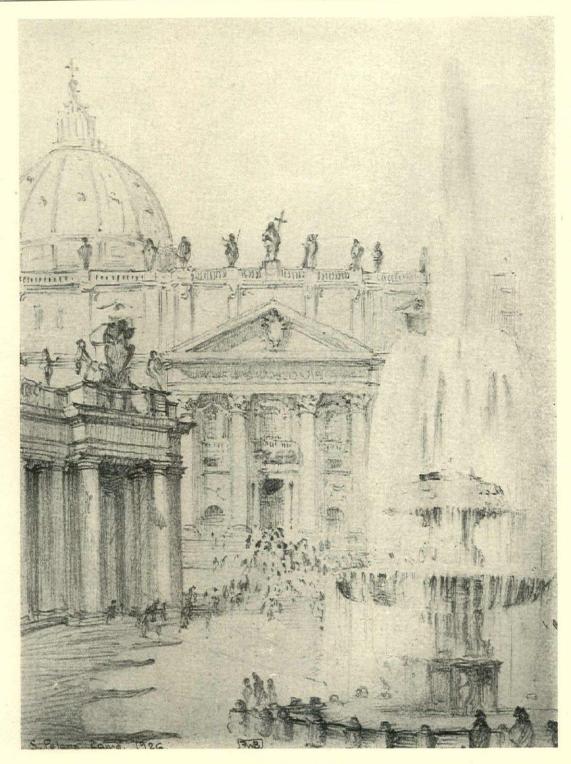
At the same time the first four-track subway in Europe was opened, running from the new thoroughfare's intersection underneath the grand boulevards to a point near the Place de la Republique.

TO SAVE A CASTLE

A NOTHER well known European castle is in danger. The Italian Castle of Canossa, where Emperor Henry IV of Germany humiliated himself before Pope Gregory VII in 1077, has fallen badly into decay. Countess Matilda, its last owner, abandoned it. Mussolini has given orders that the castle be restored and preserved as a historical monument.



FROM THE ORIGINAL SKETCH BY PAUL GMELIN, A. I. A.



ST. PETER'S, ROME

FROM THE ORIGINAL PENCIL SKETCH BY WALTER F. BOGNER,
40TH HOLDER, ROTCH TRAVELING SCHOLARSHIP

THE STEEPLE OF THE CHURCH OF VILLEMOMBLE

GO to see the new church of Rethel, study the new foundations of the Cathedral of Rheims and you will understand that architecture, from the point of view of structure, is the work, not of architects, but of concrete."

This prophecy that one reads in the charming and interesting book of Gaston Rageot, entitled "Sens Unique," is more easily realized, and appreciated more quickly than it can be thought, since the book and the building of the campanile at Villemomble appear simultaneously the work of the architect Tournon and the sculptor Sarrabezolles.

Father Klein, priest of Villemomble, the old pastor, has done indeed a miracle, a miracle of modern invention which has already attracted foreigners.

The church of the Villemomble was copied from the Roman basilica in stone, for the region was very



THE CHURCH AT VILLEMOMBLE AND THE TOWER IN COURSE OF CONSTRUCTION

much in need of a tower. The people were humiliated, and justly so, to see their house of God in such a condition, as one might say, "Without a Hat." The priests preceding had long promised to build it



PART OF UPPER SCAFFOLDING

but had always failed to keep their word. "We will never see the tower," the people said. Father Klein did not fear to risk all for all. Heroically he began to work after waiting for a century to pay respects to Providence, and to the faithful people in the parish.

A hazard immediately presented itself to locate a young architect with new ideas to complete an enterprise so up-to-date. He suggested to design the entire height of the structure by means of more than twenty figures, each seven meters high. To cut in stone such colossal figures would cost millions. The parish was not important enough for such an outlay. Here came the idea for concrete! We ask your attention:

—This idea, which since then has become a reality, has made the letter "A" of a new alphabet. There is no doubt it will be imitated in all parts of the world, if at one time or another. Sculptor Sarrabezolles appears to execute a work so gigantic and seemingly impossible as that which was brought about at Villemomble.

Sarrabezolles is destined to great deeds. If the monument which he has achieved in the earth of Africa, built by his vigorous hands, a formidable Athenean palace, which all decorated, dances its dance in the studio of the sculptor, then what will it mean in such a beautiful place as Paris, in commemoration of the heroes of the Great War?

It is only natural that an artist enamored with

power as he, could have attempted the task which was demanded at Villemomble. This struggle with the difficult material, both artistic and technical, was no trouble to him; in fact, quite the contrary.

In order to work in concrete, it must not be dry or hard before he applies the chisel. Sarrabezolles had only, therefore, eight hours of work for each saint before him. After that it was impossible. To tell it correctly, he did not work on one figure at a time, but was forced to proceed by various positions, executing all the feet at once, then all the robes, then all the heads, as the scaffolding was raised to different heights. What ability he must have possessed to work in this manner! Supported by a scaffold, in rain or shine, the artist without designs, inspired in the belief of his success, went bravely to his task. I watched him on his aerial platform all alone, small in relation to his surroundings, cutting with the impulse of his art and responsibility. What a battle! He is the conqueror. The church and the people respect him.

Twenty-eight carved figures were made by his hands. There are sixteen saints, and four saintesses; four seraphs and four evangelists. The sixteen saints

THE SCULPTOR, M. SARRABEZOLLES, AT WORK ON THE HEAD OF ONE OF THE FIGURES

have not been chosen without difficulty. They are the first two founders of Christianity, the apostles Peter and Paul; two state church saints, Louis, king of France, and Saint Genest. The rites of the church are represented by a pope, Saint Gregory, seventh; the Christian education by John, the Baptist; the missions by Saint Francis Xavier; the Fathers of the church by St. Augustine; theology by St. Thomas Aquina; religion by Saint Benoit, Saint Bernard, Saint Francis de Assisi, Saint Ignace; charity by St. Vincent de Paul; the rules of perfection by St. Francis de Sales; and finally pastoral life by Cure d'Ars. The female saints, in minority, for the feminine figures do not appear so high so near the sky as on the ground, are St. Madeline, St. Agnes, St. Theresa d'Avila, St. Clotilde, the Christian mother.

Thus the history of Christianity, from its beginning until the present time, is represented on the campanile of Villemomble. Concrete, subtly ennobled, reaches out toward the sky as a calendar of a glorious religion.

The foregoing article and the accompanying illustrations are reprinted from L'Illustration of Paris.



THE GREAT SCALE WHICH PERMITS THE HIGHEST FIGURES TO BE SEEN



EDITORIAL COMMENT

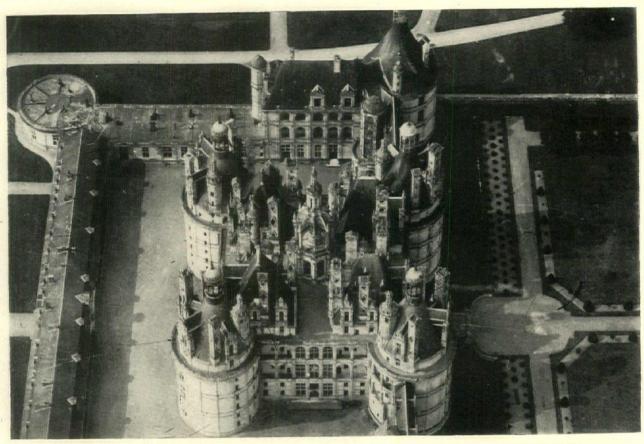


THE practice of architecture has grown in complexity and to all appearances continues to grow in this direction until one wonders just when and how the end will be reached. After the work of any office has reached a certain point, the carrying on of the office is beyond the capacity of the average man to handle alone and he finds it necessary to share much of his responsibility with others. But whether the office be large or small to meet the needs imposed upon it, the office, its organization and work must be systematized and co-ordinated. Many "short cuts" must often be used and information must be immediately available if a minimum amount of time is to be expended in trying to obtain data that one can hardly be expected to remember in so vast a field. That this has been recognized by the profession not only in the United States but abroad as well, is demonstrated by the readiness with which architectural offices have subscribed to the Standard Construction Classification of The American Institute of Architects. This classification was designed as a means of enabling architects to file the enormous amount of trade literature-much of it of great value in practice—that daily reaches their desks. Through the systematic filing of this material, information is immediately available. The Standard Classification was prepared and distributed to Institute members and to others upon request, a relatively few years ago. No particular efforts were made to have it generally accepted. It was one of those peculiar things that go round in a circle, for its adoption depended to some extent upon the assistance of producers in printing the proper file number on their catalogs. This in turn depended upon the general use of the system by architectural offices. Today the secretary of the A. I. A., Scientific Research Department, replies to hundreds of requests for copies of the Standard Classification and we understand has sent hundreds of copies by specific request to architects in Canada, Australia, New Zealand and the British Isles. The Standard Classification has been an outstanding achievement of the A. I. A. in a practical way that is of great benefit to the profession as a whole. The work of the Institute is often viewed as being too greatly concerned with ethics in practice and the aesthetics of architecture to the exclusion of matters that may be classed as practical. There are many ways in which the Institute can help the profession along practical lines. The success of the Standard Classification is very good evidence of what can be done.

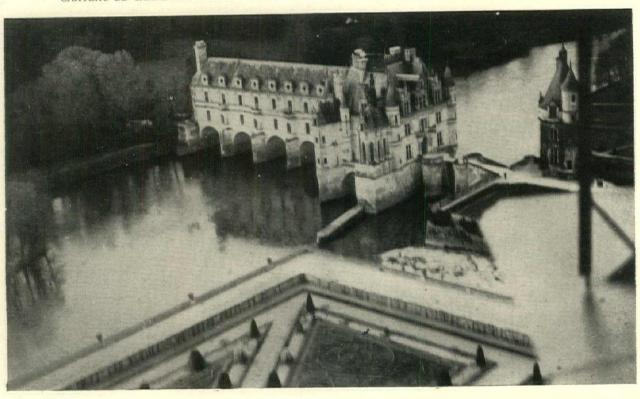
ONE of the most interesting features of the recent exposition of architecture and allied arts, held under the auspices of The Architectural League of New York, was the display of various details demonstrating the present tendency of architects to introduce more color in design. The American tourist visiting Italy and Spain, for example, would come home with much fewer pleasant memories if the architecture of these two countries was shorn of its color. Color appeals to our mentality, and the prospect of a greater use of color in this country will tend to arouse a greater interest of the public in architecture, a condition that has long been desired. The truth of the matter is that the layman today is almost as versed in the subject of color in architecture as is the architect himself. He feels free to express his opinion on the subject and to criticize.

And that brings us to the point that architects would welcome more criticism from the public,-their clientele. There have been recently certain discussions relative to this very subject, due to the fact that one architect in particular felt that he had been unjustly and severely criticized by the writer of an article in a popular magazine, claiming that the criticism was not constructive and was merely intended to ridicule the architect. What we do need in this country is constructive criticism, written by authorities, by those who are capable of criticizing, and written in such a way that the public can understand. Such criticisms will have a tendency to awaken a greater interest by the public in architecture, will encourage expressions of opinion on the part of the public and will educate to a greater appreciation of architecture. And above all else it will result in greater efforts on the part of architects to escape such criticism.

There have been many attempts to educate the public to a greater appreciation of architecture. Except, perhaps, as regards skyscrapers and spectacular types of buildings, the public has shown an apathetic attitude toward architecture as a construction and nation-building effort. Every one engaged in educational work knows that it is impossible to get very far with a student who is not interested in the topic. Similarly, we must first interest the public in architecture as it affects the building of a city as a whole, and not only in its spectacular presentation. Carefully applied color in buildings will not only create greater interest on the part of the man on the street, but will also educate him along architectural lines, in color as well as in form.



CHATEAU DE CHAMBORD, LOCATED NEAR THE VILLAGE OF CHAMBORD, NINE MILES FROM BLOIS



CHATEAU DE CHENONCEAUX, LOCATED NEAR THE VILLAGE OF CHENONCEAUX, ON THE RIVER CHER, ABOUT EIGHTEEN MILES FROM TOURS

FRENCH CHATEAUX AS SEEN FROM THE AIR

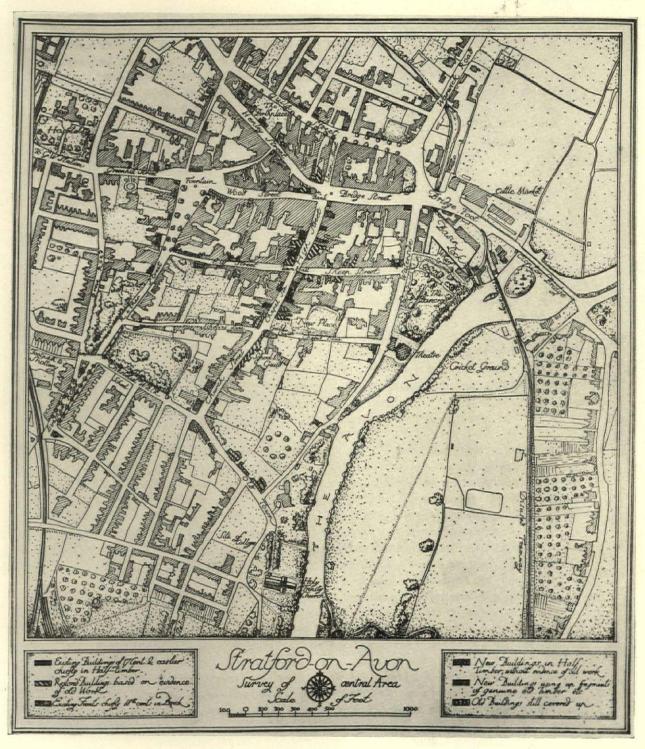
(Reproduced by courtesy of Greville Richard, Architect)

THE NEW SHAKESPEARE MEMORIAL THEATRE AT STRATFORD ON AVON, ENGLAND

American Architects Are Invited to Participate in This Interesting Event

THE competition for a design for the new theatre at Stratford-on-Avon, to take the place of the structure destroyed by fire last year, provides an interesting problem for the architects of the British Isles, Canada and the United States, to whom the invitation to participate is issued.

Hundreds of thousands of visitors from all over the world find their way to Stratford every year. Here is to be found the only National theatre which exists solely for the purpose of keeping green the memory of the world's greatest dramatist by the constant reproduction of his plays upon the stage.





VIEW OF GALLERY AND THEATRE AFTER THE FIRE



VIEW OF THE RIVER AND CHURCH, FROM THE PICTURE GALLERY

STRATFORD-ON-AVON

WHEN IT IS REMEMBERED THAT STRATFORD ITSELF IS AN OLD WORLD TOWN OF LESS THAN 10,000 INHABITANTS, CONTAINING NO HIGH BUILDINGS AND MANY VERY BEAUTIFUL HALF-TIMBERED ELIZABETHAN HOUSES OF GREAT HISTORIC INTEREST. IT WILL BE EVIDENT THAT IT IS NO EASY MATTER TO DESIGN SO LARGE A BUILDING AS THE THEATRE WHICH WILL FIT INTO THESE SURROUNDINGS. ONE PRACTICAL DIFFICULTY EXISTS: THE SITE IS NOT ONLY CLOSE TO THE RIVER BUT WITHIN A FEW FEET OF RIVER LEVEL



VIEW OF THE THEATRE, TAKEN FROM A POINT OF THE RIVER WHERE THE NEW BRIDGE WILL CROSS



STRATFORD-ON-AVON-VIEW SHOWING THE WHOLE SITE

Distinguished Americans are on the Board of Governors and a very large number of Americans make up the audience which attends the festivals during the summer months. It is natural, therefore, that the Governors wish that American architects shall help to solve this interesting problem. There is much talk about "hands across the sea," but by recommending an invitation to American architects the Royal Institute of British Architects has made a practical friendly gesture, which means more than a great deal of talk.

Competitors will find a three-fold interest in the competition. An opportunity is afforded of bringing about a great town planning improvement in this ancient town by the removal of a number of unsightly buildings. By building the new bridge across the Avon, to carry the ever increasing motor traffic, the beautiful old fifteenth century bridge built by Sir Hugh Clopton can be preserved intact for future generations as this can be reserved for pedestrians only. By this general improvement the view of the site to be occupied by the new theatre will be opened up. The theatre will stand out clearly visible from the roads approaching Stratford-on-Avon from Kennilworth, Warwick, Oxford and London on one side, from the river and public recreation grounds across the river on the south, and from the church where Shakespeare lies buried on the west.

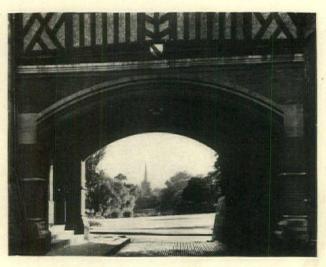
When it is remembered that Stratford itself is an old world town of less than 10,000 inhabitants, containing no high buildings and many very beau-

tiful half-timbered Elizabethan houses of great historic interest, it will be evident that it is no easy matter to design so large a building as the theatre which will fit into these surroundings. One practical difficulty exists: the site is not only close to the river but within a few feet of river level. A considerable height is necessary in a theatre for manipulating scenery, and in this case it is difficult to eliminate that height by constructing a great deal of the building below ground.

A large auditorium is not asked for but one which will seat about 1,000 people. It is, however, essential that people shall be able to see and hear well from every seat.

The stage and storage room for costumes and scenery must be ample, for here it is the definite policy of the Governors to present as many as seven or eight different plays in one week.

The specification which has been drawn up under the guidance of the Royal Institute of British Architects sets out the requirements fairly fully. The competition will be in two sections: The first for sketch designs only, followed by the final competition, limited to six designs to be selected by the jury from among the preliminary competitors. The Royal Institute of British Architects has appointed its President, E. Guy Dawber, F. R. I. B. A., and Cass Gilbert, President of the National Academy of Design of U. S. A., to act as honorary assessors, and Robert Atkinson, F. R. I. B. A., Director of Education of the Architectural Association, to act as assessor.



THE CHURCH, STRATFORD-ON-AVON, AS SEEN THROUGH THE ARCHWAY OF THE GALLERY AND THEATRE

A CHURCH, A BRIDGE AND A FARMHOUSE

Isolated and Unsung Treasures in the Valley of the Rhone By Samuel Chamberlain

Illustrated with Pencil Sketches by the Author

ONE is tempted to toss caution to the winds when speaking of the country around Avignon, and to make the rash statement that no similar area in France offers so many rich excursions for the inquisitive and impassioned architect.

This wind-swept plain which embraces the mouth of the Rhone is not as cold and dreary a place in the month of January as might be imagined. A breath of Mediterranean warmth has seeped past the shore line and removed the chill from the air. However, the gale which rushes down the river valley. gaining velocity as it whizzes over the rocky prairies, assumes an uncomfortable violence. It is no longer a wind; it is a "Mistral," and as such, endowed with enough force to retard the activities of the whole region. Man's feeble efforts to balk it have availed but little. Endless rows of closely knit cedars have been set up across the path of the wind to offer some protection to the fields. Almost all of the farmhouses are built on an L-shaped plan to provide at least one outside corner where the wind will not raise havoc. But when the despotic Mistral is blowing, outside pursuits are fairly well suspended.

This sparse and under-populated area, so little altered by this devastating 20th Century, is rich in the most primitive of landscapes and the purest and most varied of architectural monuments. The glory of Rome is reflected in Arles, in Orange, in St. Remy and a dozen lonely spots. The purest of Romanesque art flourishes at St. Trophime, at St. Gilles and Le Thor. Les Baux, besides offering a ghostly apparition of a mountain stronghold, is rich with the most perfect of Renaissance ornament. Aigues Mortes, Tarascon and Avignon itself give an impression of feudal might and majesty quite as imposing as anything in France, Carcassone included.

But these are the obvious towns which can be excavated from the guidebooks. The thrill comes in being able to uncover something which the Guide Bleus and Baedakers have ignored, some forlorn and isolated and unsung treasure, sunning itself in neg-



THE BRIDGE AT PERNES



DOORWAY OF THE CHURCH AT LE THOR
FROM THE ORIGINAL PENCIL SKETCH BY SAMUEL CHAMBERLAIN



THE TOWN GATE, LE THOR
FROM THE ORIGINAL PENCIL SKETCH BY SAMUEL CHAMBERLAIN

lected nonchalance, with scant hope of being rewarded even with mention in a regional pamphlet.

A few such rare morsels were upturned recently by your correspondent in a visit to the outlying corners of the region, with the resultant acquisition of



SIDE PORTAL OF THE CHURCH, LE THOR

the sketches here reproduced and a pair of windblasted eyes. With some hesitation they are submitted as fairly unheralded finds.

The first is a sunny little church, visible from the flat, cedar-lined road which leads from the ramparts of Avignon to Vaucluse and its miraculous source, (which is rather more inspiring to a hydraulic engineer than anyone else). Vaucluse was the retreat of Petrarch and the setting of his romantic adventure with the lovely Laure. His sixth centenary, incidentally, is to be celebrated in the City of the Popes next April, amid much pomp and elocution. The aforementioned church has lingered for centuries in the compact little village of Le Thor, hemmed in by shivering sycamores, and is worthy of nearly as many superlatives and fine phrases as have been squandered upon the two Romanesque headliners of the region, St. Trophime in Arles and the facade of St. Gilles. The tower of the church at Le Thor is a bit squat and hump-shouldered, as though it were cringing from the frequent fury of the wind. The stonework is superb, the carved detail above reproach. A fine old wrought iron cross silhouettes

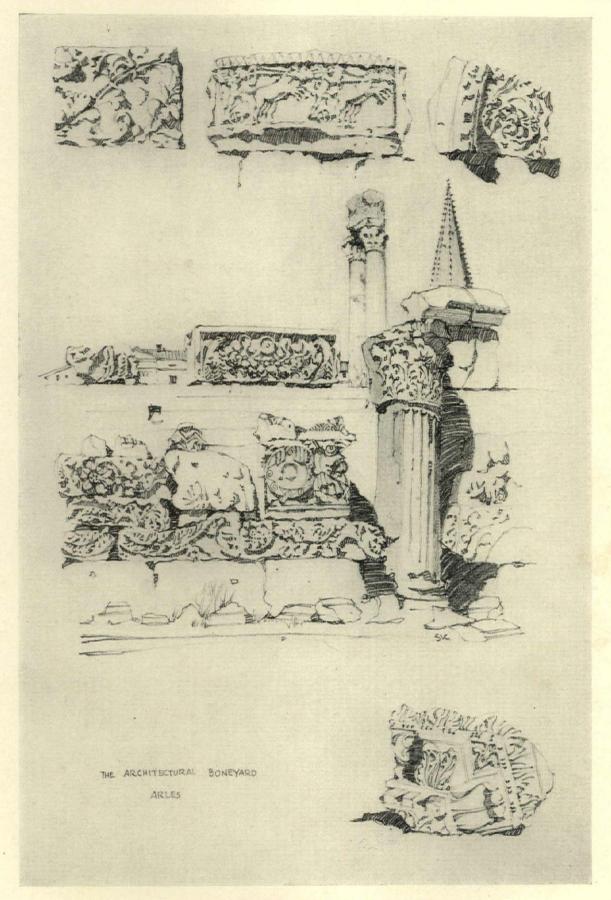
itself against the cavernous black of the main portal, and a badly disjointed sundial sprawls above it. The enclosed sketches may give some faint impression of the loveliness of the doorways. The town gate in Le Thor is no rose from the point of view of pure design, but it is gay and quite impressive in a little town, and typical of dozens of town gates scattered between Avignon and Aix-en-Provence.

Le Thor is an adventure not soon to be forgotten, but the neighboring village of Pernes harbors a curiosity even more exciting. The bridge in this once-fortified town belongs to the category of picture-book conceptions, the sort of thing one expects

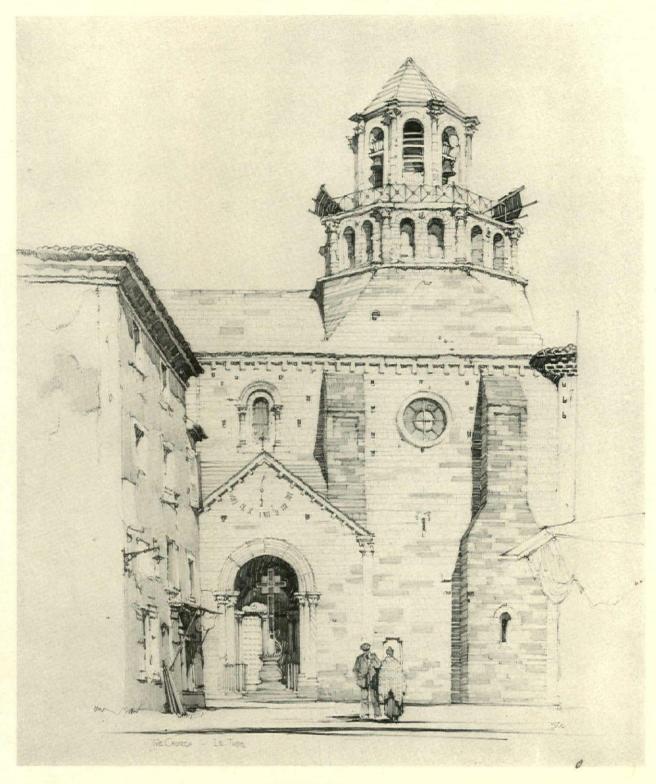


DOORWAY OF A FARMHOUSE NEAR ST. GILLES

in a book by Kay Nielson or Arthur Rackham. It seems almost unreal. As a movie set for our dashing Douglas Fairbanks it is not incongruous, but one can hardly believe that a neglected bit of the Middle Ages could come down so matchlessly preserved. A bridge, a bijou of a chapel, a perfect feudal gateway and a delicate little covered shelter all in one, framed in a pattern of glistening nude sycamores! The bridge seems to have eluded mention in the books on Provence. I am under the impression that it even escaped the vigilance of William Emerson when he scoured the country in search of material for his memorable volume on "Old Bridges of France." The stream has shrunk into a narrow rivulet which



THE ARCHITECTURAL BONEYARD, ARLES
FROM THE ORIGINAL PENCIL SKETCHES BY SAMUEL CHAMBERLAIN



THE CHURCH, LE THOR
FROM THE ORIGINAL PENCIL SKETCH BY SAMUEL CHAMBERLAIN

is content to slip silently under a single one of the three arches. The others have long since been filled in, and what was once the river bed is now a bowling alley for the Sunday afternoon idlers.

The third exhibit is on the dead and deserted road which skirts the swampy plain between Tarascon and the dreary St. Gilles. On a gentle slope is a roomy and prosperous farmyard, silhouetted against a mournful regiment of black cedars. This is no ordinary farm, as the facade immediately testifies. Two fine old three story habitations are on either flank, and in the center is a twelfth century chapel, a bit neglected and fallen in disrepair, but shorn of none of its splendor. The centuries of Provencal sunlight have baked and ripened the stone until its glorious patine resembles the mad splashing of the red end of an artist's palette. The chapel is simple and severe, bolstered by lithe, slender buttresses and pierced by a doorway of irreproachable grace. One can only guess how long it has been since those rusty hinges have pivoted. Inside this one-time shrine the horses swish their tails at the flies and a handful of sheep let forth melancholy blatts while two farmhands laboriously hoist a new load of hay into an impoverished upper floor. One cannot suppress the conjecture of what a treasure this fine old remnant would be, were it standing on American soil, rather than in the wind-swept remoteness of a too-rich Provence.

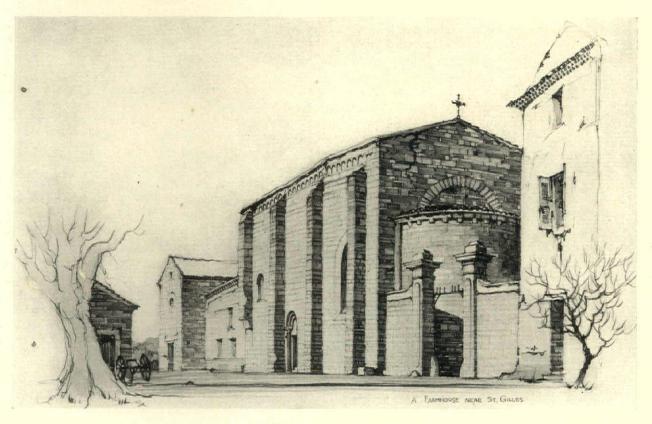
One more spot in this neighborhood is too idyllic to be overlooked, although it lacks the virtue of be-

ing either unknown or unvisited. This is the grassy plot in Arles, dotted with rainwashed blocks of carved Roman marble, which was once the classic amphitheatre. There is a serenity about the two slender shafts of delicately tinted marble which still stand, and there is an incalculable beauty to the blocks of carved stone which group themselves sociably about the enclosure. Carved in the hardest of white marble, rainwashed to a shining spotlessness, they catch the bright rays of a Provencal sun and coin the most jewel-like of shadows, gold and deep blue and flaming orange, patterned over the blue-whiteness of the stone. The architectural boneyard in Arles is a Paradise, and probably the most restful spot in all Provence.

ITALY TO LAY BARE MORE ANCIENT CITIES

ALONG with the recent announcement that the Italian Government is considering renewal of the attempt to excavate the Roman City of Herculaneum, which was destroyed in A. D. 79 by an eruption of Mount Vesuvius, various other plans for adding to Italy's archaeological treasures were announced.

Other points being considered for renewed excavations are Capri, where the ruins of the palace of the Roman Emperor Tiberius are; ancient Cumae, where the oldest Greek colony in Italy once stood, and more extensive excavations at the ruins of Pompeii, sister city of Herculaneum, which was buried under the same lava flow.



A FARMHOUSE NEAR ST. GILLES

SKYSCRAPERS AND TRAFFIC CONGESTION

Synopsis of a Debate by Harvey Wiley Corbett, F. A. I. A., Stephen F. Voorhees, F. A. I. A., AND HENRY H. CURRAN OF THE CITY CLUB, HELD AT THE Architectural League's Exposition of Architecture AND THE ALLIED ARTS

HARVEY WILEY CORBETT presided over the discussion of the New York skyscraper and he and Stephen F. Voorhees defended it, while Henry H. Curran of the City Club insisted on its being controlled, and very differently from any control attempted as yet, in a brilliant debate on the subject.

"The-skyscraper is an old thief of light and air," said Mr. Curran. "Especially in New York, where skyscrapers are crowded so closely together in certain sections, they have been stealing light and air for thirty years. God gave these things to the whole world, but they are taken from the rest of us by the man rich enough or venturesome enough to appro-

priate many times his share.

"It is the uncontrolled skyscraper or that controlled as badly as we now make efforts to do it, which causes so much trouble. And getting to and from these causes New York's congestion difficulties. In the last year alone we built enough new skyscrapers to add 150,000 people to New York's working population. That means that the occupants of these new skyscrapers alone would fill five of the six subway tracks we have just as full as they would hold trains for at least an hour of the rush period morning and night. What are the rest of the workers who travel in the subway to do?

"The real question is how to control the tall building. If we would only space our skyscrapers and leave space around them for light and air, building perhaps one or two to a city square, we would have a series of beautiful towers, of towers which might be made beautiful. Give the skyscrapers a chance, of course, but give the people a chance, too."

'Very well," responded Mr. Corbett, "then let's zone the city and concentrate the different kinds of business in certain sections. I freely admit that the skyscraper imperatively needs control, direction, supervision; but the trouble is that so many of the remedies are very impractical of themselves. But there is something good in each, probably-let's

combine their good points.

"Concentrating large masses of people in a small area always brings congestion. It doesn't matter about the size of a building in this regard. Every single building of any size built anywhere in New York adds to the street congestion. The more lower buildings are spread out, the worse the congestion. London is a seven-story city, and those of us who have tried to do business there have found ourselves spending most of our day in taxicabs and busses.

"The city is an organic thing and growth is absolutely essential to its life. We must meet this by increasing the capacity of our streets-even doubledecking, as Chicago is doing, or even carrying the

multiple-level idea further than that.'

'The term skyscraper is relative," said Mr. Voorhees. "In some parts of New York, thirty stories do not make an exceptionally high building, while in others and in other cities, six or seven stories make a skyscraper. The skyscraper is a machine—just as definitely as is the typewriter or the printing press -a mechanism man has produced to serve a certain purpose. The functions are support, which makes possible the use of the upper stories; security, which has to do with the walls that protect from weather and observation: transportation, by which passen gers are elevated from the sidewalk; comfort, which includes the conveniences and services of the building; and beauty. The last is of very real service in any community. One purpose of any building is to make people happier when they look at it. No client ever asked one of us architects to plan an ugly building.

"It is only when we come to the quantitative phase of the skyscraper problem that we get into difficulties. Speaking generally, man lives and works on a horizontal plane, and the builder must consider area just as truly as the farmer. The units of useful area within the structure must be brought together to serve their highest usefulness. The business may grow and instead of employing 6 people,

may require 6,000.

"We might spread our building, or buildings, over enough space to give each person 100 square feet—but imagine the difficulties of communication in this nineteen-acre farm. How much easier to pile up nineteen stories on a single acre. The group instinct in man is no new thing; it's as old as man himself: and we must meet it.

"The question of cost enters more largely into skyscraper construction than most people imagine. I mean the question of the economical use of money. Elaborate studies have demonstrated that the most practical way to build is in one lump, going up into the air-but not too high. How high is largely a matter of area. Above a certain height the cost begins to mount all out of proportion to return. But the economic factor is too strong to attempt to limit any city in America to seven stories, or anything like it.

"We cannot give up the skyscraper, but we must arrange a better street balance. It is the result of an age-long process of pushing buildings up into the air as fast as improving building methods that made this feasible. The tall building in its proper place is a splendid thing, an American thing; and let us be sure that, in rearranging it, we are acting for the benefit of the public as a whole and not to carry out some idea of levelling off the city. High buildings are not the cause of all our traffic problems, not by a good deal.

"And don't forget their advertising value. Skyscrapers for advertising purposes aren't new. Cheops got some of the best advertising in history out of the Pyramids."

"Skyscraper or no skyscraper," said Mr. Corbett, "the traffic congestion would be the same. In the Wall Street district the buildings are the highest and the streets are the narrowest of any section in the world, yet the traffic on the streets is much less than up in the roaring forties where the buildings are but seven and ten stories high, in some places. The reason is not because the business man does not want to drive in his car downtown or because he can't use it during business hours. The reason is because the traffic is vertical instead of horizontal. People communicate with one another in compact areas and do not have to jump in a taxi and travel five or six blocks to do business. If we took Mr. Curran's suggestion and levelled the entire island out to seven or perhaps ten stories, what would happen? Business would spread. Everybody would be rushing about twice as fast in order to reduce travelling time in inter-office communication. Traffic on the streets would be quadrupled and taxis would be almost useless, so terrific would be the congestion.

"If every single foot of floor space in Manhattan were covered, the city would still continue to grow. Congestion would stop temporarily, perhaps, but would come back again worse than ever. The only remedy, it seems, is to stop New York from growing. That being impossible, double-decked streets, undercrossings, enormous skyscrapers and gargantuan buildings must come. The remedy, I believe, is to have regulated growth. There could be a zone devoted to factories, one for business, finance, pleasure. Thus the traffic congestion would be greatly reduced. Business in each of these zones would be done by men in the immediate vicinity. People would travel to adjacent buildings on foot. A man walking takes up less than ten square feet of space. An automobile going only fifteen or twenty miles an hour takes up four hundred square feet of space, while an automobile standing still occupies one hundred square feet.

"Skyscrapers do not cause congestion. They cause less than if their proportionate occupancy were spread out. In London the buildings are not over six stories high at the most, yet one spends the greater part of the day in a taxi, tram or bus trying

to get about and on streets whose congestion is abnormal in the extreme.

"The skyscraper will never die. It is a living organic thing, with its inhabitants flowing through its veins like the corpuscles in the blood. You cannot stop normal growth; the only way to stop a tree is to kill it.

"Traffic is bad in New York but it is worse in other cities where the average building height is far less,—Detroit and Los Angeles, for instance. But Detroiters put the blame on the automobile, where it belongs. They will not, however, stop building automobiles and we will not stop building sky-scrapers as long as both continue to perform a vital function in our lives.

'The subway is another serious problem. The backers of the 'Down With the Skycraper' campaign point out, and with some truth, that as soon as new subways are built, there are new skyscrapers to be filled and the congestion is just as great as it was before. But is that any reason why we should stop building subways to the congested districts? Daniel Turner, engineer to the Transit Commission, has suggested a bright solution. He thinks we might start subways from points where nobody is and carry them out of the city to places where nobody wants to go. Then we would see the end of the straphanger. The skyscraper is here to stay. Its present development is by no means ideal. It has received much abuse. But concentration of tall buildings in certain sections is bound to occur in one form or another. Architects and engineers and city planners must see to it that it grows intelligently and rationally, taking advantage of all that science has taught. Then subways and motor traffic will slowly be adjusted and conform to demand and common sense.'

"All our traffic trouble is due to skyscrapers." said Mr. Curran. "They draw the automobiles and the people in the rush hours and throw them on the streets again at night. There are too many of them in clusters. If they were placed sensibly I would approve of them, but the lack of control in their destination is our most serious cause of congestion. Enough skyscrapers go up in New York in one year to house 150,000 people. Just think what that means in the subway when the time comes to go home. Why, right now the city is spending nearly every nickle it can get its hands on for the new Eighth Avenue subway, hoping that when it is finished traffic will be relieved. But it won't. Just as fast as the subway is completed, up goes another skyscraper along Eighth Avenue. We will be just where we left off at when this thing is finished.

"The most brilliant jewel in Mr. Corbett's diadem of arguments in defense of the skyscraper, is his statement that skyscrapers really decrease congestion instead of increasing it because they take unto themselves such an enormous amount of vertical human traffic and thus relieve the streets from the horizontal traffic. Mr. Corbett says that 'in downtown New York the business man consults his broker, eats his lunch, sees his lawyer, buys his wife a box of candy and gets a shave, all in the same building." Perhaps he does. There may even be a manicure there and a haberdasher and bootblack as well. This is an entrancing picture of 'home, sweet home', in the skyscraper. But how does the business man get into the skyscraper? Is he born there? Does he live and die there, or is his home somewhere else so that he has to leave early in the morning and crush his way into the subway to get to work? And how about lunch hour? Does he always eat lunch in the same skyscraper? The iridescence of Mr. Corbett's imagination includes the assumption that a skyscraper is a man's whole world and that he lives and dies inside of it, just as immovable as though he were the inner stem of an obelisk.

"In New York we are trying to get the 800,000 people who come to work every morning in Manhattan's skyscrapers to stagger their working hours so that they will not all arrive at the same time," said Mr. Curran. "But if we can do this, it will only be court-plaster. It will not cure the disease. Not even the telephone has cured the disease and it keeps more people off the streets than all the candy-box skyscrapers in Christendom.

"Is it true or not that a 50 story building fully occupied holds five times as many people as a 10 story building of the same size fully occupied? If

you clump together several hundred huge buildings, each of which is four or five times as high as the buildings of a generation ago, it is perfectly sure that you will create a local congestion that cannot possibly be taken care of by the existing sidewalks and roadways and can never be satisfied by subways, no matter how many you build.

"My proposal is not at all to abolish skyscrapers, to kill them off, as Mr. Corbett assumes. My proposal is, on the contrary, to keep them but control them. At present they are utterly out of control. They grow like weeds in the wrong place and too many together. The question is one of density of human occupation of any given cube of air resting on the earth, and that is all there is to it.

"Is the skyscraper beautiful? Is a cigar label? The most beautiful skyscraper I know of is the Woolworth Building and right next to it springs up the ugliest shoebox I have ever seen. The Transportation Building, they call it, and up it goes trying to get near the top of the Woolworth Building. It fails and on top of it they stick an aerial chicken coop! Beauty! Never, not in a hundred years. The city should re-zone this town and keep down the level. Mr. Corbett has given us a beautiful thing in the Bush Building, but then up springs some kind of piano emporium next to it to mar its beauty! America's zoning law is a back stair type of architecture!"



GROSVENOR ATTERBURY, ARCHITECT

STOWE PHELPS AND JOHN TOMPKINS, ASSOCIATED

(Forty-second Annual Exhibition, The Architectural League of New York)



ST. JAMES M. E. CHURCH, CHICAGO, ILL.

TALLMADGE & WATSON, ARCHITECTS

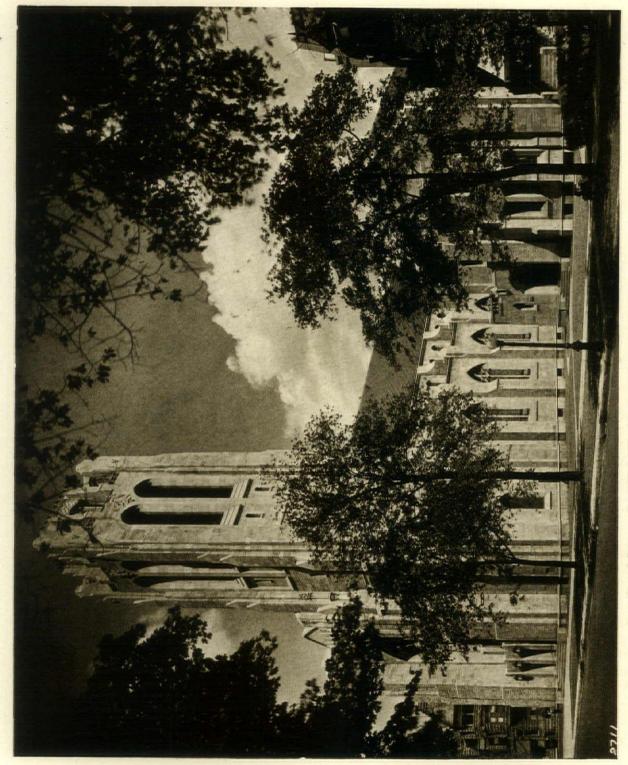
(See description on back)

ST. JAMES M. E. CHURCH, CHICAGO, ILL. TALLMADGE & WATSON, ARCHITECTS

THIS church is entirely of unselected sawed Bedford stone and the joints were struck as the stone was put up. There is no repointing. The ashlar came in random lengths and were cut on the job by the stone masons.

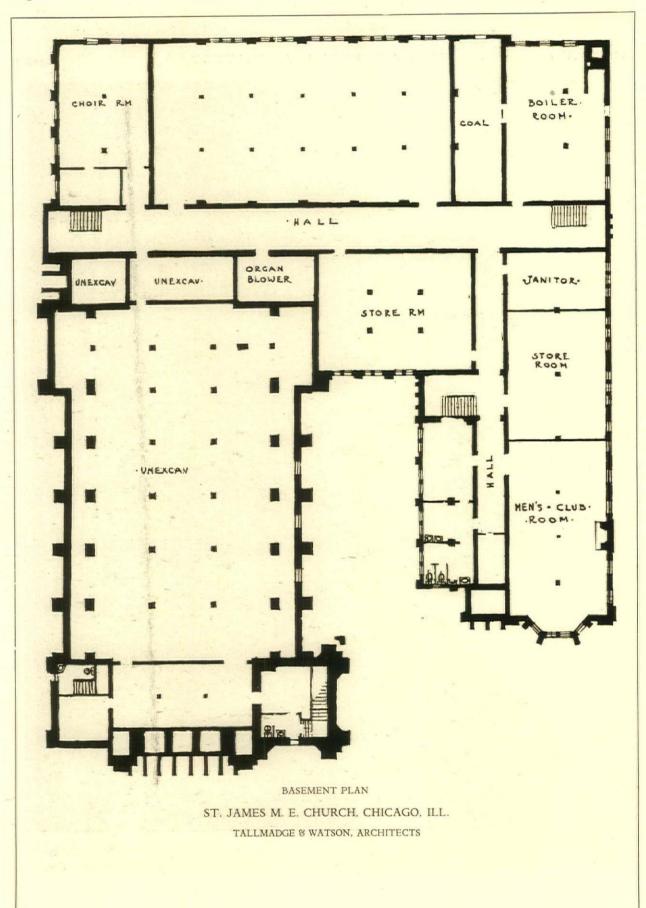
The church seats one thousand, and is fully equipped for all institutional and modern Sunday School training and recreation. It has an assembly room (with a stage) which will accommodate five hundred and it has a gymnasium which is especially large and fine. There is also a chapel which seats two hundred.

The church cost, including the organ and the leaded glass, \$435,000.00. The organ is by Cassavant Freres and the glass by Montague Castle. Schmidt Brothers of Chicago were the general contractors and they built the church under the Landis Award. The sculpture is by Miss Hester Bremmer of Chicago.



ST. JAMES M. E. CHURCH, CHICAGO, ILL.

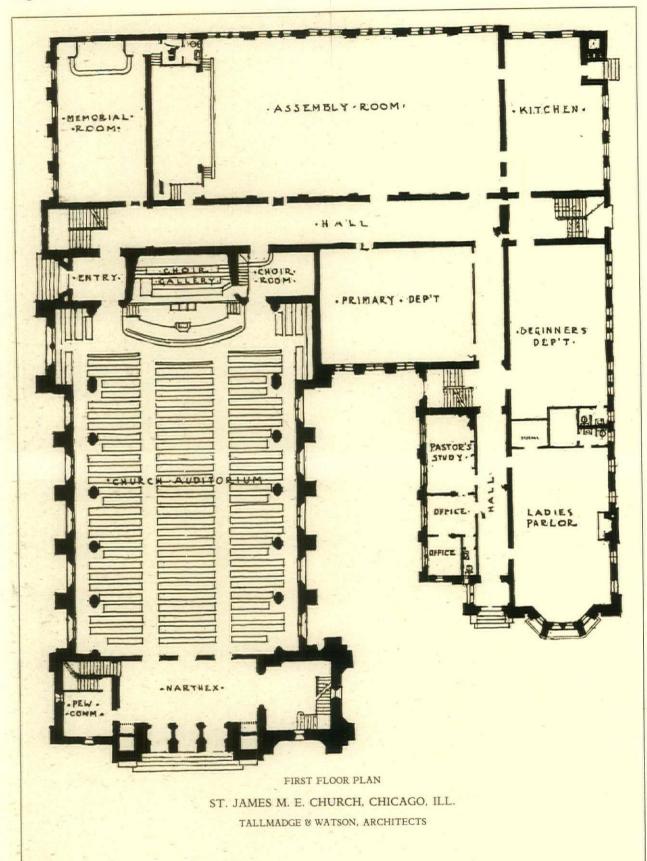
TALLMADGE & WATSON, ARCHITECTS
(See plan on back)



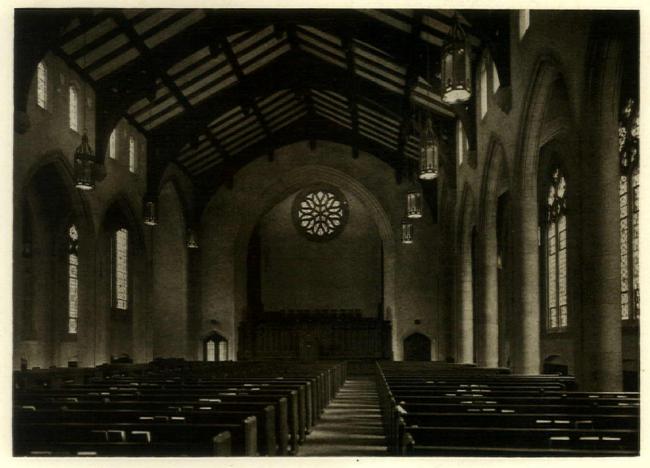


ST. JAMES M. E. CHURCH, CHICAGO, ILL.
TALLMADGE & WATSON, ARCHITECTS

(See plan on back)



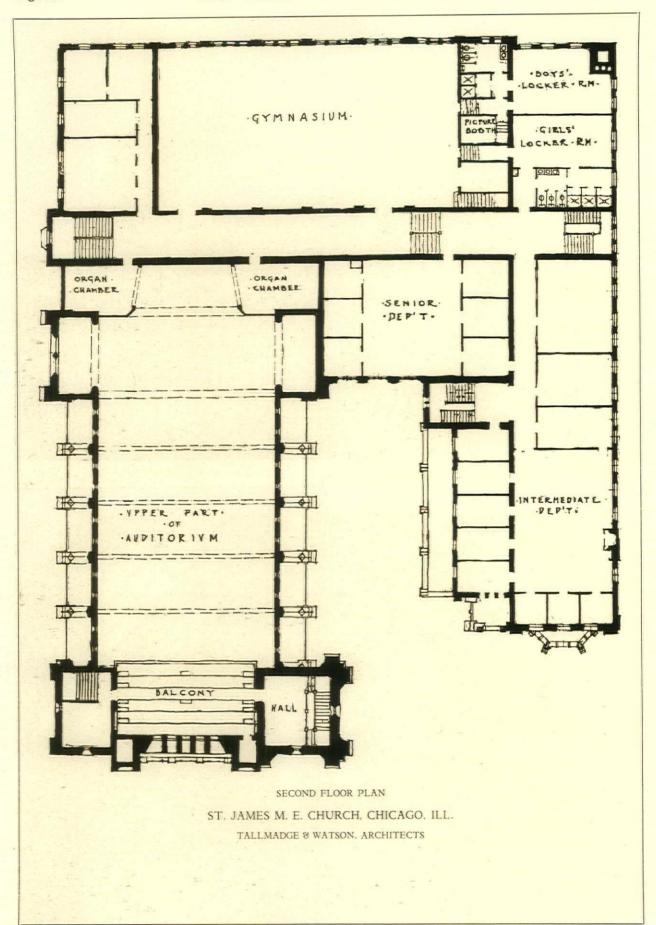


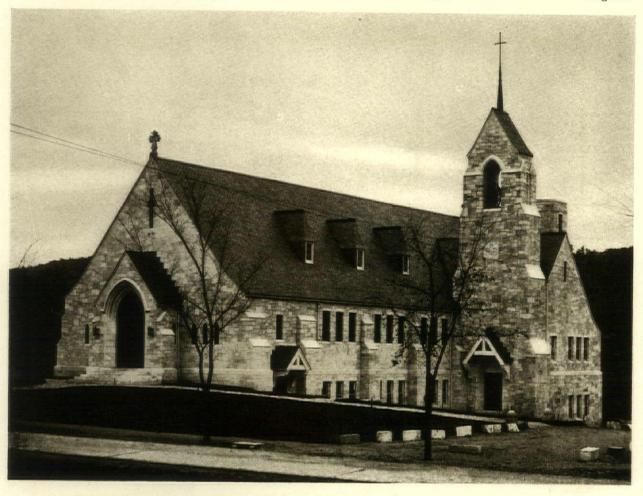


ST. JAMES M. E. CHURCH, CHICAGO, ILL.

TALLMADGE & WATSON, ARCHITECTS

(See plan on back)



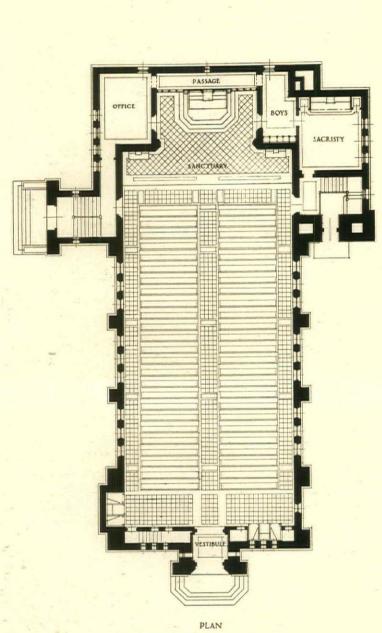




ST. DOMINIC'S CHURCH, PROCTOR, VT.

MAGINNIS & WALSH, ARCHITECTS

(See plan on back)



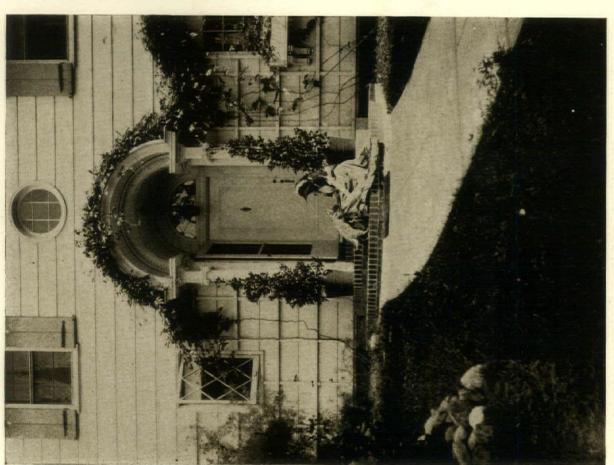
PLAN

ST. DOMINIC'S CHURCH PROCTOR, VT.

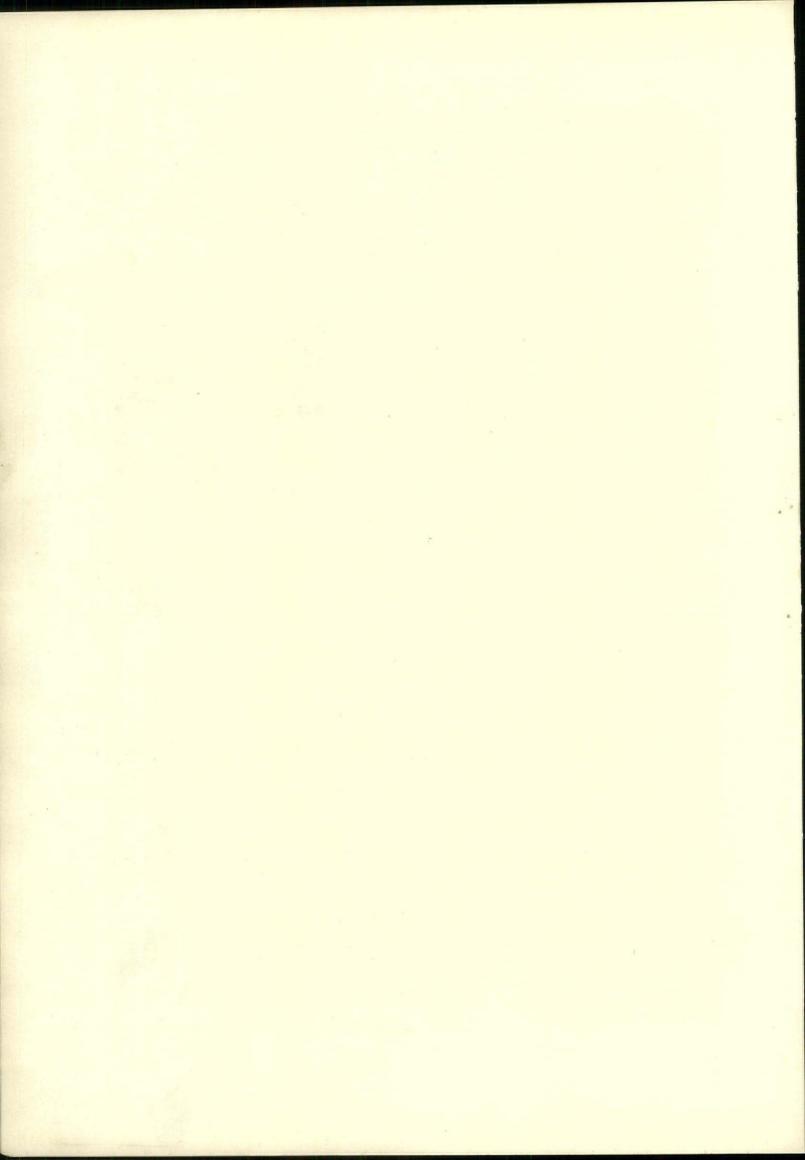
MAGINNIS & WALSH, ARCH'TS.



FRANK J. FORSTER, ARCHITECT
(Forty-second Annual Exhibition, The Architectural League of New York)



ENTRANCE DETAIL
HOUSE AT IDA GROVE, IOWA
(Forty-second Annual Exhibition, The Architectural League of New York)



AN ARCHITECT'S HAPPY HUNTING GROUND

By LANSING C. HOLDEN, JR.

Illustrated by Sketches by the Author

I DO not hesitate to say that life on a dahabeah on the Nile is as near the architect's happy hunting ground as he will ever reach before death, or indeed even after death, unless he be a particularly worthy, competent and highly moral architect.

Picture this blissful scene: Here you are, an architect, dead tired, of course, stretched out in a deck chair, an awning above, the swish of water close below, the vivid green shores of the Nile slipping by. Always there is something of interest on the banks, with the eternal processions of natives, camels, donkeys and water buffalo, and the tireless shadoofs, "the unchanging system in an unchanging land." Frequently a felucca barely escapes being sliced in two as she tacks across

our bow, boats that resemble pale butterflies folding and unfolding their graceful wings in the radiant sunshine. Sometimes when we were all lolling under the awning the good ship "Chonsu" came to a sudden, abrupt and disconcerting halt. Immediately from below sounded a bedlam of weird noises. If you were an Egyptian you would have known that the crew was merely cursing its luck in having run on a sandbank. Since the boat drew only two feet of water, it seemed impossible that any crew could emerge from quarters below the water line. But

strange to relate, we soon discovered that there was a crew of at least thirty men aboard, who popped out of a dark hole and leaped into the water. Their cries settled into a steady rhythm as they chanted a boat song in time to their polling and pushing. The



THE COLOSSI OF MEMNON

IN LONELY GRANDEUR THE TWIN COLOSSI LIFT THEIR PROUD SCARRED HEADS ABOVE THE EMERALD PLAIN. AROUND THEM RISES THE ETERNAL HUM OF EGYPTIAN LIFE,—MEN, CAMELS, OXEN AND DONKEYS LABOR IN THE FIELDS UNHEEDING, WHILE TOURISTS FROM THE UTTERMOST ENDS OF THE EARTH MARVEL AT THE CHANGELESSNESS OF THIS AMAZING LAND

time which you remain on a mudbank varies considerably, depending on how hard you struck the bank, how sticky the mud is, and principally on how much baksheesh you give the crew. But since you usually hit the banks pretty hard and the mud is nearly always sticky, it boils down to how well the crew has been tipped. Eventually the boat slipped off, backed down stream. and the pilot tried another channel. One might well ask why an old Nile riverman does not learn

the channel, but the Nile is a shifty enemy and changes its channel every month. Consequently the passing boats are always hailing each other to ask how the mud lies just ahead.

Days on the Nile slip by with alarming rapidity, and one begins to understand why Egypt's history is such a long one. It is all explained by the fact that in Egypt time goes much faster than anywhere else in the world.

On we steamed up the river, each night tying to the bank to be greeted by a crowd that for density,



PIGEON TOWERS

MINIATURE FEUDAL FORTRESSES, BUILT TO HOUSE THE MYRIADS OF PIGEONS WHOSE LIME IS USED AS FERTILIZER. THESE PICTURESQUE BUILDINGS CLUSTER IN THE SHADE OF PALM GROVES, KEEPING WATCH OVER THE MUD HUTS OF THE VILLAGE

smelliness, and unintelligible chatter is equalled only by that in New York's subway at Forty-second Street. The dirtiest and most objectionable of these natives tries to sell you "Leetle Moses in the Boolrushes," while the next dirtiest begs you to buy scarabs fresh from the potteries of Berlin. Bluegreen statuettes of Ta, Isis, Osiris, etc., snow-white alabaster vases, glittering scarves, and strings of cheap bright beads are waved before your irritated eyes. Then at last the crowd dwindles away as the light fades, and even M. de Silhouette himself never imagined the blackness of these silhouettes against the blood-red Egyptian sky.

When noon with its stifling heat had come and gone, we would arise refreshed from our siesta, and our dragoman Shaia, the old bandit, would give orders to tie up to the bank.

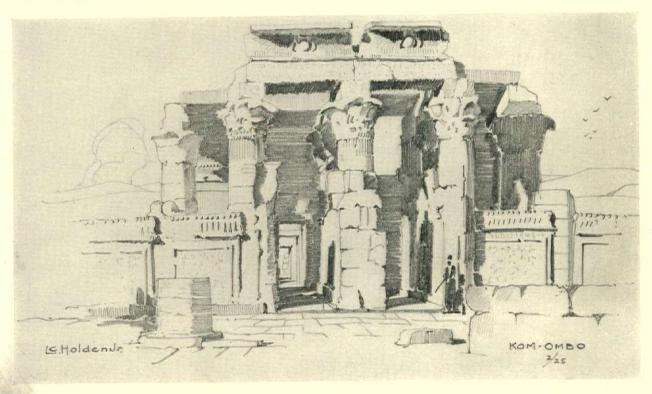
Reaching the landing stage, we would climb on donkeys to ride a short way through the fields of lush clover to the edge of the desert, there to find the temple of Abydos, (let us say) one of the most exquisite of all the temples. The walls of the seven sanctuaries are covered with reliefs on which the color is well preserved, and at the risk of punning, I'll say it was a relief to sit in their cool shadows, and as the eye became accustomed to the semi-darkness, enjoy the grace and purity of line in which the Egyptians excelled. This day was typical of many other days. As we rode home the sun was setting at our backs, and the cliffs on the further banks of the

Nile were painted a burnished gold. Admit, you men who have ridden days on blighted Spanish railways, or toiled up endless hills in search of a choice bit of architecture, that the Egyptian way is the better way. Like a snail, your house is always with you. True, a dahabeah rivals a snail in speed, but in Egypt it seems criminal to think of hurrying.



GATEWAY OF EUERGETES, KARNAK

THIS GATE STILL STANDS IN ITS IMPOSING GRANDEUR. THOUGH ITS FLANKING PYLONS HAVE LONG SINCE BEEN QUARRIED AWAY BY THE NATIVES. THROUGH IT PASSED THE PRIESTS OF AMON, ROBED IN SPOTLESS WHITE, BEARING THE FABULOUS TREASURE OF THE GOD, AND LEADING THEIR HUMAN SACRIFICES



ком омво

IN THE RUINS OF THIS TEMPLE WERE FOUND THE MUMMIES OF THE CROCODILES ONCE WORSHIPPED THERE, AND ON THE WALLS CAN STILL BE SEEN THE FIGURE OF CLEOPATRA, HER BEAUTY CONTRASTING STRANGELY WITH THE HIDEOUS HEAD OF SOBEK, THE CROCODILE GOD

And how often it happens that carefully laid plans for a sketching tour are spoiled by a sudden rainy day. Not so in Egypt. The sun smiles ever on the man with a pencil searching for dazzling bright walls and deep purple shadows. But although the rain, which has stopped many a sketching trip in Europe, will never bother you in Egypt, Nature sends myriads of flies to try the nerves of the most ardent sketcher. Of course, if you are a good Mohammedan you will not mind flies, and will



GATEWAY OF MEDINET HABOU

TWO LONELY AND MAJESTIC COLUMNS FLANK THE PORTAL WHICH LED TO THE HAREM OF THE KINGS. HERE FROM BARRED WINDOWS THE WOMEN LOOKED DOWN ON THE PALACE GARDENS, AND OVER THE ENDLESS REACHES OF THE NILE VALLEY. ON THE WALLS THEIR STORIES ARE TOLD IN MASTERFUL RELIEFS, AND GHOSTS OF FAR-OFF FORGOTTEN HAPPINESS STILL SEEM TO HAUNT THE RUINED CHAMBERS

allow them to gnaw peacefully at every exposed bit of anatomy, including your eyes. But having neither the stoicism nor the horny skin of Arab or Nubian, I was about to give up in favor of the flies, when my wife came to the rescue with the offer to act as a royal slave, and switch flies off me. Thus we sat in a broiling sun, and the switch kept time to the groaning of a sakiyeh, and for once the flies were baffled in their desire for a living sacrifice.

There is one Egyptian word that no matter how inept one may be at learning Arabic, he can never forget.—the first word that every Egyptian learns as his eyes open to the light of day, "baksheesh,"—money. So often did I hear it that one day as I was walking far from the ever-present mob of natives, a little lamb bleated as I passed, and instinctively my hand dove into my pocket as the first fatal syllable rang in my ears,—"ba-a-a-a-s-heesh."

Somewhere in this meandering article I intended

to complain about the heat of Egypt, but as I sit sweltering on a Summer night in a New York apartment, I long for what now seem like the frosty nights on the Nile. It is wonderful, the effect one can get with a little faked perspective, and the memory of a Tom Collins on the Terrace at Shepheard's.

For us the curtain had rung down on the pageant of the Nile. Six dreamy weeks had slipped by. Our impressions of this country, the cradle of the world's civilization, were inarticulate. It didn't seem possible for us to crystallize our feeling, or to put into words the effect which the monuments of this stupendous age had wrought upon our minds. But someone asked our eminently practical and thoroughly efficient English valet what he thought of the great temples of Egypt. His answer contains all the wisdom of the Sphinx itself, for it was,

"Well, sir, it all seems so unnecessary, sir."

20

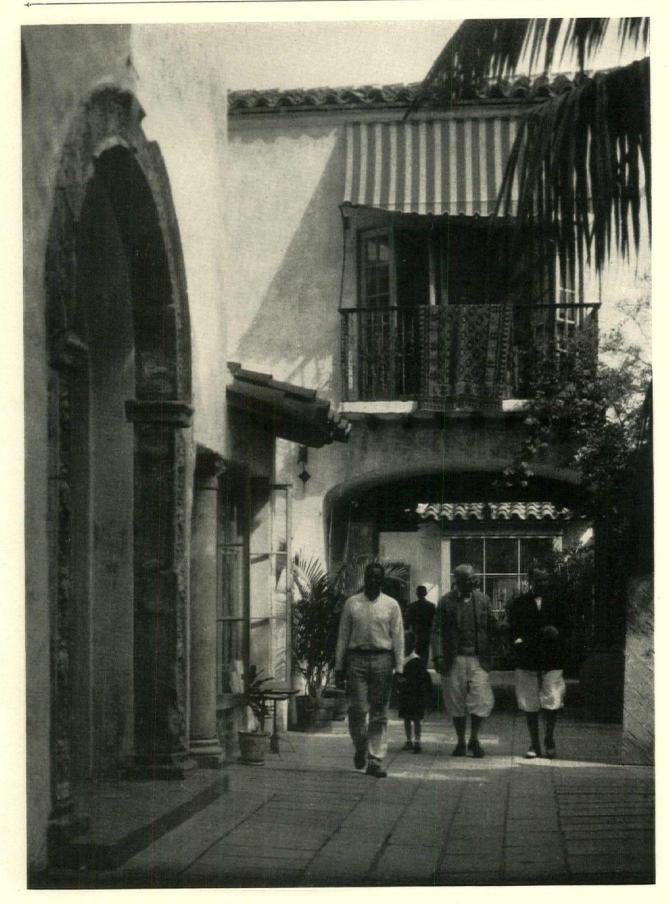
1927 ANNOUNCEMENT, ROTCH TRAVELLING SCHOLARSHIP COMPETITION

PRELIMINARY examinations for the Rotch Traveling Scholarship will be held this year on Monday and Tuesday. April 4 and 5. Candidates must be citizens of the United States and under thirty years of age on May 1 of the year when they present themselves, and must have had experience in professional work during two years in Massachusetts in the employ of a practicing architect resident in Massachusetts, or with one year in a Massachusetts architectural school approved by the Scholarship Committee. The Boston Society of Architects has yearly offered a prize of \$100.00 which has been awarded to the candidate placed second on the recommendation of the Committee. The candidate chosen under the conditions of the competition will be awarded the Scholarship for a term to be determined by the Committee, but not more than two years. The scholar will receive \$2,000 for one year term, or \$3,000 for two. For further information. apply to C. H. Blackall, Secretary, 31 West Street. Boston, Mass.

20

RUINED CITY DISCOVERED IN MEXICO

THE discovery is announced of the ruins of a large ancient city covering an area of more than 60 acres, in the mountains, 12 miles from Tonala City, in the State of Chiapas. The discovery was made by the Mexican Government expedition, whose members report the existence of large buildings, temples of great beauty, many handsomely carved and monoliths standing in the center of groups on esplanades or platforms. All the platforms are built of gigantic quadrangular blocks of granite. The preliminary examination of the hieroglyphics on the monuments suggests a low type of civilization, it is reported.



VIA MIZNER, PALM BEACH, FLA.

WORKING PHOTOGRAPHS—SERIES II

FROM THE ORIGINAL NEGATIVE BY DWIGHT JAMES BAUM, ARCHITECT



ENGINEERING AND CONSTRUCTION



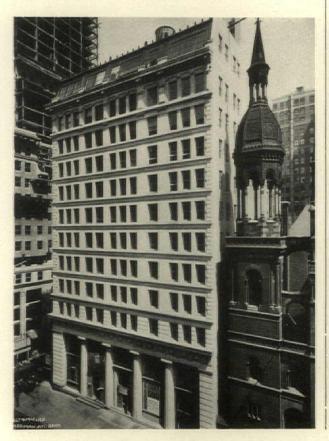
WHAT ARCHITECTS SHOULD KNOW ABOUT STEEL INSPECTION

By ELWYN E. SEELYE, Consulting Engineer

THE purpose of this article is to bring out the essential points to look for when inspecting a steel frame. It is assumed that the structure has been properly designed and that the shop work has been properly executed. It should be emphasized that shop inspection is very important. If the work is properly inspected in the shop it will arrive on the job with the sections called for on the plans. It will fit when erected and the shop work will have been properly performed. The field work will be lightened and no field changes should be required. It also avoids certain errors of fabrication that are not apparent after shop assemblage. Mill inspection is less important but has value, where steel is being rolled and some

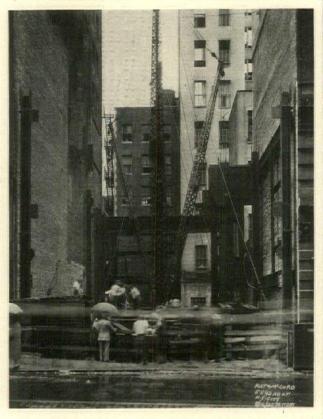
orders are being inspected, for preventing rejected material being unloaded on the purchaser who does not have inspection.

Assume that the steel has been shipped in perfect order and is arriving on the site. The inspector should first look for material damaged in shipment. These will generally appear as bent plates or members and should be rectified by straightening, and, if necessary, by reinforcing, before the erection is allowed to proceed. If damage is serious an expert should be called in to pass on it. Where no shop inspection has been made, the field inspector should go over the shop riveting and also see that surfaces in direct bearing are milled and in contact.





AN ALTERATION TO AN ELEVEN STORY BUILDING TO PROVIDE FOR ADDITIONAL BAYS THAT REQUIRED UNUSUAL ENGINEERING FEATURES. STRUCTURAL WORK OF THIS ORDER REQUIRES THE MOST EXACTING INSPECTION FROM MILL TO BUILDING TO SECURE ACCURACY AND SAFE CONNECTIONS. ORIGINAL BUILDING CONSISTED OF THE THREE BAYS AT THE LEFT. THE ADDITION HAS PROVIDED THE TWO BAYS SEEN AT THE RIGHT



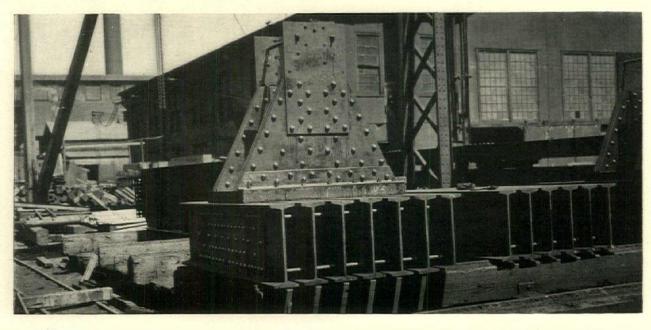
THE ERECTION OF A TALL BUILDING BETWEEN PARTY WALLS INVOLVES INDIVIDUAL ERECTION PROBLEMS, ONE OF WHICH IS THE SHORT GUYING OF DERRICKS. HEAVY CONNECTION PLATES OF THE STEELWORK INDICATE THAT LOADS ARE INVOLVED THAT PRODUCE LARGE STRESSES IN THE MEMBERS. INSPECTION OF RIVETING IN SUCH CONDITIONS IS OF UTMOST IMPORTANCE

Anchor bolts must be cemented into the foundations and must be accurately set and as they are difficult to change it is advisable to check their location. Column base plates and other milled surfaces should

be inspected to see that there are no burrs along the edges. In the erection of bases, consisting of grillages, steel plates or cast iron, it is important to see that they are properly grouted. This can best be done by pouring the grout into a funnel raised high enough to produce hydraulic pressure. The space between the concrete foundation and the iron should also be rodded to eliminate voids. Bases should be set on steel wedges. Do not permit wooden wedges to be used. It is very important that the bases be set level, faced on the top and that the column be faced to provide a full and even bearing between the bottom of the column and the base. In unimportant columns a discrepancy may be wedged with thin steel wedges, but in important work the full bearing without wedging should be insisted upon. This facing or milling can be done accurately and its omission on bearing surfaces is sufficient cause for rejection of the member.

When the erection starts the inspector should keep in mind the functions of the connections and the way the stress is carried from one member into another. This will enable him to check the work in a practical manner. For instance, he will notice that some steel beams rest upon seats which were riveted in the shop. The additional rivets are for the purpose of holding the beam in place and not to take a load. Other connections will be directly from the beam through the connecting angles to the column or girder by means of rivets. It will readily be seen that the rivets in this last connection are much more important and should be more carefully inspected than the field rivets in a seat connection.

Bear in mind that a rivet is supposed to hold by its shearing and bearing values, but that it also performs a very important function if tight, by hold-



A COLUMN GRILLAGE AND STUB SECTION AT THE MILL READY FOR SHIPMENT. CAREFUL SHOP INSPECTION ON WORK OF THIS KIND MUST BE FULLY RECOGNIZED

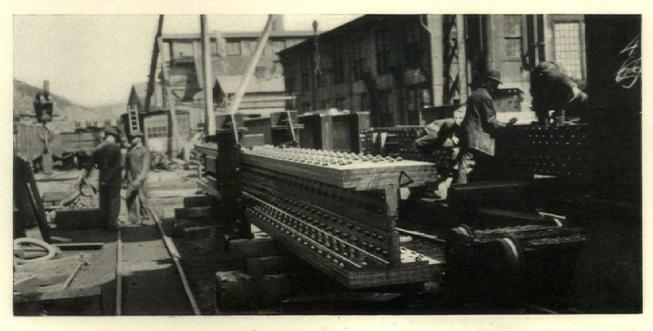
ing the two surfaces together and producing a large frictional resistance between the plates. It should also be remembered that the process of riveting induces a certain amount of internal tension in the shank of the rivet and thereby renders the rivet unreliable for additional tensile strains, and, therefore the writer prefers that bolts with lock nuts should always be substituted for any rivets that are supposed to act in direct tension. A request to use field bolting instead of riveting is often made. In deciding this question remember that the advantage of rivets is that they fill the hole and act together while bolts do not. A hand driven rivet, however, is apt to be poor and should be given little preference over the holding power of a bolt.

Having pointed out the essentials of having a tight rivet, the question is how to get it. It is absolutely necessary to inspect steelwork before riveting and see that the holes in the plates are concentric, for if a rivet be driven with 1/8" eccentricity, while it may be tight, and therefore impossible to detect after the riveting is complete, it may be a very poor rivet. The writer recommends that all differences of eccentricity of over 1/16" should be reamed, although this practice might be made less rigorous on unimportant rivets. The way to correct such a condition is by reaming and driving a larger rivet. The use of a drift pin to make the holes concentric by forcing action is to be condemned. In the same way the cutting of extra holes by means of an electric or other torch should not be permitted. Having inspected the joints and found, or made, the holes concentric, the riveting may proceed. If the rivet is tight and the head full, it should be passed, but if it is loose it should be cut out. The riveting should be closely watched, as a rivet may be inadequately tightened

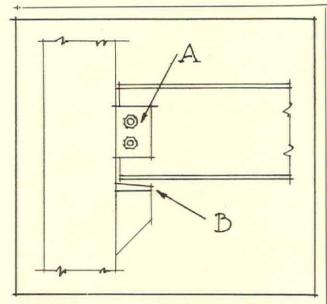


TOWER BUILDINGS MAKE THE MATTER OF WIND BRACING CONNECTIONS OF UNUSUAL IMPORTANCE. COLUMN BEARINGS, ALWAYS IMPORTANT, TAKE ON RENEWED IMPORTANCE IN BUILDINGS OF THIS TYPE. THE ABOVE ILLUSTRATION INDICATES THE STRUCTURAL PROBLEMS INVOLVED IN SETBACK STRUCTURES. INSPECTION PRINCIPLES ARE THE SAME FOR TOWER BUILDINGS AS FOR OTHERS

up by what is known as calking, which consists of the use of a hammer and chisel to wedge the rivet head. The rivet may have the fault of too short a stock and the heads will be flat. This should not be



A THIRTY-SIX FOOT COLUMN SECTION WEIGHING NINETEEN TONS IN THE SHOP YARD READY FOR LOADING ON CARS. AN INSPECTOR'S MARK IS SEEN ON THE UPPER PART OF THE COLUMN SECTION



CAST IRON COLUMN CONNECTION FOR STEEL BEAM. CAST IRON LUG A IS TOO HIGH TO PERMIT THE BEAM TO REST ON BRACKET B. AS A RESULT CAST IRON SHELF DOES NOT SUPPORT THE BEAM AND THE EFFECTIVENESS OF THE CONNECTION DEPENDS ENTIRELY UPON THE SUPPORTING VALUE OF THE CAST IRON LUG

confused with heads which are purposely flattened or countersunk for clearance. Another method of ineffectually tightening the rivet heads consists of raising the plate surface under the rivet by driving the rivet snap sideways against the plate. Where the

BASE PLATE

STEEL SLAB

- A. AN H COLUMN WITH FLANGE DAMAGED IN TRANSIT OR UNLOADING. DAMAGED MEMBERS OF THIS KIND SHOULD BE STRAIGHTENED BEFORE BEING ERECTED IN PLACE. IF DAMAGE IS BEYOND CORRECTING AT THE JOB, A NEW MEMBER SHOULD BE ORDERED
- B. BEAM SHELF AND BRACKET SHOWING CONDITION WHERE BRACKET ANGLES HAVE NOT BEEN RIVETED TIGHT TO THE SHELF ANGLE AND AS A RESULT HAVE PRACTICALLY NO SUPPORTING VALUE
- C. BASE OF COLUMN SHOULD BE MILLED AND SET SQUARE AND LEVEL. COLUMN SHOULD BE SET PLUMB. CONDI-TIONS SUCH AS THAT SHOWN ARE DANGEROUS

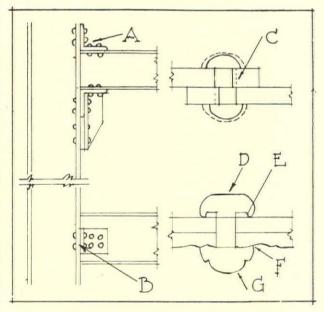
plate has been injured or shows a ridge around the rivet the rivet should be cut out. Cold hammering of heads should never be allowed. It is easy to detect this because a smaller snap is used on a head when cold hammered.

The testing of a loose rivet can best be done with a small hammer. Strike the rivet head several good blows with the hammer to see if it can be "floated" or moved up and down. Then place the finger on the opposite side of the head to see if there is any jar.

A small tile hammer with an initial die cut in the head by annealing it soft and hard again will serve the purpose of surely marking defective rivets. Defective rivets are usually marked with chalk. Rivets inaccessible for driving should be replaced by reamed holes and turned bolts, i.e., bolts machined to fit.

See that the size and weight of beams called for on the plans are furnished. Owing to sizes being made in a number of different weights, the flanges should be carefully measured to detect any substitutes. However, where shop inspecting has been properly performed this check of sizes is not as essential. Where a beam or girder rests upon a wall, care should be taken to see that it is amply supported by the masonry and securely anchored.

Painting is a very important matter in the preservation of steelwork, and all portions where paint has been removed by shipment should be repainted before erection. The field coat should be of different



- A. RIVETING OF THIS CONNECTION IS OF MINOR IMPORTANCE
- B. RIVETING OF THIS CONNECTION IS OF UTMOST IMPORTANCE
- C. THE HOLES OF PLATES NOT IN ALIGNMENT SHOULD BE ENLARGED AS SHOWN AND A LARGER RIVET USED THAT WILL FILL THE HOLE
- D. A RIVET WITH FLAT HEAD INDICATES THAT THE RIVET STOCK IS TOO SHORT
- E. CALKING TO MAKE THE RIVET TIGHT IS BAD PRACTICE
- F. DRIVING SNAP SIDEWAYS AGAINST THE PLATE TO TIGHT-EN THE RIVET IS NOT GOOD PRACTICE

color from the shop coat. See that all steel is free from rust, scale, dry and do not permit painting in freezing weather.

The preservation of the steel in exterior walls is most important. The specification should call for all exterior wall steel to be parged with neat cement.

Cast iron members should be carefully inspected for visible defects. All cast iron columns should have at least two holes drilled in the column for the purpose of checking the thickness of the column. Often the core is displaced in pouring, rendering the column thinner on one side than the other. A discrepancy of more than twenty-five per cent in thickness due to core displacement should be cause for rejection on the job.

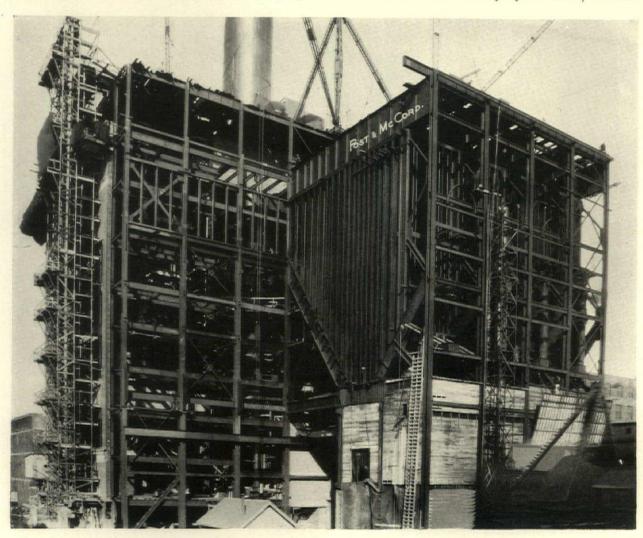
All bearing surfaces in cast iron should be milled. Columns that are crooked should be rejected. The cast iron beam seats should slope down outwards to make the beam bear as close as possible to the column and eliminate flexure in the seat. A double lug generally engages the web of a beam through which a single bolt is passed. On one job these bolts held the beams up off the seat and necessitated field changes.

All steel should be marked for identification in the field and the shop inspector's mark should also appear. The most intelligent field inspection can be made by a representative from the designer's office, as he will be able to follow the designer's intent.

The inspector should co-operate with the erector in safeguarding the structure from accidents during erection. See that the derrick base is secured from the horizontal thrust of the boom in any direction. The steel carrying the derrick should be strong enough and have sufficient connections for the erection stresses involved. Warn the erectors against such dangerous practices as lifting too heavy a load for the strength of counterties of the derrick, booming out too far, and the splicing of booms.

Guying and bracing steel in the process of erection against wind pressure is important. In this case it is well to remember that serious accidents have occurred through the shrinkage of guy ropes when wet. To sum up, see that:

- 1. Steel is inspected by a competent bureau in the shop.
- 2. Column bases have a proper masonry contact.



STEEL FRAMED INDUSTRIAL BUILDINGS OFTEN INVOLVE LARGE LOADS AND RESISTANCE TO VIBRATION. THE IMPORTANCE OF PROPER INSPECTION FROM MILL TO ERECTION CANNOT BE OVERESTIMATED

- 3. Columns bear directly on bases with full bearing; that columns bear directly on columns with full bearing and that all stiffeners are milled to bear.
- 4. Steel members are repaired and straightened where injured during shipment.
- 5. Direct tension connections are made by bolts.
- 6. All rivets are tight and driven in concentric holes.
- 7. All steel is protected by a two-coat paint job, and that wall steel is parged.
- 8. Beams have proper wall bearing and secure anchorage.

- 9. Cast iron is inspected for workmanship, flaws, and eccentric cores.
- 10. Erection is safeguarded against accidents.
- 11. Errors in design, which may be apparent in the field, are corrected.
- Alignment is secured in accordance with American Institute of Steel Construction standards.

Acknowledgement is due Post and McCord for the photographs used to illustrate this article. Various structural engineers were responsible for the design of the steelwork of the buildings illustrated.



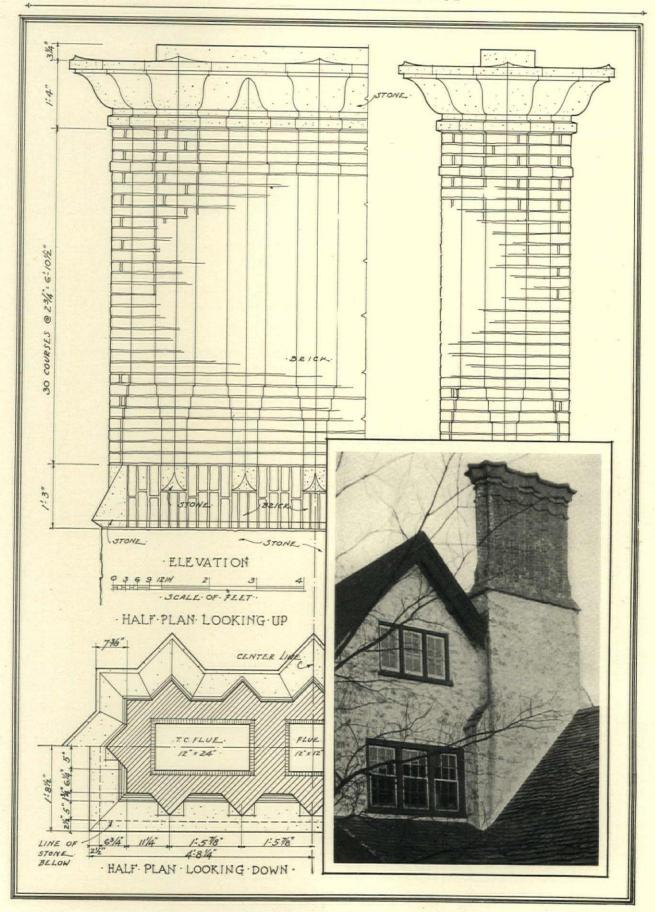
A NORTH WOODS LODGE AT DUCK LAKE, MICHIGAN

THE ROOF IS OF METAL FORMED TO THE SHAPE OF SPANISH TILE. THE METAL TILES ARE PAINTED IN SHADES OF BROWN, BLACK, YELLOW AND SLATE-BLUE WITH CLAY RED COLOR PREDOMINATING. THE EFFECT PRODUCED BY CLAY ROOFING TILES WAS OBTAINED BY FIRST PAINTING THE ENTIRE ROOF CLAY RED AND THEN RECOATING THE TILES AT INTERVALS IN VARIOUS COLORS

PAINTING SPECIFICATIONS

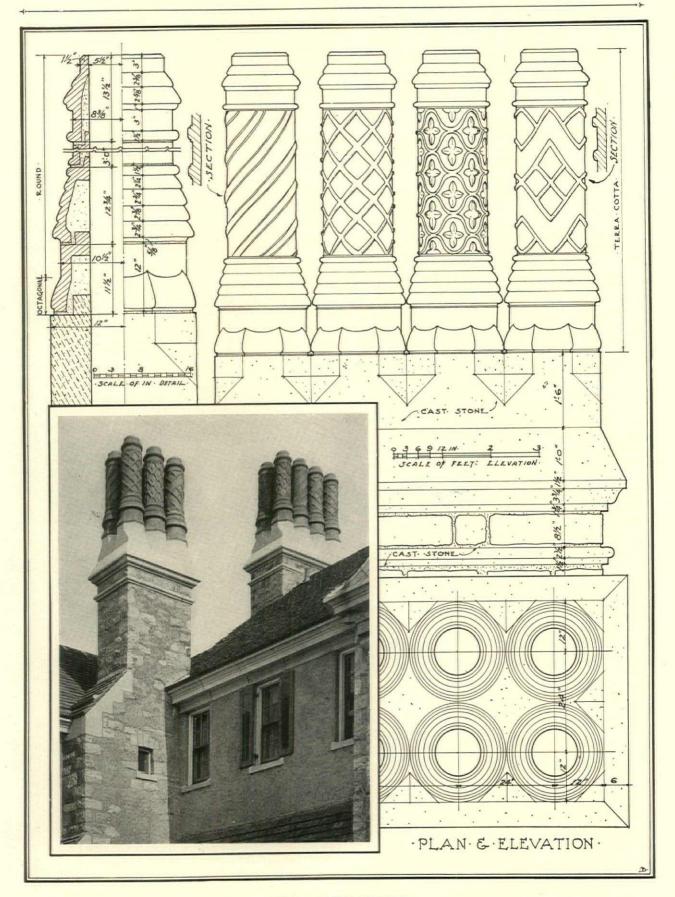
THERE is observed a tendency on the part of manufacturers to furnish architects with the information they require in a form convenient for their use. As an example there may be mentioned "Architectural Specifications" recently issued by the Architectural Division of E. I. DuPont De Nemours & Company. The book is bound with an index tab cover indicating the proper A. I. A. file number. Sub-index tabs permit ready reference to the specifications for

house paint, metal paint, shingle stain, wall paint, floor paint, enamels, and wood finishes. Concise specifications for each type of paint are printed on white paper. Descriptions of the various paints are printed on yellow paper and wherever possible color cards are included. General conditions for use in connection with the painting specification are included. This is a commendable piece of producer's literature that may well find a place in the office files. Its arrangement is convenient and practical for the use of specification writers in architects' offices.



DETAIL OF CHIMNEY TOP AND CAP

CONSERVATORY OF HOUSE OF RICHARD SELLERS, BELLEVUE, DEL.—PRENTICE SANGER, ARCHITECT



DETAIL OF CHIMNEY TOP

HOUSE OF WALTER ROTHSCHILD, WHITE PLAINS, N. Y.—TAYLOR & LEVI, ARCHITECTS



INTERIOR ARCHITECTURE



FORM AND COLOR AS APPLIED IN FURNISHINGS

By HUGER ELLIOTT

Director of Educational Work, Metropolitan Museum of Art, New York

THIS address was delivered by Mr. Elliott at the conference held under the auspices of The Architectural League of New York, at the Grand Central Palace, February 24th. Mr. Elliott forcefully states the very principles which the articles appearing regularly in this department strive to emphasize and explain. The chairman of the conference at which this paper was read was H. Van Buren Magonigle, F.A.I.A. Other papers presented appeared in our March 5th issue.—EDITOR'S NOTE.

THE part allotted to me in this symposium—in which we are asked to discuss, in the various fields, "the simple (Heaven save the mark) the simple problem of disposing the elements of light and shade and color in such a manner as to produce a beautiful thing"—concerns those objects which still remain to be considered after the building has been built, its grounds laid out, its walls enriched with mural paintings and its pediments or pedestals equipped with sculpture: that is, chairs and tables, hangings and rugs, lighting fixtures and movable ornaments. Truly, "simple" is the inescapable word: the "simple problem" of creating beauty with these.

First-what inclusive name are we to give these objects? I cannot refer to them collectively and comprising the "decorative arts" as I consider (as of course do you) painting and sculpture also most eminently decorative. We find the term "allied arts" used. Allied to what?—certainly to architecture: but is it sufficiently definitive? The words "industrial arts" are in common use-but although such objects are produced by the industries we classify as artistic, dress and jewelry must also be included in such a category. "Minor arts" I cannot subscribe to-since so often one finds a bit of brocade or a Rhodian platter which stirs one's enthusiasm while many a painting or piece of sculpture moves it not at all. To label these "major arts" and those "minor" is to flatter one group and discriminate somewhat contemptuously against the other. Let us, for the time being, call them furnishings.

My task, therefore, is to discuss the furnishings of the building: the choice and placing of these so

that they produce harmony—in form and color—and have the added beauty of being adapted to their use.

Is this a problem which may be discussed in general terms? We can stress the fact that we desire unity in the resulting effect; that chair, table, carpet and curtain must each play its part in the symphony of the whole. And immediately the questions arise —what chair, which table, what type of floor covering, what kind of curtain?

Such questions must always have confronted the artist, but never can they have been so distracting as at present; never has the range of available material been so great. In the seventeenth century the designer had to decide whether he would choose green or gold, for instance; he did not have to weigh the relative merits of furnishings in the Greek or the Gothic, the Jacobean, the Georgian or the General Grant manner. Are we to be classic or Colonialshall we think in fifteenth century Italian modes or be strictly of the twentieth century? The researches of the archaeologist, the invention of photography, the marvellous development of the power-driven machine—these have so changed, so complicated the conditions under which we work that we wander distracted amidst the multiplicity of the resources at our command.

We are being told on every hand that we must express our own time: this period of mechanical wonders—the automobile, the aeroplane, the motion picture, the radio. Why, the critics say, do you not produce something new, something different? Wireless telegraphy is new-flying is new; give us, we pray, something new in your line. We might with justice reply—we will give you a new form of chair when you give us a new anatomy. Until that time it must keep the general characteristics which it had in the time of Rameses. Shapes and sizes of tables and bedsteads must continue to be determined by the shape and articulation of the human body. The critics indicate the "skyscraper" as an expression of our age-saying, go thou and do likewise; but fail to note that these towering structures of steel have been developed to meet a new need. The soaring masses of the Woolworth Building or the

Shelton Hotel show what the genius of our architects can accomplish in meeting new conditions. But are there, within these buildings, new needs insofar as furnishings are concerned? None whatever. The cry for novelty is based not on any necessity for the novel but on the desire for something different merely for the sake of being different. These gentlemen seem to tremble lest we do not live up to our opportunities; they fear that we are not expressing ourselves—as though self-expression were desirable in itself, regardless of what is expressed. It is the curse of our self-conscious age—this dragging into the limelight of every little talent which may be discovered and bidding it express itself merely that the newspapers may have another headline with which to joggle the jaded sensibilities of the readers. We must have startling headlines, whether there be adequate reason for them or not. So we must be different—the desirability, the value of the novelty is a matter which need not be considered.

Let us have done with these demands that in our furnishings we express our age. The creative spark will not burst into flame fanned by the "hot air" of the self-conscious seeker after the unusual. On such flashes-in-the-pan we must "turn the hose of common sense." Neither will the spark burn, as we all know, when fed only with the dry husks of archaeological data. We must plod on, learning from the mistakes of the past as well as from its achievements—taking thought that what we make be beautiful and suited to its purpose, and let a new expression come of itself—as it surely will when new needs present themselves.

Still, there remains the problem: what tablewhat type of rug? But need we care, so long as the objects are beautiful? We have outgrown the limitations of the "period room" era. We ask for harmony, not historical accuracy. We have all the ages from which to choose; but we now choose as masters, no longer accept like slaves. Though we may not have evolved—at least, in as yet recognizable form-a new style, we have achieved taste. Can the critics ask more than that? Even at the beginning of the century we were still somewhat uncertain of our judgment and therefore sheltered ourselves behind the unassailable dicta of authority. "This is pure Adam"-(those good young men); "this unquestioned Louis Quinze." We must walk in step with Owen Jones, else we stumble. Now, however, thanks to our architects, we walk upright and unafraid: we step out, assured that through the cultivation of our sense of fitness, of beauty, we need no longer the leading-strings of the past. Nor are we to be beguiled by the eccentricities of self-constituted leaders of one fad or another. We go quietly ahead and common sense is our guide; what comes will come, and we have done our best so long as we have been deeply sincere in our search for the best.

We do not need to be distracted by the multiplicity of the resources at our command. Rather, our achievements can be just so much finer because we have all the beauty of all the ages to choose from. The necessity of clear thinking, of high standards, of impeccable taste on our part is greater than ever before—for this very reason our work will have a beauty of which man has not as yet dreamed.

The furnishings of France and Italy, England and Spain which we study and adapt, graced the halls of kings. In our adaptations, by means of the lessened costs which come through quantity production, we offer the simple citizen of modest means the opportunity of living amidst surroundings more tasteful than those of royalty in former days. And in spite of many authoritative voices to the contrary—in spite even of the "comic strip"—I do not hesitate to say that in this new era in which the arts, as well as the governments, of all the world are slowly, but inevitably, joining forces for the common welfare, we shall achieve artistic standards higher than any the world has yet known.

It is obvious that the basic form of the chair must remain fixed-that tables and cabinets have but limited range so far as structural variations are concerned. And as soon as we cease to ask to what period a piece belongs and substitute the questions is it logical in construction, is it fine in line and color—we have, when these questions have been answered in the affirmative, all the knowledge we need. What matters it if it be Jacobean or Georgian (these are points which should interest only the dealer in antiques) or in the least self-conscious mode? We, concerned with creating beauty in an interior, demand only that it be suited to the harmony we have visualized. The dealer in antiques has always been with us-although in mediaeval times he dealt in saintly relics instead of Chippendale chairs—and I suppose always will be. But his gains will be greatly decreased when we grow courageous enough to say that an old piece is of no more value than a new, if they be equal in beauty. We have no further use for "period" furniture, as such -even though we may not have improved on it.

When we turn to lighting fixtures, we see what can be accomplished when our designers are confronted by new conditions. From the moment when the primeval torch was lighted until the invention of the electric bulb, fixtures were so designed that the flame should burn vertically—because, of course, it would burn no other way. When electricity was first introduced tradition was too strong for the designer and he placed—and still places—his bulb in a vertical position, as though from necessity. Slowly, however, it began to dawn upon him that the bulb would give light without reference to its position. So he began to vary the forms of his wall brackets and chandeliers—we must still so name

them, "electroliers" being an impossible term—and we now have lighting fixtures which are at once beautiful and logical, being designed with a clear understanding of their possibilities. That they are often fashioned in supposed conformity to an historic style is merely an indication of how loath some of us are to think for ourselves.

The basic principles of weaving have not changed in spite of the almost uncanny accomplishments of the Jacquard loom. Upon it we can reproduce the old patterns of those which express our times—if any such can be found. Have you, in this connection, seen the printed dress-silk which pictures the not-universally-accepted statement that "Gentlemen prefer Blondes?" It is not so to be recognized at first glance: it is clever and quite decorative. When, or if, worn, it should serve the wearer as the white-washed coal did the resourceful hostess: "it makes conversation," she remarked. Usually, however, we wish to have fabrics whose beauty will give pleasure rather than those whose oddities will excite comment.

In the field of textiles we have, save in two cases, structure which lends itself to almost any type of design we may desire. Therefore, fabrics afford a wide field for experimentation, and some of the novelties are interesting and may lead to worth while results. An unfortunate development of the present-day craze for the antique is the manufacture of damasks and brocades with what purport to be worn spots woven into them. The fabrics are, it is true, quite effective; but the logical mind is dismayed by such false quantities. The practice seems almost more reprehensible than the shooting of worm-holes into new-made furniture or the placing of hammer-marks upon silver which has been stamped out by a machine.

Two types of textiles have, so far, defied the almost miraculous imitative powers of the Jacquard loom: the rugs of the Nearer East and tapestries. In these two groups we find those particular qualities which may be given, it would seem, only by the brain and hand of the craftsman. The variations of color introduced by the weaver as the spirit moves him: the irregularities which give life to the repeated pattern: these subtle expressions of the personality of the artist have not, so far as I know, been successfully reproduced. The power-driven loom has, however, been made to do so many astounding things that I dare not affirm that the glory of fifteenth century tapestries or sixteenth century rugs will never be successfully imitated.

So numerous are the objects which may be grouped under the head of movable ornaments—glass, ceramics, cast or wrought metal—that one despairs of marshalling them into any semblance of an orderly array that they may be passed in review and their qualities commended or adversely criti-

cized. General statements are not possible; detailed discussion impractical; time is lacking for comment on the variations to be found in hand or machinemade wares. They must perforce be passed by without notice.

To some it seems necessary to praise the qualities to be found in the article made by hand and to refer somewhat contemptuously to the machine-made product. Such critics evidently forget that the machine is but an inanimate tool-doing what it was created to do. Mistakes have been made in demanding of the machine that which it was not fashioned to produce. The machine is not to blame. The fault lies in the man who created it to do one job and then expected it to do another. It is the designer who does not comprehend his tool—its limitations as well as its possibilities—who is at fault. We must still-must ever-train the designer. We hear much mournful talk of the passing of the craftsman. He is still with us-only with new and wonderful tools at his command: machines which can increase his output a thousandfold. But no machine can make a creative artist. The help the designer needs must come from those who train him.

Among those who have trained him none has been more helpful than the architect. For he is both artist and business man, at once the dreamer of dreams and the practical man who gives reality to his dreams. Not without reason did Reginald Blomfield give the title "The Mistress Art" to a book on architecture. Dealing with an abstract, not an imitative art, the architect points the way to clear thinking—and though the sister arts clothe themselves with familiar trappings or sublime imagery, they must, to survive, be founded upon the principles established by the mistress art. In structural truth, in the logical adaptation of the means to the ends desired, in the conventionalization of natureforms that they may harmonize with the building, architecture sets the standards.

These principles, therefore, you must keep before the craftsman. Architects should be on the board of every school where the crafts, as well as the other arts, are taught. Don't be deterred by diffidence; where you find a board lacking an architect, see that one is placed on it. It is also your duty to see that in training of the rising generation of architects a sympathetic knowledge of the artistic crafts is given. The students in the architectural schools need not hammer iron or cut and lead the glass for windows: they can, however, learn something of the limitations and the possibilities of the crafts which will play so important a part in the effect of their future productions. See that they get what Professor Ware of blessed memory used to give us at Columbia: an understanding of and love for all the arts.

Mr. Magonigle asked me to discuss the problem of disposing of light and shade and color in furnish-

ings in such a manner as to produce a beautiful effect. I have spent much time talking about the furnishings themselves but have said nothing about the problem which I was asked to consider.

The reason is obvious: I can find no theories generally applicable. I can repeat the obvious statement that we desire unity of effect—but each room is a problem in itself. The color and form of the individual pieces and the composition of these in the given space for the desired uses are matters which call for special and not general discussion. Is it a

banking room or a boudoir: is the ceiling high or is it low: is the chief entrance at the end or on the side? Until these and forty other facts are known, nothing can be said—save that we intend to create beauty.

Isaac Newton, on being asked how he had made his discoveries, replied: "By always intending my mind." That is the mental attitude we must have if we are to create beauty: the intention—the fixed determination always present—that, whatsoever we do, beauty is the result.

INTERIOR DESIGNERS AT THE ARCHITECTURAL LEAGUE

ONE of the features of the Architectural and Allied Arts Exposition, held recently under the auspices of The Architectural League of New York, was the exhibition of interior architectural products and house furnishings in booths in the form of completely decorated and furnished rooms. These rooms attracted an unusual amount of interest from the visitors, as they showed so capably how various products of both structural and decorative values might be incorporated into the design of an interior. Many of the booths presented original ideas in interior architectural design, while the traditional "period" room was, as ever, very much in evidence.

The booth occupied by THE AMERICAN ARCHITECT was designed to demonstrate in a practical

manner the relationship of structure to architecture and decoration, and to prove that the furnishings of an interior should take their place as components in the finished composition. There was noticed in the design of a majority of the other booths also a tendency to emphasize this close relationship of architecture to furnishings. The so-called "modern room" was represented by the exhibition of Wm. Baumgarten & Company, Inc., although we feel that this style interprets more the spirit of modern France than of this country. The room exhibited by S. Karpen & Brothers, while modern in the sense of the word that it bore no decided period influence, was designed purely on simple architectural lines, with specially designed furniture in harmony with the architectural treatment.





TWO VIEWS IN THE BOOTH OF THE AMERICAN ARCHITECT IN THE FURNISHING OF WHICH THE FOLLOWING FIRMS COLLABORATED: EDGEWATER TAPESTRY LOOMS, KANTACK & CCMPANY, PERSIAN RUG MANUFACTORY, SHAW FURNITURE CO.

THE AMERICAN ARCHITECT



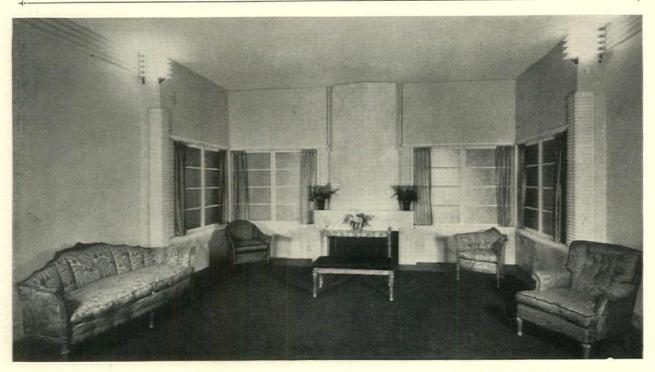
G. E. WALTER'S BOOTH FEATURED A MODERN PRODUCT WHICH AFFECTS PLAIN AND CARVED WOOD



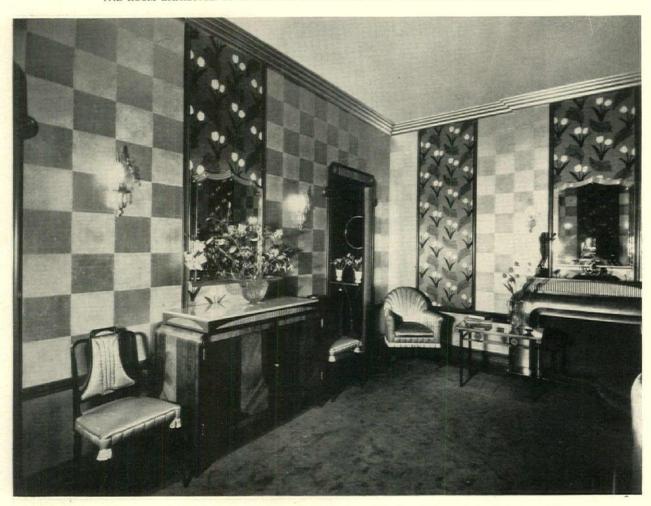
MORENE PRODUCTS COMPANY FEATURED ROUGH TEXTURED WALLS IN THEIR BOOTH



A GENUINE OLD FRENCH PANELED ROOM WAS EXHIBITED BY CARLHIAN OF PARIS, INC.



THE ROOM EXHIBITED BY S. KARPEN & BROTHERS WAS THOROUGHLY ARCHITECTURAL



ROOM IN THE MODERN FRENCH STYLE DESIGNED BY WM. BAUMGARTEN & COMPANY, INC.

"Thirty-five Years of Experience Proves The Value of Copper and Brass"



147 MILK ST. BOSTON

DIVISION OF CONSTRUCTION AND ENGINEERING Boston, Mass., January 8, 1927.

REFER TO EXECUTIVE

American Brass Company, Waterbury, Connecticut.

Our standard specification calls for the use of copper for flashings, counter-flashings, skylight construction, etc., and it is our practice to use brass or copper tion, etc., and it is supply systems in office buildings and pipe for hot water supply systems in office buildings as similar locations.

In power house design copper alloy is invariably used in hot water heaters, and in the condensers through

which raw water is pumped.

Our experience covering a period of more than thirty-five years has proved the value of copper for sheet metal where it is to be exposed to the weather and for copper or its alloy in piping where permanence against corrosion is the controlling feature.

Yours very truly,

THE dependability of Anaconda Copper, Brass and Bronze is safeguarded by the guaranteed purity of Anaconda mined and refined metals, and the hundred years' experience of The American Brass Company in manufacturing copper, brass and bronze products.

Eight conveniently located mills assure dependable coast-to-coast service. And mill-trained representatives stationed in many cities are at the service of architects in all matters relating to the use of copper, brass and bronze.

THE AMERICAN BRASS COMPANY

General Offices: Waterbury, Connecticut

Mills and Factories: Ansonia, Conn., Torrington, Conn., Waterbury, Conn., Buffalo, N. Y., Hastings-on-Hudson, N. Y., Kenosha, Wis.

Offices and Agencies: New York, Chicago, Boston, Philadelphia. Providence, Pittsburgh, Cleveland, Detroit, Cincinnati, St. Louis, New Orleans, San

Canadian Mill: Anaconda American Brass Ltd., New Toronto, Ontario

ANACONDA COPPER BRASS ANACONDA

THE LAW AS TO ARCHITECTURE

By CLINTON H. BLAKE, JR., of the New York Bar

OUR discussion this month is concerned more closely perhaps with the practicalities of the architect's practice in some particulars than it is with the strictly legal side of his practice. Any legal advice nowadays, however, which looks merely to the letter of the law and disregards the practicalities is not

likely to be overhelpful.

Many recent cases which have come to my attention have emphasized anew the problem which is presented to the architect when a client fails to make the installment payments which come due as the work of the architect progresses. In such a case, the architect must decide whether he will let the overdue payment run along, in the hope that it will ultimately be taken care of, or whether he will press the client for payment before proceeding further with his services. It is entirely understandable how an architect will hesitate to press his demands for payment in the fear that by so doing he will alienate a valuable or potentially valuable client. In this respect, he is faced with the same problem as confronts the lawyer, the physician and practically all other professional men. I have become entirely convinced, however, that the course of wisdom in the great majority of cases is for the architect to insist on payment of past due installments, before getting more deeply involved. The first point at which this issue is presented, ordinarily, is the point at which preliminary studies have been completed. The one-fifth of the fee thereupon falls due. In repeated cases, the client, either through an oversight or purposely, disregards the architect's bill rendered to him at this stage of the proceedings.

The architect is called upon to decide, therefore, whether he will proceed with the working drawings, leaving the bill for the sketches outstanding and unpaid in the meantime, or whether he will delay any real work on the working drawings and specifications until the client has settled the obligation which he has already incurred. In altogether too many cases the architect will decide to take a chance and will proceed with the working drawings and specifications, in the expectation and hope that the client will ultimately pay the bill already rendered. In many cases, these expectations will be realized and the bill paid and no harm will result. It is where this happy result is not attained, however, that the architect runs into real difficulties and is severely penal-

ized.

Every practicing architect knows how quickly a substantial amount of money may be expended in the preparation of specifications and working drawings. He will be extremely foolish, if he proceeds with this additional expense, while his prior bill remains unpaid, unless he has every reason to believe

that the client will take care of his obligations, without quibbling or difficulty. Of course, where the work is being done for a client of established responsibility and with whom the relations of the architect are such as to give the architect a reasonable assurance that the client will not attempt to take advantage of the situation and indulge in any sharp practice, the architect is taking only an ordinary business risk in proceeding with the work. A very different position is presented, however, when the client in question is a new client for whom the architect has not previously worked, or a client with whose business stability and conscience the architect is not well and favorably acquainted. In any such case, the wise course most certainly is to request payment for the work already done, before incurring new expense and laying out additional time and services on the next succeeding stage of the job.

This rule applies equally to architects with large practices and to architects with small practices and of limited means. It is perfectly true that the large architectural office can afford to carry outstanding accounts, where the small office cannot afford to do so. On the other hand, the amounts involved on the jobs handled by the larger offices, are far more substantial and the losses, if suffered, far more serious in dollars and cents, although perhaps not in comparison with resources, than in the cases of the

smaller practitioners.

In the last analysis, the architect is presented with the same problem, whether he preside over a large and successful office or is substantially a beginner in the practice of the profession. He will, I am convinced, be foolish to proceed with additional services and risk loss in time and money as a result, without insisting on payment for services already performed, in substantially every case where he has any reason to doubt the fairness or financial stability of the client. The argument that, by pressing for payment of a past due account, the architect may alienate the client sounds reasonable, but, when applied to cases of this character, is in reality unsound. If the client is honest and responsible, he will not object to the payment of an account which has become due and which represents money to which the architect is entitled for work already performed, in accordance with the terms of the agreement under which the work has been done. If the client is of a different calibre and of the type which is prone to take advantage of a situation, or one who is not inclined to deal fairly with those whom he employs, the architect will do well to learn this fact at the earliest possible date and not after he has piled up a heavier load of office expense, overhead and time.

It will be far better for him to have a show-down

SERVICE TO BUILDERS AND ARCHITECTS



THIS institution, founded in 1882, renders a service alike to the investing public, the builder, the architect and the community.

In the course of our development into a nation-wide organization we have built up a large, thoroughly trained and thoroughly equipped organization which passes on every plan submitted to us.

This organization, through constructive suggestions and exceptional technical knowledge, has often proved of practical and substantial benefit to architects and owners.

LOAN DEPARTMENT

S.W. STRAUS & CO. Established 1882 Incorporated

Straus Building 565 Fifth Ave. at 46th St. New York

Straus Building
Michigan Ave. at Jackson Blvd.
CHICAGO

Straus Building
79 Post Street, San Francisco



The Straus Hallmark on a bond stamps it at once as the premier real estate security.

immediately than to fool himself, by treating as good, accounts which may be uncollectible, and, which is far more serious, piling up additional expense and obligations on the strength of these accounts and on the assumption that a client who has not paid the first bill rendered to him will nevertheless promptly take care of future bills.

I have in mind, as I write, a number of specific instances—some applying to very large architectural firms, and some to extremely modest practitioners, which emphasize the soundness of the foregoing conclusions. A surprising number of cases come to me where the architect would never have experienced the difficulties which he has, if he had insisted upon reasonably prompt payment when it fell due, and had not elected to gamble on the responsibility or honesty of the client. Neither the architect of large means nor the architect of small means can, as a business proposition, afford to do this. Both from a legal point of view and from the point of view of sound business, he will do far better to insist that the client for whom he works abide by the terms of the contract between them, just as the architect abides by them. The architect agrees to give his services and does give them unreservedly as called for under the contract. There is no reason why the client should expect to have more license granted to him in observing the terms of the agreement or why the architect should feel it necessary, except in exceptional cases, to grant to the client a latitude in observing the contract which the client will not grant to the architect and which the architect will not seek.

LEGAL DECISION

UNDER the laws of the State of Pennsylvania, the County Commissioners were not authorized, without additional approval by other bodies, to enlarge or alter public buildings. The Commissioners made a contract with an architect to provide plans for and to supervise the work of construction involved in the alteration of a public building. On suit by the architect for his fees, the Commissioners pleaded that they were not authorized to make the contract. It also appeared, in connection with a claim by the architect, that at his suggestion the material for the building was changed from sandstone to granite, which involved an extra expense of something over \$50,000. It was testified to by the Commissioners in this connection that the architect strongly urged the change and, as an inducement to its adoption, stated that he would reduce his commission on the extra cost to 2% or to 21/2%. The witness was not clear which was the correct amount.

The court held that, as the Commissioners could not legally enlarge the building without proper additional authorization, they could not make contracts for that purpose, without similar authorization, and that the agreement with the architect to provide plans for the alteration of the building, etc.,

and supervise the work was just as much an agreement for a portion of the enlargement of the building as would be any other work or material performed or furnished in connection with such enlargement. The court further held that the agreement of the architect to reduce his fee, in consideration of the adoption of the granite, was based upon a good consideration, and that he would be held to this agreement: that, inasmuch as the witness could not testify whether the architect agreed to accept 2% or $2\frac{1}{2}\%$, however, on this additional expense, the architect was entitled to have the doubt resolved in his favor and to receive $2\frac{1}{2}\%$ accordingly.

The court further held that the cost of removing existing buildings and of testing steel, both of which operations were necessary in the work of construction, were properly part of the cost of the whole improvement, and these expenses should be included in the total cost, upon which the architect's fee was based. A claim by the architect for other services was held to be barred by the statute of limitations, inasmuch as action to enforce it had not been begun within the time limited by the statute.

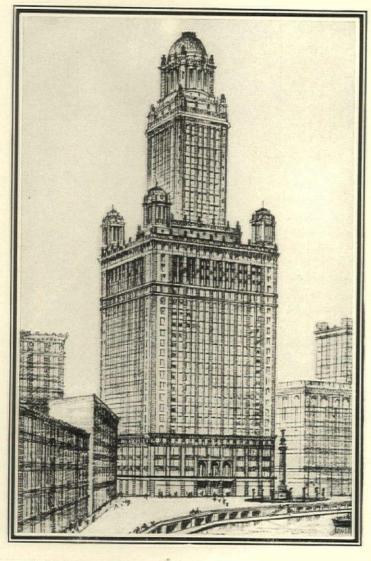
Osterling v. Allegheny County, 272 Penn. 458.

20

TENPENNY NAIL'S NAME GOES BACK TO DAYS OF IMPERIAL ROME

Manufacturers of nuts, bolts, screws, nails and other mechanical appliances in their efforts at standardization of names, numbers and sizes of their products have often been puzzled to account for the name or other designation identifying a particular thing. Often these names bear little or no apparent relation to the idea they are supposed to express. It would seem to be a matter of etymology rather than of business. Nails, for instance, are made and sold in various sizes under the designation of "pennies." It is a far cry from a penny—a piece of money—to a nail. There is apparently no relation between the two except, of course, in the matter of price, a general relationship applying to all articles bought and sold.

The penny system of designating the size of nails comes to the west by way of England. There are two explanations of its origin. One goes beyond early Saxon England to Imperial Rome. The Romans had a coin, the denarius, the abbreviation for which was "d." This abbreviation came into use in Britain for the pound weight. The "d" also is the modern abbreviation for the English penny. Its use in connection with nails is traced through the belief that in early days in Britain one thousand tenpenny nails-that is, nails of a certain size-weighed ten pounds. The other explanation is that one hundred nails of a designated size cost sixpence, one hundred of another size, tenpence, hence the names sixpenny, tenpenny nails and so on.



JEWELERS' BUILDING Chicago, Illinois

Carney Cement was used for all the mortar in this project.

Architects—Glaver & Dinkelberg, Contractors—Starrett-Dilks Co., Chicago, Illinois.

REPRODUCED FROM THE ORIGINAL RENDERING THROUGH THE COURTESY OF MESSRS. GIAVER & DINKELBERG.

VERY often, we find members of the profession under the impression that Carney Cement is a specially prepared or patented bricklayer's mortar cement. This is not the case. Carney Cement is a refined mineral of extreme adhesive and plastic qualities, found only in the vicinity of Mankato. Nothing is added to Carney Cement during refinement—nothing but sand and water need be added to Carney Cement at the mortar box. For more than forty years, the effectiveness of this simple mix has been demonstrated by use in the world's largest projects.

THE CARNEY COMPANY
DISTRICT SALES OFFICES: CLEVELAND, CHICAGO, DETROIT, ST. LOUIS, MINNEAPOLIS

Specifications: 1 part Carney Cement to 3 or 4 parts sand depending upon quality of sand.



BOOK NOTES

THE STUDY OF ARCHITECTURAL DESIGN*

WITH SPECIAL REFERENCE TO THE PROGRAM OF THE BEAUX-ARTS INSTITUTE OF DESIGN BY JOHN F. HARBESON, A.I.A.

HIS is a very timely and very valuable book, not that it presents new material so much as it tells the student and the architect how to use his material, where to find it and what are the procedures which will help him to use them right. It is founded on the Beaux-Arts method, but for a book so committed to precedent, it is quite free from the prejudices which every Beaux-Arts student has to discard sooner or later if he is to practice in this country, and Lloyd Warren's introduction where he urges the student not merely to take what is set forth in the volume, but to read between the lines, is indicative of the spirit in which the whole book is edited. The chapter on Time Schedule is excellent, though anyone who is familiar with the actual methods of the Beaux-Arts will remember how seldom the boys in the studios ever got their drawings done on time. Then there is a very fruitful chapter on the use of documents, though the books referred to are mostly the French standard volumes, excellent in themselves but books probably least referred to by the American architect. I venture the statement that our architects today find more in the McKim books, and especially in the current work as shown in THE AMERICAN ARCHITECT and other publications, than we ever do in Letarouilly or Vignole. We solve our problems better than the French. The best architecture in the world today is in this country and if our architects are able to handle the real problems as successfully as they do, not a small part of their success is due to the fact that they have been so generally grounded in the methods of the Ecole des Beaux-Arts, even though these methods do not apply directly to our own problems. This fact is recognized in the volume in question when they mingle with the purely academic problems some of the eminently successful solutions of real design which have taken shape here. The actual work of the Ecole as far as relates to drawings and design is no longer wholly applicable to our methods. It is safe to say no Grand Prix plan ever made was ever practicable, however we may twist that term, but our buildings must be practical. In no period of the world's history has there been such a freedom of choice and variety and bewildering reach of possibilities as in the American architecture of today; consequently with the Ecole training as a background in methods of thought and with our own precedent to guide us, American architecture has gone ahead enormously while French architecture is all the time held back and trammelled by tradition.

We have better libraries, better periodicals, wider range of vision, quicker response to new ideals, but that does not lessen our debt to French methods and French training which are really at the base of all of our development, and there is no one book which shows so clearly how these methods can be applied to American architecture as does this volume by Mr. Harbeson. The chapter on planning, on the methods of the atelier, the various ways in which studies can be presented, and finally the very praiseworthy chapter on Psychology of Success deserves special mention. It is a unique topic but treated in a perfectly usable, practical manner and ought to be read by everyone who is interested in good architecture. The book is not a compendium of architectural design so much as a perfectly straightforward, successful and complete presentation of architectural methods in design, and is to be thoroughly commended. C. H. BLACKALL.

ORIGINAL VIEWS OF LONDON AS IT IS, BY THOMAS SHOTTER BOYS, 1842*

WITH DESCRIPTIVE NOTES BY E. BERESFORD CHANCELLOR

THERE has been a very marked revival of interest in the last few years in lithographs of the early part of the last century. This revival has been felt in our architectural illustrations. The work of men like Eggers has in many ways reproduced the quality, the relation of halftones and the incident lights and shadows in much the style that was worked out so satisfactorily by Haig and many others of that period. Lithography itself is coming back as a pastime of some of our best architects, and one of our most prominent architects recently made the general statement that if he were to begin his career again, he would elect the style of rendering which is so marked a feature of the old lithographs. To anyone who cannot possess the originals this reissue of the complete set of the scarce and valuable delineations of London will be highly appreciated. The present generation hardly knows Boys even as a memory He was a most prodigious workman, starting in the early years of the 18th century, establishing very speedily a reputation as a draftsman and accomplishing a perfectly extraordinary amount of work, mostly in the line of lithograph drawings for publication. In 1842 he was at the height of his powers and collected together these twenty-five views of London and vicinity, all of them lithographs, most of them in color, and exhibiting an ability as a draftsman and as an artist, which gave his work a very strong character. The reproductions in this volume are on a smaller scale than the originals, are all in black and white, but have preserved a very

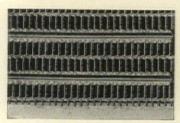
^{*}Published by The Pencil Points Press, Inc., New York. Price \$7.50.

^{*}Published by The Architectural Press, London



"Expansion" Corner Beads save time and insure straight, permanent corners. Milcor Stay-Rib metal lath is a great plaster saver.

Stay-Rib Metal Lath No. 1



Netmesh Metal Lath



Expansion Corner
Bead No. 1
(Pae'd)

Expansion
Casings



Plastering on MILCOR Metal Lath Made from ARMCO Ingot Iron is impregnable to attacks that ruin ordinary plastering.

MILCOP METAL LATH for SAFETY



Nearly 6000 firm fingers in every square yard of plaster get an everlasting grip on the metal strands of Stay-Rib Lath. Above is shown the back surface of the lath locked in the grip of these plaster "fingers".

FINGER GRIPS!

PLASTERING on a base of Milcor Stay-Rib Metal Lath, holds with a giant-like, never-let-go grip. Through the strong, rigid network of this supreme metal lath the soft mortar oozes and then hardens into myriads of adamantine "fingers" that permanently lock every inch of walls and ceilings to the lath. Plaster thus reinforced can't loosen or crack. It retains its original beauty, protects against fire, and remains safe permanently.

Safeguard your clients. See that Milcor Stay-Rib or Netmesh Metal Lath and allied products protect them. Samples on request—no cost or obligation.

MILWAUKEE CORRUGATING COMPANY, Milwaukee, Wisconsin Chicago, Ill. Kansas City, Mo. La Crosse, Wis.

MILWAUKEE CORRUGATING CO.	
Milwaukee, Wis.	
Please send your technical data book-"The M	V

Please send your technical data book—"The Milcor Manual"
—on firesafe construction.

☐ (Check here if you want samples, too.)

Name____

City & State



considerable part of the charm of the originals and form a most interesting collection of views of London as it was seventy-five years ago. The accessories, the human beings, the vehicles and the street life are worked in quite in the vein of the old lithographers, and besides being a very unique collection of architectural documents, they have a social interest in that they reproduce very faithfully the customs of the times and constitute a fine presentation of early Victorian society.

C. H. BLACKALL.

20

PRACTICAL STRUCTURAL DESIGN

ERNEST McCULLOUGH, consulting engineer, is the author of an engineering volume that, as the title states, is a book on practical structural design. A third edition, following the editions of 1917 and 1921 of this work, has recently been issued. This book on timber, steel and concrete structural design has been prepared especially for the use of architects, builders, engineers and draftsmen. The author, an engineer of experience, has brought every chapter of the book up to date in the revised edition, extended various chapters and added two new chapters, one on miscellaneous data and one on reinforced concrete. The illustrations are clear and sufficient in number to support the text, which is written in a style simple and understandable to the average man.

Practical Structural Design in Timber, Steel and Concrete. By Ernest McCullough. Third edition, 416 pages, 224 illustrations, size 6 x 9 inches, bound in cloth. Published by Scientific Book Corporation, 15 East 26th Street, New York. Price, \$4.00 net.

20

DESIGN OF CONCRETE STRUCTURES

A SECOND edition of Urquhart and O'Rourke's Design of Concrete Structures has recently been issued. L. C. Urquhart is professor in charge of structural engineering, Cornell University. C. E. O'Rourke is assistant professor of structural engineering, Cornell University.

This widely used text book has been thoroughly revised. We learn from the preface that the chapter on plain concrete has been amplified and that the chapters on columns and continuous beams and building frames have been entirely rewritten. Illustrative problems have been revised or new ones have been added to conform to the higher working stresses now frequently allowed in specifications. The illustrations used throughout the book are clear and well drawn. The text is written in a clear and understandable manner and covers the design of concrete structures thoroughly.

Design of Concrete Structures. By L. C. Urquhart and C. E. O'Rourke. Published by McGraw-Hill Book Company. Inc., New York City. 501 pp. Illustrated. Size 6 x 9 1/4 inches. Price \$4.00.

BUILDING MECHANICS

Books treating on the subject of mechanics or the science of forces and their effects as applied to building structures are often based upon the supposition that the reader has made a thorough study of mathematics and physics. A sound foundation in these subjects is highly desirable. For those lacking such training and for those who do not have occasion to apply their knowledge of mathematics and physics constantly, literature on building mechanics written in a manner easily understood is highly desirable.

A volume of this type, entitled Building Mechanics, has been written by W. G. Sheppard, formerly lecturer at the London County Council School of Building, Brixton. The work is based upon the author's lectures to elementary students. As a result, the text, which is written in language simple and easily understood, forms an excellent introduction to the mechanics of structures. The book contains thirteen chapters and three appendices. Among the various chapters covering the subject of the mechanics of structures are those on concurrent forces; framed structures; stress, strain and elasticity; bending and shearing in open-work beams; eccentric loads and stability; struts; and rivets.

Building Mechanics. By W. G. Sheppard. 264 pp. Illustrated. Size $5\frac{1}{2} \times 8\frac{3}{4}$ inches, bound in buckram. Published by the Oxford University Press, American Branch, New York. Price, \$4.00.



SAINTS AND SERAPHS GROUPED AROUND THE GLOBE AND THE CROSS AT THE TOP OF THE CHURCH AT VILLEMOMBLE (See article on Page 371)



STARTING with the roof and going down to the foundation line—you must have a harmonious color combination or the entire effect may be spoiled. The same is true of the interior—colors must not "clash"—they must not "jar".

Selecting complementary colors has been reduced to a simple science with Pee Gee Color Selectors (one for exteriors, one for interiors—both pocket size).

Helping your client Select the Color becomes a most pleasant task and it now requires but a few moments—all of the assembling and grouping of colors has been done for you in advance.

Good paint is an economy—it pays for itself many times over in the additional service it renders and the protec-

There are other manufacturers who make good paint—there are none who make any better than that which bears the Pee Gee trademark. It has earned its reputation in the past sixty years.

Peaslee-Gaulbert Co.

Incorporated

-LOUISVILLE · ATLANTA · DALLAS · HOUSTON.





Pee Gee Mastic Paint

For home exteriors. Retains its luster long after inferior paints have gone dead. Economical because of its great covering capacity and unusual durability.

Pee Gee China Enamel

With charming effect Pee Gee China Enamel Gloss White is used on doors, stairways, pillars, wainscoting, and all interior or exterior woodwork. It gives a smooth hard, brilliant finish that does not yellow with age. Also made in various tints and eggshell finish.

Pee Gee Flatkoatt

Beautifies the walls and ceilings of the home. Made in a rich range of shades to match any decorative scheme. Durable and sanitary, this oil paint dries with a flat, smooth, velvety finish. Various decorative effects are easily produced. Easily and quickly cleaned.

COMPETITION FOR A HOUSE AND GARAGE OF NATIVE WOODS

Announcement is made of a nationwide architectural competition for designs for a house and garage to be built principally of wood. Cash awards to the extent of \$3500 are offered by C. W. Stimson, prominent Seattle lumberman, and the West Coast Lumber Bureau. This contest will be sponsored and under the auspices of the Washington State Chapter of The American Institute of Architects, and will be known as the West Coast Woods Architectural Competition. It is open to any architectural firm, individual architect, designer or draftsman in the United States. J. Lister Holmes, A.I.A., of Seattle, has been selected as professional advisor. The competition will close August 1, 1927. Prizes will be awarded as follows: First prize, \$2000; second prize, \$500, and the first ten designs receiving honorable mention will be awarded \$100 each. Copies of program and information concerning the woods included in this competition can be obtained from the professional advisor. All other communications will be answered through the medium of the press only.

_

NEW CHAPTER, A. I. A., FORMED IN HAWAII

A CHAPTER of The American Institute of Architects has been formed in Hawaii, it is announced by Milton B. Medary, Jr., Philadelphia, president of the Institute. The charter was granted as a result of a petition signed by Hart Wood, C. W. Dickey, W. L. Emory, M. H. Webb, Ralph A. Fishbourne and Edwin C. Pettit.

Hawaiian architects have previously been members of the San Francisco Chapter. The Institute now embraces fifty-seven chapters, with a membership of 3,000.

200

BIRCH BURDETTE LONG IS DEAD

It is with a feeling of the most profound regret that we have to record the death of Birch Burdette Long. His was an outstanding personality, and the fine characteristics he displayed in his intercourse with his fellows were equally well shown in the spontaneous and artistic qualities of his work.

Long had only just fairly started on a professional future that would have carried him far toward the highest artistic planes. He combined in an unusual degree a fine sense of form and color. Black and white artists are more often less successful when handling color. But Long was good in every medium he chose to work.

Born forty-nine years ago in Columbus City, Ind., he later worked as an architectural draftsman in Chicago, during which period he won two traveling fellowships. On his return to America he

established himself in New York City, where he soon became recognized as one of our greatest renderers and architectural artists. Later he took up the decorative phase of his work and by a number of splendidly executed examples in oils, achieved a reputation that at the time of his death had brought him many important commissions. He painted the decorations in the William Penn Hotel at Pittsburgh and a series of panels of the history of New York City. He also painted a series of canvases depicting a proposed reconstruction of King Solomon's Temple, which were in part illustrated in this journal at the time of The Architectural League exhibition, two years ago.

Mr. Long is survived by his wife and mother.

ATLANTIC TERRA COTTA

Atlantic Terra Cotta, the monthly publication of the Atlantic Terra Cotta Company, 19 West 44th Street, New York City, is, in its February issue, an outstanding production and would be a valuable pamphlet for every architect to have at hand for ready reference. It illustrates the Philadelphia Museum of Art, of which Horace Trumbauer, C. C. Zantzinger and C. L. Borie, Jr., are associated architects. There is an effective frontispiece in color, showing the keynote for the polychrome treatment of this important building. There is also a full size plate of a detail of the pediment which formed an important feature of the recent Architectural League exhibition.

These monographs are becoming increasingly valuable, and a year's issue presents an opportunity for reference on many important architectural details. As these copies may be had for the asking, there is no reason why the profession should not avail of an opportunity that is very much worth the slight effort necessary to procure them.

A COMMUNICATION

Editor, THE AMERICAN ARCHITECT:

THE reproductions of St. Joseph's Cathedral in Wheeling, in your February 5th issue, show the building to possess sculpture and murals of particular interest and distinction. It is to be regretted that credit was not given to the artists who executed these, particularly as they are of such unusual excellence. The collaboration of artists of distinction with architects is so unusual and so worthy of encouragement that the fact should, I believe, be called to your readers' attention.

Chicago, III. BARRY BYRNE

PERSONAL

L. G. Scherer Company has moved its office from 3106 West Seventh Street to 1510½ North Vermont Avenue, Los Angeles, Calif.



AMERICAN ARCHITECT

M



WITH WHICH IS CONSOLIDATED THE ARCHITECTURAL REVIEW

VOLUME CXXXI

COURTYARD IN HISTORICAL MUSEUM, HAMBURG

APRIL 5, 1927

NUMBER 2518

CONTENTS

THE UTILIZATION OF RECLAIMED MATERIALS. AN
ILLUSTRATED EDITORIAL BY Alfred C. Bossom, F.R.I.B.A 419
TRAVELING WITH A FOUNTAIN PEN-V Irving K. Pond. F.A.I.A
ARCHITECTURE AS A RECORD OF CIVILIZATION . F. M. Mann
A Group of Buildings of Moderate Cost
STRUCTURAL PLAN AND PURPOSE OF A ROOM ARE THE BASIS OF INTERIOR ARCHITECTURAL DESIGN
Passenger Station at Buffalo, N. Y., for the New York Central Railroad Alfred Fellheimer
SEPTIC TANKS FOR UNSEWERED HOUSES W. A. Hardenbergh
PLATES
MASONIC TEMPLE, St. Louis, Mc
"HIDDENHOME," ITHACA, N. Y., HOUSE OF George Young, Jr., and Helen Binkerd Young 5 Plates
THE BREAKERS HOTEL, PALM BEACH, FLA
Martin & Lloyd I PLATE

OWNED AND PUBLISHED BY

THE ARCHITECTURAL AND BUILDING PRESS, INC.

E. J. ROSENCRANS, President and Treasurer

FREDERICK S. SLY, Vice-President

Publication, Editorial and Advertising Offices: 239 West 39th Street, New York City

EDITORIAL DEPARTMENT

WILLIAM H. CROCKER, Editor
BENJAMIN FRANKLIN BETTS, Associate Editor
R. W. SEXTON, Associate Editor, Department of Interior Architecture
E. K. BRUNNER, Editorial Assistant

Board of Directors

H. J. REDFIELD

E. J. ROSENCRANS FREDERICK S. SLY PAGE A. ROBINSON H. H. MINER

G. E. SLY

Western Office: First National Bank Building, Chicago, PAGE A. ROBINSON, Manager London Office: DORLAND HOUSE, 14 Regent Street, S. W. I.

Yearly Subscription in the United States and Possessions, Canada, Mexico and Cuba, Six Dollars. Other Countries, Eight Dollars,
Payable in New York Funds. Single copies (Regular Issues) 50 cents.

PACIFIC HEATED



The Barry, Chicago. Heated by 4-15,500 sq. foot Pacific Oil Fired Boilers.



The Cornelia, Chicago. Heated by 2–20,500 sq. foot Pacific Smokeless Boilers.



The Seneca, Chicago. Heated by 3-15,000 sq. foot Pacific Smokeless Boilers.

Large building operators are standardizing more and more on Pacific Steel Heating Boilers as evidenced by the three great Chicago apartment buildings illustrated here.

These structures represent the highest development of the modern apartment hotel. Every provision has been made for the comfort of the tenants and the smooth, trouble-free operation of the mechanical equipment.

Erected by Collins, Murphy and Jackson, Realtor-Builders; financed by S. W. Straus & Co. Architectural planning and designing by Robert S. De Golyer on the Barry and Cornelia—D. H. Burnham, on the Seneca. All three buildings are heated with Pacific Steel Heating Boilers installed by the Davis Construction Co.

Pacific Boilers have earned this striking recognition solely through establishing unusual performance records in actual operation over a period of years.

Write for catalog, stating type of buildings in which you are interested.



THE PUBLISHERS' PAGE

WANT to direct attention to two sections in this issue—Topical Architecture, and Buildings of Moderate Cost. Neither is a new feature. In fact, as time as to age is measured in this country, Topical Architecture is now quite a quarter century old. Up to about 1906, and beginning about 1900, the publishers of THE AMERICAN ARCHITECT issued monthly a magazine with a minimum of text and a maximum of illustrations. The feature of that publication was that each issue presented but one topic; hence the name, Topical Architecture.

No one will know better than the editors and publishers of an architectural magazine the changes that occur in the subscriber's point of view. Where at one time, even the man practicing in small cities and towns was as insistent on the presentation of the same monumental buildings that more seriously interested his brethren in the large cities, the same reader now demands all of that,—and something more. He feels that if he is to keep in step with the progress of his profession, he should also have something more nearly in line with his own normal practice. But it is not in the mass that he is so directly interested, but in the details of design.

Undoubtedly that feeling as to the true mission of an architectural magazine was present in 1900 when Topical Architecture was first published. And during the elapsed quarter century, after many incursions into other fields, the majority of readers of architectural magazines require practical exemplars of the trend of modern detail to an even greater degree than they do planning and designing. Believing these things to be true, the publishers renew in this issue, the feature of Topical Architecture, be-

gun in 1900. The publishers also believe that this section will be of great practical value. The usual magazine will in future carry the designation of Part I. Topical Architecture will be called Part II. It will consist of a four page insert. No issue will be complete unless it carries both Parts I and II.

The topic presented in this issue is Stairways. April 20th will deal with Casement Windows; May 5th with Interior Doorways and May 20th with Mantels. Subsequent topics will be announced later.

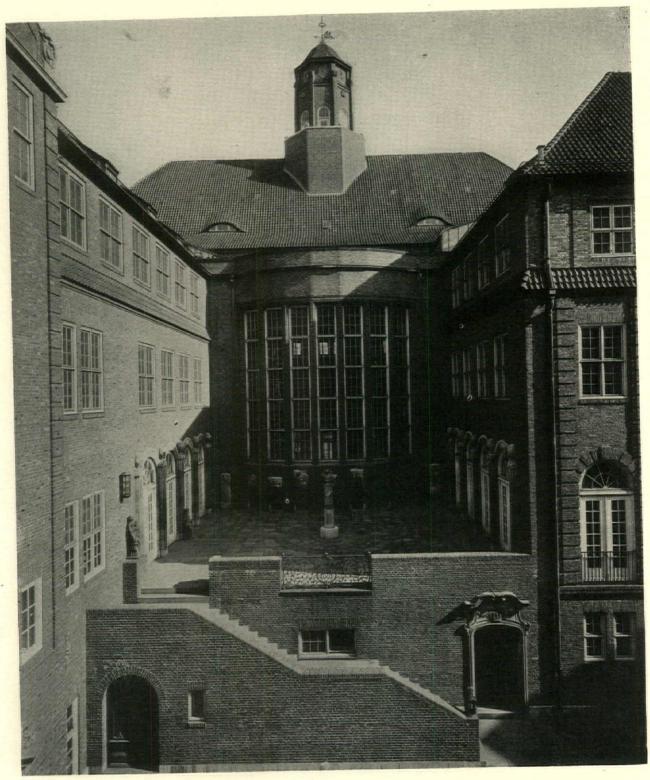
20

The second feature referred to, Buildings of Moderate Cost, is also not a new one. It was first begun in this journal some two years ago. That the idea was a good one was proven when our esteemed contemporaries immediately copied it, and in one instance actually appropriated the name we gave this section. If our ideas as to features are so really good, we do not very seriously object to their being copied. The ethics of journalism, considered broadly, demand that when one publication copies another, it make due note of the source. If our contemporaries, in this instance and others we could cite, would add a line, "as originally suggested by THE AMERICAN ARCHITECT," we would be quite content.

As first put forth by us, Buildings of Moderate Cost was not intended as a feature of every issue, but because of the interest in this section, it is now decided to make Buildings of Moderate Cost a feature of each issue, thus, as we said before, keeping every phase of architectural practice in every issue and thus serving every subscriber to the fullest extent.



HOUSE AT "WOOD ACRES," NEW ROCHELLE, N. Y., ESTATE OF HON. FREDERICK WALDORF



COURTYARD IN HISTORICAL MUSEUM, HAMBURG

EVERY DOORWAY, CARVING, METALWORK, ETC., IN THIS BUILDING CAME FROM SOME OTHER STRUCTURE BEFORE IT FOUND ITS RESTING PLACE HERE



THE **AMERICAN** ARCHITECT

FOUNDED 1876



EDITORIAL COMMENT

THE UTILIZATION OF RECLAIMED MATERIALS

An Illustrated Editorial By Alfred C. Bossom, F. R. I. B. A.

Contributing Editor

WITH New York being pulled down over night and rebuilt the next day, and the national cry being "Step lively for time is money," it is natural that the inquisitive investigator should ask "What is done with the beautiful material of the pulled down buildings?" New York callously answers "Noth-

ing is done about it."

When we see the Vanderbilt house being smashed down with sledge hammers to make way for very obvious commercial structures, it seems like a sacrilegethat house which was designed with such loving care and which had been built as an example of the best America could produce, was a landmark that marked a period in American progress, and when we saw those wreckers put their sign out to batter down that magnificent place with the same remorseless energy that they would have adopted on a pest house, I think it made us all shudder a little. It seemed as though we were losing an old

friend. It was a sacrifice. I mention this as but one example, literally among thousands, that are daily taking place throughout the country and which are taking away the possibility of the development of a respect and tradition for what has gone before.

We can learn very much from our cousins across

the Atlantic ocean on matters of this sort.

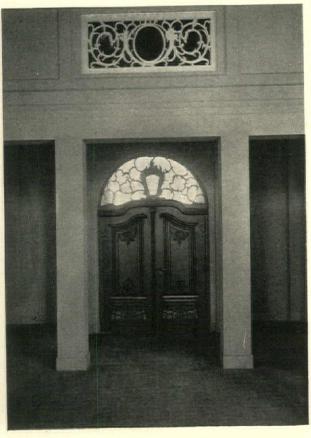
In France, when a charming old residence by the swing of time's pendulum finds itself surrounded by a rapidly growing commercial district, it is not butchered and thrown to the waste pile, but a great effort is made to readapt it to modern requirements without destroying all of the community's architectural heirlooms. The Bank of France has done this with particular success and housed its branches with great dignity, in consequence.

In England, when these fine works of the forefathers are due to be replaced, they are taken down and re-erected on some appropriate site, or



A DOORWAY IN HAMBURG









THE EARLY ENTRANCE DOORS OF THE HANSEATIC TOWNS WERE ALWAYS ELABORATELY TREATED, PARTICULARLY THOSE OF THE 18TH CENTURY, FREQUENTLY IN CONTRAST TO THE REMAINDER OF THE FACADE. MUCH FREEDOM WAS EXERCISED IN THE TREATMENT OF THE TRANSOM OR FANLIGHT THROUGH WHICH THE INTERIOR LIGHT OF THE HOUSE SHONE, NOTIFYING THE PASSERBY THAT ALL WITHIN HAD NOT YET RETIRED FOR THE NIGHT. HERE ARE EXAMPLES OF RE-USED DOORS IN HAMBURG WHICH MIGHT IN AMERICA, UNDER OUR PRESENT SYSTEM, HAVE GONE TO THE JUNK PILE

if of sufficient charm taken to a museum and stored. We all remember the famous Temple Bar, as it was called, that used to span the Strand. The growth of traffic made this an impediment to the citizen's life, so it was re-erected in the country.



AN INTERIOR DOORWAY, NOW IN THE HAMBURG MUSEUM, WHICH LOOKS AS THOUGH IT HAD BEEN MADE FOR THIS PARTICULAR SPOT

Germany also has shown us great examples of architectural preservation and thrift, as one may so term it, for when Hamburg had its devastating fire in 1842, everything was not destroyed. Many delightful old doorways, pieces of carving and windows survived. These were all most carefully gathered together and stored at the time for future use.

Again, as commercial requirements and prosperity necessitated new thoroughfares being cut in

many directions across over those old fleets or canals. thus demolishing many century old buildings of that German city, the fine material was always retained, due to the demand of the public-spirited citizens that they should not allow these familiar and valued possessions to be destroyed, simply for the sake of a little trouble or the delay of an hour or two, to be lost to them forever. All such items were carefully held, some in groups and some by private owners, and when Fritz Schumacher, the city architect, started his construction work in so many directions, he found a most ready response among the public-spirited citizens to aid him, by surrendering to him these works of architectural antiquity, so that he might re-use them in a manner appropriate to their nature. His great ingenuity and ability came into play, and in very many instances he was able to use these old pieces with marked success.

In the Hamburg Historical Museum, one of that city's finest modern architectural buildings, practically every door, both internal and external, originally stood in some other spot, and the walls of this quite fascinating building form a very appropriate background to Hamburg's old architectural friends—carvings have been inserted in the walls—doorway treatments and mouldings have been re-employed—and, when in their new positions, seem as happy as if they had been there all their lives.

America has a lot to gain by intercourse with these older countries, for if we go ahead destroying promiscuously and with total irresponsibility to satisfy the rapacity, so to speak, of real estate speculators, all of the charm and delight of New York's yesterday will have gone beyond recall.

It would be no difficulty to spend just a few more minutes and a little care to preserve for the future generations so much that has become a tradition of acceptedly good architecture in this great country.

If America is ever going to create a tradition in a heterogeneous population, a respect for the law and a unity in point of view, surely it is vital that everything, whether good, bad or indifferent, that has been made for more than five years should not be destroyed without thought. We can grow a little more wheat or get a little more oil, but we cannot reconstruct the works of art, once the artist is dead and the work itself destroyed.



WORKING PHOTOGRAPHS—SERIES II
FROM THE ORIGINAL NEGATIVE BY DWIGHT JAMES BAUM, ARCHITECT

TRAVELING WITH A FOUNTAIN PEN-V

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

Past President, The American Institute of Architects

As the end of this shadow cruise is approaching, when I must bid the gentle reader a fond farewell and cease my dissertation on remembered sights and sounds, it is only fair to state that not throughout the entire period of the real cruise did I sit at table facing a blank wall and separating two ladies who without my presence might have been, and indeed afterwards were, mutually en rapport. The situation existed during that first meal only and then fate did better by me than I deserved and placed me at table with the cruise director and the staff lecturer, an erudite young student of affairs who is in the way of becoming known. Now and again other cruisers of either sex shared our board but not enough to mar the serenity in which we three generally (and I alone not infrequently) were enveloped. With that satisfactory picture before us we may bid farewell to the S. S. Samaria and to a majority of its genial crew. We last sighted the Ship as it steamed out of the harbor of Cherbourg homeward bound; we, in the tender, headed for Paris. The homeward voyage of two score congenial spirits of our party was made in the S. S. Berengaria which is equipped with a fine swimming pool and a gymnasium in which a full grown man could be active: and so my "gym" suit was taken out after its three months' period of retirement and put into service. Mine, I think, was the only real athletic garment on board throughout the cruise. "Sport" clothes were plentifully in evidence on deck and ashore. But "sport" clothes in general are only a source of amusement to those who really do things with the body. They don't have to advertise in that manner. I got more entertainment in watching the "shapes" of men in sport clothes on deck than any London bus-man ever got, even before he became inured to the sights incident to his calling. One day in the



IN THE EARLY MORNING, WITH RAIN AND CLOUD VEILING THE HILLTOPS AND UNIFYING THE TRINITY OF EARTH, AIR AND WATER, WE VIEW THE HARBOR OF TOULON AND THE FRENCH FLEET STANDS AT ATTENTION WHILE WE SKETCH

Mediterranean, I remember, one Palm Beach suit appeared on deck immediately to be withdrawn. For there was but one day, and of that a space of about only two hours, in the Valley of the Kings, when winter clothes were not in order. Egypt and North Africa call for warm clothing and the Holy Land and the North shore of the Mediterranean call for rain clothes as well. This, of course, for the months of February and March: April as one goes northward is to be included. With these few lines I dis-

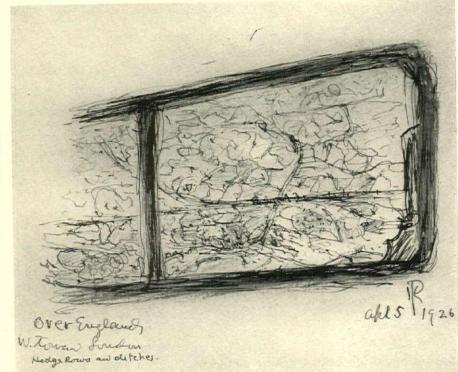


IN THE SHADOW OF THIS MIGHTY ROCK, ON OUR OUTWARD COURSE, WE SAW THE BRITISH FLEET PREPARING FOR ITS MEDITERRANEAN MANEUVRES. THE LION SLEPT AS, HOMEWARD BOUND, WE BADE IT FAREWELL

miss the materialistic side of the cruise and come back to those things which call to the spirit.

The bank holiday crowds of England are a study for the humanitarian. The Eastertide demonstration is one of the most interesting. Private life breaks the barriers of its confines, and pouring out of cottage and hall, in hamlet and in city, it overflows the public domain and spreads even beyond the national borders. Extra channel boats and extra over-channel planes were requisitioned to carry those "trippers" who sought the Continent. Paris hotels were inundated-galleries and churches were filled to suffocation. During Easter week it was as though every human microbe and protoplasm, and animalculæ, felt the stir of new life and sought to get, all at once, out of the indoor dark into the outof-door sunshine. It was because the holiday humans were these undeveloped primitive things rather than fully matured specimens of the race that the crowds were so fascinating to the superior observer (such as in his own eyes every individual member of the throng was). It was, as I have said, on Easter Monday that I flew over from Paris, and landed on the field of Croydon on the outskirts of London. From the landing field to Piccadilly Circus every square inch of moor and fen, of hollow and health.

AT THE CHANNEL'S EDGE WE SOARED ABOVE FOG AND CLOUD AND WERE FOR A TIME LOST TO THE WORLD. THEN, AS THE WEST WIND DIS-PELLED THE MISTS, THE SUN SHONE BRIGHTLY
OVER GREAT BRITAIN—
FOR THIS DAY AND TRIP
ONLY



20



A CHARMING LITTLE
MAIDEN ON ONE ROLLER
SKATE, ITS MATE BEING
ON THE FOOT OF A
YOUNG BOY COUSIN WHO
HOVERED ABOUT,
LEANED ON THE STONE
PARAPET AT MY RIGHT
ELBOW AND MADE DELIGHTFUL CONVERSATION WHILE BIG BEN
BOOMED INTO THIS
PICTURE



RATHER A GOOD IMPRESSION, I THOUGHT, OF THE VICTORIA TOWER AND ITS IMMEDIATE SURROUNDINGS. WITH DETAIL ELIMINATED ONE CAN APPRECIATE HOW THOROUGHLY ENGLISH THE PILE IS IN MASS AND COMPOSITION

20

20

I STAND IN A DOORWAY AT THE CITY END OF BLACKFRIARS BRIDGE, IN A GENTLE RAIN WHICH MOISTENS MY PAPER, AND LOOKING INTO QUEEN VICTORIA STREET, SKETCH A SCENE NOT UNLIKE THE FAMILIAR ONE AT LUDGATE CIRCUS: EXCEPT THAT "LORD TIMES" OF LONDON OCCUPIES A PROMINENT POSITION IN THE CENTER OF THIS PICTURE

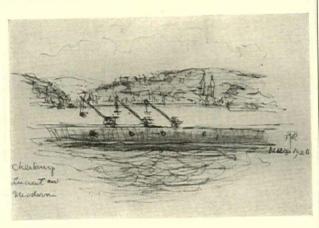
ST PAUL

DOMINATED LORD TIMES

BUT LORD TIMES 13 CHUYOUY.

LOWD ON I FROM LEVER ACOSE

was preempted by some human animal seeking to bask in the sunshine—for there was sunshine over England that day—and to be entirely just—for some few days thereafter. The streets and transportation arteries of London that night swarmed with home-coming trippers—happy, tired, care-free and good-natured; which latter grace saved the situation. Babies in arms, babies dragged along the pavements, wives, mothers, fathers, brothers, sisters, cousins, sweethearts—some in arms—blondes, brunettes, pale, swarthy—all British to the core. We see no such homogeneity, such variety in unity, or such unity in variety in the crowds in our own country.



IT WAS NOT SO MUCH THE HARBOR MACHINERY AT CHERBOURG WHICH INTRIGUED US AS THE GAP IN THE HILLS THROUGH WHICH LEADS THE SPRINGTIME PATH TO PARIS

Here the crowd impresses one as a heterogeneity an unamalgamated mixture of Scandinavians, Dutch, Bohemians, Poles, Irish, Orientals-the list is too long to catalogue—but withal enough natives to give the crowd a character of its own, which in course of time may be called truly American. And yet with all its homogeneity it struck me that there was a lack of understanding on the part of one individual of the British throng as to the nature and designs of his fellows. No Englishman can guess what, in certain contingencies, his neighbor will do or what his race will do. Of course, an Englishman would not "guess;" that is an Americanism which a true Briton would scorn. But "guessing" is only our short way of "hazarding a conjecture" which, even in that form, the Englishman seems incapable of doing in regard to his own race. I was asked what London would do if its already extreme congestion were augmented by the presence of high buildings. The Londoner is wise in prohibiting skyscrapers; but on London streets there is comparatively slight congestion—there is inordinate confusion and mostly, as I saw it, because of a lack of understanding of your neighbor's mind. The rule of the road is "Keep to the Left" and this seems understood and obeyed by vehicular traffic. But the rule of the pavement—(sidewalk) has been "Keep to the Right" (or was it the opposite?). It has now

been changed to "Keep to the Left" (or is it the other way about?) and consequently in the mind of the pedestrian there is great confusion and this he expresses in his bodily movement, to the confounding of those whom he meets or desires to pass upon the pave—the result being not inordinate congestion, but an almost inextricable confusion. But you can count on the British finding a way out, they themselves have called it "muddling through," to a correct conclusion; (along about one A. M. the pavements will be cleared). This matter of racial movement is peculiar. The Oriental reads backward or from right to left, he traces a circle opposite to the movement of the hands of the watch. The Occidental traces his circle or gestures with the movement of the hands over the dial-and yet in the "Course" at Biskra I noticed that the horses ran in the Occidental direction, while our races are always run in the opposite or Oriental direction. The horses in our circus rings run opposite to the hands of the watch; we learn to ride the bicycle in the same direction. There is a physiological reason for this movement in us-



THE SPRING WAS BURGEONING IN NORMANDY AND THE STONE-ROOFED, HALF-TIMBERED COTTAGES WERE AS MELLOW AS STRAINS OF MUSIC

why should it not hold with the Oriental? The left leg of the normal man or animal is the weaker member and if not urged up will draw the body around in circles to the left, or, the right leg will push the body in that direction. So in marching, to correct this physiological tendency, the left foot is advanced and the advance marked by the call or the rhythmic drum tap-"Left-left-left-right-left," and the column or company advances in a right line. I almost "got in wrong" with a cruise-mate of the gentler sex by remarking that the psychological tendency of women to go wrong, that is, to disregard laws and conventions and be a rule unto themselves, accounted for the ease and grace of English girls in boarding and alighting from moving vehicles—they go with the general movement and so are not thrown backward and given a shock. The vehicle is moving wrongly and, therefore, one has to board and to leave it on the wrong side; the

A SILVERY GAUZE VEIL
OF FOG BROUGHT OUT
WEIRD SHAPES AND SILHOUETTES IN LINCOLN'S
INN FIELDS WHICH
WOULD HAVE GLADDENED THE HEART OF
ARTHUR RACKHAM OR
OF A SIMILARLY SENSITIVE SOUL





THE SUN DISPELLED.
ALMOST, THE CLOUDS
HOVERING ABOVE DRYBURGH ABBEY, AND
SENT SOFT FLICKERING
SHADOWS OVER THE
MELLOW PILE. THE
SPIRIT WITHIN THE
WALLS SEEMED TO GLOW
AND LIVE

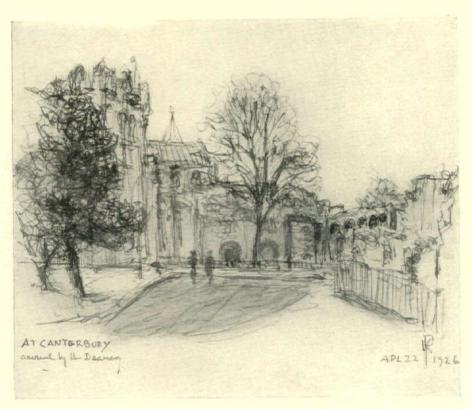
200

OVER THE GRAY STONE
WALLS OF EDINBURGH
ROMANCE LINGERS
CARESSINGLY. ARTHUR'S
SEAT BECKONS TO ME
ACROSS THE TENDERLY
BUDDING LANDSCAPE

ARTHUR'S SERS

APLIE, 1916

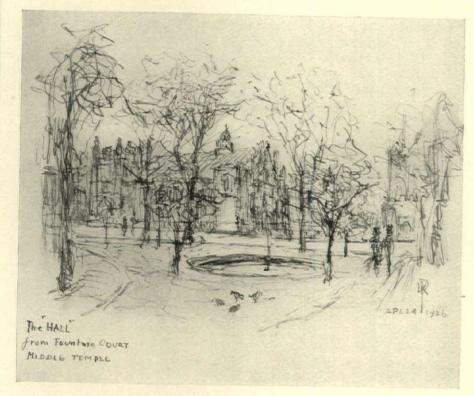
20



EDINBURGH

20

CANTERBURY — IN LITERATURE, IN RELIGION, IN ART, IN HISTORY IS A NAME TO CONJURE WITH. A SPIRIT RISES AT THE SOUND OF THE WORD



IN THE FOUNTAIN
COURT OF THE MIDDLE
TEMPLE THE WATER
WAS BUBBLING; THE AIR
WAS SOFT WITH SPRING
AND SWEET WITH THE
SONG OF BIRDS WHILE
ABOUT THE FACES OF
SLOWLY SAUNTERING
COUPLES WISTFUL
SMILES WERE HOVERING

AFTER THE BRILLIANT
COLOR DISPLAY OF THE
AZALEAS AND RHODODENDRONS THE FOUNTAIN PEN SOUGHT THE
SYMPATHETIC RESTFUL
GREEN-BLACKS OF THE
CEDARS AND THE GRAY
TRUNKS AND BRANCHES
OF BUDDING TREES: AND
AMID SUCH SURROUNDINGS MADE THE LAST
FOREIGN SKETCH OF
THE CRUISE



woman opposes herself to the normal human movement—the two negatives make a positive, and the woman alights without an accident. Even lame girls in London are adepts in boarding and leaving moving busses and tramcars. My friend of the cruise resented the insinuation, amounting to an assertion, that women wilfully go counter to natural and moral laws and conventions and become a law unto themselves: but, lord love us! that's about the only thing which makes them charming to themselves or others now-a-days. However, I shall soften the "wilfully" and make it "naturally." Perhaps they will like "instinctively" or "intuitively" better.

In these travel notes I might have gone further than I have into personalities and individual adventures; perhaps into these things I have gone deeper than need. But in writing of this cruise, as in participating in it, I have had always in mind the deeper meaning which underlay the superficial aspect. Colors were bright or somber; movements were slow or spirited; weariness, world weariness, or hopeful animation was in the faces of the peoples; architectural lines were gaily flowing or somberly restrained; calmness of joy was contrasted with calmness of despair; all this was the superficial aspect of what was lying deeply underneath, and this latter is what I sought to fix in seemingly flippant word or trivial sketch. I may have failed to carry my intent over to others-I have in a measure succeeded in establishing it in my own mind. In the latter case I am happy; insofar as I have not achieved in the former I am grieved. No sketch was made for the sake of making a sketch, but because to the mind which directed the pen, there was something characteristic in the scene; some expression of nature or of art which had its bearing on the spiritual and physical life of the humans who had a part in its creation or dwelt in its established state. A cruise, such as that which I undertook, although at times maddening in the inadequacy of time allowed for certain things and distressing in certain minor details, did furnish opportunities of observation to one with a cultural background as it furnished entertainment to the empty-minded who are represented on all social occasions.

What may not be expected of a cruise which, within the space of a few days, or weeks at most, will permit one to see Cape Helles, the wrecks of the Turkish warships, the graves of the Heroes of Gallipoli, the barrenness of the environing landscape and, with this fresh in memory, to witness the sad ceremonial of laying wreaths and flowers of remembrance at the foot of the Cenotaph in Whitehall with the façades of great buildings, housing the governmental and religious life of a Mighty Empire, smiling sadly though calmly down on a mass of humanity submerged in emotional depths. If you would weep, not from the eyes, but with your entire

being, witness this latter scene with the vision of the former clear in your mind's eye. Gaze upon the mellow loveliness of Canterbury and, holding in your vision at the same time, the austere gray beauty of Edinburgh, see if your inmost being is not stirred. How can men live amidst scenes of such poignant beauty and remain mere men and exist in the realm, and perform the duties, of the commonplace. All we can say is: they do so live and act. Why they are not a race of archangels rather than of men, is left to the inscrutable workings of nature's laws. The problem is getting too deep for me—even to state it adequately would require pages and I have come nearly to the end of mine. I want to thank my pen for coming to my assistance in recording word and



BY TURNING MY BACK ON THE TOWER OF ST. GERMAIN L'AUXERROIS I COULD LOOK INTO ANOTHER AGE AND LIFE. NOT ONLY COULD I LOOK BUT I DID; AND THIS SKETCH FOLLOWED

line; and the reader who has accompanied me thus far, for his loyalty—and good taste—they, too, are excellent traveling companions. In the log book of one of my very agreeable cruise-mates I scribbled something like this—not just—but sufficiently near:

An inspiring trip
In a comfortable ship,
With a sympathetic friend
But—a cruise must end.

(The End)

ARCHITECTURE AS A RECORD OF CIVILIZATION

By Professor F. M. Mann, of University of Minnesota Address Delivered at the Testimonial Dinner to Thomas Crane Young, F. A. I. A., by the St. Louis Chapter, A. I. A.

It has been given to few men in the field of architecture to participate effectively and contribute continuously through a period of great development such as has taken place in America in the years of Mr. Young's active career.

Aside from the modest attainments of our architects of Colonial times, this country had produced scarcely anything prophetic of a great American architecture up to the time when in 1885 Mr. Young finished his apprenticeship and entered active practice. To a young architect, thrilled by the glorious achievements of past ages and filled with ambition to go and do likewise, the prospect must have seemed cold and barren.

True, there were a few men in the ranks just ahead of Mr. Young, like Hunt, Richardson and McKim who imagined that they saw a new light. When these men came upon the field in the seventies, America was enshrouded in a gloom of bad taste and ignorance of the essentials of good architecture. England was in like condition; and in France the academicians were wailing "L'Architecture est Morte." For fifty years or more Victorian Romanticism had continued in full sway; during that period men's fancy was stirred only by the substance of remote styles, but the vital spirit and understanding of architecture was, in reality, dead.

In France, the academy clung to classic traditions and taught the fundamentals of architecture as exemplified therein, and insofar, its teaching was sound, but it did not attempt to interpret modern needs, or to connect architecture to modern life.

Hunt, Richardson and McKim, the first Americans to come back from the French Academy, were equipped with its splendid fundamental training, but if they had attempted to foist the dry bones of Classic architecture upon young and energetic America, they would have failed. Though in many respects they were wise beyond their time, each sought for an architectural expression in one of the dead styles of the past that would be sympathetic to American conditions. They knew the value of the logical plan and were versed in the subtleties of composition, proportion and scale, and in these qualities their work showed true greatness, but they were still dominated by the traditions of their time, the Romantic reverence for past styles. Hunt chose the early French Renaissance, Richardson the French Romanesque and McKim the Italian Renaissance, and in the heart of each was the hope that out of these dead styles an American style would take root and blossom forth.

Thus began a battle of styles, amounting to blind copyism by lesser men, and destined to lead nowhere. The early work of Hunt, Richardson and McKim had elements of greatness because they were great men, and was so in spite of the deadening traditions they were obliged to labor against.

From the advent of this group in the seventies, I am confident will date what will be called the American Revival, and, I believe it safe to say, the beginning of an architecture that will be entered upon the pages of history as one of the greatest. I did not say it would be a great architectural style, for today the question of an American style is of little concern to architects. The prophecy which I express so confidently is based on the thoughtful concentration of the American architects of today on the fundamental thing—good architecture. I believe it is for the architect to concern himself only with good architecture, exactly fulfilling the needs of his time, leaving it to the historian to concern himself with the qualities and characteristics of style.

We cannot today survey the accomplishments in American architecture, encompassed as they may be practically within the span of one architect's career, without a feeling of wonder and pride. The great Hunt, Richardson and McKim had passed through the first decade of the Revival, and had only begun to feel solid ground under their feet, when, with the rising generation, in 1885, Mr. Young entered his eventful practice. His generation was not large and not many of them were able to see American architecture in the new light that was dawning, but Young was among those who could, and the fine qualities of his work soon brought him into national notice. He not only kept abreast of the tide of development, but his contribution has been notable and continuous, even to the present day.

Architecture is but a record of civilization and cannot be otherwise. Greek architecture was the expression of an intellectual democracy; Roman of imperial power; Gothic of the religious commune; Italian Renaissance of a cultured aristocracy; and French Renaissance of kingly power and the dignity of the State; and, shall we say of America of the present its architectural expression is of a democracy of free individualism. In fact, in America, for the first time in history architecture has been in the hands of the individual citizen untrammelled by the power of a ruler, a ruling class, or of communistic restraint. By reason of this unique condition, I believe, we cannot expect in America the development of an exact and homogeneous style of archi-

tecture, such as is familiar in the great periods of the past; nevertheless, the actuating spirit of America does and will continue inevitably to stamp itself upon American architecture. Let us hope that that spirit is great enough to transcend petty details and express itself in terms of quality rather than in style.

If we compare our architecture of the eighties with that of today, it becomes apparent that enormous advances have taken place, and, moreover, that the practice of architecture has become exceedingly

complex.

The incessant discoveries of science alone, and their application to building, have rendered the art of architecture more difficult, and has required new knowledge almost from day to day on the part of the architect.

Modern developments in transportation have brought the building materials of the world to our doors.

New decorative and structural materials are pouring from our factories in ever increasing variety.

The machine has vied with the craftsman in the production of beautiful things, but the efforts of the craftsman have not abated and it must be recognized that his skill and artistry of today have scarcely been excelled. (In this connection the debt the architect owes to the craftsman should be acknowledged. The conception of a work of architecture may belong to the architect, but its successful execution belongs to the craftsman.)

Constructive science and experience has developed so enormously that materials are used today in ways

never before dreamt of.

Wonders are achieved with reinforced concrete and with the frame of steel.

The first steel frame building—one of ten stories—was built several years after Mr. Young began his practice; later came a new wonder in the Flatiron Building of twenty; then the Woolworth Building of fifty stories; and no sooner was the Book Tower of Detroit of eighty-one stories designed than forth comes a host of designs contemplating one hundred stories or more.

A swift pace, indeed, in one class of buildings alone,—within the span of forty years. If American architecture should ultimately find its chief expression in commercial structures, which I see no reason to predict, possibly an Englishman's characterization of America as an "industrial fuedalism" would be justified. But, today, our architecture belies this

classification, for the advance of architecture in this country has not been confined to the commercial field. It cannot be questioned that taste and understanding are evident in our monuments of other types. In our public buildings there exists a fine sense of monumental quality. These include buildings of the National Government at Washington, numerous State Capitols, libraries, art museums, churches, schools, colleges, and universities; (yes, and Masonic Temples, of which Mr. Young's notable achievement is unquestionably one of the greatest, if not the greatest). Another of our English cousins finds this fine monumental sense existing only in America and, to a lesser degree, in France. In church work the modern world has not produced the equal of our own Goodhue, and in private homes America is acknowledged to lead the world.

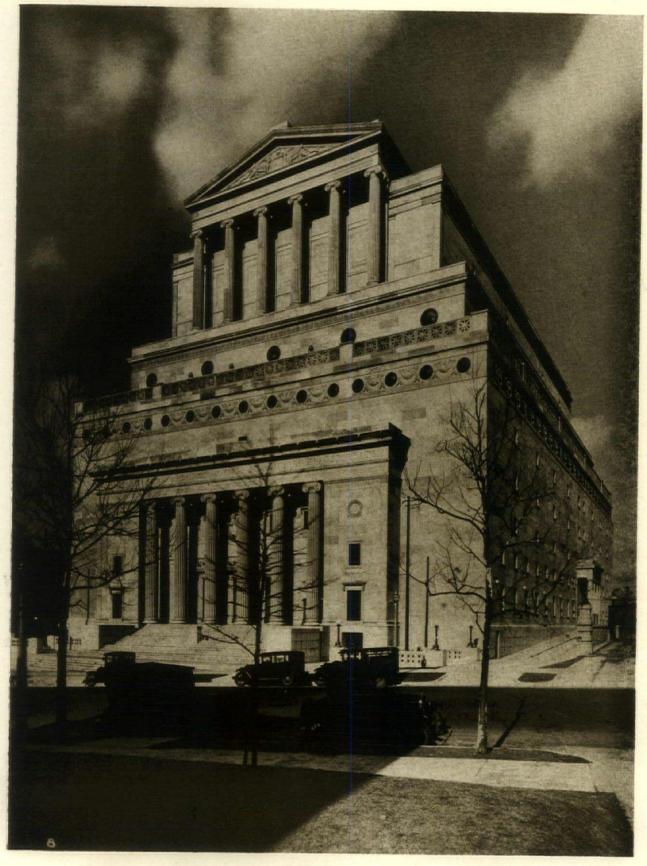
I do not mean to say that the architecture of other countries is at a standstill; much of great interest, and possibly of great significance, is being done in Europe, particularly in the way of a conscious and studied attempt to interpret the modern spirit. In contrast to this, one of the most potent characteristics of American architecture, it seems to me, is its very lack of self-consciousness, or studied effort. To me herein lies one of its greatest hopes.

As we examine the work in the early eighties, even the best of it showed an experimental timidity and conscious attempt to break away from the clutches of Victorian tradition, while today, after the relatively short span of fifty years, we can but be struck with its sureness and self-confidence, and its simplicity, restraint and scholarly intelligence.

Thus is the brief summing up of what has happened in the lifetime of the man we are met here to honor tonight; surely it has been given to few to participate in, and to contribute materially to, a development so vast. Throughout these years, Mr. Young has been in the forefront, always keeping step, and even to the present moment he has demonstrated his mastery of the intricacies of contemporary practice by the production of a monument which his colleagues willingly acclaim to be one of the great works of American architecture and representative of its finest qualities.

Finally, I but voice the mind of the architectural profession in saying to Mr. Young,—"Well done! You have served nobly, and merit the esteemed title of architect—man of art—man of science—man of business—a true servant to your generation, and at

the same time one of its masters.'

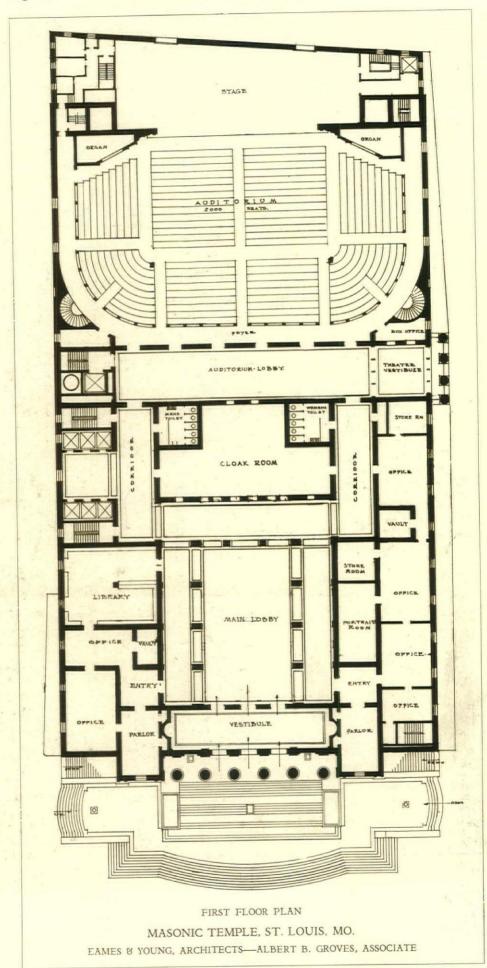


SOUTHEAST VIEW

MASONIC TEMPLE, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS—ALBERT B. GROVES, ASSOCIATE

(See plan on back)



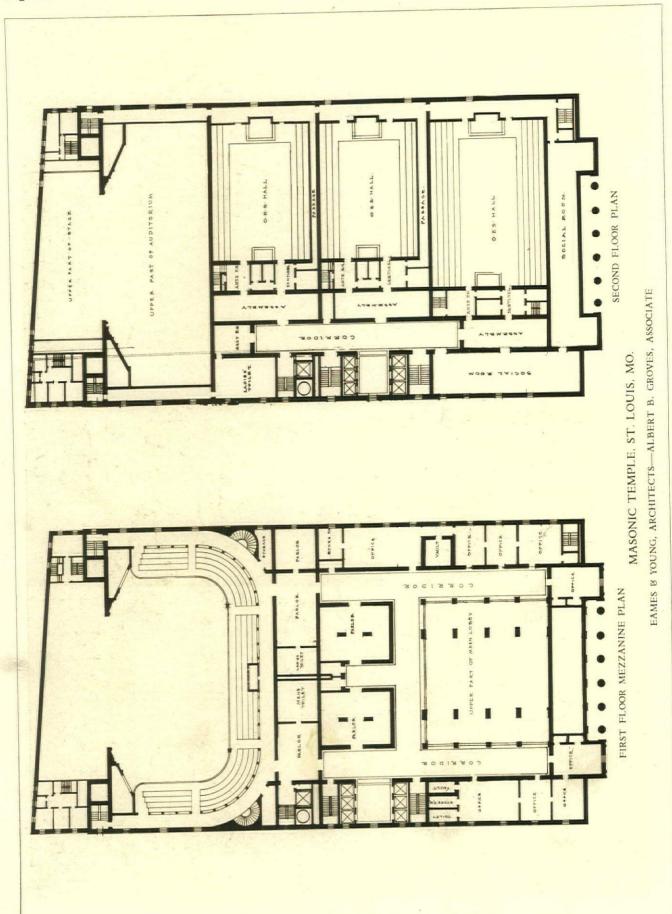


SOUTHWEST VIEW

MASONIC TEMPLE, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS—ALBERT B. GROVES, ASSOCIATE

(See plans on back)



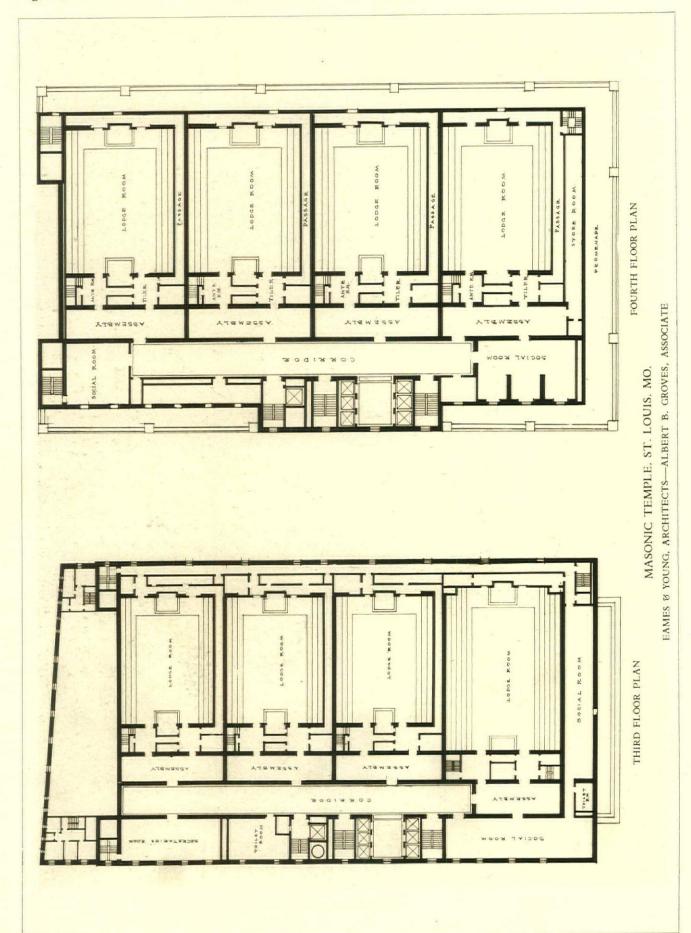


MAIN LOBBY, FIRST FLOOR—VIEW TOWARD ENTRANCE



DETAIL OF MAIN ENTRANCE
MASONIC TEMPLE, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS—ALBERT B. GROVES, ASSOCIATE (See plans on back)



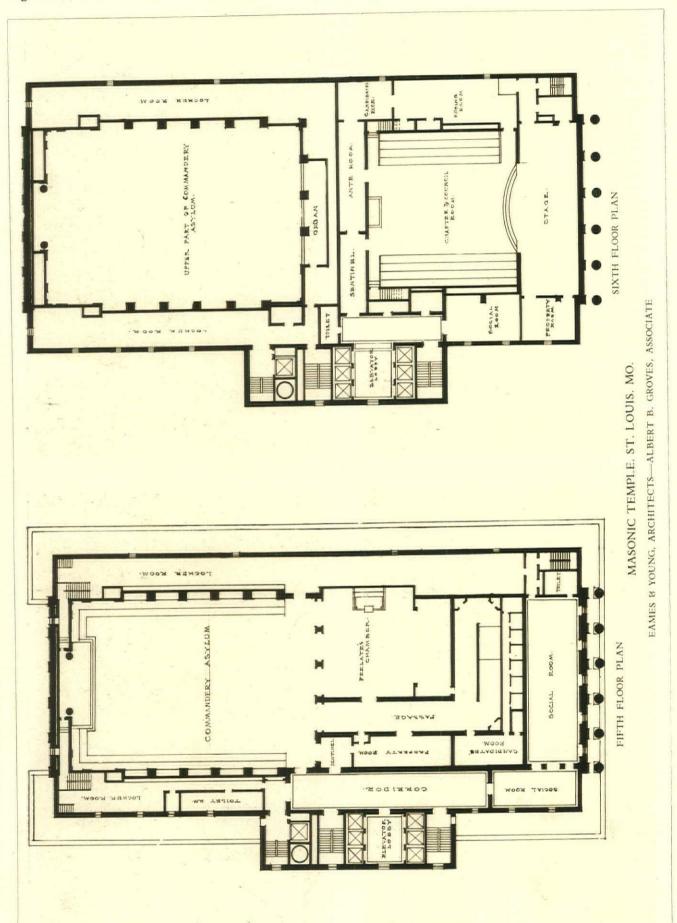


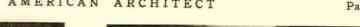
ENTRANCE VESTIBULE

MASONIC TEMPLE, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS—ALBERT B. GROVES, ASSOCIATE

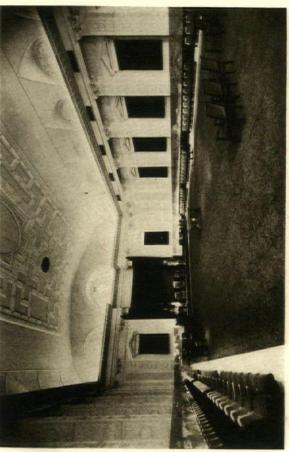
(See plans on back)







HALL—CHAPTER AND COUNCIL



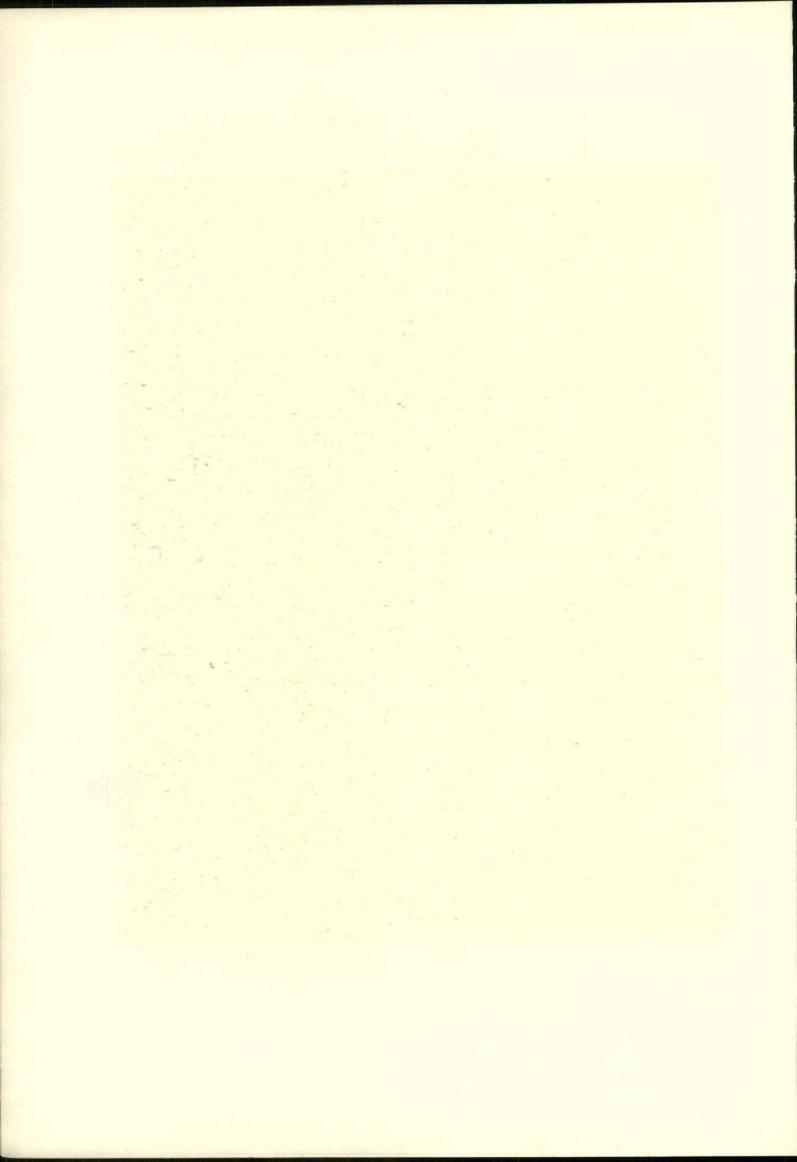
COMMANDERY ASYLUM



BLUE LODGE NO. 3

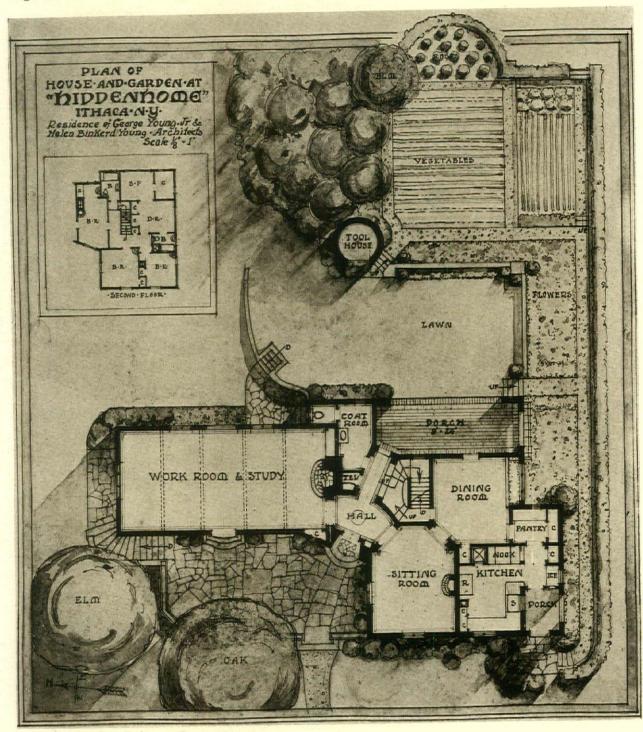
MASONIC TEMPLE, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS-ALBERT B. GROVES, ASSOCIATE



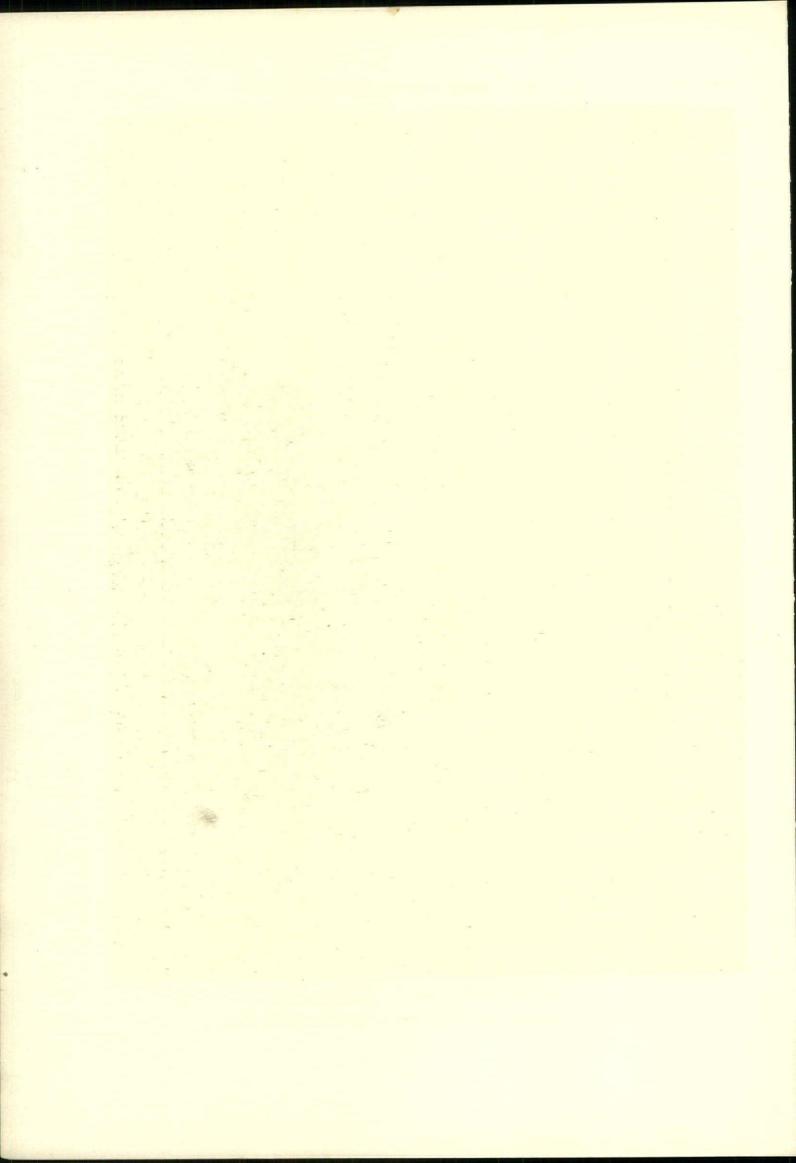


"HIDDENHOME," THACA, N. Y., HOUSE OF
GEORGE YOUNG, JR., AND HELEN BINKERD YOUNG, ARCHITECTS
(See Plan on back)



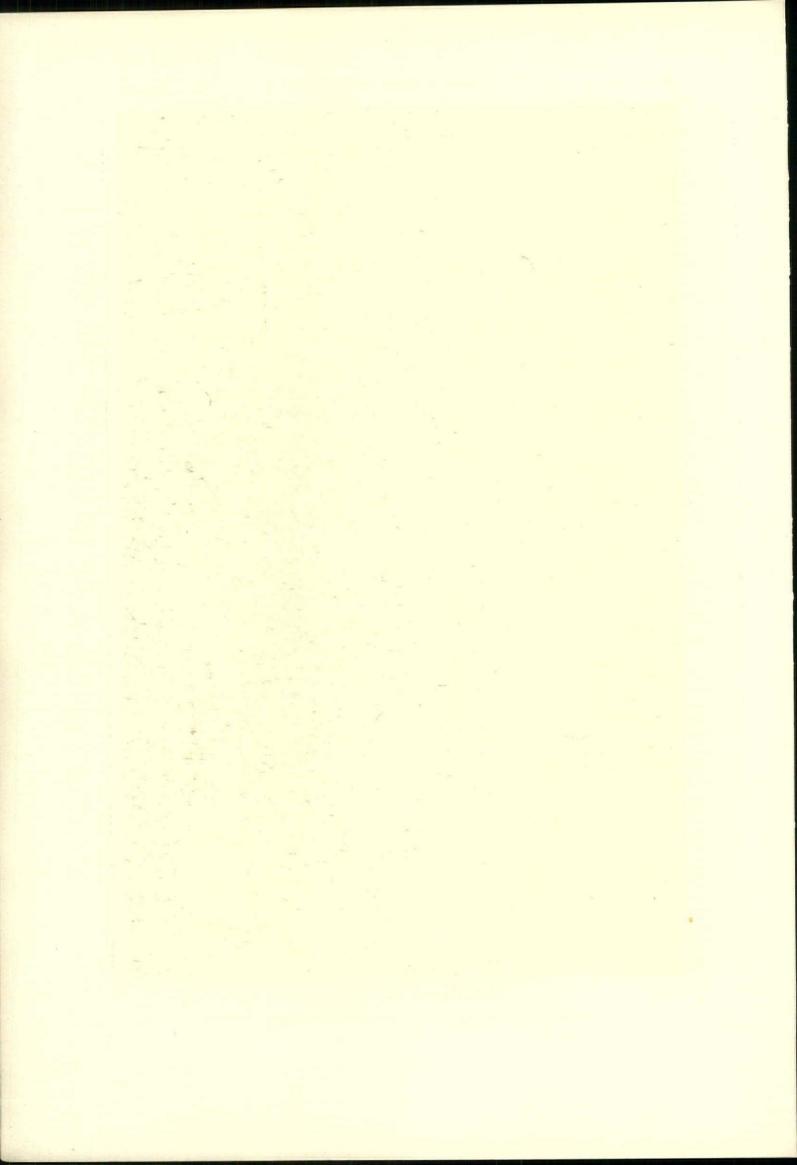


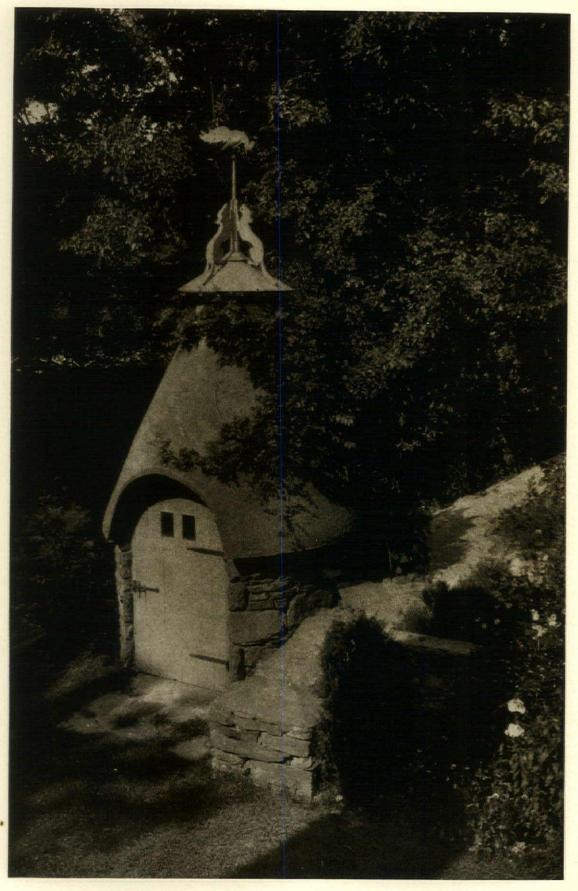
"HIDDENHOME," ITHACA, N. Y., HOUSE OF GEORGE YOUNG, JR., AND HELEN BINKERD YOUNG, ARCHITECTS



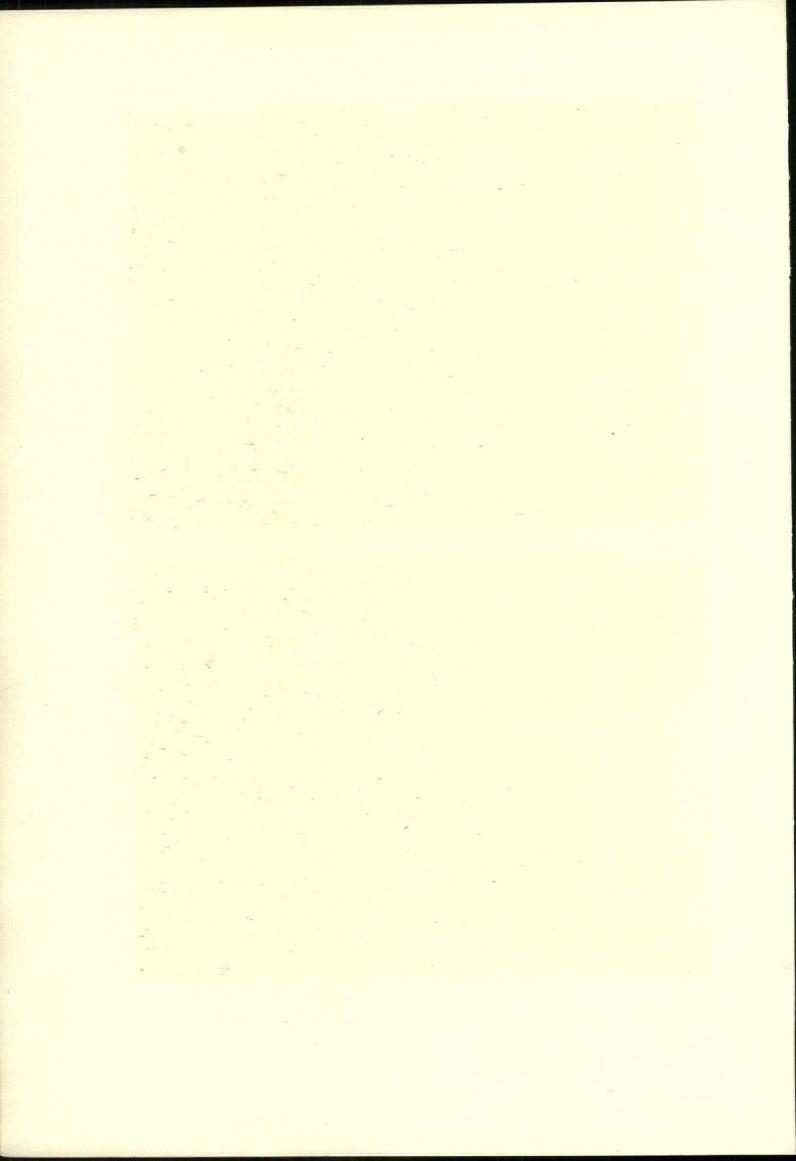


"HIDDENHOME," ITHACA, N. Y., HOUSE OF GEORGE YOUNG, JR., AND HELEN BINKERD YOUNG, ARCHITECTS





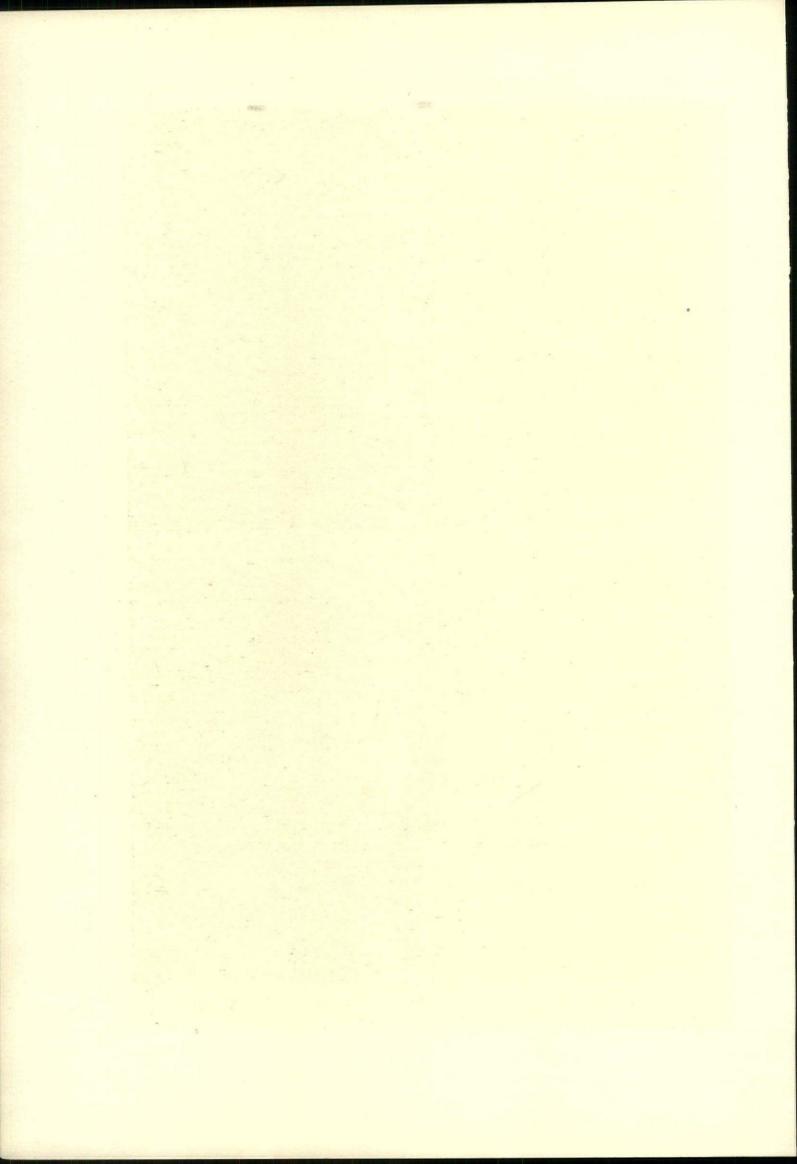
"HIDDENHOME," ITHACA, N. Y., HOUSE OF GEORGE YOUNG, JR., AND HELEN BINKERD YOUNG, ARCHITECTS

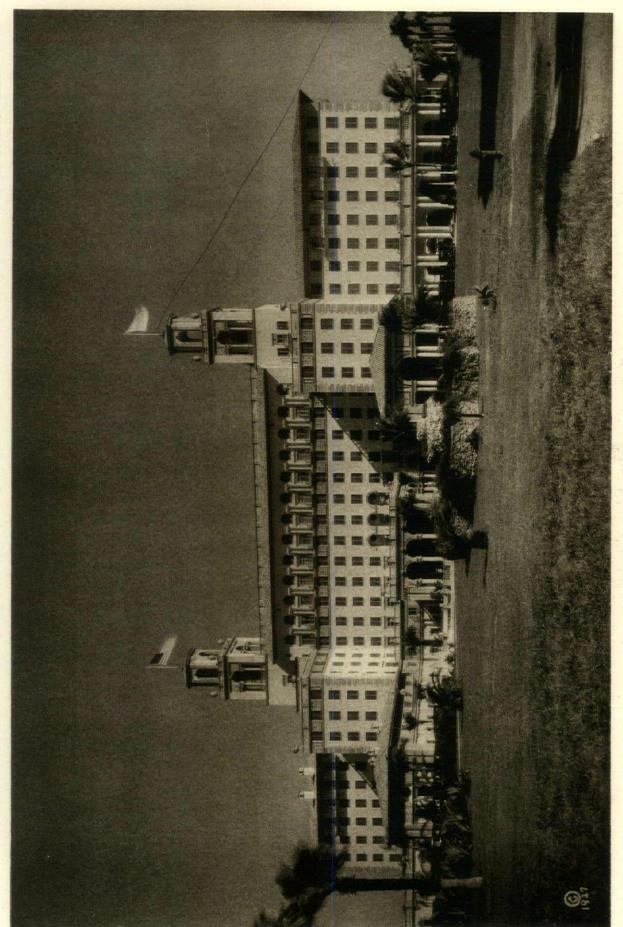






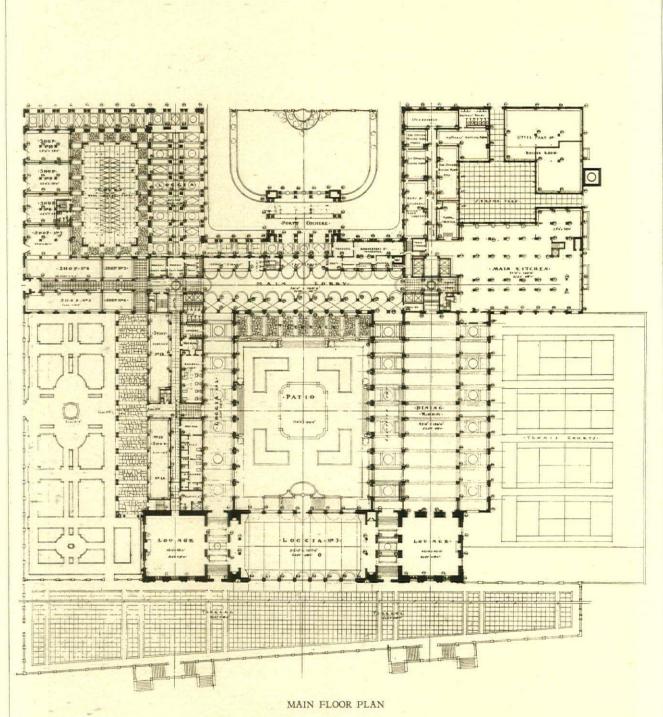
"HIDDENHOME," ITHACA, N. Y., HOUSE OF
GEORGE YOUNG, JR., AND HELEN BINKERD YOUNG, ARCHITECTS



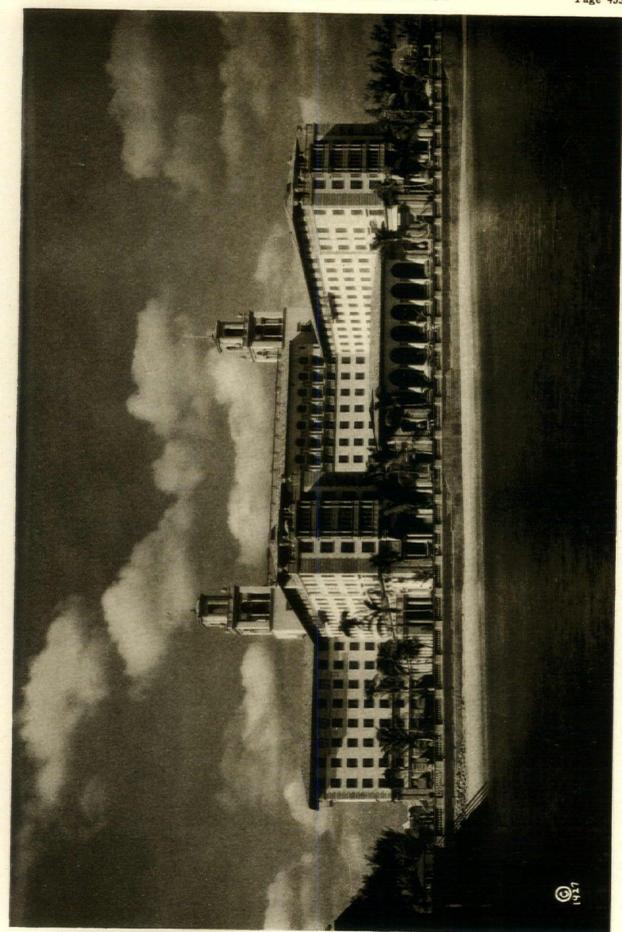


THE BREAKERS HOTEL, PALM BEACH, FLA.

SCHULTZE & WEAVER, ARCHITECTS
(See plan on back)

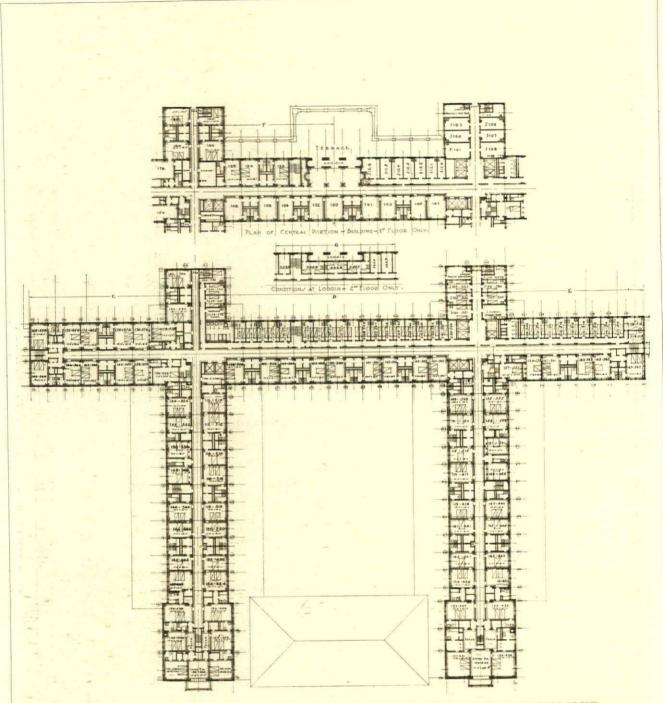


THE BREAKERS HOTEL, PALM BEACH, FLA. SCHULTZE & WEAVER, ARCHITECTS



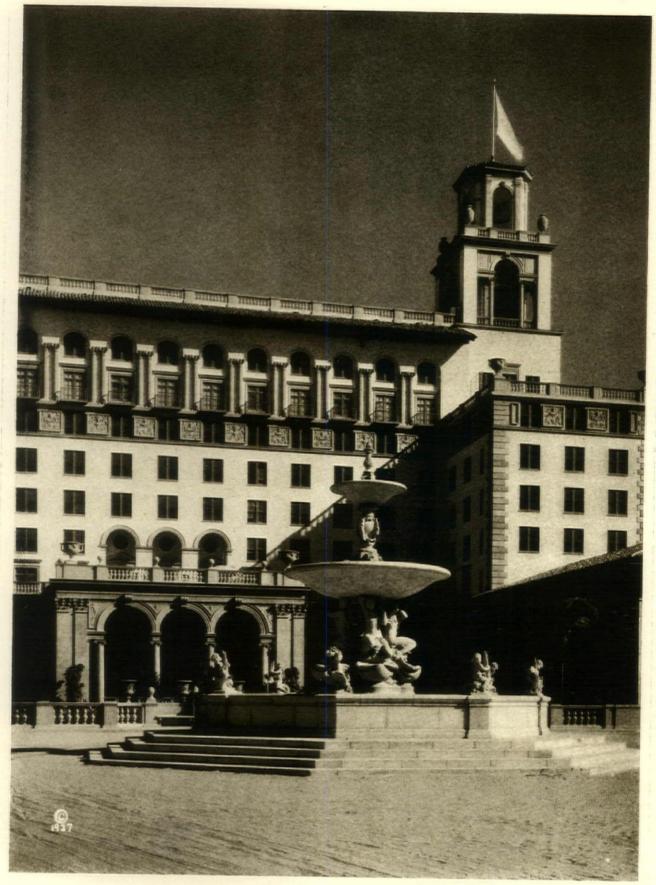
THE BREAKERS HOTEL, PALM BEACH, FLA.

SCHULTZE & WEAVER, ARCHITECTS
(See plan on back)



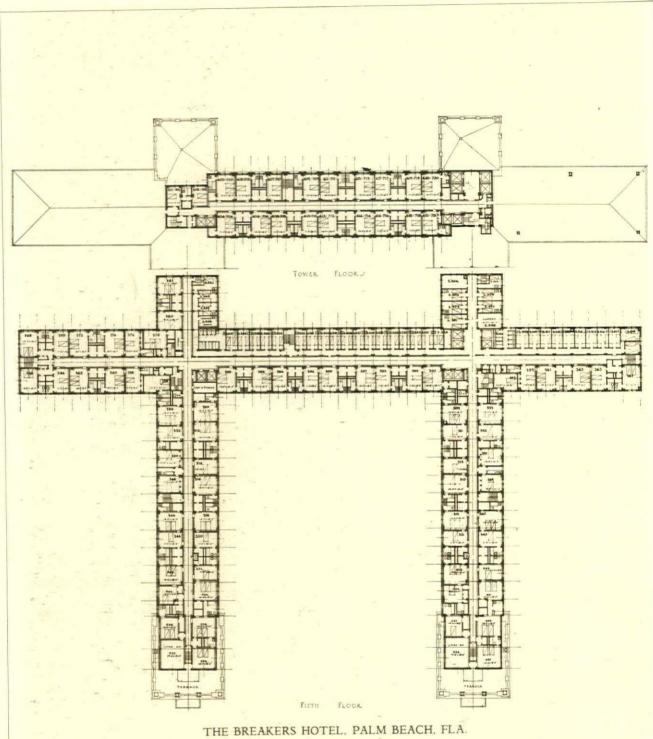
TYPICAL FLOOR PLAN FOR FIRST, SECOND, THIRD AND FOURTH FLOORS, EXCEPT AS SHOWN ABOVE THE BREAKERS HOTEL, PALM BEACH, FLA.

SCHULTZE & WEAVER, ARCHITECTS

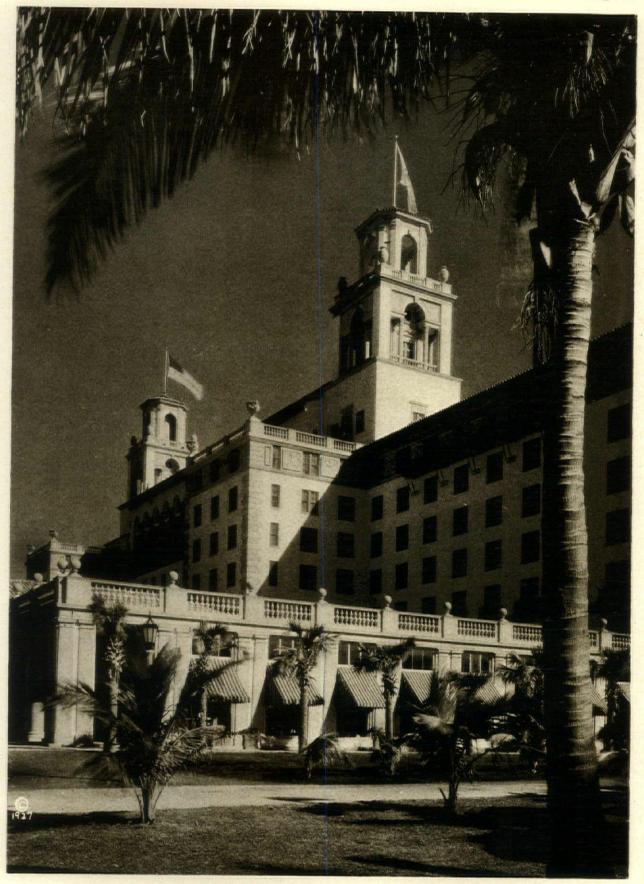


THE BREAKERS HOTEL, PALM BEACH, FLA. SCHULTZE & WEAVER, ARCHITECTS

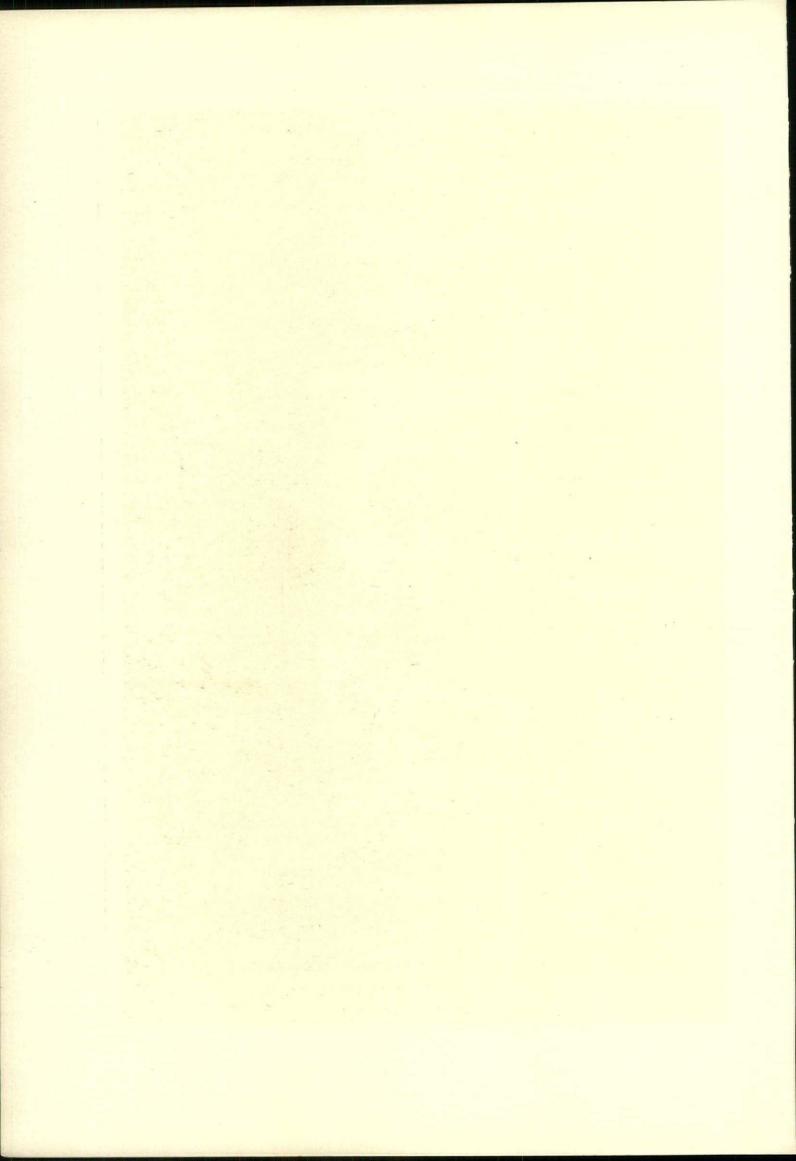
(See plan on back)



THE BREAKERS HOTEL, PALM BEACH, FLA SCHULTZE & WEAVER, ARCHITECTS

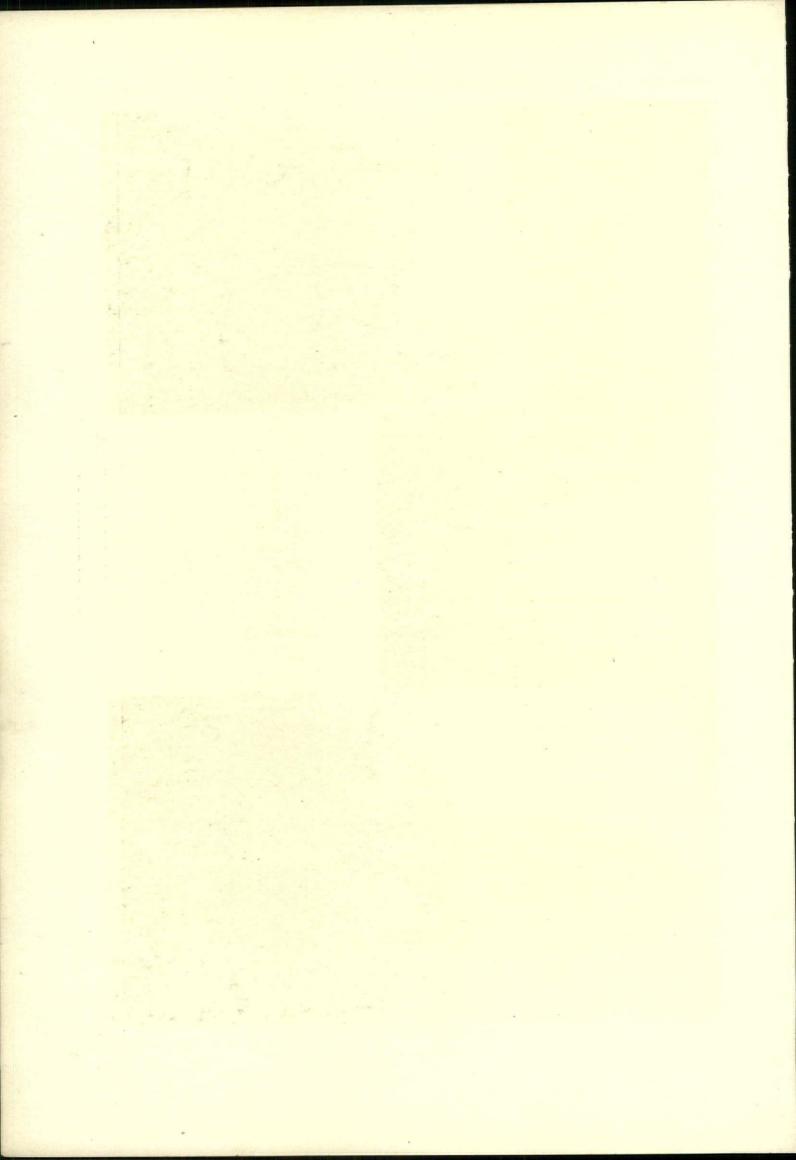


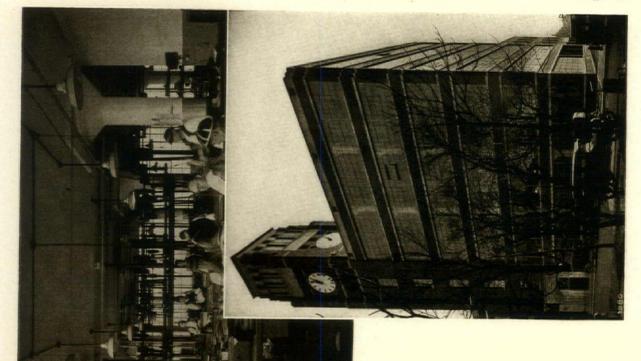
THE BREAKERS HOTEL, PALM BEACH, FLA. SCHULTZE & WEAVER. ARCHITECTS





THE BREAKERS HOTEL, PALM BEACH, FLA. SCHULTZE & WEAVER, ARCHITECTS

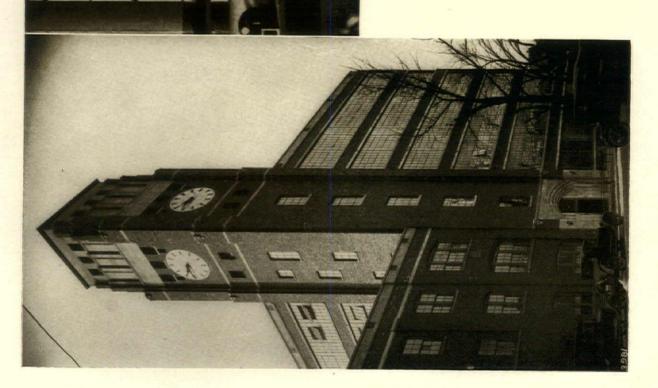


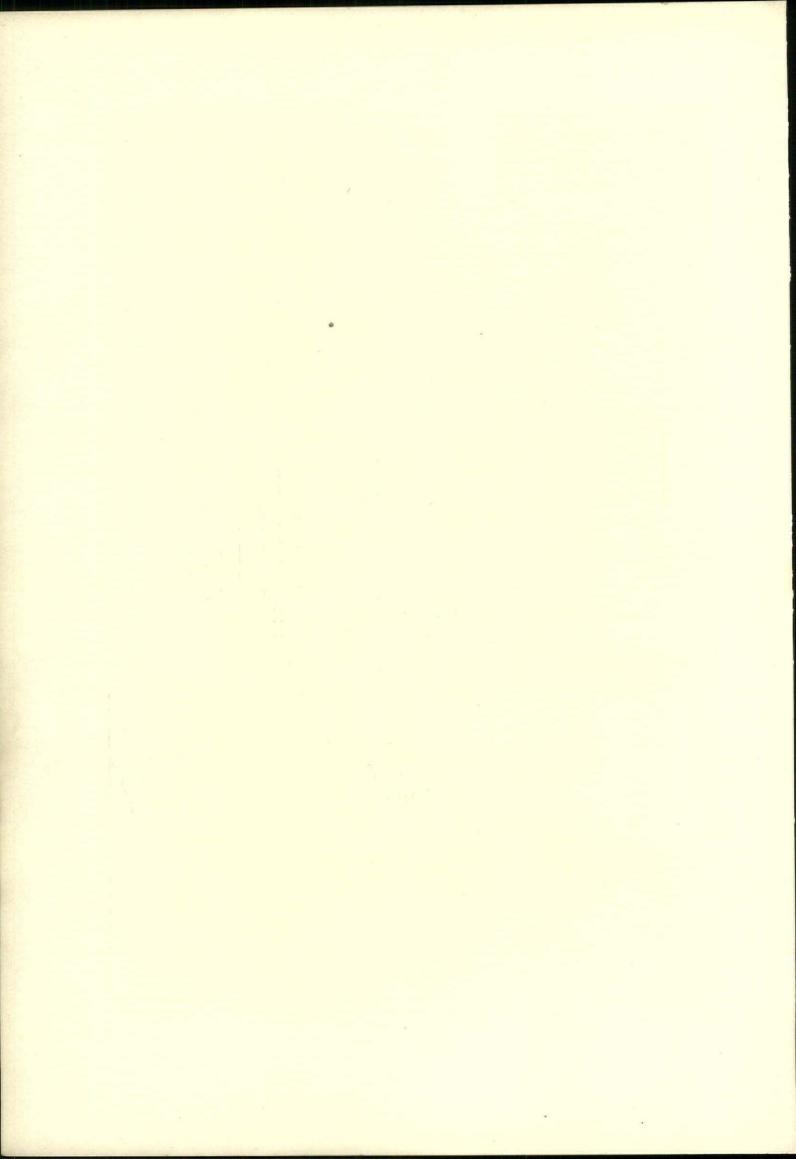


PLANT FOR BELL & HOWELL COMPANY, CHICAGO, ILL.

POND & POND, MARTIN & LLOYD,

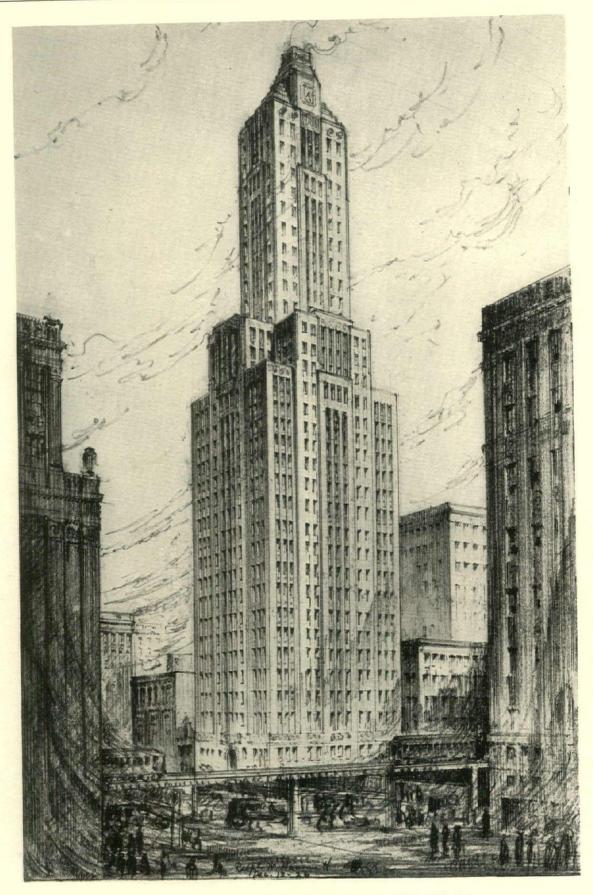
ARCHITECTS







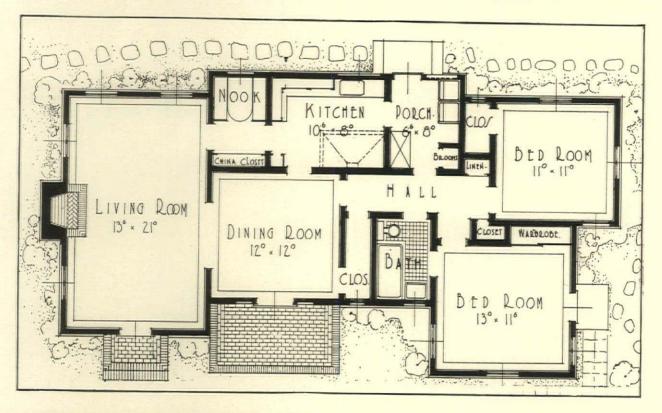
S. NICOLAS DU PORT
FROM THE ORIGINAL PENCIL SKETCH BY WALTER F. BOGNER, 40TH HOLDER,
ROTCH TRAVELLING SCHOLARSHIP



OFFICE BUILDING FOR PANCOE BROTHERS, CHICAGO, ILL.
HALL, LAWRENCE & RATCLIFFE, INC., ARCHITECTS

A GROUP OF BUILDINGS OF MODERATE COST

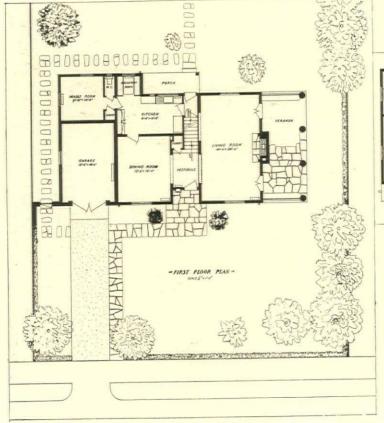
WITH DETAILS OF CONSTRUCTION, MATERIALS AND CUBIC COST

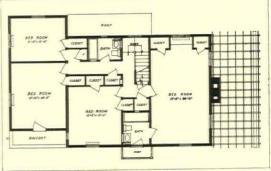




HOUSE AT LOS ANGELES, CALIFORNIA—WITMER & WATSON, ARCHITECTS

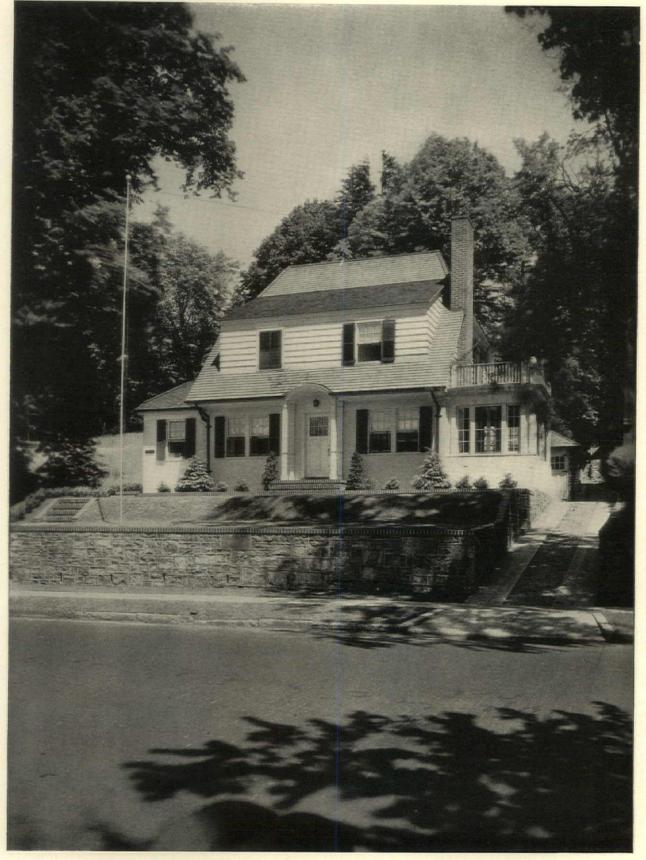






A STUCCO HOUSE, SUGGESTIVE OF THE SPANISH STYLE. THE WALLS ARE CONSTRUCTED OF STUCCO ON WOOD LATH AND THE ROOF IS OF TILE. THE FLOORS ARE WOOD AND THE INTERIOR WALLS ARE OF ROUGH PLASTER, WITH WOOD TRIM. THE STAIR RISERS ARE OF TILE. ORNAMENTAL METAL EXTERIOR FITTINGS ARE OF LEAD, AND SHEET METAL OF COPPER

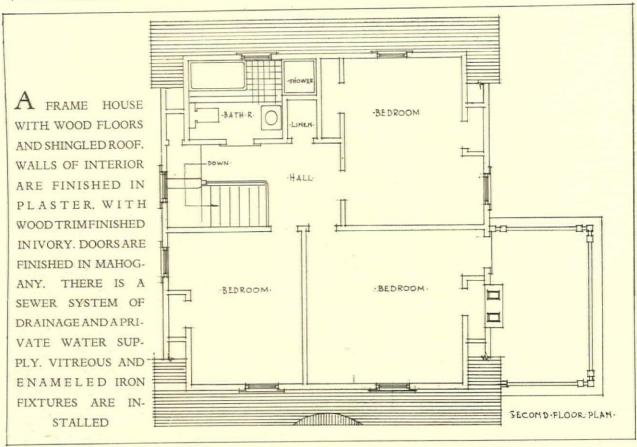
HOUSE AT PELHAM MANOR, N. Y.—WILLIAM GEHRON, ARCHITECT

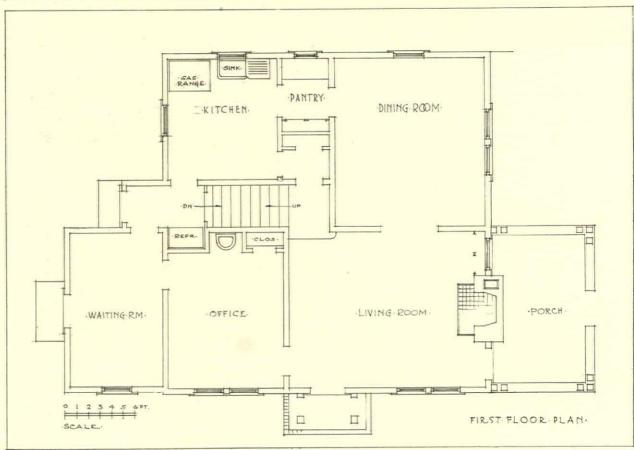


HOUSE IN TARRYTOWN, N. Y., FOR A DOCTOR'S OFFICE AND RESIDENCE

GEORGE WARHURST, ARCHITECT

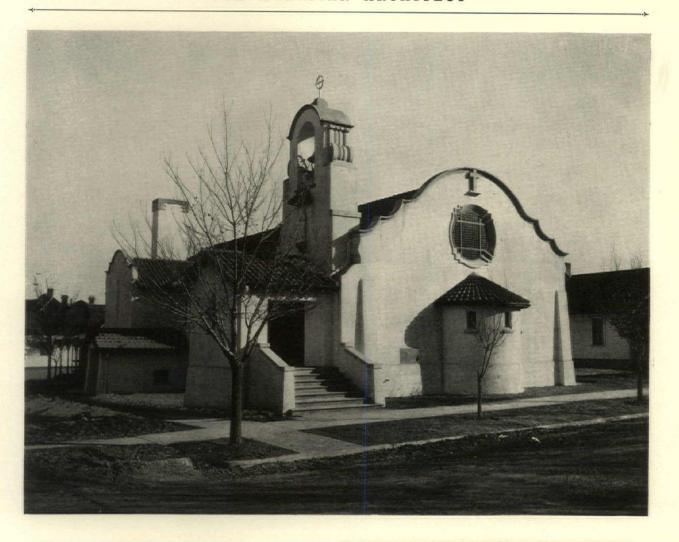
(Plans shown on following page)

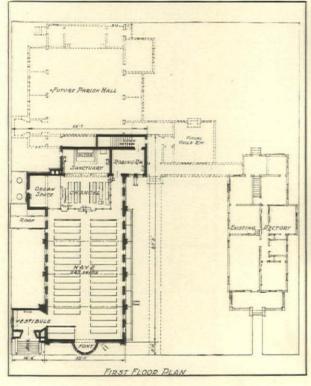


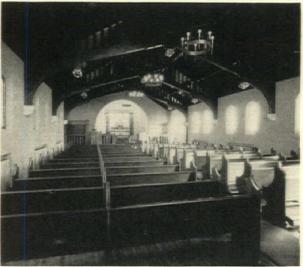


HOUSE IN TARRYTOWN, N. Y., FOR A DOCTOR'S OFFICE AND RESIDENCE

GEORGE WARHURST, ARCHITECT







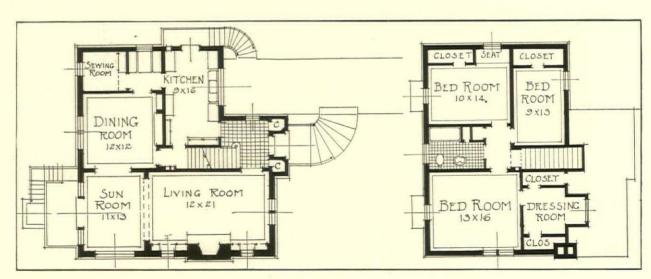
THE BASEMENT WALLS ARE OF CONCRETE AND UPPER WALLS OF HOLLOW TILE, PLASTERED. THE ROOFING IS OF SALMON COLORED TILE. THE SEATING CAPACITY OF THE CHURCH IS TWO HUNDRED AND FORTY-FIVE

ST. ANDREW'S CHURCH, LA JUNTA, COL.—T. MACLAREN, ARCHITECT

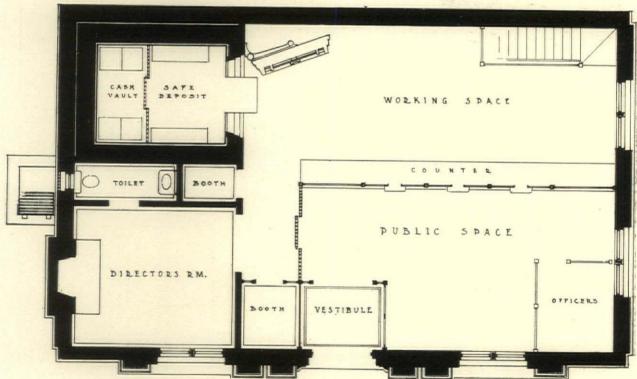


HOUSE AT MINNEAPOLIS, MINN.—ARTHUR DAHLSTROM, ARCHITECT

Exterior walls are constructed of hollow tile and face brick, while the floor of the first story is of reinforced concrete, with finished floor of oak. Other floors are of wood joists, covered with linoleum. The roof is of clear shingles, dipped. The cost per cubic foot was 39 cents, including equipment and architect's fee. House was built in 1923

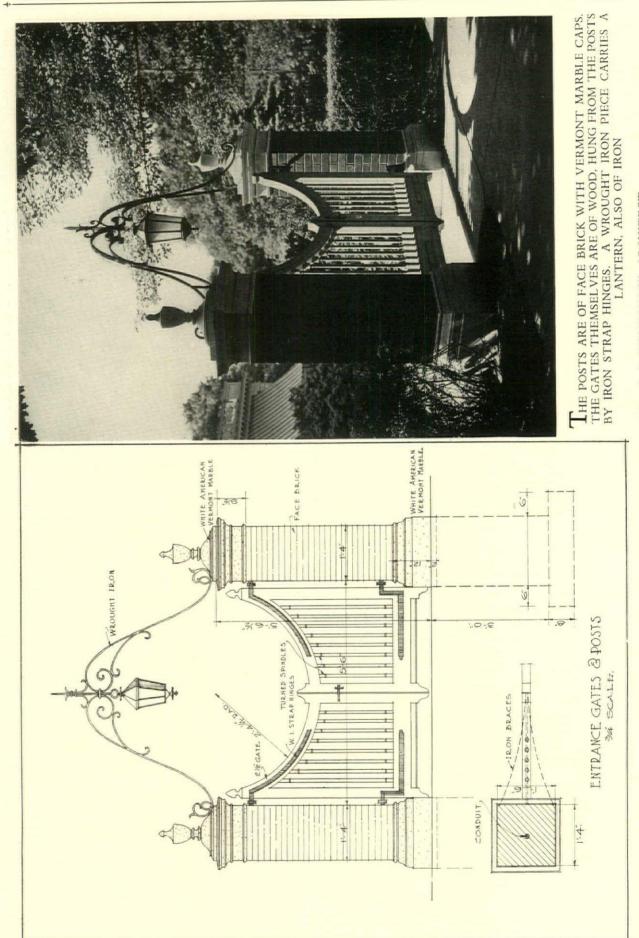






ATHENS NATIONAL BANK, ATHENS, N. Y.—GALEN H. NICHOLS, ARCHITECT

Exterior walls are of hollow tile and dark tan brick with gray indiana limestone trimmings. Interior walls are of hollow tile and are finished with cut marble in some cases and with hard white plaster in others. Floors are of marble and in some rooms linoleum



GATES AT ENTRANCE TO A HOUSE AT MONTCLAIR, N. J.—C. C. WENDEHACK, ARCHITECT



INTERIOR ARCHITECTURE



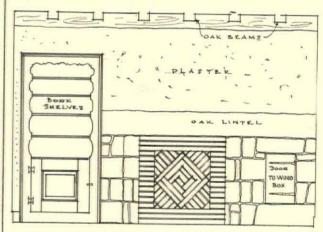
STRUCTURAL PLAN AND PURPOSE OF A ROOM ARE THE BASIS OF INTERIOR ARCHITECTURAL DESIGN

THE structural plan, developed from the materials used in the construction of the building, combined with the purpose which a room is intended to serve, form the basis of the architectural design of the interior. This is especially true of the design of a house where the demands and requirements of the owner are definitely fixed. In fact, it is due to such considerations that the design of a house retains its individuality. In the studying of the plan, each house presents its own individual problem. In the first place, consideration must be given to the lot on which the house is to be located. The contour of the property has a very vital bearing on the plan. Orientation must also be taken into account. The views that are afforded from certain angles must be considered in locating the various important rooms. The proximity of neighboring buildings must be given attention. Then, there are certain questions of a more personal character which must be answered before the plan can take proper shape: How many are in the family? How many children? Do the owners do much entertaining at home? Is much entertaining done at meal times? Do the owners prefer twin beds? Are there any large pieces of furniture which it would be desirable to feature? These and other questions of a similar nature give the architect opportunity to learn the personality of the owner, so that the house he plans may better serve its purpose as a home for those that are to live therein.

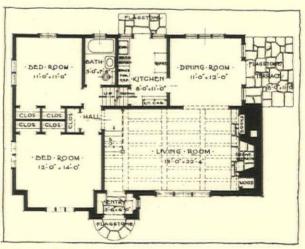
In the size and shape of the various rooms, and in the location of the doors and windows, allowances must be made for proper placing of the more prominent pieces of furniture, as well as consideration to the effect of these same doors and windows on the development of the exterior design. The location of chimneys to allow of well placed fireplaces on walls of adjoining rooms proves the close relationship of structure to interior design, as do the placing of intercommunicative doors.

It can readily be seen how vitally is the plan associated with interior architecture, and, similarly, how closely is the placing of the furniture related to the plan. It may be said, then, without hesitation, that a well designed interior must be well planned. If the design of the interior is developed from the structural plan, as, according to all the laws and principles of architecture, it should be, a well planned house will be well designed.

For the structural plan is the very heart of interior architectural design. The great fault is to conceal structure and thereby lose, in the design of the interior, the individuality that the plan so capably embodies. Visible construction is one of the most important requisites to successful interior architectural design. The deep reveal on either side of a chimney suggests a built-in cabinet, a bookcase or a window seat, bearing structural significance and offering decorative as well as practical opportunities at a nominal cost, far less than a separate piece of furniture which a blank wall would necessitate.

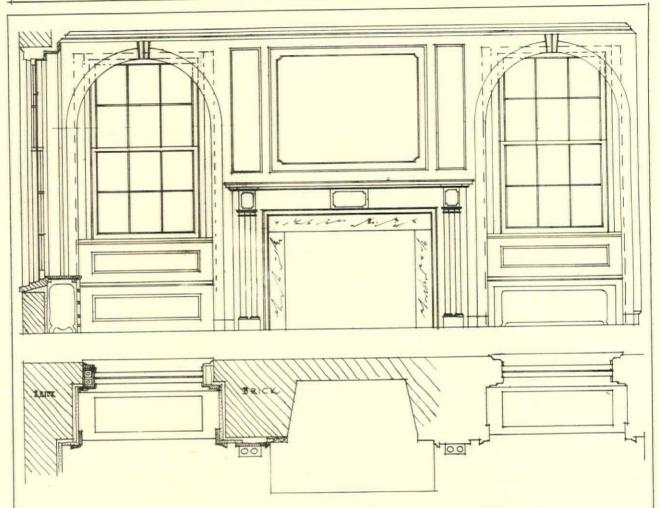


ELEVATION OF FIREPLACE WALL IN LIVING ROOM

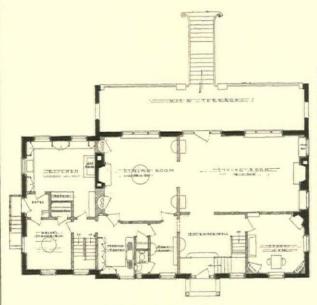


PLAN OF FIRST FLOOR OF THE HOUSE OF KARL KEFFER, SCARSDALE, N. Y.

FRANK J. FORSTER, ARCHITECT



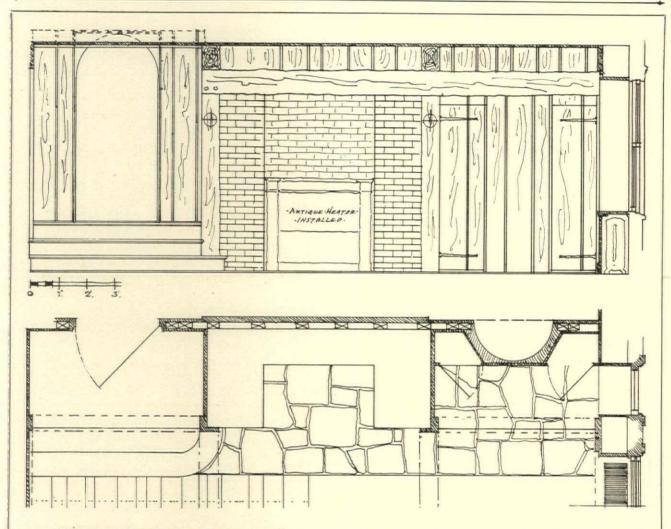
ELEVATION OF FIREPLACE WALL IN THE LIVING ROOM, AND THE STRUCTURAL PLAN FROM WHICH IT WAS DEVELOPED



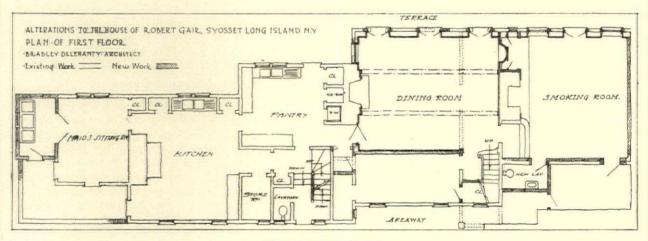
THE WINDOWS ARE SET IN DEEP REVEALS, CAUSED BY THE PROJECTION OF THE BRICK CHIMNEY. THE SPACE HAS BEEN MADE USE OF BY INSTALLING WINDOW SEATS BENEATH THE WINDOWS. TO LEND ADDITIONAL INTEREST TO THE DESIGN, THE ENTIRE WALL HAS BEEN MADE FLUSH WITH THE INSIDE LINE OF THE CHIMNEY BREAST AND THE OPENINGS TO THE WINDOW REVEALS HAVE BEEN TREATED WITH CIRCULAR HEADS. THIS TREATMENT OF THE WALL ALLOWS, TOO, OF THE EFFECT OF WIDER WINDOWS AND THE PROPORTION OF THE OPENINGS IS MORE HARMONIOUS WITH THE GENERAL LINES OF THE BALANCE OF THE SCHEME. THE DRAPERIES, WHICH WILL NORMALLY HANG JUST INSIDE THE CIRCULAR HEADED OPENINGS, WILL EMPHASIZE THIS LINE AND CONCEAL THE AWKWARD SPACE ON EITHER SIDE OF THE WINDOW

PLAN OF FIRST FLOOR

HOUSE OF D. SPENCER BERGER, NEW HAVEN, CONN. RICHARD H. DANA, JR., ARCHITECT

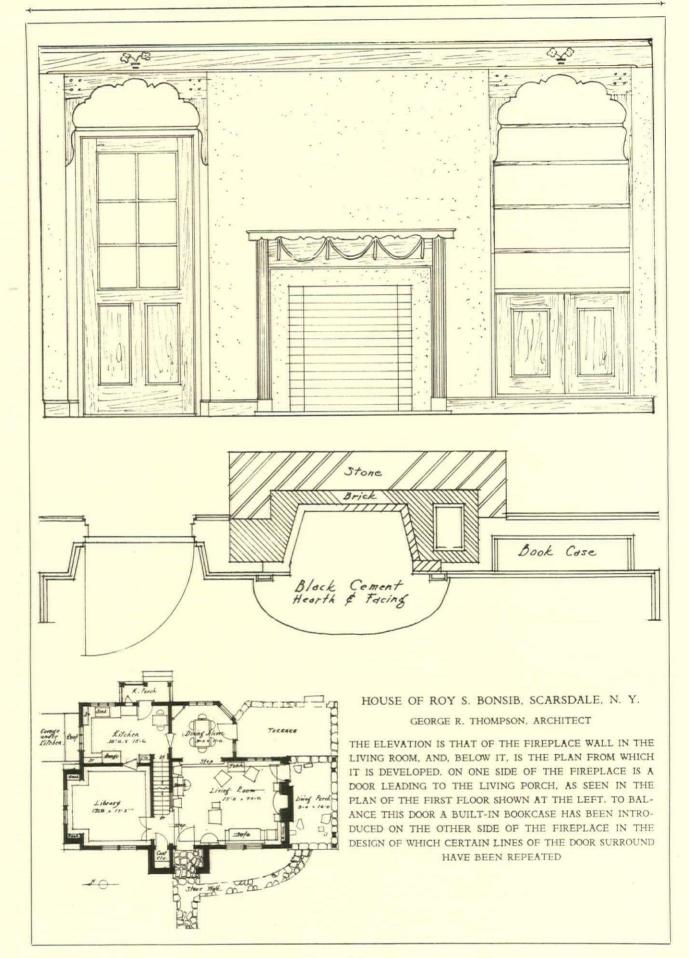


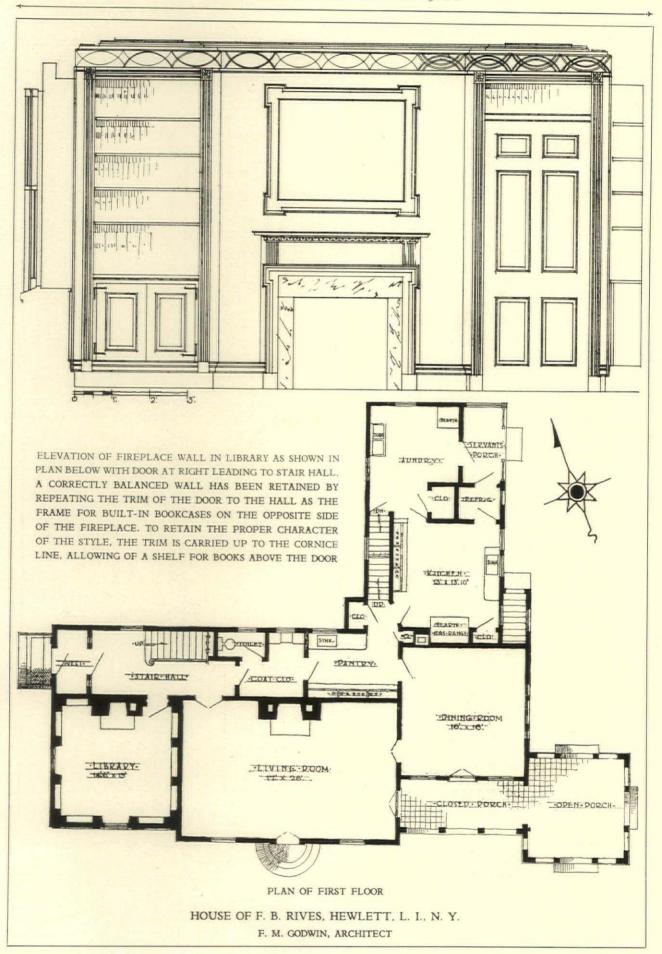
ELEVATION OF FIREPLACE WALL IN SMOKING ROOM AS DEVELOPED FROM THE PLAN DURING THE ALTERATIONS TO THE HOUSE. THE SEMI-CIRCULAR CHINA CABINET IN THE ADJOINING DINING ROOM ALLOWS FOR TWO SMALL CLOSETS IN THE SMOKING ROOM, WHILE, WHEN THE DOORS ARE CLOSED, THE EFFECT IS PERFECTLY SATISFACTORY. THE OLD CHIMNEY HAS BEEN RETAINED AND AN ANTIQUE HEATER INSTALLED IN THE FIREPLACE OPENING. IN THE ORIGINAL OLD HOUSE, THIS ROOM, NOW USED AS THE SMOKING ROOM, WAS THE LAUNDRY

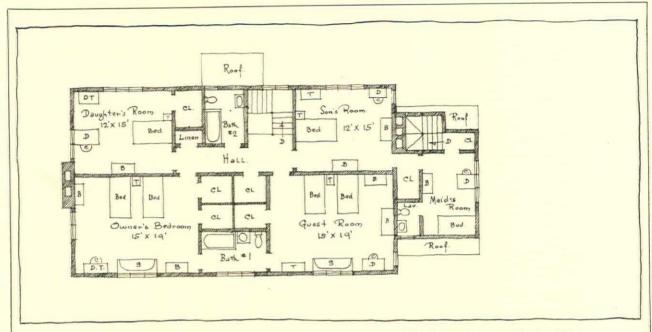


PLAN OF FIRST FLOOR

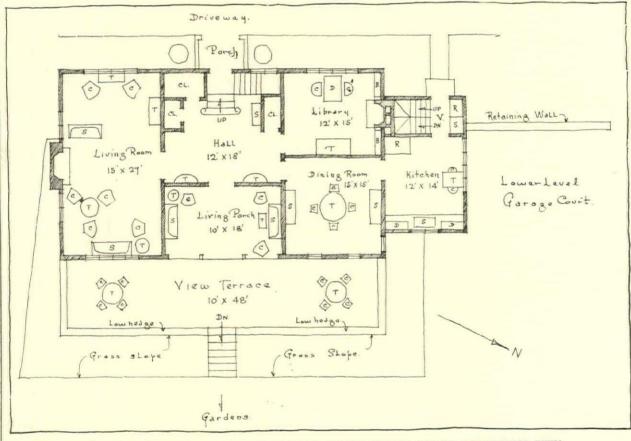
HOUSE OF ROBERT GAIR, SYOSSET, L. I., N. Y. BRADLEY DELEHANTY, ARCHITECT







IN PLANNING THE BEDROOMS, IT IS NECESSARY TO DETERMINE IMMEDIATELY WHAT TYPE OF BED IS TO BE USED. AS PREFERRED BY THE CLIENT, FOR IT AFFECTS MATERIALLY THE SIZE AND SHAPE OF THE ROOM. TWIN BEDS, FOR EXAMPLE, REQUIRE ONE LONG WALL ALLOWING FOR SPACE FOR NIGHT TABLE BETWEEN BEDS, AND SUFFICIENT ROOM FOR COMFORT ON EACH SIDE



THE FIRST QUESTIONS AN ARCHITECT MUST ASK HIS CLIENT, BEFORE PROCEEDING WITH THE PLAN, ARE THOSE BY WHICH THE SIZE OF THE DINING ROOM MAY BE DETERMINED: HOW MANY ARE IN THE FAMILY? DO THEY DO ENTERTAINING AT MEALS? AND SO FORTH

FIRST AND SECOND FLOOR PLANS OF A HOUSE AT ELMIRA, N. Y., SHOWING LOCATION OF FURNITURE RICHARD H. DANA, JR., ARCHITECT



ENGINEERING AND CONSTRUCTION



PASSENGER STATION AT BUFFALO, NEW YORK, FOR THE NEW YORK CENTRAL RAILROAD

Alfred Fellheimer and Steward Wagner, Architects
By Alfred Fellheimer

THE New York Central Passenger Station at Buffalo, New York, now under construction, aside from its architectural features, presents an interesting example of the application of railroad economics to the location of improvements of this type and magnitude in one of our larger American cities where material changes in the character and relative volume of the railroad business have been brought about by the rapid growth of the country in general.

Until relatively recent times, Buffalo was, in fact, a "Frontier City" and the principal passenger sta-

tion, that of the New York Central, close to its commercial center, was in effect a "terminal," serving the great bulk of the traffic flowing to and through the city. At the time of its building, Buffalo's population was about 50,000. Through all the years while the population increased tenfold, this station continued to be, and with a population of half a million, still is the main passenger gateway of its city.

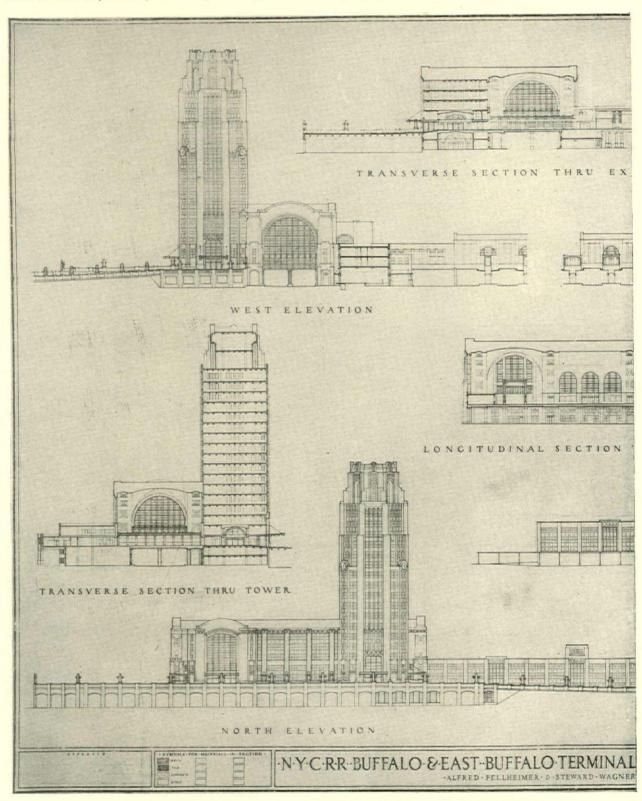
The enormous growth of traffic on the railroads serving the rapidly expanding West and Northwest



NEW YORK CENTRAL RAILROAD, CURTISS STREET PASSENGER STATION, BUFFALO, N. Y.
ALFRED FELLHEIMER AND STEWARD WAGNER, ARCHITECTS

has changed the character of the Buffalo Station service to such an extent that the "through" type now entirely dominates instead of the "terminal" type as formerly. The main line of the New York Central passes through the outlying southeasterly portion of the city, barely touching the edge of the

business district, and radically changed traffic conditions have insistently demanded a station located on the main line. The economic urge of the through business has prevailed in the selection of the so-called Curtiss Street site at or near the center of the city's population as against one in or near the down-



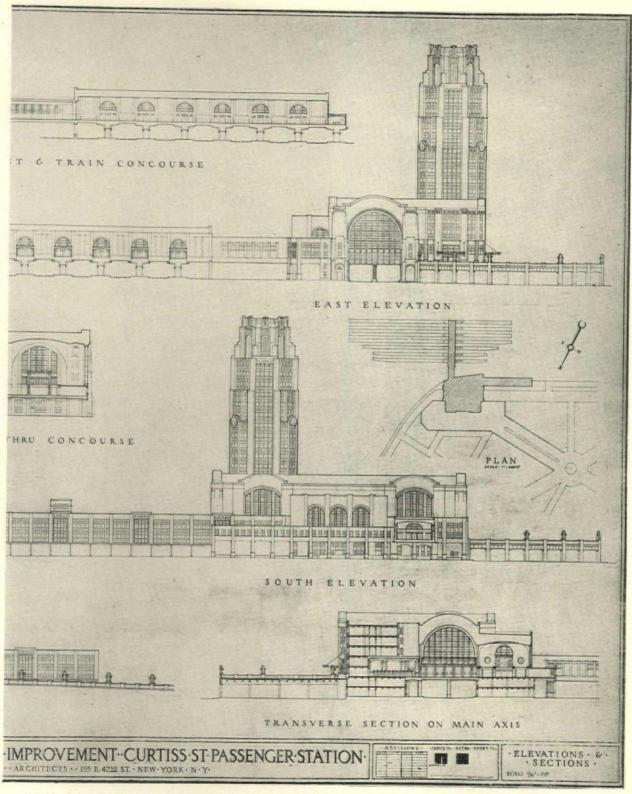
NEW YORK CENTRAL RAILROAD, CURTISS STREET PASSENGER STATION, BUFFALO, N. Y. ALFRED FELLHEIMER AND STEWARD WAGNER, ARCHITECTS

town business section of this steadily growing city.

This site at the center of population, in contact with city rapid transit and motor vehicle transportation and with ample opportunity for adequate supporting yards and rail facilities both now and in the future, satisfies the economic needs of the prin-

cipal railroad traffic and at the same time is most advantageous as to the needs of both the city and the railroad. It fittingly deserves the name by which it is to be known, the "Central Terminal" of Buffalo.

The station, when viewed from the usual avenues of approach, appears to be located on a rise of

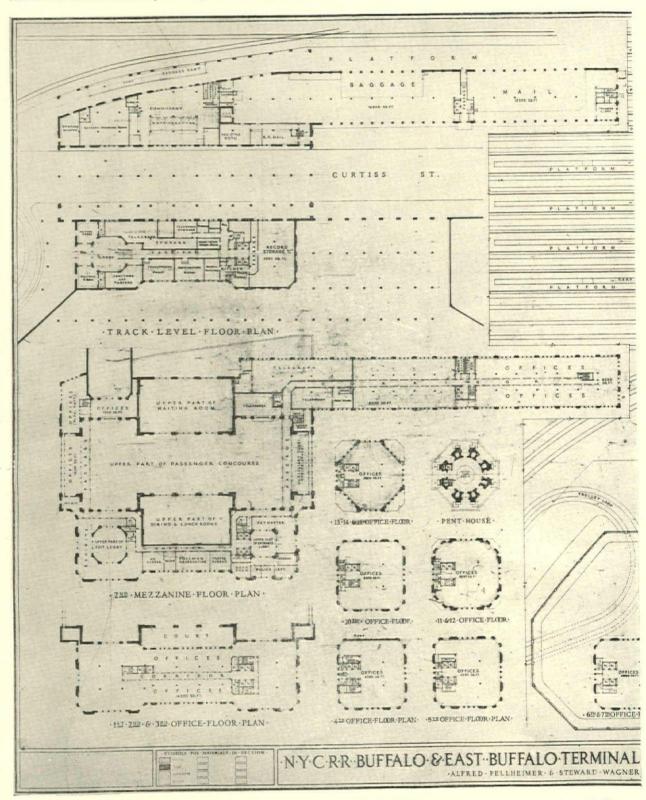


NEW YORK CENTRAL RAILROAD, CURTISS STREET PASSENGER STATION, BUFFALO, N. Y. ALFRED FELLHEIMER AND STEWARD WAGNER, ARCHITECTS

ground which, with the parked and landscaped surroundings, adds to the imposing appearance of the station and accentuates the height of the tower-like office building, the dominant feature of the structure.

The main station building stands north of the tracks and is substantially rectangular in shape. The

long axis is parallel with the railroad and the passenger concourse bridge extends from the station building, at right angles, across and over the tracks and platforms and is connected with them by stairs and ramps. The baggage and mail building, with railroad offices above, is placed along the tracks and

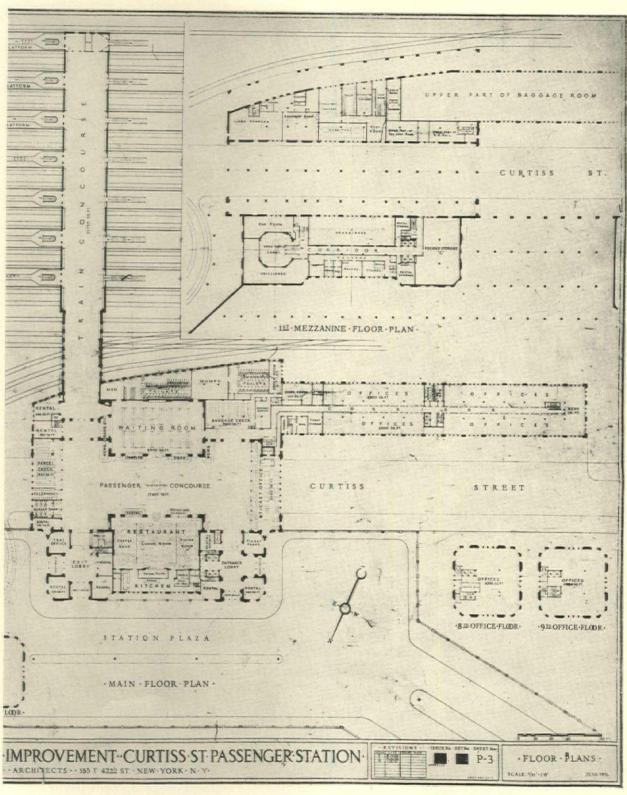


NEW YORK CENTRAL RAILROAD, CURTISS STREET PASSENGER STATION, BUFFALO, N. Y. ALFRED FELLHEIMER AND STEWARD WAGNER, ARCHITECTS

between them and Curtiss Street. The area of the group of structures is about equal to that of the headhouse of the Grand Central Terminal in New York City.

The station floor plan provides direct channels for the flow of traffic both in and out, with the con-

course centrally placed and surrounded by the supporting facilities and conveniences for the traveler all in plain view. All necessary service is thus provided with an orderly consecutive arrangement, elimination of cross currents of traffic and freedom from the necessity for retracing steps.

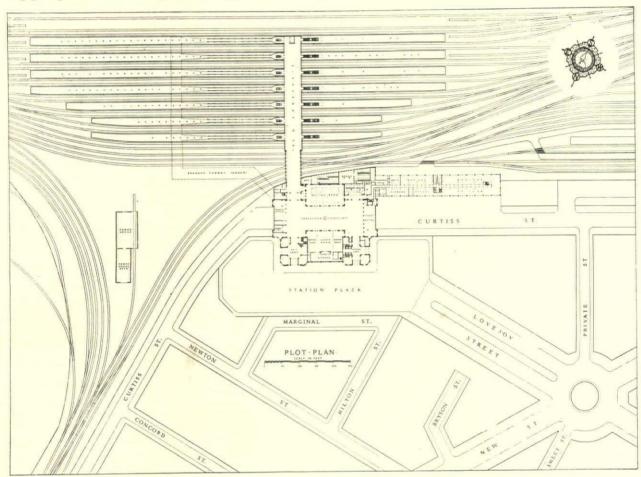


NEW YORK CENTRAL RAILROAD, CURTISS STREET PASSENGER STATION, BUFFALO, N. Y.
ALFRED FELLHEIMER AND STEWARD WAGNER, ARCHITECTS

The low level thoroughfare with its street-car, baggage, mail and express traffic has been made to pass entirely under the central portion of the station building, securing complete separation of the auxiliary facility traffic from the motor and pedestrian traffic on the plaza and waiting room level above.

Architecturally, the varying heights of the building group assist in creating a picturesque mass effect,

devoid of ornamental detail often associated with passenger station design. Due emphasis has been given to the relative importance of the various entrances, exits, and collateral features. The architectural treatment is in sympathy with the recent trend toward rational design, which for lack of a better name, may for the time being be designated, "modern American."



NEW YORK CENTRAL RAILROAD, CURTISS STREET PASSENGER STATION. BUFFALO, N. Y.

ALFRED FELLHEIMER AND STEWARD WAGNER, ARCHITECTS

TECHNOLOGIC PAPERS OF THE BUREAU OF STANDARDS

THE following technologic papers of recent publication by the U. S. Department of Commerce, Bureau of Standards, may be obtained by addressing the Superintendent of Documents, Government Printing Office, Washington, D. C.

A Method for Testing Gas Appliances to Determine Their Safety from Producing Carbon Monoxide, by E. R. Weaver, J. H. Eiseman and G. B. Shawn, Technologic paper No. 304, 30 pages, price 10 cents. This paper indicates that all types of gas appliances commonly used—ranges, water heaters, radiant room heaters, etc.—can be made safe from the carbon monoxide hazard, but that there is no certain way, except a laboratory test, by which even

an experienced person may judge whether an appliance is or is not operating safely.

Permeability of Stone, by D. W. Kessler, Technologic Paper No. 305, 22 pages, price 10 cents. This paper describes testing apparatus and results.

Shear Tests of Reinforced Concrete Beams, by Willis A. Slater, Arthur R. Lord and Roy R. Zipprodt, Technologic Paper No. 314, 109 pages, price 50 cents. This paper gives results of tests carried out on reinforced concrete beams in the establishment of a basis for design of concrete ships.

Holding Power of Wood Screws, by I. J. Fairchild, Technologic Paper No. 319, 28 pages, price 15 cents. The results of tests of the holding power of over 10,000 wood screws inserted in the side and end grain of seven kinds of wood are tabulated.

SEPTIC TANKS FOR UNSEWERED HOUSES

By W. A. HARDENBERGH, Sanitary Engineer

WHEN houses are constructed in unsewered sections, the problem of sewage disposal arises. Cesspools have been used as substitutes for sewers under such conditions, but the septic tank gives a far greater degree of service and satisfaction for approximately the same first cost. While the cesspool may function well in sandy soil, the septic tank properly installed may be used under almost any condition.

The problem of constructing and installing a septic tank may be very simple, as in the case of a small house in a locality having a sandy or open soil; or it may require the highest degree of skill in this special field, as where an installation must be made in clay soil, on a steep hillside, or in a section where subsoil water approaches the ground surface.

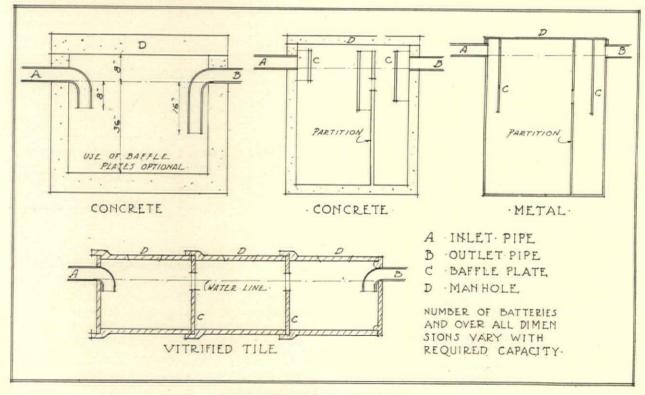
Of itself, the septic tank does not accomplish any high degree of purification. It receives the liquid wastes from the house and, by removal of the grosser solids through sedimentation and septic action, prepares the sewage for the next step in treatment. Detention of the sewage in the septic tank for the 12 to 24 hours recommended by best practice does not destroy all pathogenic bacteria. Therefore, the effluent from the septic tank must be considered dangerous as well as a potential nuisance. Unless properly disposed of, it will decompose and cause an unpleasant odor as a result.

Septic tanks may be built of concrete, tile, brick, metal, or other impervious material, and should be

reasonably watertight. To serve the average house, a capacity of about 50 gallons per person should be provided, unless greater capacity is indicated by expected unusual use of water. For tanks of less than about one thousand gallons capacity, a minimum working depth of 36 to 48 inches should be provided. Cylindrical or oblong tanks yield better results than square tanks. Partitions are not a necessity for satisfactory operation, but are considered desirable by many; baffles or down-turning elbows at the inlet and outlet are necessary to prevent breaking up of the scum, clogging, and short-circuiting. The inlet baffle should not exceed 8 to 10 inches in depth, while the outlet baffle should be 14 to 18 inches deep.

Passage of the sewage through a septic tank results in but a partial purification of the sewage and, of course, in no diminution in its volume. Further treatment is necessary to prevent nuisance and danger to health. In the small septic tank installation, this is best accomplished by the use of a subsurface disposal field, which discharges the effluent from the tank into the subsoil. In extremely open soils, the tank may discharge into a leaching cesspool, but in any but the most favorable conditions, the use of the subsurface disposal field is preferable.

The subsurface disposal field may be a single line or run of tile, or the lines may branch or be laid out otherwise as topography or lot limits may dic-



tate. For best results, a single run should not exceed 150 feet in length; where a larger field is required, branches should be constructed. Trenches for the disposal field should be dug to a depth of about 36 inches, and about 12 or 15 inches wide. In these trenches should be placed 12 or 15 inches of gravel or broken stone of medium size. On top of this porous material, preferably on a board embedded in it, the tile is laid, and covered with about 2 or 3 inches of the stone or gravel. The backfilling should be done carefully, but the earth should be well compacted, especially on hillside installations. The board provides a firm and even support for the tile and prevents sections from settling out of line.

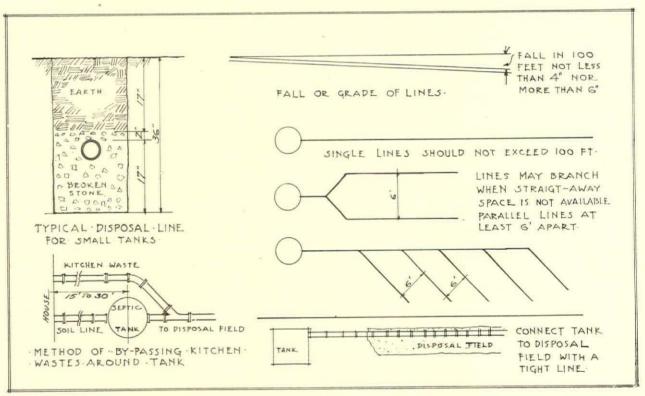
There are two essentials to satisfactory disposal field construction: 1. The fall or grade of the line should not exceed 6 inches in 100 feet; in clay soils 3 or 4 inches of fall give even better results. 2. An ample amount of porous material of good quality must be placed under the tile line. Porous material above the line is practically worthless. Clean gravel or broken stone is the best material; cinders are

rarely satisfactory. It will require about 5 yards of porous material for each 100 feet of disposal field.

The construction described gives a cover of about 15 to 18 inches over the tile, which has been found to give best results. In very cold climates, a greater cover may be needed. In some parts of Canada, a minimum of 36 inches cover is required, but in most places best results are obtained with a cover of about 15 inches. The practice of putting toilets and wash tubs in the basement makes satisfactory disposal by septic tanks or cesspools difficult, and should be avoided when possible.

A satisfactory installation for a six or seven room house would consist of a 200 or 300-gallon septic tank with 100 to 150 feet of disposal line. For larger houses, provide 50 gallons of tank capacity and 25 feet of tile disposal field for each person.

In installations serving less than 20 or 30 persons, siphons are not necessary, and add considerably to the cost. For installations where the daily flow of sewage exceeds 1500 gallons, siphons are generally desirable.

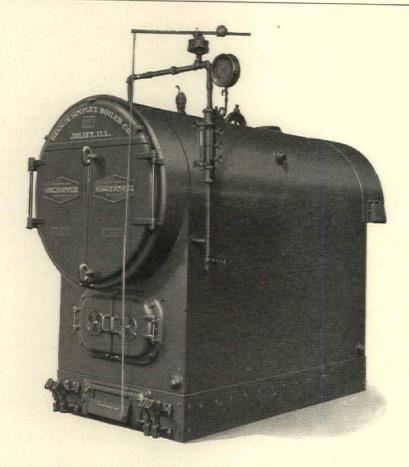


CONSTRUCTION OF DISPOSAL LINES FROM SEPTIC TANKS

SIMPLIFIED PRACTICE RECOMMENDATION—STEEL SPIRAL RODS (FOR CONCRETE REINFORCEMENT)

THE U. S. Department of Commerce has issued a report of the National Committee on Metals Utilization as simplified practice recommendation No. 53. This recommendation applies to steel spiral rods for concrete reinforcement and has been accepted by various associations, producers, distributors and users as well as government departments. This

document contains a list of recommended simplified sizes and pitch of spiral for various percentages of rod sizes, history of the project, survey of conditions in the field and other data of interest in connection with the elimination of waste as undertaken by the U. S. Department of Commerce. Recommendation No. 53 can be obtained from the Superintendent of Documents, Government Printing Office, Washington, D C., price 5 cents.



Where Only Results Influence Selection

WITH these and many other of America's best known corporations, where buying is based upon predetermined standards, you will find Heggie-Simplex steel heating boilers in service. Their architects and building committees thus endorse what Heggie's thirty-five years of boiler building have accomplished—the most modern of heating boilers, in which scientific design combines every essential with preeminent quality.

Heggie-Simplex Boiler Co., Joliet, Illinois, Representatives in principal cities

— telephone and address listed under "Heggie-Simplex Boiler Company."



HEGGIE'SIMPLEX

ELECTRIC-WELDED STEEL HEATING BOILERS

COMMUNICATIONS

The Editor, THE AMERICAN ARCHITECT:

ONE hesitates to even raise a question about a readable story, especially when it comes through that very dependable source of news and world information, the New York Times, but when excerpts from Karl Schriftgresser's article on the final and accepted design for the central tower of the Cathedral of St. John the Divine, New York, is published in the February 20th issue of THE AMERICAN ARCHITECT, to a more restricted, selective, and, if you will, a more critical clientele, there at once arises the question: "Are these general statements, set forth in this article, true?"

I feel assured that Dr. Cram would be the last to claim as correct, that which Mr. Schriftgresser asserts the design to be: "an entirely original scheme has been worked out, one which never before has been employed in Gothic construction: * * * a device which never occurred to the Gothic architects from the twelfth century to the present time."

Those that have vaulting at their finger-ends know that the principle involved, that of intersecting arches to reduce areas, or to carry a superstructure, or both contingencies, was an expedient constantly utilized by the Mediævalists, so that any claim for originality will have to be based on the detail of its use, rather than on the principle involved.

The famous Mohammedan mosques of Bijapur, India, with their pointed arches of "quasi-Western origin" use this principle. Jumna Musjid, built by Ali Adil Shah (1557-1579) reduces a square of 70 feet to an octagon of 57 feet in diameter, and that of the tomb of Mahmud (1626-1660) reduces a square of 135 feet to an octagon of 124 feet in diameter, each carrying a superstructure. A similar idea to these Indian examples was used by William Emerson, F.R.I.B.A., in his successful design in the first competition for Liverpool Cathedral in 1885, four years before the competition for the Cathedral of St. John the Divine.

There is an example of this principle in St. Giles' Collegiate Church, (commonly called St. Giles' Cathedral), Edinburgh. During 1387 contracts were entered into between three master-masons (the architects of that day), John Prymos, John of Scone, and John Skuyer and the Provost of the city of Edinburgh, in which they engaged to erect five vaulted chapels, on the south side of the nave south aisle: and as these chapels projected beyond the south transept, fifty years later the transept was extended. An arch was thrown from the haunches of the arches of the south aisles of nave and choir, in a very similar manner to that used by Cram & Ferguson from the Heins & Lafarge arches, but in the St. Giles example there is no supporting pier under

There is a good illustration of this example, from the pen of Dr. Thomas Ross, on page 427, Volume 2, The Ecclesiastical Architecture of Scotland, by Macgibbon and Ross. The Scottish example is somewhat cruder in detail than what may be expected from the office of Cram & Ferguson, but the principle involved is the same in both cases, and both are additions to a previously determined scheme.

Probably the most direct example of the principle used in the St. John the Divine crossing, and I expect much better known than an example from Scotland, is that used in the Prior's kitchen in the Monastery at Durham (1368-1380), shown in plan on page 203, Volume 2, Scott's Mediæval Architecture, and in perspective on page 338, Bond's Gothic Architecture in England.

Pittsburgh, Pa. JAMES M. MACQUEEN.

Editor's Note:—We fully understand that the architects themselves have not made the claim that they for the first time had adopted this device, but it was merely the inference of outside commentators. We believe the thing is good enough as it is, whether it has a precedent or not.

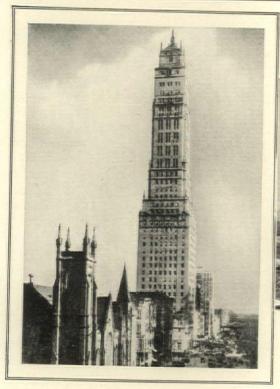
To the Editors of the Architectural Magazines:

FOR over a year the Board of Directors of the Institute has been engaged in a study of the organizational and administrational form of the Institute, with a view to their simplification and better coordination, and a Special Committee has been similarly engaged in a comprehensive study of certain functions of the Institute, one of which is the Journal

At the meeting of the Executive Committee in New York on 25th of February last, it was learned with much regret that an impression appears to have gained ground, publicly, that the Institute has the intention of abolishing the Journal and that another privately owned architectural publication was to become the official organ of the Institute.

The Executive Committee has therefore instructed the Secretary of the Institute to request that the publishers of all the architectural publications be requested, through their columns, to inform their readers that these rumors are without the slightest foundation. On the contrary, the Board of Directors is keenly intent upon a plan whereby to enlarge and expand the Journal so that it may become of even greater usefulness to the Institute and the profession of architecture.

FRANK C. BALDWIN,
Secretary, The American Institute of Architects



Ritz Tower Apartment Bldg., New York City Architect, Emery Roth, New York City Equipped with Stanley Ball Bearing Butts



Residence of F. L. Maytag, Newton, Ia. Architect, Cervin & Horn, Rock Island, Ill. Stanley Ball Bearing Butts used throughout (three butts to a door)

Free-swinging doors—freedom from replacement costs

with Ball Bearing Butts

If the heaviest door cannot be opened and closed with a gentle push, friction in the butt joint is self-evident. Friction and wear go hand in hand. Wear causes the door to sag and give trouble.

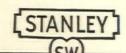
Ball Bearing Butts reduce friction and make doors swing freely and easily. By eliminating wear, they prevent sagging doors, and do away with repairs, adjustments and replacements for the life of the building or residence.

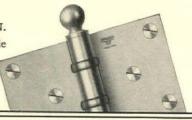
Stanley engineers have originated most butt and hinge improvements since 1852, including cold-rolled steel, the non-detachable (nonlosable) washer, non-rising and self-lubricating pin, improved finish, and the use of ball bearings.

This wide experience enables us to make a product of uniformly high quality that has set the standard in butt manufacture. The Stanley trade-mark is on every butt.

The Architects 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 Catalog, pages B1702 to B1705 and B1722 to B1734.

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





STANLEY BALL BEARING BUTTS

MADE OF BRASS, BRONZE, AND STANLEY STEEL



COMPETITIONS

LE BRUN SCHOLARSHIP AWARDS

E ARL C. NORRIS of Denver, Colo., is the winner of the 1927 Le Brun Traveling Scholarship Competition, it is announced by Otto R. Eggers, chairman of the Le Brun Scholarship Committee of the New York Chapter of The American Institute of Architects.

First mention was awarded to W. Ray Winegar of Detroit. Second mention went to Emil W. Klee, New York: third mention to Martin Beck, Astoria, L. I., and fourth mention to Henry A. Cook, New York.

Maurice Gauthier, Brooklyn, and Albert W. Butt, Jr., New York, were specially commended.

The subject of this year's competition was "A Community Mausoleum." The scholarship, valued at \$1,400, was founded in 1910 by Pierre L. Le Brun, architect of the Metropolitan Tower, in memory of his brother. The beneficiary will spend six months in study abroad.

The judges were Egerton Swartwout, Clarence Levi, and Richard Dana, Jr.

RESULTS OF FURNITURE COMPETITION

HE results of the competition for designs for living room furniture, conducted by the Art Alliance of America, and for which prizes amounting to five thousand dollars were offered by S. Karpen & Brothers, were recently announced. The first prize was equally divided between two competitors whose designs were bracketed by the jury,-Richard Haviland Smythe, a New York architect, and J. W. Peters of Los Angeles, California. The architectural profession was represented on the jury of award by Harvey Wiley Corbett, F.A.I.A., and the furniture manufacturers by Martin Lammert, James Nason and Sterling B. Macdonald. Almost four hundred entries were received, and the Art Alliance announces that the competition was so interesting in its results that it will be repeated next year.

COMPETITION FOR THE DESIGN OF A SMALL HOUSE

THE purpose of this competition is both to awaken an interest in the economic and artistic problem of the small house among the architects and draftsmen of New England, and also to secure and exhibit practical examples of small house designs, with the idea of interesting the press and the public in better types of American homes, and possibly providing them with better standards of comparison and architectural ideals. Toward the securing of these results the Women's Municipal League, 25 Huntington Avenue, Boston, Massachusetts, invites the

co-operation of all those concerned, and especially all members of the architectural profession.

In order to secure a group of plans of small houses of architectural merit and practical value, available for those desiring to build homes in the vicinity of Boston, and in connection with the observance of "Better Homes Week" in Boston, May 2 to 9, 1927, the Women's Municipal League offers the following prizes for the best designs submitted conforming to the conditions as prescribed: A first prize of \$150.00 and a second prize of \$50.00 will be awarded, and the Jury may also select a few additional designs, if in their judgment worthy of Honorable Mention.

The Jury will comprise Miss Eleanor A. Raymond, A.I.A.; Alexander F. Law, A.I.A., and Gordon Allen, A.I.A., all of Boston. Frank Chouteau Brown, A.I.A., also of Boston, has been appointed the professional advisor. The Jury will meet and decide upon the winners during the week subsequent to April 15th, the date of closing of the competition.

Additional information and copies of the program of this competition, which was approved as an educational competition by the Boston Society of Architects, may be obtained from the office of the League on request and the transmission of a self-addressed and stamped envelope for mailing.

FOREIGN COMPETITIONS OPEN TO ARCHITECTS IN THE UNITED STATES

Editor's Note: The following information as to foreign competitions, while announced at one time or another in these pages, has been very competently grouped and classified by the Committee on Public Information of The American Institute of Architects. It is notable that the activities of this valuable committee are now functioning in the most helpful way. Their information and discussions sent out from time to time are of interest to architects everywhere, and as helpful to the profession at large as to Institute members.

British, French, and American prizes in architecture, all open to the architects of this country, are announced by The American Institute of Architects.

The University of Western Australia is inviting architects of the British Empire and of the United States to submit designs for a group of buildings to cost about \$750,000 which are to be built with funds bequeathed to the University by the late Sir John Winthrop Hackett, the first Chancellor of the University.

Three prizes of \$1,500, \$1,000, and \$500 are

TERRA COTTA



for

Golorful Beauty

in

Hospital Design

ENTRANCE to Children's Hospital, San Francisco, California, Bliss & Faville, Architects. Executed in polychrome Terra Cotta.

Colorful beauty is a badly neglected element in hospital design. Its benefical effect upon the mind of the patient has not been sufficiently appreciated.

Cheerfulness in the mental attitude of those requiring surgical treatment or undergoing convalescence is desired by all physicians.

Mat glazed Terra Cotta which combines all the sanitary merit of tile with beauty of color and ornamental form is unrivaled in its possibilities for the effective treatment of hospital buildings.

NATIONAL TERRA COTTA SOCIETY

19 WEST 44TH STREET

NEW YORK, N. Y.

offered. The general conditions of the competition are those recommended by the Federal Council of the Australian Institute of Architects. The competition closes at Perth, Western Australia, August 23.

Copies of the conditions may be obtained from the Commissioner for Australia in the United States, 44 Whitehall Street, New York. The announcement said that the restrictions of the American Institute's Competition Code do not apply outside the United States.

A scholarship valued at \$500. offered by Alfred Hopkins in memory of his brother, Walter L. Hopkins, will be awarded to the Class "A" student in the Department of Architecture, Beaux-Arts Institute of Design, who obtains the highest number of values in competitions in the school year. The scholarship is open to all architectural draftsmen who have not been abroad before.

According to the rules of the Fontainebleau School, all students must be white citizens of the United States, and in order to compete must notify the Beaux-Arts Institute of Design, 126 East 75th

Street, New York, before May 19.

Two competitive prizes of \$800 each in the School of Architecture of Princeton University are announced for 1927-1928. The prizes will be awarded to the winners of a competition in design to be held from May 20 to May 31 of this year.

"The purpose of the prizes," according to the announcement, "is to place at the disposal of experienced draftsmen of unusual ability, who desire to complete their professional training by contact with the academic side of architecture, the advantages found in the School of Architecture, the Department of Art and Archaeology, and the Graduate School of Princeton University.

"The winners are exempt from tuition fees. The candidates shall be unmarried male citizens, not less than twenty-one years of age and shall have been employed as draftsmen in architects' offices for not

less than three years.

"Applications to compete must be filed before April 18 with the Secretary of the School of Archi-

tecture of Princeton University."

The managing committee of the John Stewardson Memorial Scholarship in Architecture will hold a Pennsylvania competition for a scholarship valued at \$1,000. The holder will study architecture in this or foreign countries, as determined by the committee.

200

COMPETITION FOR A CERTIFICATE OF COMPLE-TION OF APPRENTICESHIP COURSES OF STUDY IN THE SEVERAL TRADES OF THE BUILDING INDUSTRY

THE Apprenticeship Commission of the New York Building Congress desires a suitable form for such certificates and therefore announces a competition open to all for the most appropriate design. A prize

of \$200.00 will be awarded to the design accorded first place by the Jury of Award, and a prize of \$50.00 to the design placed second. This competition closes May 17, 1927.

The design should be simple and dignified, and express by emblems, human figures, insignia or other device, the purpose of the Apprenticeship Commission in the award of certificates. The entire design shall be approximately $9'' \times 15''$ varying not more than $1\frac{1}{2}''$ in either dimension. All designs shall be in pen and ink, black on Whatman or similar paper, and shall be anonymous.

Further information and an outline form giving the wording of the certificate may be obtained by applying to L. H. Lewis, Chairman, Committee on Certificate, Apprenticeship Commission, New York Building Congress, 101 Park Avenue, New York

City.

WEST COAST WOODS ARCHITECTURAL COMPETITION

WE are now advised by the West Coast Lumber Bureau, Seattle, Washington, that the above competition, an announcement of which appeared on page 20 of our March 20th issue, is *not* restricted to the United States, but is open to any architectural firm, individual architect, designer or draftsman from all countries.

THE PRODUCERS' COUNCIL

THE fourth annual meeting of The Producers' Council (formerly The Producers' Research Council), affiliated with The American Institute of Architects, will be held at the Washington Hotel, Washington, D. C., on May 10, 1927.

All members of the Institute are cordially invited to be present at all meetings of the Council.

A CORRECTION

Among the exhibitions at the recent exposition of The Architectural League of New York, published in our issue of March 5th, there was an example of the work of the architectural firm of McGill & Hamlin, titled, "Main Entrance, St. Vincent's Home for Boys, Brooklyn, N. Y." This should have been titled, "Main Entrance, Parish School of SS. Simon and Jude's Roman Catholic Church, Brooklyn, N. Y."

William C. Halbert, Jr., architect, has moved his office from 232 Huguenot Street to 11 North Avenue, New Rochelle, N. Y., where he would be glad to receive manufacturers' catalogs, particularly those relating to residence and apartment house materials and equipment.

These properties of Douglas Fir make good doors and frames



Apartment building, Mariemont, Ohio. V. G. Douglas Fir sash made by Hyde Park Lumber Company, Cincinnati.



North American Building, Chicago, Holabird & Roche, architects. This building was built in 1920 and equipped with Douglas Fir sash.



WHEN you specify sash and doors and the frames for them, why not profit by the experience of Holabird & Roche, the architects who designed The North American Building, Chicago? This building was equipped with Douglas Fir window sash in 1910—seventeen years ago—and the sash are in excellent condition today. The same architects used Douglas Fir sash and frames in the Stevens Hotel, Chicago—the largest hotel in the world. You might inquire why Mr. Richard Henry Dana, Jr., the architect of the Dana Apartments, Mariemont, near Cincinnati, specified Douglas Fir doors, sash and frames, for this charming combination of apartments and group housing.

Strength

Numberless architects, unable to obtain the oldtime white pine, have turned to Douglas Fir and found to their delight that this West Coast wood has equivalent and often superior qualities for sash, frames and doors.

Douglas Fir is 60 percent stronger than the white pine our fathers used—and is 30 percent harder, thus enabling it to resist abrasion that much better.

Stiffness

Douglas Fir is 60 percent stiffer than the old white pine. Hence it gives to sash unusual solidity and freedom from bending, meeting rails stand heavy lifting without pulling away from the glass.

Durability

The heartwood of Douglas Fir, used in the exposed portions of sash and frames, has the durability of the old Wisconsin and Michigan white pine. The architect who specifies vertical grain Douglas Fir heartwood for sash, pulley stiles and sills makes no mistake.

Good Appearance

Douglas Fir finishes smoothly and the grain does not tend to check or raise when exposed to the weather, if cut-vertical grain. For doors, the stiles and cross-rails are usually vertical grain, with flat grain panels. The flat grain may be obtained in striking patterns or obtrusive monotones.

Paint, stain, varnish and enamel take and hold well on Douglas Fir—and hardware stays firmly attached.

Specific technical information about the uses of Douglas Fir will be sent on request. *Address*, West Coast Lumber Bureau, 5562F Stuart Bldg., Seattle, Washington.

DEMOCRACY vs. A SELECT SOCIETY

THE AMERICAN INSTITUTE OF ARCHITECTS SENDS OUT A QUESTIONNAIRE
AND GETS SOME COLORFUL REPLIES

THE question whether The American Institute of Architects should be a "democracy" or a "select society" has aroused divided opinion among the members, now numbering 3,000, and distributed among fifty-seven chapters throughout the country.

A questionnaire asking "Should the Institute standard for membership be notable achievement or character and reasonable competence?" was sent to the entire membership by the Institute's Committee on Architectural Relations, of which Harry T. Stephens of Paterson, N. J., is chairman.

Seven hundred replies have been received, it is announced by Milton B. Medary, Jr., president of the Institute, and they show that both views command substantial support. Frequently, the responses went afield to stress the conviction that the Institute should labor unceasingly for the public good.

"Education, training and notable achievement to hell with the majority," one reply read.

"I am a democrat, but confess myself weary of the democratic gesture of reaching down," said another. "Is it not high time for democracy to command men to raise themselves up, and is it not the mission of the Institute to set a goal and a standard, and to maintain that standard high?"

"The Institute should be inclusive, or invent some under, novitiate society that would be, through which one would have to pass before being a member of the Holiest of Holies, whatever it is dubbed," was another reaction in what was called "a mental cross-section of the Institute."

This member took the view that the Institute should have some far better selective process for advancing members to its higher ranks, whatever they are called, than it has at present: actually selecting for eminence in design and standing in the profession, not for commercial proficiency as is the present actual practice.

Another architect urged that the Institute control and discipline its members as the Bar Association controls and disciplines lawyers. One advocated recalling all fellowships, saying that many are rated as fellows who have no real right to the honor.

"A select society would be ultimately of no benefit to the community," asserted one advocate of "democracy." Another said "if membership were restricted to those of notable achievement, the Institute would become a society of a few. Many of the best architects have done fine work architecturally which could not be classed as notable."

Excerpts from other advocates of the democratic idea follow:

"The select society is impossible except under some Grand Monarch."

"The work of the majority, taken as a whole, has done more for their fellow men than has the work of the great ones all put together, no matter how notable it has been."

"Make it as democratic as possible; but don't let down the bars."

"Numbers are strengthening."

"An Academy might be amusing to its members, but it would be of no use to the profession or the country."

"The Institute should be inclusive and every architect who practices according to accepted standards should be eligible. A so-called select society is self-perpetuating, becomes inbred and loses virility. Such an organization becomes an 'Old Peoples' Home' and about as useful professionally."

"The Institute has no excuse for existence except service to the general public. Character and reasonable competence should be the standards."

"Only by having a majority can our standards of practice be raised and the Institute become a real force in the eyes of the public."

"We need no organized architectural Olympus." The extent of the response to the questionnaire, in which five other questions were asked, was, according to the Institute's announcement, about a half million words.

20

SUMMER COURSES AT CARNEGIE INSTITUTE OF TECHNOLOGY

Courses in architecture, it is announced, are featured in the plans for the Summer session this year at the Carnegie Institute of Technology, Pittsburgh, Pa. Under the plans for the coming Summer, the Department of Architecture of the College of Fine Arts will give intensive six weeks' courses from June 13 to July 23 to meet the needs of students who desire to continue their work in architecture in the vacation, whether to make up credit, obtain advanced credit, or to prepare themselves better for entrance.

Among the subjects to be offered are architectural design, outdoor sketching, descriptive geometry, shades and shadows, perspective and mathematics.

Six and eight weeks' courses are announced also in chemistry, physics, mathematics, mechanics, English, economics, commercial law, history, drawing, surveying, psychology and education, charcoal and pastel drawing, water color and oil painting, design, sketching, methods, history of arts, and various shops. Courses of six weeks will be given to teachers and supervisors of public school music, fine and applied arts, and manual and industrial arts.



THE **AMERICAN**



WITH WHICH IS CONSOLIDATED THE ARCHITECTURAL REVIEW

VOLUME CXXXI

APRIL 20, 1927

NUMBER 2519

CONTENTS

	STREET SCENE, VILLEFRANCHE VILLEFRANCHE Samuel Chamberlain THE NEW CITY HALL, LOS ANGELES, CALIFORNIA EDITORIAL COMMENT TRADITIONAL ART OF THE AMERICAN INDIAN SOME ROOMS DESIGNED BY AND FURNISHED UNDER THE DIRECTION OF A GROUP OF BUILDINGS OF MODERATE COST THE SETTING OF TERRA COTTA AND ITS INSPECTION BY ARCHITECTS Wm. Kraemer				489 497 535 537 540 543	
PLATES						
	CITY HALL, LOS ANGELES, CALIFORNIA		•	D	lates	
	House of Louis Raquet, Saint Petersburg, Fla Harry F. Cunningham Kings Highway Christian Church, Shreveport, La Jones, Roessle, Olschne	r	4	P	lates	
	House of Mrs. Laura B. Levering, Greenwich, Conn. Phelps Barnum B. W. Close				lates	
	Downtown League Awards for 1926 Benjamin Wistar Morra Louis Allen Abramson	is	- 67			

OWNED AND PUBLISHED BY

THE ARCHITECTURAL AND BUILDING PRESS, INC.

E. J. ROSENCRANS, President and Treasurer

FREDERICK S. SLY, Vice-President

Publication, Editorial and Advertising Offices: 239 West 39th Street, New York City

EDITORIAL DEPARTMENT

WILLIAM H. CROCKER, Editor BENJAMIN FRANKLIN BETTS, Associate Editor R. W. SEXTON, Associate Editor, Department of Interior Architecture E. K. BRUNNER, Editorial Assistant

Board of Directors

H. J. REDFIELD

E. J. ROSENCRANS FREDERICK S. SLY

PAGE A. ROBINSON

G. E. SLY

H. H. MINER

WESTERN OFFICE: First National Bank Building, Chicago, PAGE A. ROBINSON, Manager LONDON OFFICE: DORLAND HOUSE, 14 Regent Street, S. W. I.

Yearly Subscription in the United States and Possessions, Canada, Mexico and Cuba, Six Dollars. Other Countries, Eight Dollars, Payable in New York Funds. Single copies (Regular Issues) 50 cents.



INCORPORATED
-LOUISVILLE - ATLANTA - DALLAS - HOUSTON-

THE PUBLISHERS' PAGE

THE present is the second issue containing the Topical Architecture section and the reinstated section devoted to Buildings of Moderate Cost. Please let us have any suggestion that will make these features of the greatest aid to you in your work.

Curious that so many men are averse to letting it be known that they ever design or build structures of moderate cost. We could name a great many men who are known as prominent architects today whose earlier and low cost work was illustrated in THE AMERICAN ARCHITECT years ago. Hidden away all over these United States are hundreds of low cost buildings that are of the first architectural rank, full of suggestions and just exactly types that are the most valuable for presentation in our department of Buildings of Moderate Cost. We urge those of you who have material of this sort to communicate with us. We will co-operate to the fullest extent.

200

We have about reached the conclusion that one reason for the unwillingness to send in this sort of material is because it is not possible to secure good photographs. But, most architects use a hand camera with more or less success. If you hold the camera level, you can make a negative that in all probability could be used. It can be safely enlarged from, say, 3 ¼ x 4 ¼ up to the required size.

Here's a trick that may be useful to know. Many buildings are located so that when holding the camera in the usual way, the top of the building will be cut off. When the camera is tilted, the usual distortion results. Just turn your back to the building, hold the camera at arm's length straight over your head, get the subject on the ground glass,—then hold your breath and press the release. By reason of the greater elevation of the camera, most any type of building can be reached in this manner. You hold your breath because you are steadier when you do that and the motion of breathing will not affect the exposure. Just try some of these low cost good buildings that way and let us see the results.

20

In an editorial published in the March 20th issue of THE AMERICAN ARCHITECT comment was made on the work of The American Institute of Architects, with particular reference to an outstanding practical accomplishment—the A.I.A. Standard Construction Classification or filing system for architects' offices. That this system has met an urgent need is evidenced by the rapidity with which architectural offices not only in the United States but in foreign countries as well, have adopted it as a solution for the classifying of manufacturers' literature.

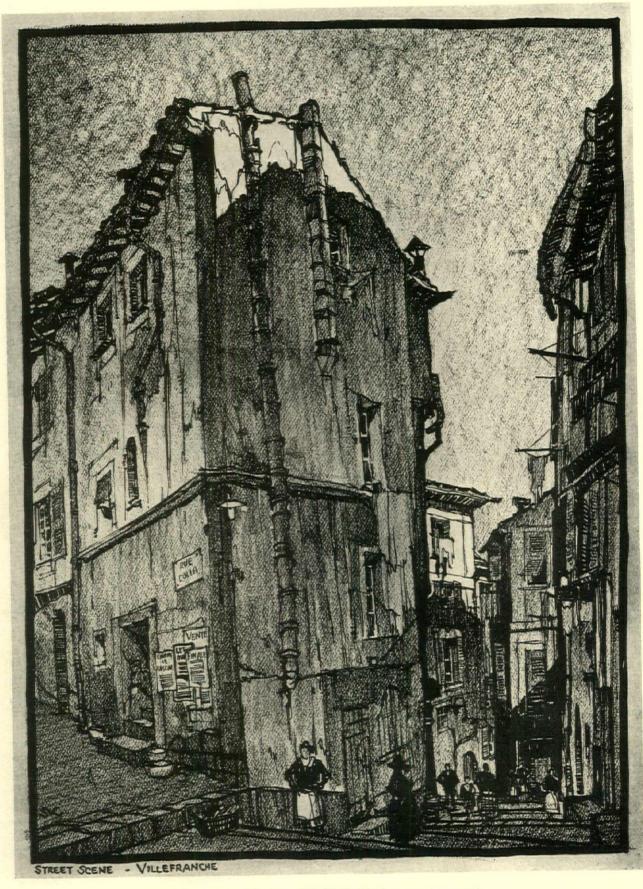
Credit for the widespread adoption of the Standard Construction Classification is very largely due to the manner in which producers have in general responded and seen to it that the correct file number was printed on the cover of booklets, bulletins and folders intended to be filed for future reference.

In the general adoption of the Standard Construction Classification, this journal feels justified in taking some credit. Whenever manufacturers or advertising agencies consult our staff on the subject of presenting building materials and equipment in printed form to architects, the recommendation is made that the A.I.A. file number be printed on the outside cover of the booklet in the position requested by the A.I.A. Scientific Research Department.

The section of this magazine known as the Reference List of Business Literature has been for some time arranged in accordance with the divisions of the A.I.A. filing system. In preparing these listings of manufacturers' literature, reference is made to the file number if printed on the catalog. THE AMERI-CAN ARCHITECT Specification Manual, 1926 edition, was arranged in the same order as the A.I.A. filing system and the filing system was printed in full in this edition of the Specification Manual. The 1927 edition of this valuable book will follow the same arrangement. From time to time editorial mention has been made of the use and value of the A.I.A. filing system. Architects often write our editors asking advice or suggestions on suitable filing systems for coordinating office work. Here, again, the same recommendation is made,—that no better system has been devised for filing practical data than the A.I.A. filing system. We believe that we are justified in taking a share of the credit for making the general use of this system a reality.

20

Arthur T. North, one time Engineering Editor of THE AMERICAN ARCHITECT, is contributing a monthly New York letter to The Western Architect, of Chicago. "The world's best architecture has never been executed," writes Mr. North in his April letter. "Designs that were the finest conceptions of architects, have never been executed because of the owner's lack of understanding, or fear of criticism. because it was unconventional, or the common result of the stupidity or jugglery of juries of awards in competitions." All of which, we believe, a majority of architects will thoroughly endorse. It is not always the completed things that are most valuable for illustration in an architectural magazine. What we are keen to have, and would be most grateful for. is as many examples as possible of what Mr. North describes as good architecture conceived but not yet

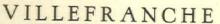


FROM THE ORIGINAL SKETCH BY SAMUEL CHAMBERLAIN



THE * AMERICAN ARCHITECT

FOUNDED 1876



CASUAL NOTES ON AN ALMOST UNTARNISHED JEWEL ON THE RIVIERA By SAMUEL CHAMBERLAIN

Illustrated with Drawings by the Author

VILLEFRANCHE is a densely packed hodge-podge of dovetailed houses, squirming upward toward a bit of air and light. The narrowest of



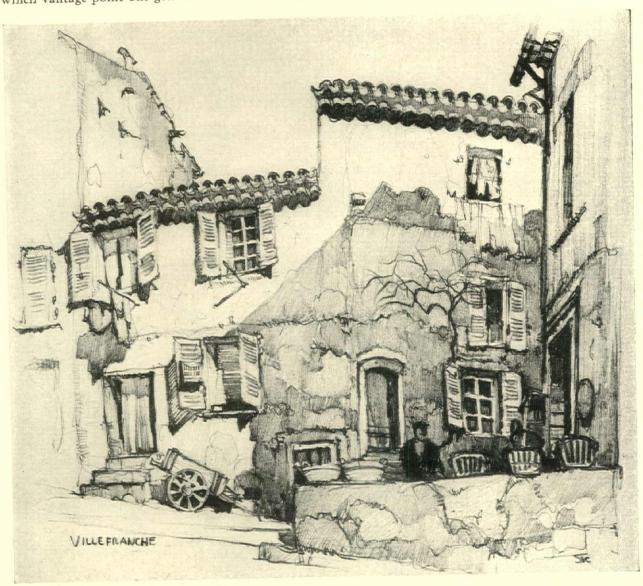
VILLEFRANCHE IS LIKE A BOX OF PASTELS SPILLED GAILY OVER THE WATERFRONT

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

vendors and open-mouthed tourists. Villefranche is a sizable town crammed into the area of a cow pasture. There is not a square inch of building space left in the place, and thus it has escaped the blemishes of the building boom of the last decade, although a grinning gallery of monstrous villas leers down upon it from the hills above.

There is a miniature port with a stone jetty, from which vantage point one gets a view of the chalky

there in the steep complexity of Villefranche, such as the square facing the unostentatious little chapel, crowded with screaming gamins and argumentative local politicians, (for the Hotel de Ville is adjacent). The chapel is rather forlorn. Its painted stonework is nearly washed away and several patches of fallen plaster add to its raggedness. The marble detail of the doorway is protected by an unassuming tin ledge. The rose window has lost its



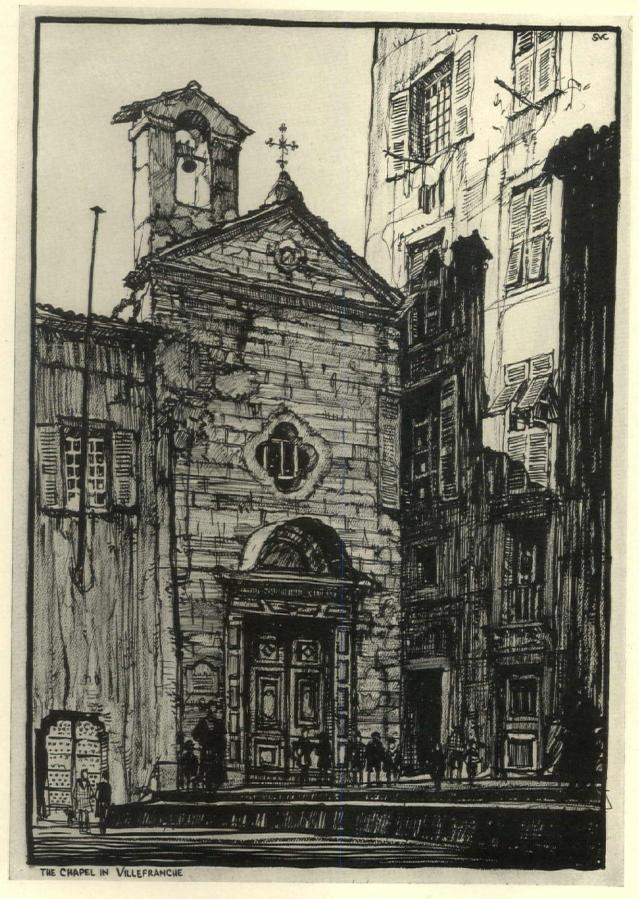
THERE IS NOT A SQUARE INCH OF BUILDING SPACE LEFT IN THE TOWN, AND THUS IT HAS ESCAPED BLEMISHES OF THE BUILDING BOOM OF THE LAST DECADE

splendor of the town. It is like a box of pastels spilled gaily over the waterfront. There seems to be no perspective in the place, no differentiation of planes, due to the clarity of the atmosphere and the blinding brilliance of the color. The deep soup tureen of hills crowds greedily over the housetops, as though it were about to devour the whole village. The groves of olive trees do not stay back where they belong; they roost on the chimney pots.

One stumbles upon a breathing space here and

bloom, but the industrious little bronze bell still rocks back and forth twice a day.

Another open space occurs at the fountain, where the soggy squalor of Villefranche is fairly well exposed. The butcher's helpers come here to wash horse livers; the housewives rinse their mops: wine merchants scour their kegs and children scrub their mangy dogs. As a fountain it is little more than a curved bit of wall devoid of detail and pretense, but it is nonetheless eloquent of eight decades of hard



FROM THE ORIGINAL SKETCH BY SAMUEL CHAMBERLAIN

usage. It is so enclosed that the sunlight never gets an opportunity to dry up its moist surfaces, although it pours on the more exposed houses which loom above.

But for the more intriguing touches one must turn to the waterfront, a quiet and sun-soaked piazza dotted with bars and more bars, with the stray boutique of a cobbler or a toymaker wedged in between them. A battered old boat loafs mournLong strings of nets, dyed brown with tan bark, lie stretched along the quais while the fishermen's wives repair with deft fingers the rents made by obstreperous mackerels. And there are artists, dozens of them, from faltering lady water-colorists to frowning masters with large and imposing canvasses. Not all of them belong to the army of Unknown Artists which populate the Cote d'Azur. A wiry little



THERE IS A MINIATURE PORT WITH A STONE JETTY, FROM WHICH VANTAGE POINT ONE GETS A VIEW OF THE CHALKY SPLENDOR OF THE TOWN

fully nearby on the pavement, presumably waiting for repairs which will never be made. Its oaken hull is studded with sparkling green bronze nails, and the sun filters through many an uncaulked crack. Lobster traps and fish nets are draped over it, and drowsing cats rest under it, safe from the attacks of the village mongrels. A hundred or more fishing boats bob up and down along the piers while their owners, much more adept at the art of arguing in a hoarse patois than in doing anything as strenuous as dragging in their nets, gather in ges-

man, still young and agile, is occasionally seen wandering along the water's edge with a far-away look in his piercing eyes. He wears a black silk shirt, a florid yellow necktie and a cafe au lait suit. The cuffs of his coat are carefully turned back to reveal a vermillion lining. His face is tremendously French, sensitive and keen as a knife edge, set off with mountains of waving black hair. His diction is staccato and jewel-like, as beautiful as an etude of Debussy. His hands are poems, with nervous tapering fingers. He adores American jazz but seems to care for few



FROM THE ORIGINAL SKETCH BY SAMUEL CHAMBERLAIN

parade past the battery of easels, bedecked in beards and berets and crimson waistbands. They have found that they can gain quite as much by posing for susceptible painters as by angling for sea food. Others too old to work spend speculative hours poking among the rocks with forked bamboo rods. They are in quest of that strange creature, the sea urchin, a spiny purple sphere the size of a tennis The thousands of spines move cautiously when the sea urchin is placed on the table top, and it can cover a respectable, if aimless, distance in an hour. The technique is to cut the thin shell open with a pair of scissors, and to scrape out everything but a few strips of orangish flesh which prove very phosphorescent and delectable if you are a perfect nut on sea food. The sea urchin has the upsetting habit of continuing to waft its spiny prickles, even while one is indulging in the degustation.

Picture a scene of typical calm one morning last December: a group of idlers watching a newly captured octopus squirm and hiss on the pavement, a few scampering children and a dauntless artist or two, that is all. Suddenly a thin wisp of smoke is discerned on the horizon. The binoculars come out and an excited shout arises from the trades people. The cafe keepers throw open their doors and shuttered windows and dust off the red horns of their talking machines, hastily arranging a battery of Martell and Hennessy and Corvosier on the shelves. The quais begins to buzz. The Customs Inspector dons his official coat with the gold braid and the red letters. The grocer drags forth his stock of grapefruit and jam and catsup. The American cruisers are coming! Word spreads to the villas up the hill, and soon the little American colony is en masse at the water's edge. Out of nowhere come the daughters of joy to lend a touch of rouge and gilded bicuspids to the waiting ensemble, gaudy ladies with voices like newsboys. There are scattered members of that clique of idlers which have caused the Riviera to be called "a sunny place for shady people." Everyone knows that American sailors have money, so all of the scorpions and buzzards and leeches of the life along the coast scurry down to claim their share of the spoils. The walking rug emporiums, red fezzed Algerians loaded with blatant silks and strings of beads which, according to men of the world, are charged with tiny pellets of drugs, join in the throng. They heckle the bystanders, inoffensively and smilingly, and seem undisturbed at their invariable failure to consummate a sale.

The thin wisp of smoke has grown to a charging

cruiser, followed by two slender destroyers. Guns boom forth from the old citadel and from the battle ship, the ship's band strikes up the Marseillaise and slowly the cruiser comes to a stop in the middle of the bay. Two hours later, with the population on the pier still breathless, the first trim little launches speed up to the landing, loaded with very worldly gobs who seem not at all impressed with the gaping throng. Many of them speed for a meteoric plunge in Nice via the nearest taxi, but the old-timers filter into the bars to watch the empty bottles of Rubens beer muster into a full squad before them. They are unhurried and quiet, content to sit contemplatively in a corner and listen to the music while quenching their thirst. They are extravagantly kind to the children of the cafe keepers, respectful to the point of florid chivalry to the oldest daughter and they call the portly proprietress "Ma-A little Italian girl with a seraphic smile plays soft serenades for them. Most of them have seen her grow up from childhood in that same corner with the same violin and the same guitar-strumming father. Evening comes and Mama makes them real American ham and eggs with French fried potatoes. By this time they are a bit noisier. Loud choruses of that lasting favorite, "She Was Just A Sailor's Sweetheart," fill the smoky interior of the cafe. I noticed a gigantic sailor with a belt and leggings outside the door, and asked him to join me. 'Sorry, mister, I'm on patrol tonight. Can't do it. But I'll have a cup of coffee with you.'

He was eager to talk with some one. His father was a Baltimore policeman, and he had inherited an ideal physique, six feet six of sinew, for his job.

"The boys are out for a time tonight," he informed me. "They like this town better'n any other one in Europe. But they sure don't lose time in gettin' in trouble. I just been up to drag one of 'em out of a hole up here. He was trying to clean up on five Wops. This is a live job I got."

We did not have to wait long to verify his statement. A worried little Italian rushed up to my

"It's trooble! It's lots trooble up here! Come along, eh? I spik him yes and he spik me no! Lots trooble!"

He was very earnest and excited, inarticulately so. The giant gob hitched up his belt, tightened his coat collar and put his cap and his chin at a pugnacious angle. "Well, here's another one." he sighed. "Boys will be boys. But I'll be back soon." And he strode out with the flurried messenger.

THE NEW CITY HALL, LOS ANGELES, CALIFORNIA

JOHN C. AUSTIN, ALBERT C. MARTIN, —JOHN PARKINSON, Associated Architects

THE new Los Angeles City Hall, now under construction and expected to be completed in December of this year, will be the principal unit of the projected Civic Center, which the City of Los Angeles intends to set apart for the erection of City, County, Federal and State Buildings.

The Civic Center cannot be of the usual type, as it will be on a hillside and the City Hall will be at the base of the hill with its center axis running east and west through the center of the Civic Center.

The Building Ordinances of the City of Los Angeles state that no building in the municipality shall exceed 150 ft. in height; but a special dispensation was given for the construction of the City Hall, as it was felt that one dominating feature or landmark would be of value for many good reasons.

The property on which the building is situated is 400 ft. by 800 ft. bounded by four streets, two of which are principal traffic arteries. The base of the building is 250 ft. by 430 ft.; its average height is 440 ft., and contains 28 stories. The sub-basement is not what is usually known as a sub-basement, as the floor of it is only 4 ft. below the "Main Street" level. The upper floors are devoted to the several departments, as shown on plans herewith.

The building is of Class A construction throughout. It contains 7000 tons of structural steel. The lower portion of the building consisting of the first four floors will be faced with native California granite, and all of the exposed wall surfaces above that point will be faced with terra cotta of a color harmonizing with the granite.

The style of architecture might be termed Italian Classic. No attempt, however, has been made to adhere to strict lines of any particular type of architecture: the thought being to design a building which would be most appropriate to both the climate and traditions of Southern California.

The main entrance to the building is located at the base of the tower, and is reached by passing through an architectural forecourt and through the entrance vestibule. The vestibule will be lined with French limestone, and will have a barrel vaulted ceiling. The main entrance doors will be of cast bronze, the panels of which will symbolize the growth, history and the Spanish influence in Southern California.

After passing through the main en-

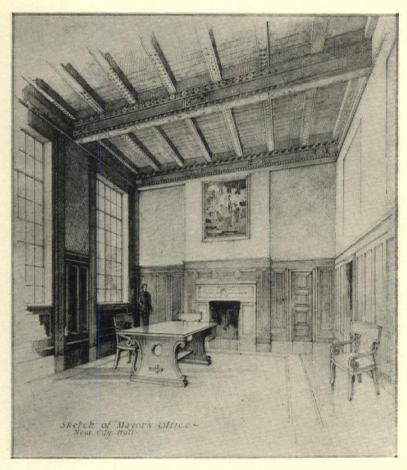
trance doors one enters a rotunda 60 ft. square. This rotunda extends through three stories of the building, and is surmounted by a dome 38 ft. 6 in. in diameter. The walls of the rotunda will be faced with French limestone; the twelve columns indicated on the drawings will be of varicolored marbles. The shape of the rotunda is such that four lunettes are formed; these lunettes will be paneled and faced with decorative tiles indicating symbolic subjects. The same decorative tile motive will be used for the domed ceiling of the rotunda.

From the rotunda there will be broad corridors extending north and south to the exits at both ends of the building. The walls and floors of these corridors will be faced with marble.

By referring to the plan it will be seen that the elevators are all in one group; four of them will extend from the basement to the twentieth floor, and from that point one of the elevators will be employed to transfer passengers to the top floor.

The entire building will be usable. The part referred to as the tower is 110 ft. square, and every part has been appropriated to some civic use.

In planning the building great care has been taken in establishing the offices used by large numbers of people on the main floor. These offices are all with-



in walking distance of the main entrance.

Over the peristyle at the front of the forecourt it is intended to place a panel which will be approximately 7 ft. high by 60 ft. long; and over the main entrance in the forecourt there will be a similar panel, slightly smaller: and on each side of the main entrance on the outside of the forecourt there are pedestals to receive statuary. Nothing has been done with reference to selecting subjects, or arranging with sculptors as regards these items; the idea being at some future time to have sculptors of national repute execute some design that would typify the history of the west in the panels, and to show some incident of note in statuary form.

There will be two rooms, one to the south and one to the north of the central rotunda, to be used by the City Council and by the Board of Public Works. These rooms have been treated in an architectural way; the walls will be of oak, the ceilings will be beamed with oak, and the floors will be of teak. The Mayor's private office and reception room will also be given architectural treatment, but the balance of the building will be strictly of the commercial type.

The City Hall will cost \$5,000,000, exclusive of sculpture, decoration, furniture and land.

FARM VALUES DROP ONE-QUARTER SINCE 1920

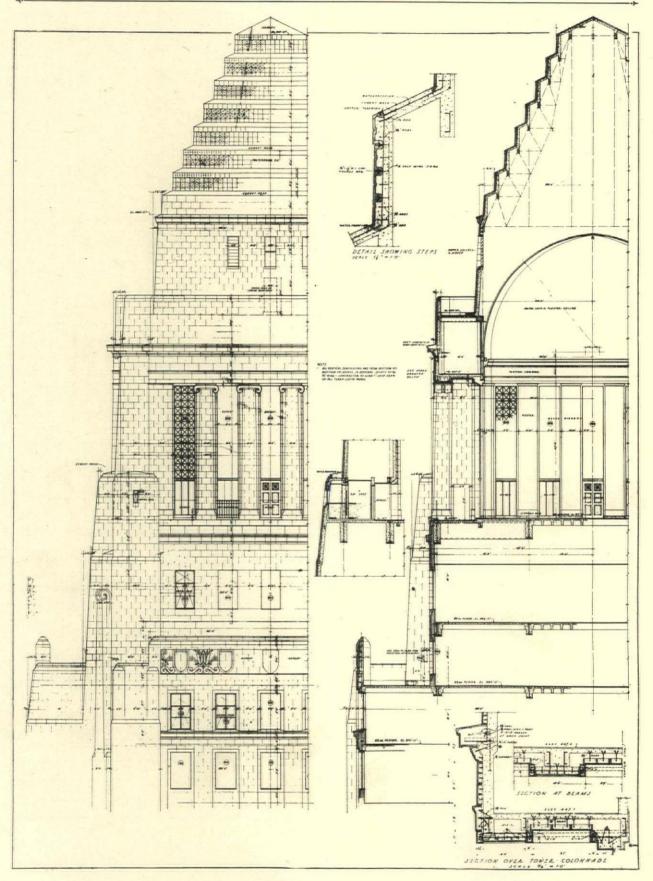
A SHRINKING in the value of American farms and farm buildings from \$66,316,002,602 in 1920 to \$49,546,523,759 in 1925 was estimated by the Department of Commerce recently in a preliminary report on the latest agricultural cen-



sus. The decrease amounts to over 25 per cent. Farm acreage in the same period declined from 955,883,715 to 924,889,386 acres, and the Division of Land Economics calculated the decline in the average acre value of land and buildings at 22 per cent, and for land alone at 38 per cent. The value of farm buildings increased 6 per cent.

The 1925 figures, compared with those for 1910, indicated an increase of 35 per cent in the average farm value, but, considering the drop in the purchasing power of the dollar, the economists concluded there was actually a net decline of 10 to 12 per cent during that period.

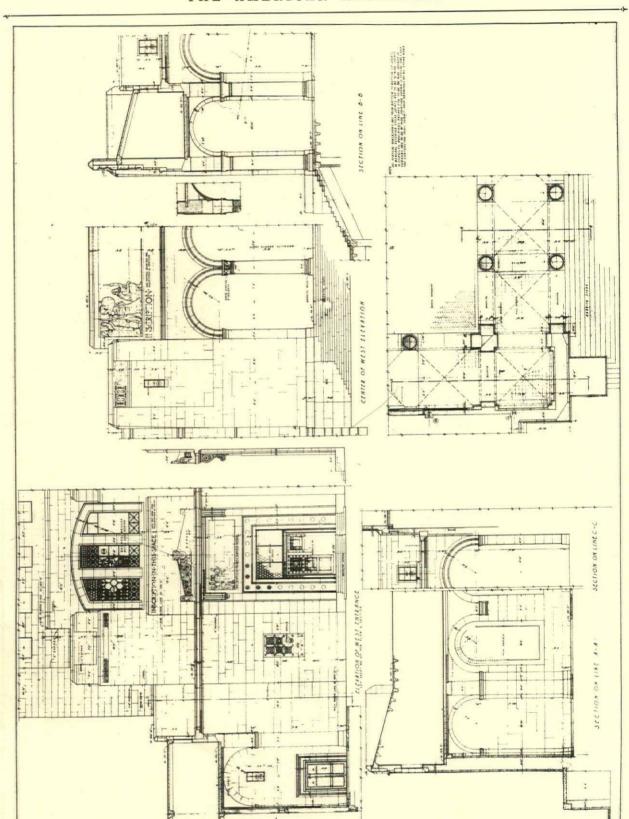
The shrinkage in values was greatest in the range country, the wheat and corn belts, and the Eastern cotton States, while a slight increase was recorded in New England and the Middle Atlantic States.



UPPER PORTION OF TOWER

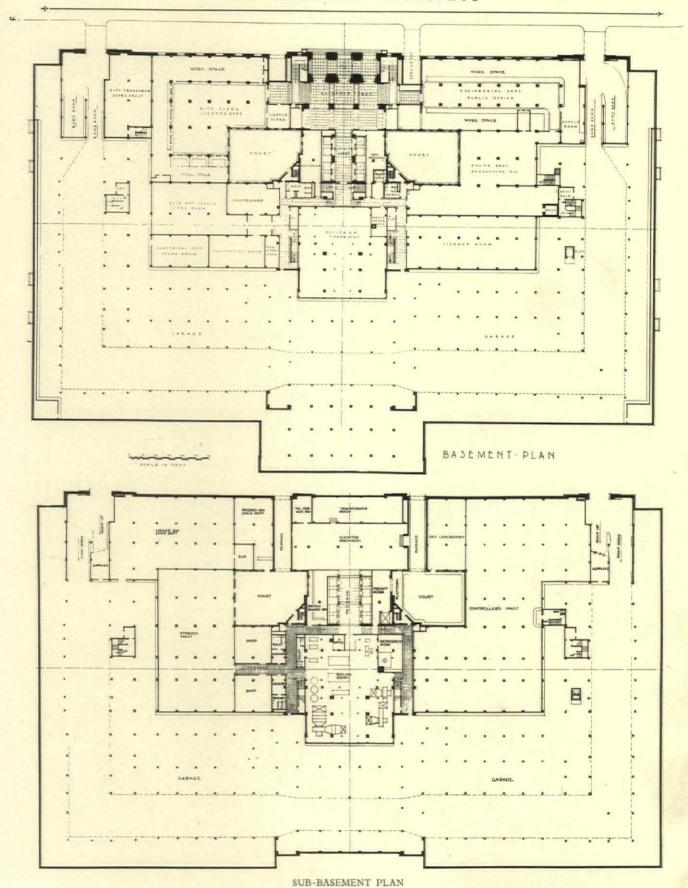
CITY HALL, LOS ANGELES, CALIFORNIA

JOHN C. AUSTIN, ALBERT C. MARTIN, JOHN PARKINSON, ASSOCIATED ARCHITECTS



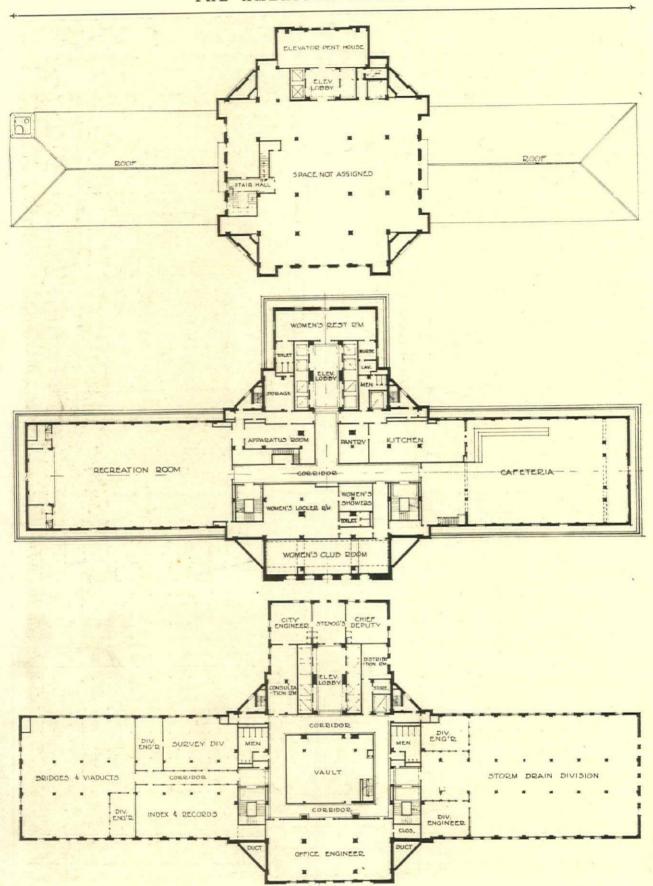
WEST ENTRANCE AND FORECOURT

CITY HALL, LOS ANGELES, CALIFORNIA JOHN C. AUSTIN, ALBERT C. MARTIN, JOHN PARKINSON, ASSOCIATED ARCHITECTS



CITY HALL, LOS ANGELES, CALIFORNIA

JOHN C. AUSTIN, ALBERT C. MARTIN, JOHN PARKINSON, ASSOCIATED ARCHITECTS
(For other plans see Plate Section)

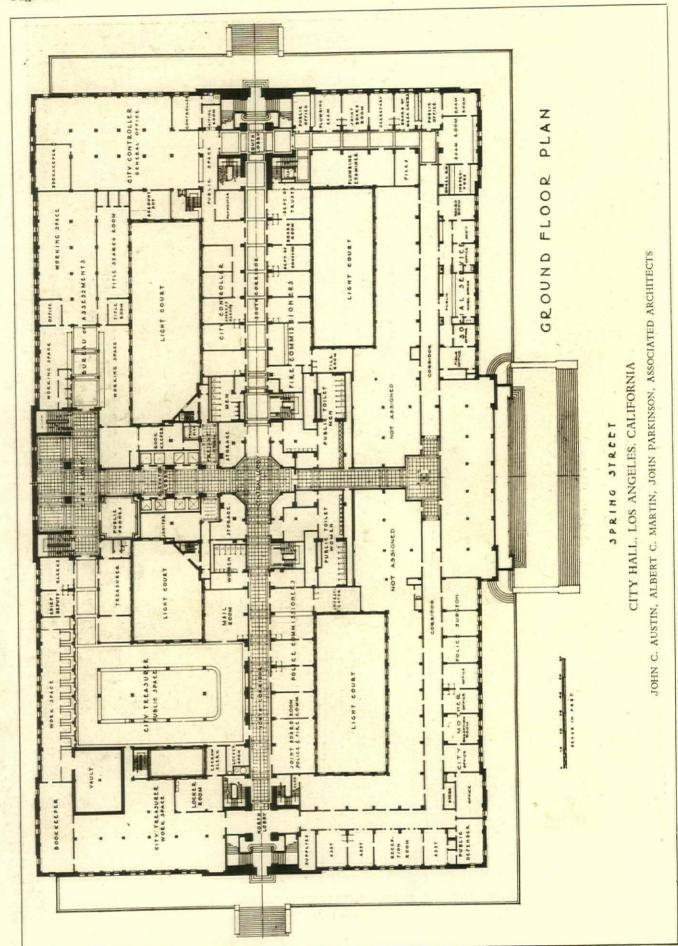


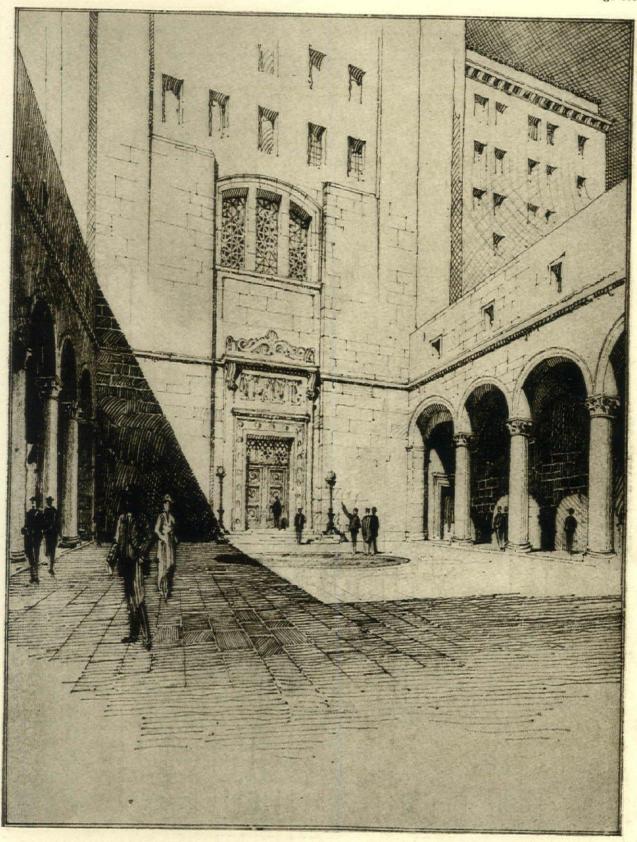
CITY HALL, LOS ANGELES, CALIFORNIA

JOHN C. AUSTIN, ALBERT C. MARTIN, JOHN PARKINSON, ASSOCIATED ARCHITECTS
(For other plans see Plate Section)



JOHN C. AUSTIN, ALBERT C. MARTIN, JOHN PARKINSON, ASSOCIATED ARCHITECTS
(See plan on back)

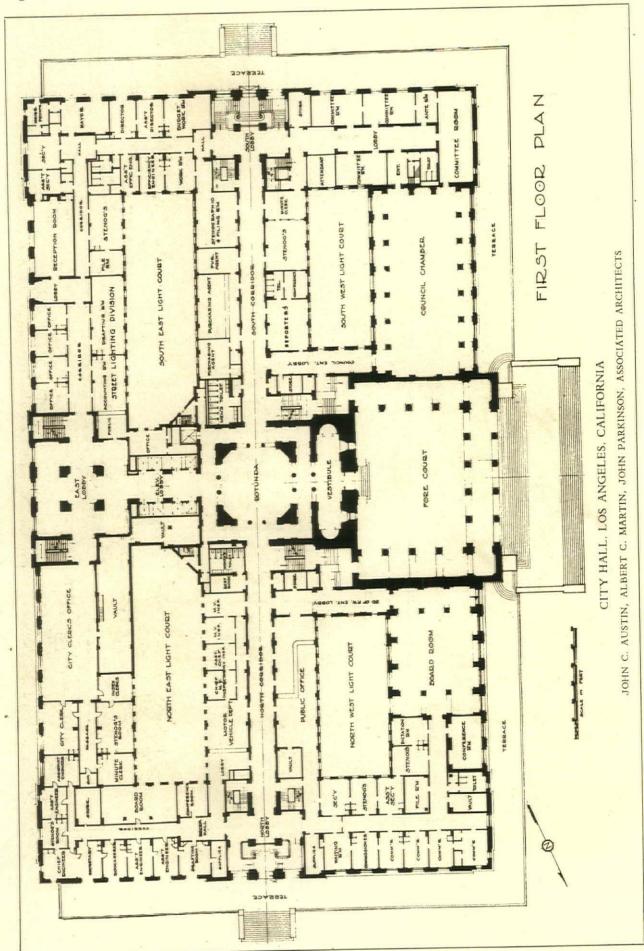


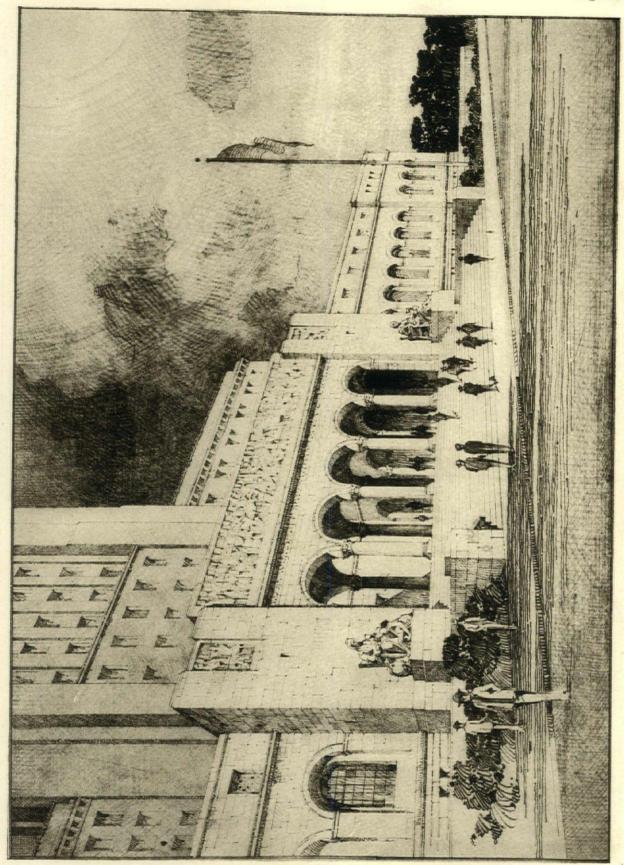


THE FORECOURT

CITY HALL, LOS ANGELES, CALIFORNIA

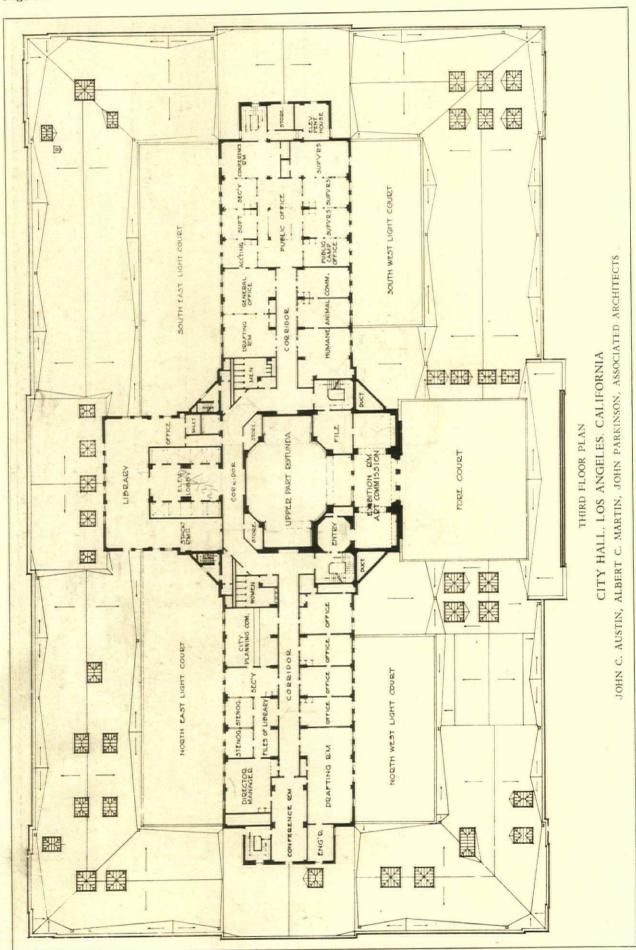
JOHN C. AUSTIN, ALBERT C. MARTIN, JOHN PARKINSON, ASSOCIATED ARCHITECTS
(See plan on back)





CITY HALL, LOS ANGELES, CALIFORNIA

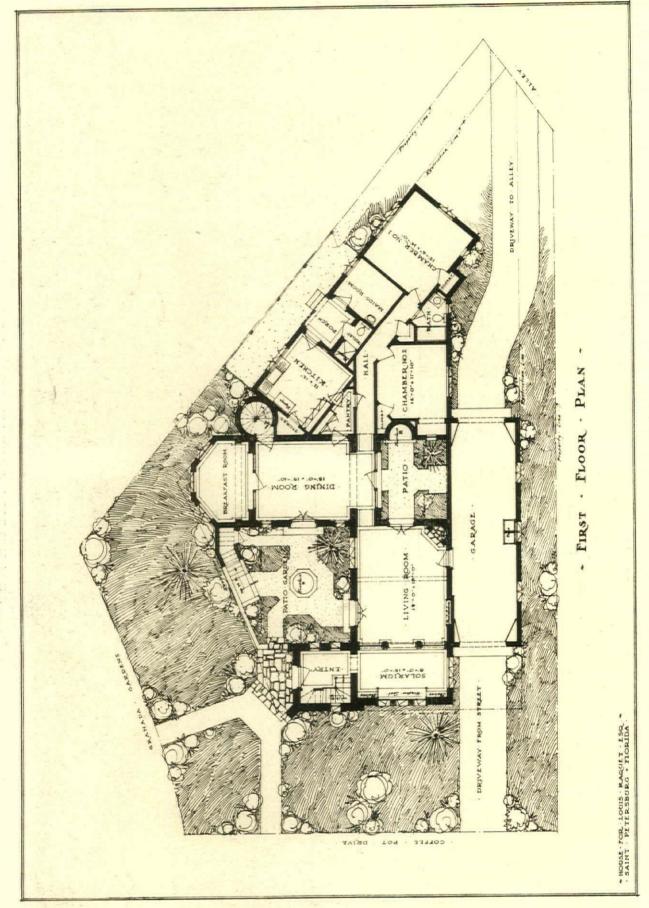
JOHN C. AUSTIN, ALBERT C. MARTIN, JOHN PARKINSON, ASSOCIATED ARCHITECTS (See plan on back)

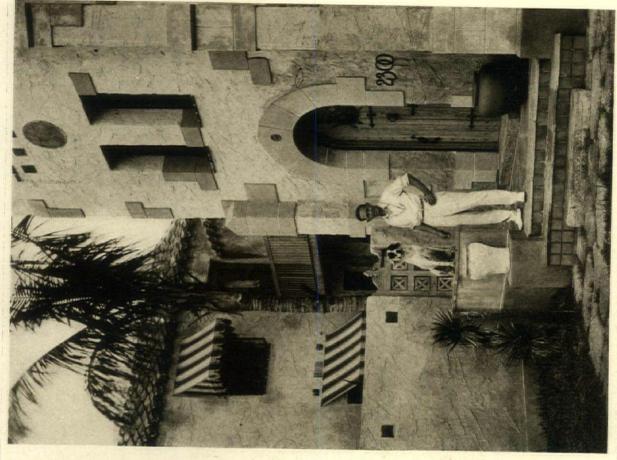




HOUSE OF LOUIS RAQUET, SAINT PETERSBURG, FLA.

HARRY F. CUNNINGHAM, ARCHITECT (See plan on back)

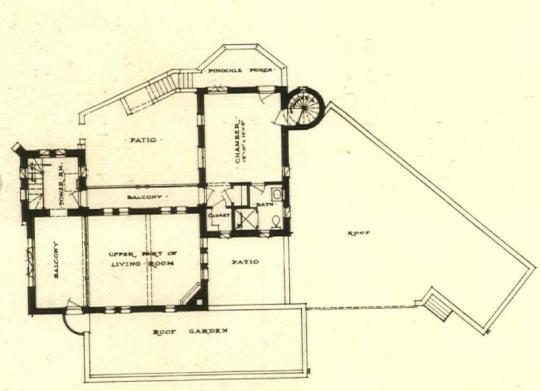






HOUSE OF LOUIS RAQUET, SAINT PETERSBURG, FLA.

HARRY F. CUNNINGHAM, ARCHITECT (See plan on back)



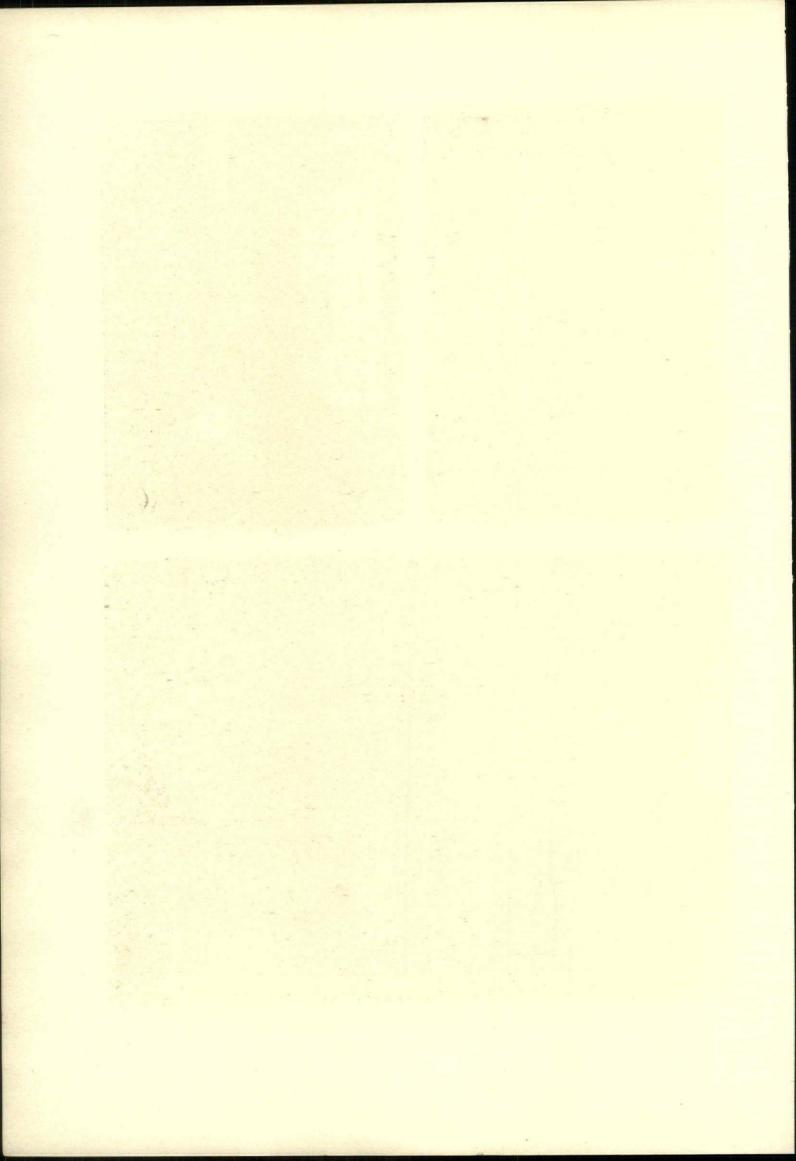
SECOND FLOOR PLAN

HOUSE OF LOUIS RAQUET, SAINT PETERSBURG, FLA.
HARRY F. CUNNINGHAM, ARCHITECT





HOUSE OF LOUIS RAQUET, SAINT PETERSBURG, FLA.
HARRY F. CUNNINGHAM, ARCHITECT



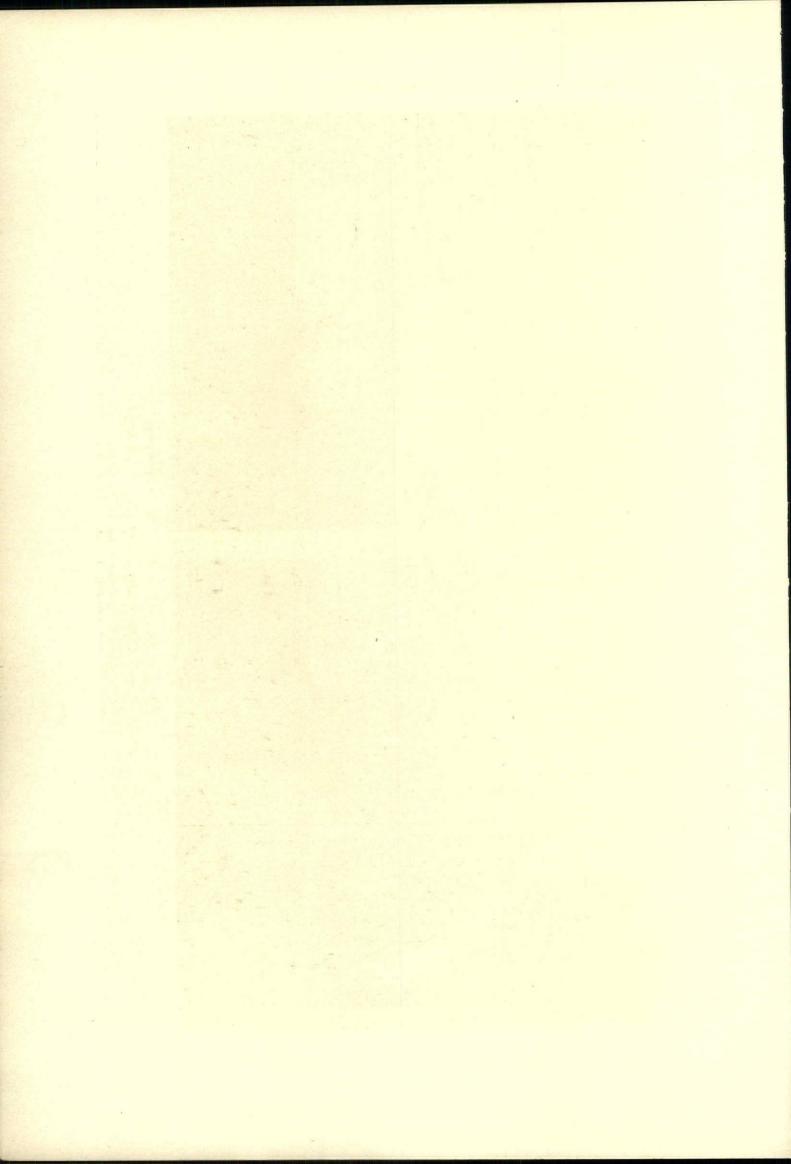


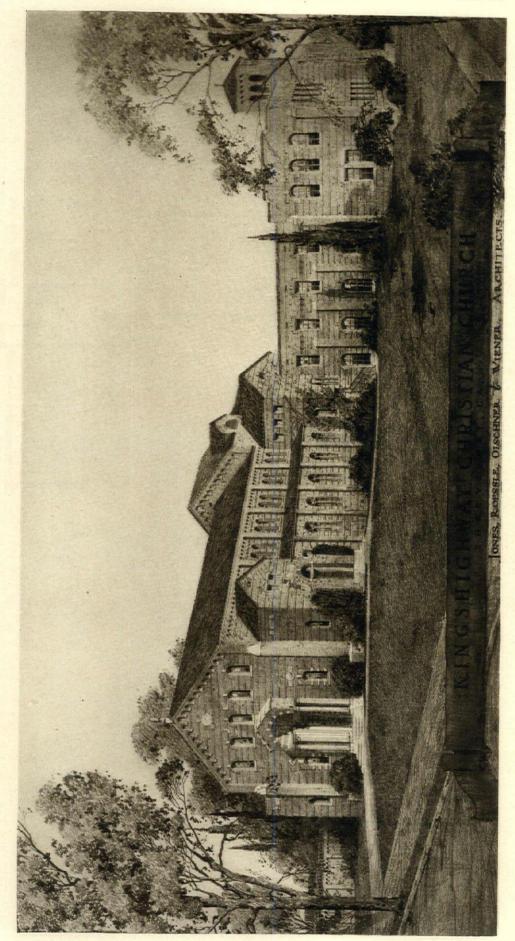




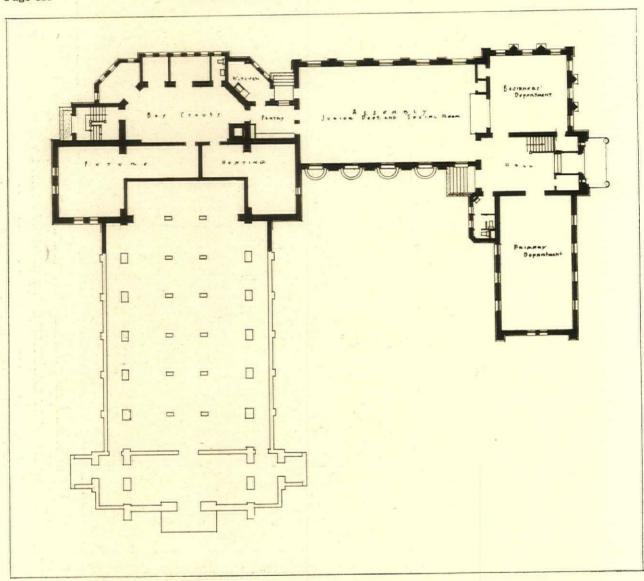
HOUSE OF LOUIS RAQUET, SAINT PETERSBURG, FLA.

HARRY F. CUNNINGHAM, ARCHITECT

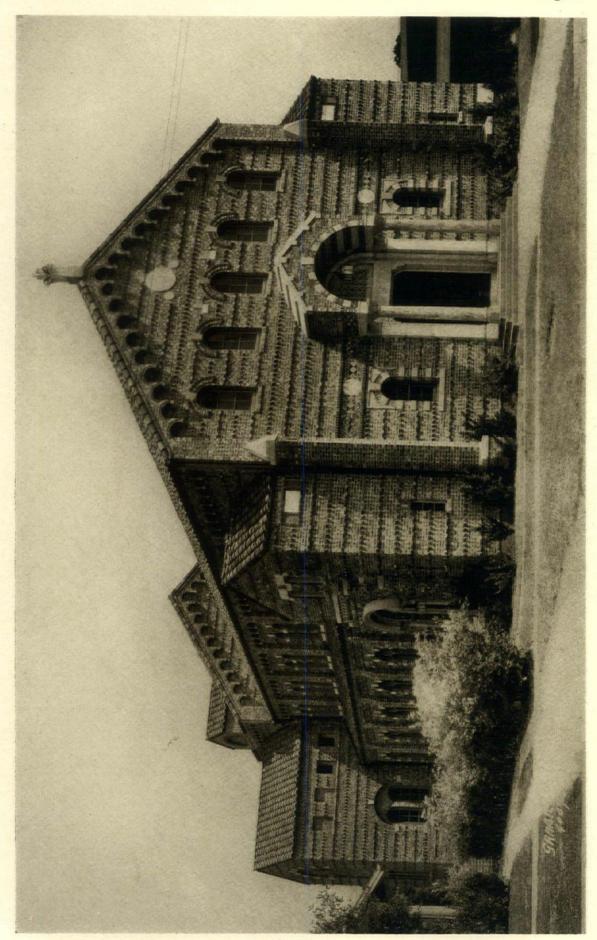




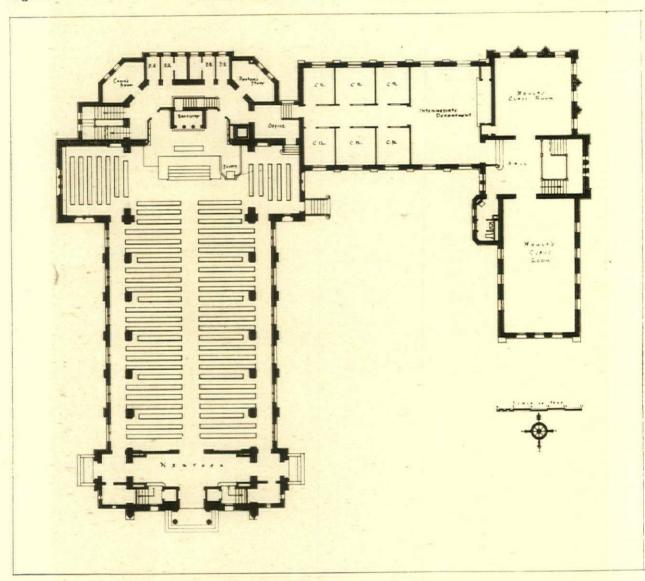
RENDERED PERSPECTIVE SHOWING FINAL DEVELOPMENT
KINGS HIGHWAY CHRISTIAN CHURCH, SHREVEPORT, LA.
JONES, ROESSLE, OLSCHNER & WIENER, ARCHITECTS
(See plan on back)



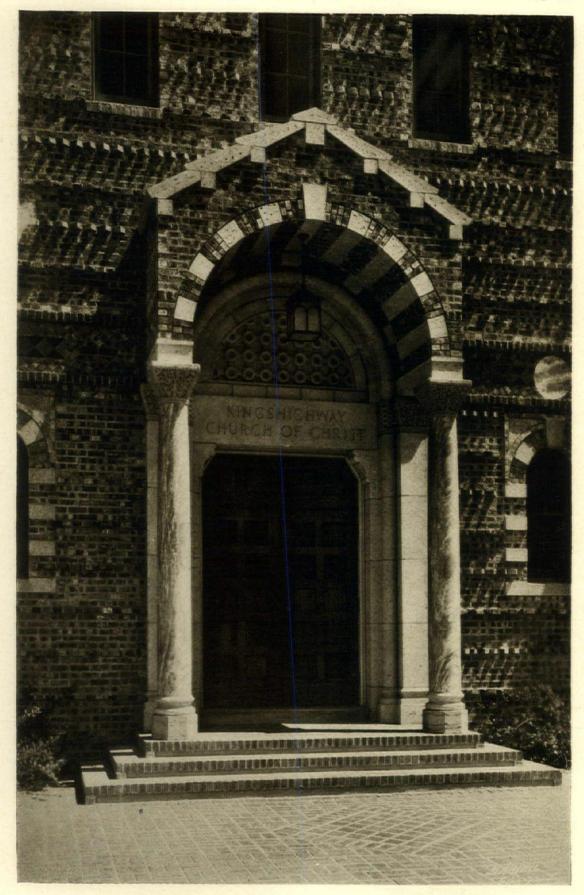
KINGS HIGHWAY CHRISTIAN CHURCH, SHREVEPORT, LA.
JONES, ROESSLE, OLSCHNER & WIENER, ARCHITECTS



KINGS HIGHWAY CHRISTIAN CHURCH, SHREVEPORT, LA.
JONES, ROESSLE, OLSCHNER & WIENER, ARCHITECTS
(See plan on back)



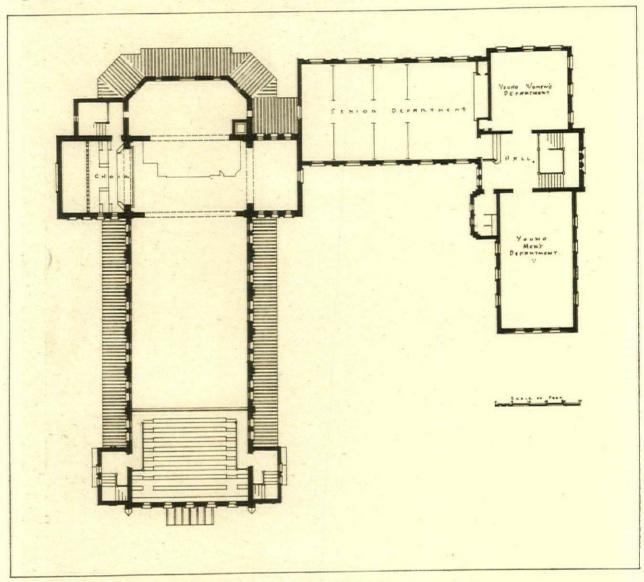
KINGS HIGHWAY CHRISTIAN CHURCH, SHREVEPORT, LA.
JONES, ROESSLE, OLSCHNER & WIENER, ARCHITECTS



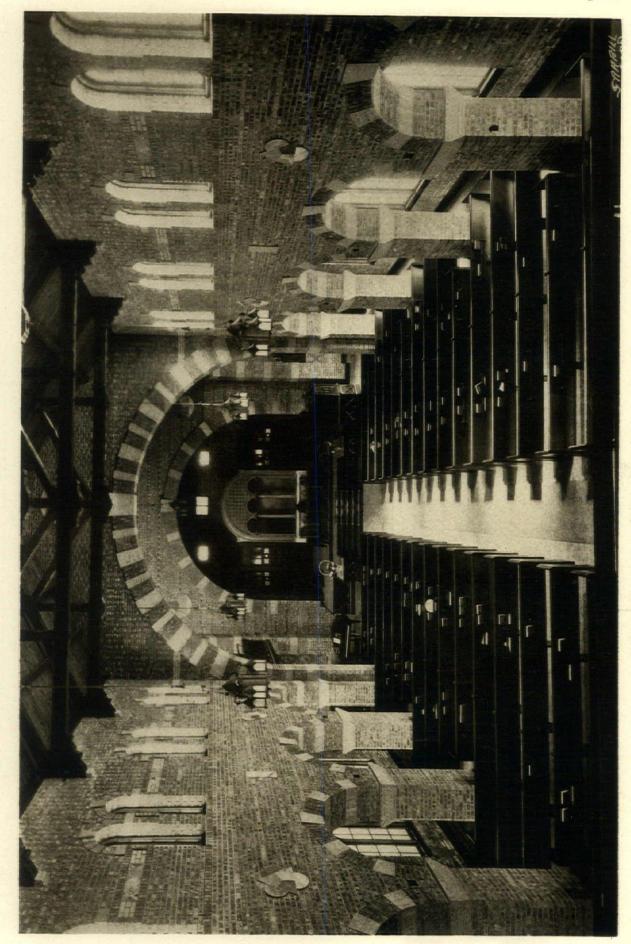
KINGS HIGHWAY CHRISTIAN CHURCH, SHREVEPORT, LA.

JONES, ROESSLE, OLSCHNER & WIENER, ARCHITECTS

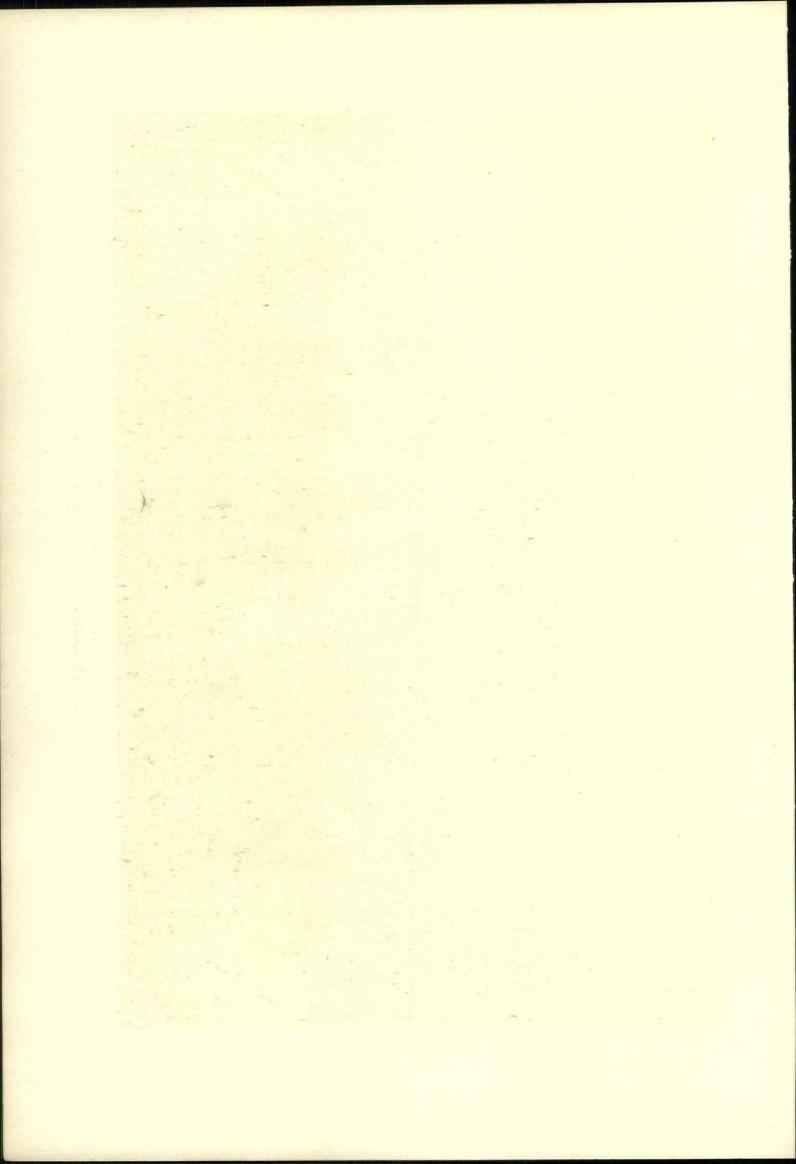
(See plan on back)

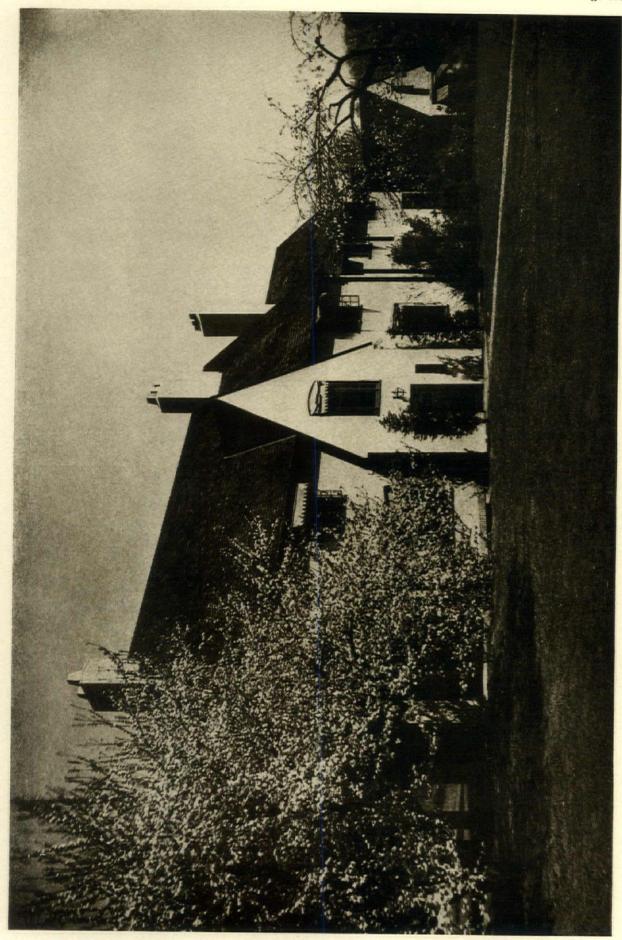


KINGS HIGHWAY CHRISTIAN CHURCH, SHREVEPORT, LA.
JONES, ROESSLE, OLSCHNER & WIENER, ARCHITECTS

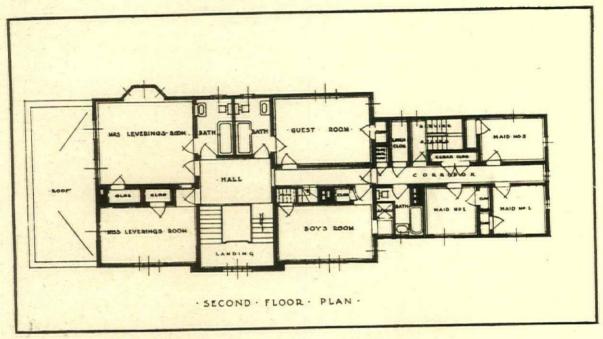


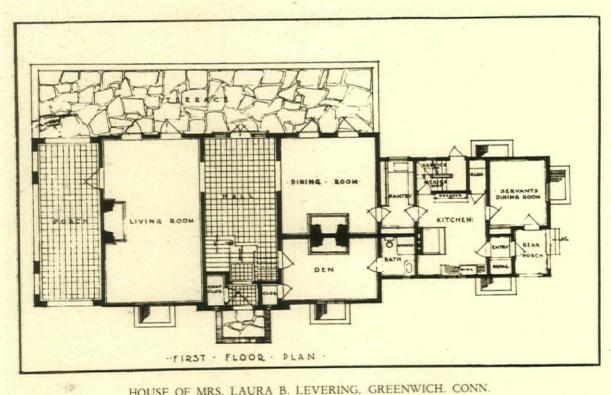
KINGS HIGHWAY CHRISTIAN CHURCH, SHREVEPORT, LA. JONES, ROESSLE, OLSCHNER & WIENER, ARCHITECTS





HOUSE OF MRS. LAURA B. LEVERING, GREENWICH, CONN. PHELPS BARNUM AND B. W. CLOSE, ASSOCIATED ARCHITECTS (See plans on back)

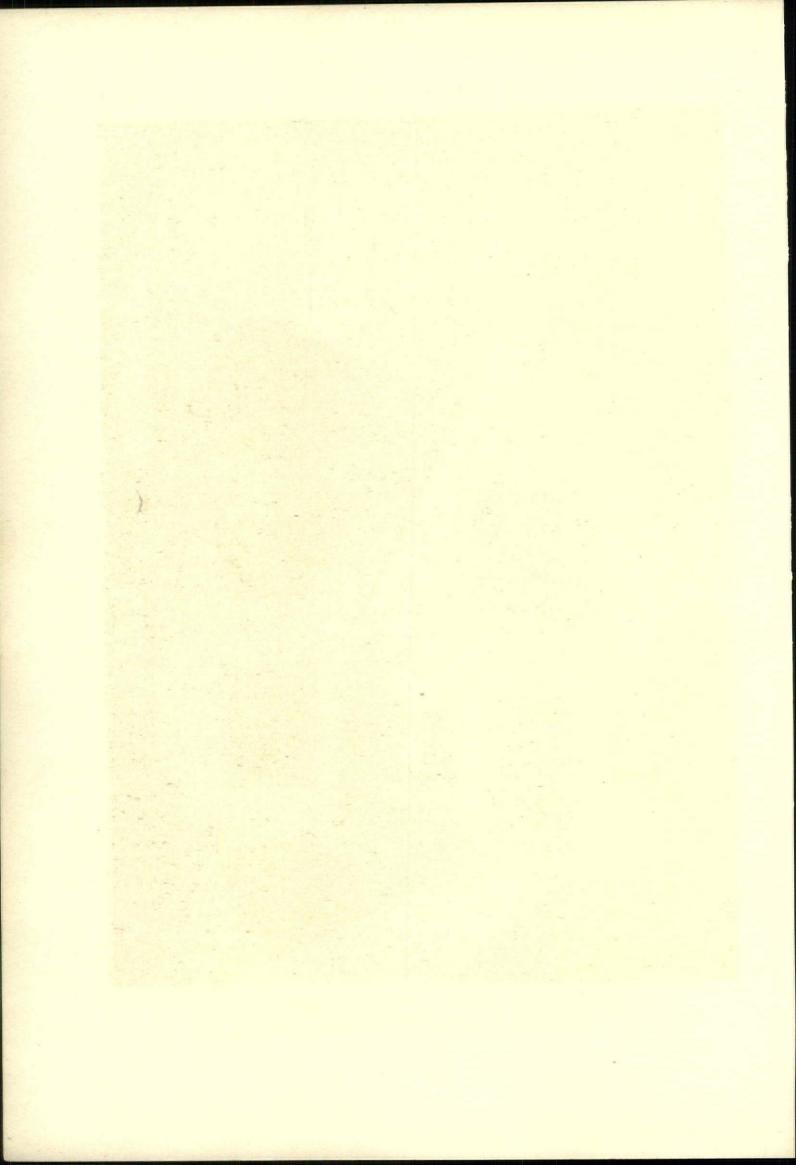


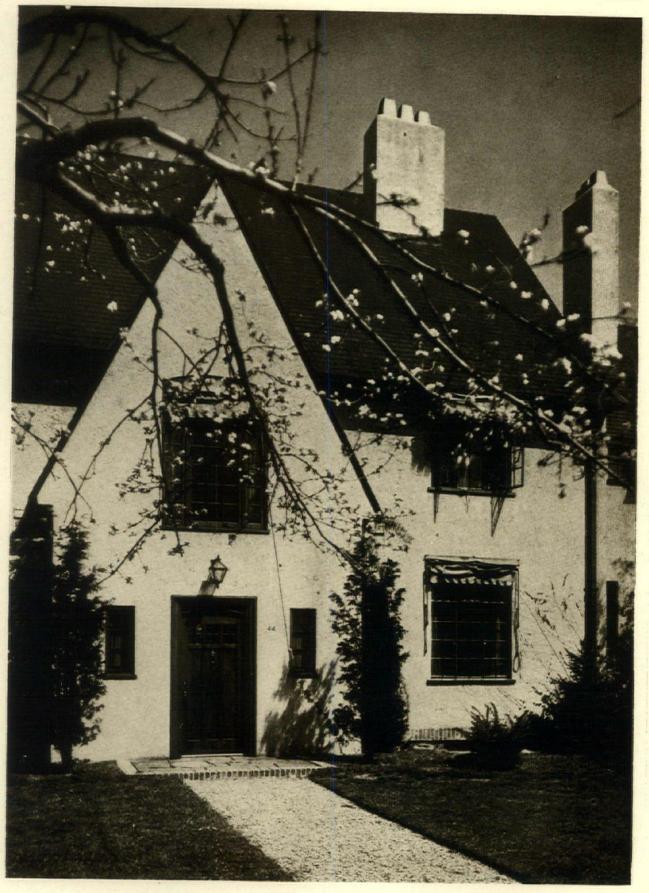


HOUSE OF MRS. LAURA B. LEVERING, GREENWICH, CONN.
PHELPS BARNUM AND B. W. CLOSE, ASSOCIATED ARCHITECTS

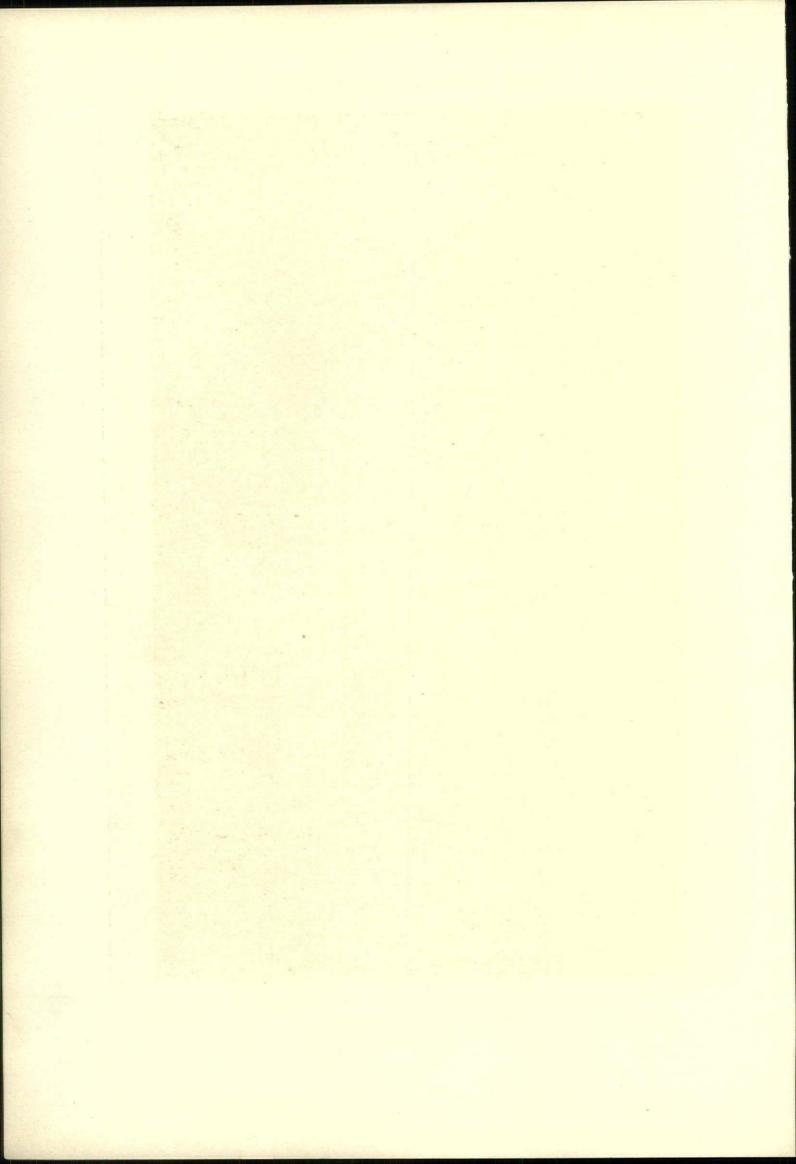


HOUSE OF MRS. LAURA B. LEVERING, GREENWICH, CONN.
PHELPS BARNUM AND B. W. CLOSE, ASSOCIATED ARCHITECTS



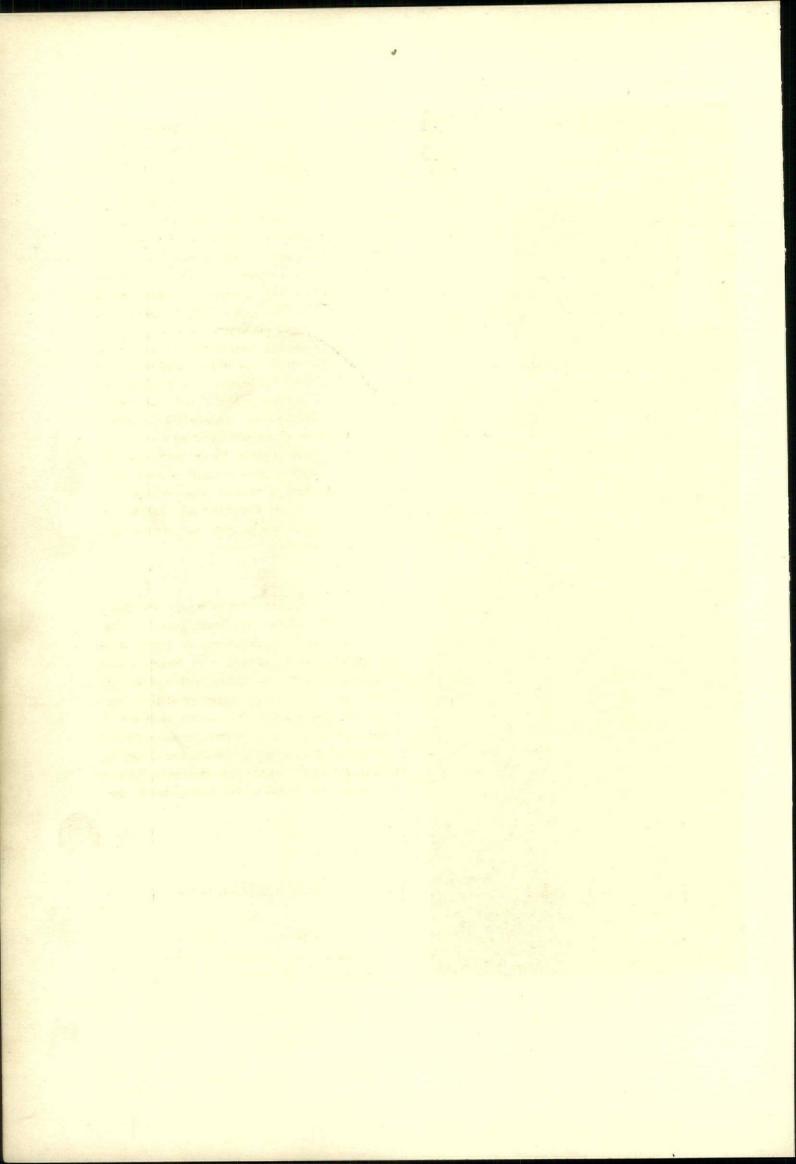


HOUSE OF MRS. LAURA B. LEVERING, GREENWICH, CONN. PHELPS BARNUM AND B. W. CLOSE, ASSOCIATED ARCHITECTS





SEAMEN'S BANK FOR SAVINGS, NEW YORK
BENJAMIN WISTAR MORRIS, ARCHITECT
AWARDED FIRST PRIZE BY DOWNTOWN LEAGUE



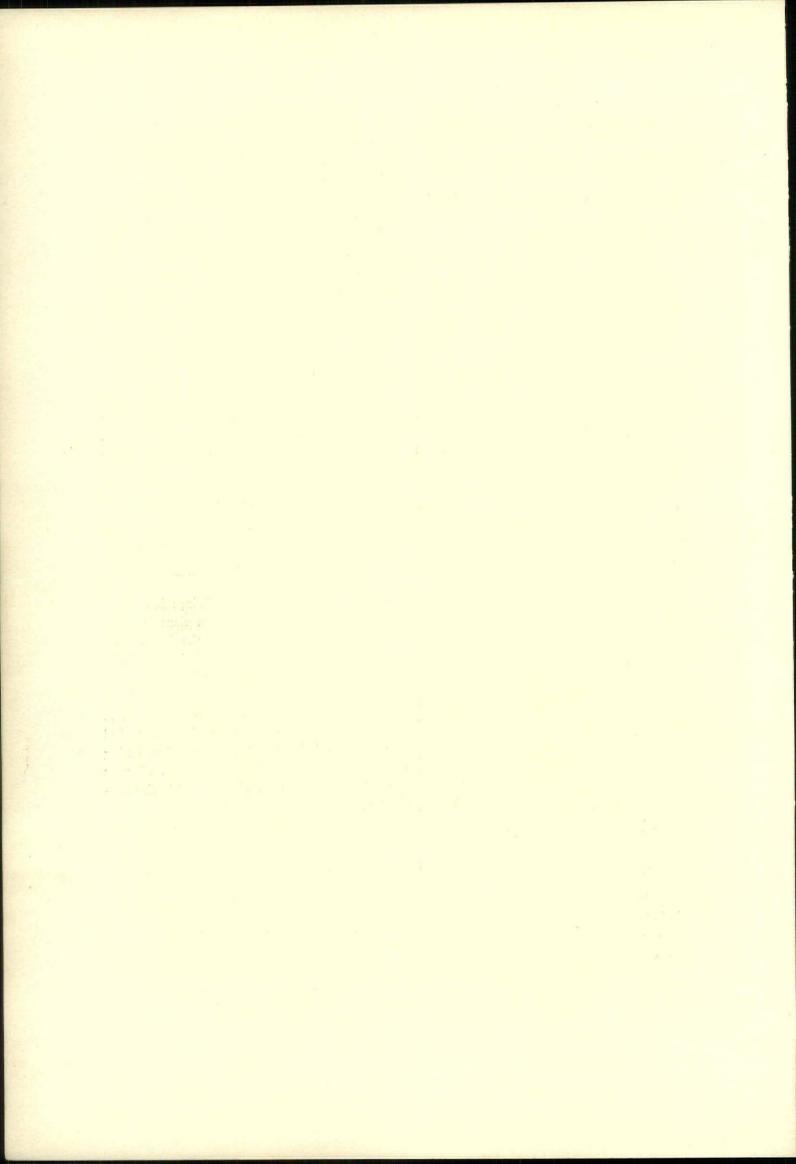


CHARLES F. NOYES, Chairman; Major A. J. S. Holton, of Clinton & Russell, architects, and Richard S. Elliott, acting as a committee for the Downtown League, have announced the awards for the two best buildings erected in the downtown district during 1926 and for the two best alterations. In making the awards the Committee states that consideration was given to the development of the properties by the owners and architects and the quality of work as well as design. The value of the improvements to the locality that they serve was also taken into consideration.

The first award was made to the Seamen's Bank for Savings for the new building completed at the corner of Wall and Pearl Streets. The building is of skeleton steel construction and heavily fireproofed throughout. The exterior walls are of Plymouth granite and brick. The new building provides, in addition to the part required by the bank, ten rentable floors—desirable space in small or large units. The tradition of the bank is expressed in decorative features of marine life and activities, both on the exterior and interior walls. Benjamin Wistar Morris was the architect.

The second award for new buildings downtown goes to 41-43 Maiden Lane, from plans of Louis Allen Abramson. In designing the front, three main problems were presented: 1. A design suitable for a narrow street. 2. A design with a maximum of glass area. 3. A design suggestive of the silversmith's art—yet adaptable for various tenancies. A design suitable for a narrow street is accomplished primarily by eliminating all cornices and projecting members tending to foreshorten the front. Fineness of all detail near the eye is also stressed in this connection.

41-43 MAIDEN LANE, NEW YORK
LOUIS ALLEN ABRAMSON, ARCHITECT
AWARDED SECOND PRIZE BY DOWNTOWN LEAGUE





EDITORIAL COMMENT



Possibly few members of The American Institute of Architects have as good opportunities to note the well directed activity of the Committee on Public Information of the Institute as do the editors of architectural journals. This Committee, under the efficient direction of its chairman, Wm. Harmon Beers, is broadcasting not only to the architectural press, but also to daily papers and art journals very valuable information as to current news in Institute matters, and also matters of interest as to architecture everywhere. This is a long and carefully taken step in the direction of educating the general public in matters architectural. Possibly the Committee would more broadly function if it had a sufficiently large appropriation, but taking into account the means available, it is doing a very valuably constructive work.

 $T_{
m HE\ merry\ war\ between\ Harvey\ Wiley\ Corbett\ and}$ Henry H. Curran, Counsel to the City Club, New York, as to "skyscrapers" goes merrily on. We continue to build "skyscrapers" and we probably shall as long as clients are disposed to furnish the money.

It was interesting to note the attitude of these two men at the symposium held during the League Exposition. Corbett is logically an exponent of "skyscrapers" because he has built very successful ones, and as a matter of fact is himself built on skyscraper lines, and has his office as near the sky as he can place it. Curran, arguing from purely academic lines, or on methods which he feels are after the best approved civic practice, believes that the skyscraper is the cause of traffic congestion.

Here we have two men of wide experience, men who have thoughtfully studied this skyscraper problem, directly opposed in their views. "Who shall decide when doctors disagree?" Undoubtedly, the man who owns the property and who pays the bills. What influence, if any, the debate between Messrs. Corbett and Curran will have on him remains to be seen.

WE were recently appealed to by an architect in a large city of the Middle West to obtain information from the Fifth Avenue Association of New York relative to its methods of conducting its annual competition for the best new and best altered commercial buildings in what is known as the Fifth Avenue section. It appears that a citizen of the city in which this architect resides has volunteered to defray the expenses of similar awards for the best work done in

his city and the Committee on Public Information of the local chapter of The American Institute of Architects has taken the proposition in hand, gathering such information as may aid it in establishing a basis for judging the work done and a method of making the awards. THE AMERICAN ARCHITECT encourages such action. In the hope that other cities may find it possible to conduct similar competitions, a memorandum of rules and regulations adopted by the board of directors of the Fifth Avenue Association for the guidance of its committee on architectural betterment is printed amongst the current news items on another page of this issue.

It is undoubtedly true that there are many small municipalities throughout the United States in which a feeling of civic pride is largely developed. and it is also undoubtedly true that the workers in these municipalities, who are endeavoring to achieve civic betterment, have only to receive a constructive suggestion in order to carry it to a well developed conclusion. We know of no better way to accomplish two desirable purposes—the promotion of a knowledge of good architecture and the pride in possession of a building that has been pronounced architecturally good. It is for these reasons that THE AMERICAN ARCHITECT, as previously stated, desires to encourage this form of competition in building and it will be glad to lend its services to any group in any city toward the framing of regulations and the construction of a proper committee to carry it forward.

The methods employed by the Fifth Avenue Association might be adopted with great success by any municipality, and for this reason they are described in full elsewhere in this issue.

THE minority in Congress having successfully steered a gerrymander up to the hour of adjournment, that non-functioning body has gone home to mend its political fences, and left much important work undone. Among these derelictions is the failure to appropriate the money necessary to the carrying forward of the Federal Building Bill that was passed earlier in the session. This important matter is perforce at a standstill, and will remain so until Congress convenes in the Fall, or is earlier called in special session by President Coolidge.

This is only one illustration of the difficulty of forecasting the amount of building that will be done during the coming year. However, difficulties seldom deter the enthusiastic prophet.

THE present propaganda as to color in architecture, while in a large part "special pleading," is none the less something that may very well engage the attention of architects. Color, as applied to the exterior of buildings, is not restricted to the monumental type, the skyscraper or the elaborate structures of various designs. It has to do with even the smallest type of building to be found in city or country. In fact, color as applied to the roadside houses would transform our highways and produce an effect that would approach that to be found in England and other European countries. Color, therefore, is not a matter for the big town man: it is something that has appeal to architects everywhere.

What we must learn at the outset is just exactly what is meant by color and how to get the best, or most artistic effect. The uninitiated are apt to disregard the fact that color is but the mixing of red, yellow and blue to secure the countless grays, shades and tints that are possible. This the architect should fully learn, and at the same time that a true effect of color, in its real sense, is obtained by the shadows cast by mouldings and wrought iron work.

Sculptors, who work in marble and plaster, speak in terms of "color." This may be explained by an example that comes to mind. In the Metropolitan Museum of Art there is a bust of a Nubian, the blackest of black men, chiseled from a block of pure white marble. The effect of a black man is so outstanding that even the least trained observer will notice it.

The examples of color in architecture displayed at the recent League Exposition had considerable architectural value, but they seemed only to consider color as applied to large structures. We want to emphasize what we said at the outset that color as applied to architecture is every architect's business.

FOLLOWING the issuing of a tentative report "Recommended Building Code Requirements for Working Stresses in Building Materials", by the United States Bureau of Standards in May, 1925, this journal in an editorial called attention to the fact that while the report accepted the work done by

various organizations and based the recommended working stresses for certain materials upon those determined by these organizations, no recognition had been given the work of organizations of steel interests and the progress that has been made in the production of structural steel of reliable quality. The tentative report recommended a fibre stress of 16,000 pounds for steel of "structural grade" and 18,000 pounds for "steel for bridges", both conforming to A.S.T.M. requirements. The report distinctly classed the A.S.T.M. "structural grade" steel with steel "obtained without a definite specification." Without brief for the steel construction interests nor any other interest, but with a desire to see justice done, attention was called to the various features that appeared to be ill considered and of vital importance to the building industry.

As a result of this editorial and those of other journals, interested authorities presented their views to the Building Code Committee. Many of these suggestions were favorably considered by the members of the Committee with the result that steel construction is more fairly treated in the final report. The section of the report covering structural steel now distinguishes steel as: 1. "Steel acceptable to the building official, but of which the origin and physical characteristics are not definitely determined." This is known as "acceptable steel" and a stress of 16,000 pounds per sq. in. direct axial tension on net sections is allowed. 2. Steel Conforming to "the A.S.T.M. Standard Specification for Structural Steel for Buildings, Serial designation A9-24" is termed Standard Steel and permits a stress of 18,000 pounds.

The final report of the Building Code Committee entitled "Recommended Building Code Requirements for Working Stresses in Building Materials", indicates the careful consideration that the members of the Committee gave the entire subject. If the code as finally presented fails to satisfy all interests, and no one of experience will expect it to be universally acceptable, the Committee may still feel that its efforts were justified by its ready acceptance by a majority.



INTERIOR ARCHITECTURE



TRADITIONAL ART OF THE AMERICAN INDIAN

CERTAIN people are continually emphasizing the fact that there are no artistic traditions in this country,—that the country is not old enough yet to have such traditions,—while others just as boldly claim that, on account of the streak of European blood in our veins, such traditions as we now have are largely those of Europe, although we take exception to this latter statement. The fact is that the traditions of this country are, to a certain extent, regional. The traditions of the Puritans are closely tied up with the history of New England; in certain sections of the South the people still pride themselves on their French descent, and the people in certain localities of the Southwest cherish their direct inheritance from the early Spanish settlers. But further back than any of these can trace, the country was inhabited by Indians of purely American origin. Certain of our traditions, then, we may have inherited from the American Indian.

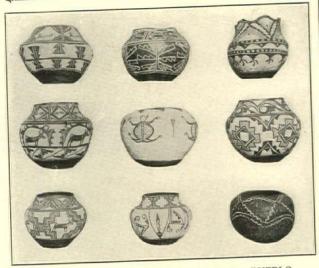
While the primitive and often crude methods, by which the products of their workmanship were produced, did not allow of elaborate ornamentation, it is true that in certain arts the American Indians were especially adept, and the artistic value which these

particular products so decidedly possessed was enlivened by the simplicity of the design and the brilliancy of the colors. We refer especially to the art of pottery making and rug weaving. In many of the designs originated by the Indians of this country, symbols of their religion were given a decorative value and introduced as features of the design. The patterns generally, due, in a certain measure, no doubt, to the primitive methods employed, consisted of unusual and interesting arrangements of straight lines. The symbols were introduced in fields of panels formed by line motives.

The old pueblo art of pottery making, up to a few years ago, seemed to be on the point of becoming a lost art. This was brought about, no doubt, by the deadening effect of contact with a race of considerably higher culture. In 1907, during the course of clearing away ruins and digging trenches for foundations, relative to certain research work under supervision of the School of American Research, established at Santa Fe, thousands of broken potsherds were dug up. It so happened that the manual labor employed in the undertakings of the school was done by men from the pueblo of San Idlefonso. At



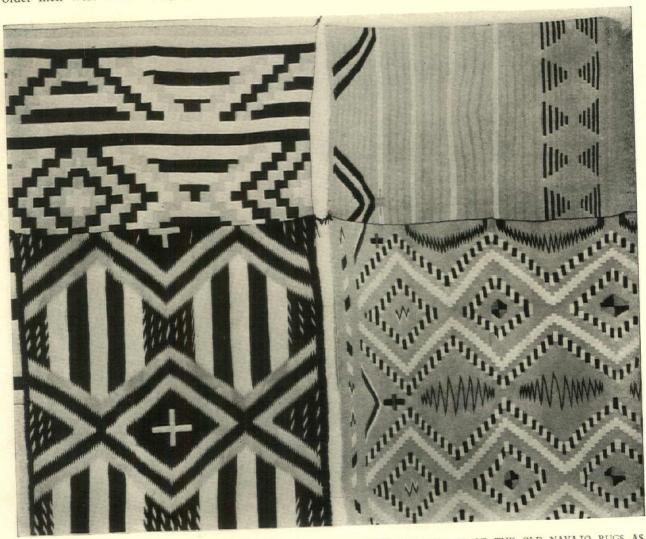
THE NAVAJOS STILL WEAVE THEIR RUGS ON CRUDE, HAND-MADE OUTDOOR LOOMS



POTTERY MADE IN THE SAN IDLEFONSO PUEBLO
(Courtesy Museum of the American Indian)

the sight of these old broken shreds and the symbols which their designs revealed, the memories of the older men were immediately stirred. These frag-

ments of old ceramics vividly brought back to their minds recollections of olden times. They recalled the days when each pueblo produced its own type of pottery. Various symbols of the Indian religion furnished the basic motives for the decorative designs. There were thus presented unlimited opportunities for the development of different designs. About four hundred years ago there were living in New Mexico some twenty thousand Indians. This number were scattered amongst seventy odd pueblos or settlements, and each settlement was characterized by its own peculiar type of pottery design. The pottery was always made by the women of the pueblos. The various designs were handed down from mother to daughter, and the copyright, as we would call it today, was never infringed upon by either the women of other families in the same pueblo or by those in other pueblos. The American school began at once a revival campaign and by its encouragement and help in the sale of finished products, ceramic art at this pueblo was soon brought back to the high artistic level that it had reached centuries ago.



SYMBOLS OF THE INDIAN RELIGION WERE OFTEN INTRODUCED INTO THE DESIGNS OF THE OLD NAVAJO RUGS AS DECORATIVE MOTIVES

(From the collection in the Grace Nicholson Galleries)

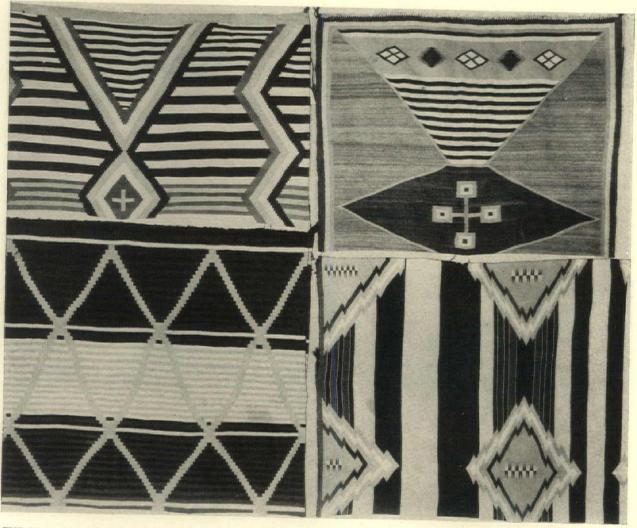
A similar attempt to revive interest in pottery making at the pueblo of Zia, on the Jemez River, in 1923, did not meet with such instantaneous success. There were thousands of broken shreds unearthed covered with old Jemez designs, but the superior excellence of the pottery of this locality was accounted for by the older women of the pueblo by the fact that the firing was done only in kilns fed with dried animal manure. One old woman called attention to the tradition that forbade the burning of manure in the pueblo from the middle of June until early the following Spring. However, last Summer many pieces of beautiful pottery, fired in the old traditional way, were produced. Thus, the pueblo art of pottery making in this country can no longer be called a lost art.

The designs and patterns of many of the rugs and pieces of pottery, for which the American Indian is responsible, might be executed in brick, for example, to give peculiar interest to a wall and retain its Americanism. Line patterns are peculiarly appropriate to our present dynamic mode of life. The old pueblo designs are distinctly American. How much



THE PUEBLO ART OF POTTERY MAKING IS BEING REVIVED
(Courtesy Museum of the American Indian)

better that we familiarize ourselves with products unearthed in this country than to indulge all our efforts in the old ruins of foreign countries!



THE DESIGNS OF THE ORIGINAL OLD NAVAJO RUGS WERE FORMED BY INTERESTING AND UNUSUAL ARRANGEMENTS OF STRAIGHT LINES

(From the collection in the Grace Nicholson Galleries)

ILLUSTRATING A SERIES OF ROOMS

DESIGNED BY AND FURNISHED UNDER THE DIRECTION OF WILLIAM F. DOMINICK, Architect



LIVING ROOM IN HOUSE OF MRS. JANE H. PERKINS, GREENWICH, CONN.

WILLIAM F. DOMINICK, ARCHITECT

VISIBLE CONSTRUCTION IS THE FEATURE OF THE DESIGN, WITH HAND-HEWN TIMBERS AND ROUGH TEXTURED WALLS PLAYING A PROMINENT PART





DUE TO STRUCTURAL CONDITIONS, A BUILT-IN CABINET HAS BEEN INTRODUCED INTO ONE END OF THE BAY IN LIVING ROOM OF HOUSE OF MRS. HART JACKSON, GREENWICH, CONN.



THE STRUCTURAL PLAN IS THE BASIS OF TREATMENT OF DINING ROOM IN HOUSE OF R. S. WILLIS, GREAT NECK, LONG ISLAND, N. Y.

THE AMERICAN ARCHITECT



ANOTHER VIEW OF LIVING ROOM OF HOUSE OF MRS. JANE H. PERKINS, GREENWICH, CONN.



MANTEL ELEVATION IN LIVING ROOM OF HOUSE OF ROGER S. BALDWIN, GREENWICH, CONN.

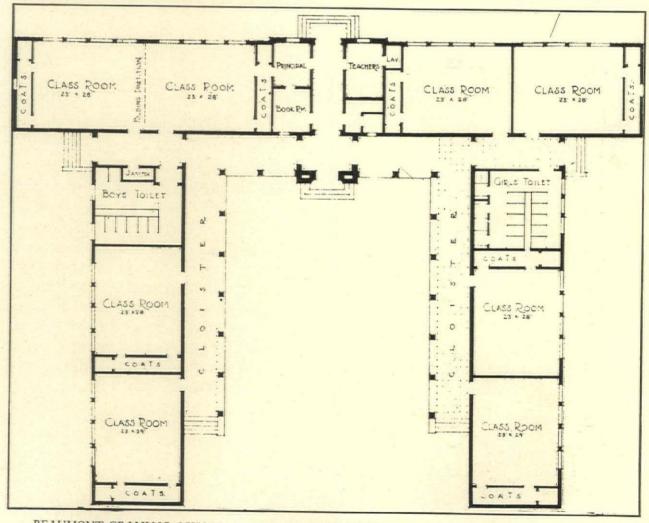


ENTRANCE HALL AND MAIN STAIRCASE IN HOUSE OF ROGER S. BALDWIN, GREENWICH, CONN.

A GROUP OF BUILDINGS OF MODERATE COST

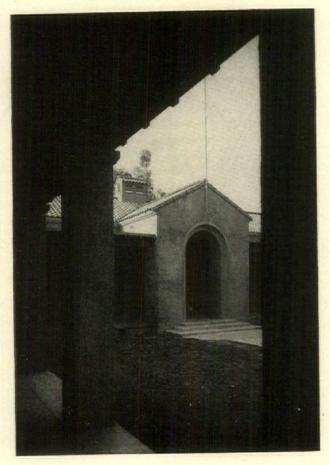
WITH DETAILS OF CONSTRUCTION, MATERIALS AND CUBIC COST





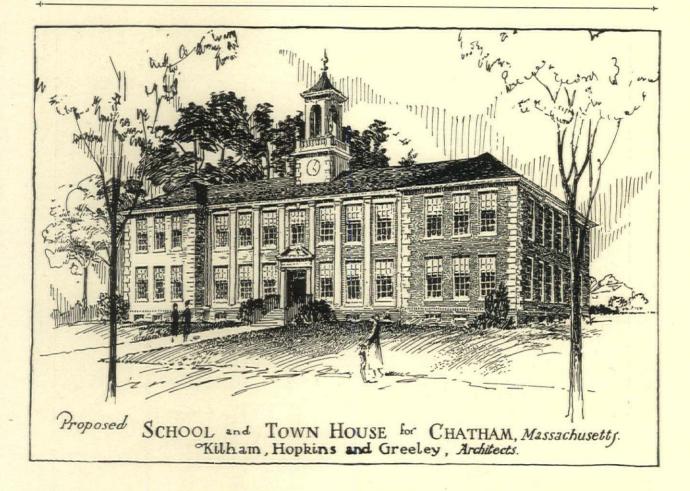
BEAUMONT GRAMMAR SCHOOL, BEAUMONT, CALIFORNIA—WITMER & WATSON, ARCHITECTS



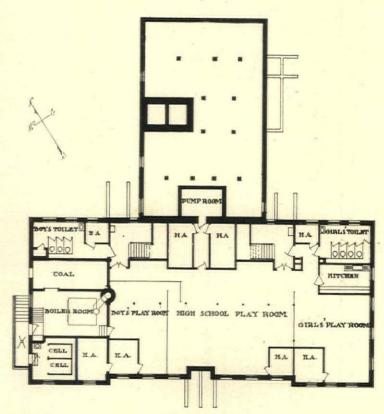


Exterior walls are of hollow tiles and reinforced concrete. The roof is of mission tile. Floors are of no. 1 vertical grained oregon pine and partitions are of wood stud, and wood lath, covered with plaster, and metal lath on ceilings. Trim also is of oregon pine. This school building is lighted by electricity and heated with cast iron gas radiators, vented with forced electric draft. The building was erected in 1921 at a cost of 21 cents per cubic foot

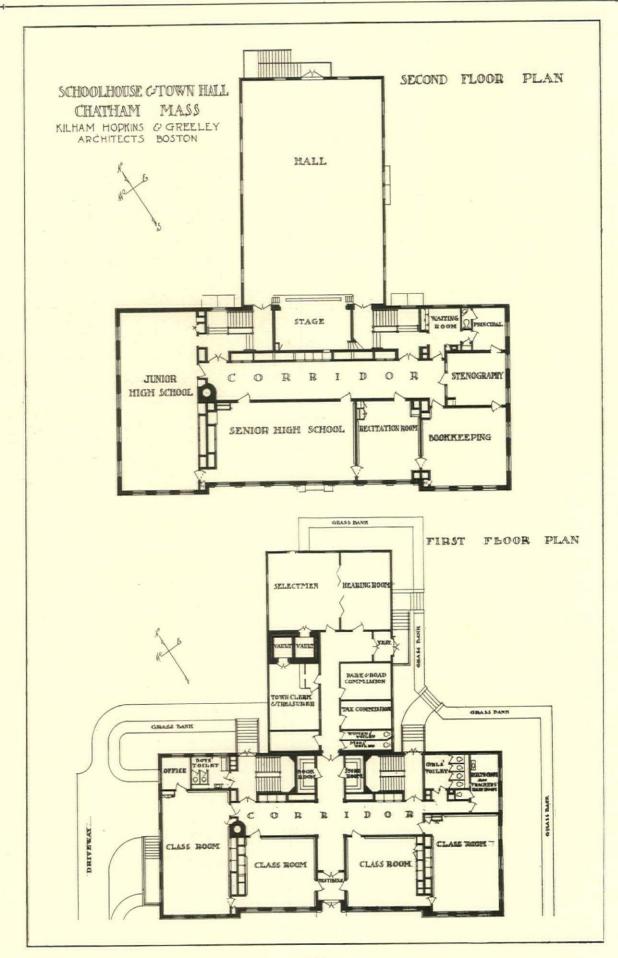
BEAUMONT GRAMMAR SCHOOL, BEAUMONT, CALIFORNIA —WITMER & WATSON, ARCHITECTS



Walls are of brick covered WITH BRICK VENEER, WITH SLATE ROOF. INTERIOR PARTITIONS ARE OF WOOD STUDS. VARIOUS POR-TIONS OF THE BUILDING BEING OF WOOD LATH, METAL LATH AND GYPSUM BLOCKS. FLOORS ARE CON-STRUCTED OF WOOD AND ALL TRIM IS WOOD. DOORS ARE ALSO OF WOOD. THE BUILDING IS HEATED BY WARM AIR, AND A SEPTIC TANK SYSTEM OF DRAINAGE IS INSTALLED. PLUMBING PIPES ARE, IN VARIOUS CASES, OF CAST IRON, WROUGHT IRON AND BRASS. AN ELECTRIC SYSTEM OF LIGHTING IS INSTALLED AND A COMPLETE TELEPHONE SYS-TEM. PLUMBING FIXTURES ARE OF VITREOUS WARE AND ENAMELED IRON. WATER IS SUPPLIED BY A PUBLIC SUPPLY SYSTEM. THE BUILD-ING WAS ERECTED IN 1924 AT A COST OF 41 CENTS PER CUBIC FOOT

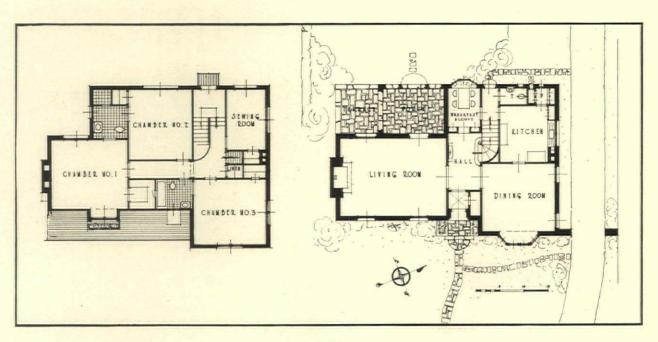


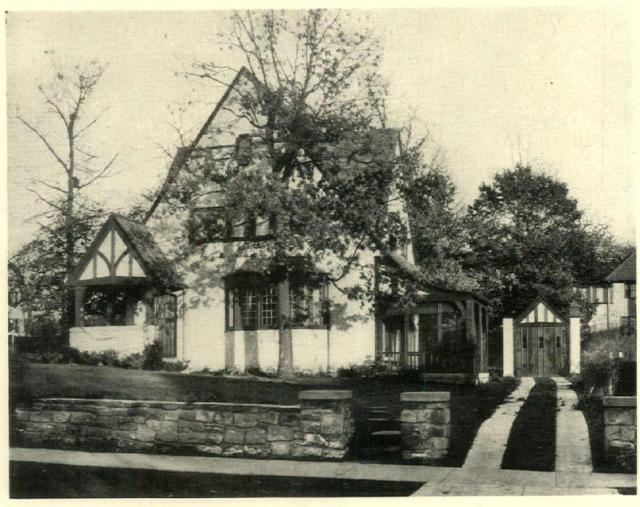
PROPOSED SCHOOL AND TOWN HOUSE FOR CHATHAM, MASS.
KILHAM, HOPKINS AND GREELEY, ARCHITECTS





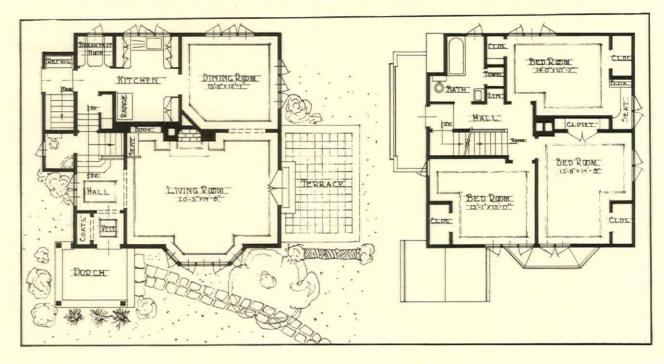
A BRICK HOUSE WITH WOOD SHINGLES. INTERIOR WALLS ARE CONSTRUCTED OF WOOD STUDS FINISHED IN PLASTER. FLOORS ARE OF WOOD. TRIM, DOORS AND WINDOWS ARE ALSO OF WOOD. THE HOUSE IS HEATED BY VAPOR AND OIL AND HAS A SEWER SYSTEM OF DRAINAGE AND PUBLIC WATER SUPPLY. ELECTRICITY IS INSTALLED. THE BUILDING WAS ERECTED IN 1925 AT A COST OF 55 CENTS PER CUBIC FOOT

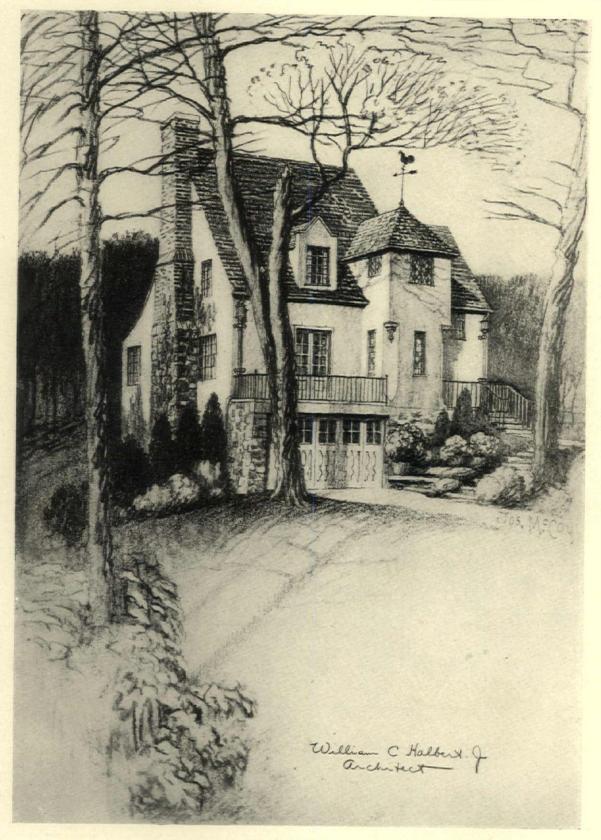




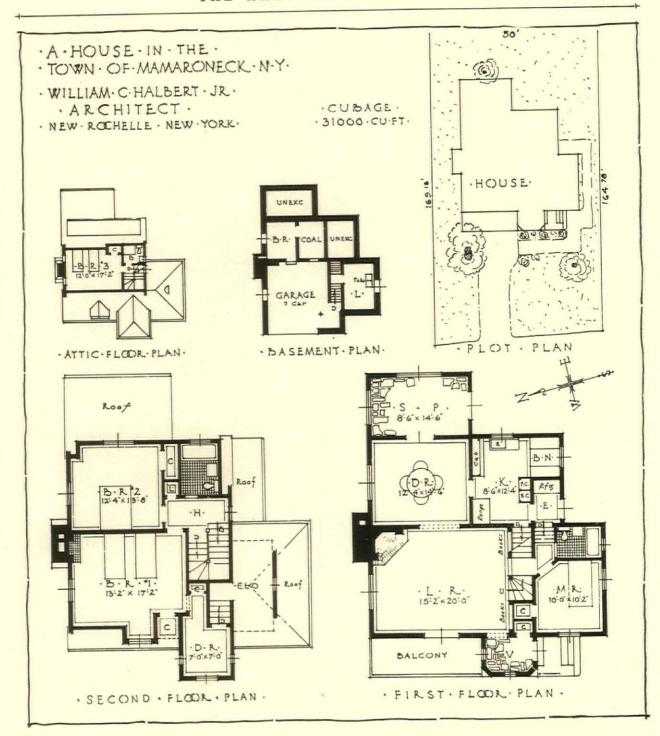
HOUSE AT MADISON, WIS.—JAMES R. & EDWARD J. LAW, ARCHITECTS

A wood frame house covered with cement stucco on fabric lath. Roof is of hand-split cypress shingles. Partitions are of wood with oak floors on first story and maple on second, and tile in Bathrooms. Trim throughout first floor is oak, and western pine for enamel on second floor and tile in Bathrooms. Heated by hot air furnace. Erected in 1921, this house cost 45 cents per cubic foot





HOUSE IN MAMARONECK, N. Y. WILLIAM C. HALBERT, JR., ARCHITECT



HOUSE IN MAMARONECK, N. Y. WILLIAM C. HALBERT, JR., ARCHITECT

A FRAME HOUSE ON A STONE FOUNDATION. THE WALLS ARE OF WOOD SHEATHING COVERED WITH STUCCO OVER METAL LATH. THE ROOF IS OF SLATE. INTERIOR PARTITIONS ARE OF WOOD STUDS FINISHED IN PLASTER. THE ROOMS OF THE LOWER FLOOR ARE IN EFFECT OF TRAVERTINE. FLOORS ARE OF RED OAK THROUGHOUT, EXCEPT IN THE BASEMENT, WHERE THE FLOOR IS CONCRETE. DOORS ARE OF WOOD, WINDOWS ARE STEEL CASEMENTS, AND TRIM IS WOOD. THE HOUSE IS HEATED BY HOT WATER SYSTEM. DRAINAGE IS SUPPLIED BY A SEPTIC TANK. AND WATER IS SUPPLIED FROM A PUBLIC SUPPLY. ALL PLUMBING FIXTURES IN LAVATORIES ARE OF VITREOUS WARE AND TUBS AND SINKS ARE OF ENAMELED IRON. THE HOUSE IS EQUIPPED WITH ELECTRICITY



ENGINEERING AND CONSTRUCTION



THE SETTING OF TERRA COTTA AND ITS INSPECTION BY ARCHITECTS

By Wm. Kraemer

THE mortar for setting terra cotta in the main wall should be composed of one part Portland cement to three parts of sand. Hydrated lime not to exceed nine pounds to the sack of cement should be added. Never use more or less than this amount of lime with the cement in the mortar. This amount of lime acts as a pore filler, and improves the impervious quality of the mortar besides making it work more smoothly under the

trowel. The Bureau of Standards has determined by tests that cement mortar attains maximum density when there is a lime content that is one-tenth of the cement content. Cement mortar without any lime in it is too short and crumbly and is likely to harden before the mason has the terra cotta properly bedded. Never use a cement that swells in setting. Use well known standard brands of Portland cement. Never under any circumstances use plaster of paris in mortar. Do not use sand that contains clay or loam. Mortar to be used for tedious work, such as the setting of balustrades, and finials, and mortar that is to be used for pointing should be mixed in small quantities as needed to remove the temptation to retemper it. Retempering should never be permitted. For work in exposed locations, such as parapets, pediments and balconies, use a stronger mortar composed of one part of Portland cement to two parts sand (with one-tenth of a part of hydrated lime added to the cement as before).

All terra cotta should be laid on a solid bed of mortar. All rebates in bed and cross joints should be filled solidly with mortar. The terra cotta should be tapped into place, excess mortar cut off, and the joints struck with the point of the trowel. The joints should be pointed as the setting progresses ex-

THE inspection of terra cotta setting during construction is greatly simplified through the use of correctly prepared specifications; by insisting that complete shop drawings be furnished by the terra cotta manufacturer; by specifying that terra cotta shall be fitted and the dimensions checked at the factory; and that the setting be done under the supervision of an experienced terra cotta mason, when other than terra cotta masons are employed by the contractor for this portion of the work. The architect or his inspector must know the right methods if he is to prevent the wrong. The accompanying article covering the best methods of setting terra cotta is based upon long, practical experience.

cept in freezing weather. To avoid the use of wooden wedges for maintaining joints of the proper thickness. the mortar should be used as stiff as practicable. On heavy work it will be found necessary to use wedges to some extent, but the mortar should be spread considerably thicker than the wedges and the pieces should be tapped down until the terra cotta touches the wedges, squeezing out the surplus mortar.

In warm weather when the terra cotta is very dry, the beds and ends of the pieces should be wetted, applying the water with a brush. If this is not done, the moisture will be absorbed from the joints too rapidly and prevent the chemical action of setting from taking place in the mortar. Mortar that dries too rapidly has practically no strength. In cold weather it is seldom necessary or advisable to wet the terra cotta. Terra cotta should not be set in freezing weather. Salt added to the water used in mixing the mortar will lower its freezing point, but the ill effects of salt far outweigh ts benefits and it is better omitted. Adequate heating of materials and the use of canvas screens around the scaffold will prevent the freezing of mortar to some extent. By using hot water and by using salt to lower the freezing point and hasten the setting of the mortar, builders are frequently able to set terra cotta passably well when the temperature is only a few degrees below freezing point, but the mortar is not as strong as when mixed in the ordinary way. Never allow masons to use mortar that has commenced to freeze.

All copings and other capping courses that have webs and open voids in their bottom beds should be set in a heavy bed of mortar and should be well pressed down so that the mortar squeezes up into the spaces between the webs, thus providing proper attachment to the work below. To prevent an accident to column and pilaster caps due to uneven settlement in the building, open joints should be provided at the top bed of these pieces. Open joints are easily arranged by bedding the pieces which occur immediately above the caps in weak mortar and raking it out to a depth of three inches or four inches as soon as it has stiffened. These open joints should be pointed with light colored elastic cement when the building is cleaned down.

Terra cotta columns with entasis should be set by very experienced setters. A wooden template should be provided to guide the setter in maintaining the proper vertical curve and the relation of this template to a plumb center must be constantly checked. The diameter at each horizontal joint should be checked before setting another course. Parapets, finials, balconies and other difficult and exposed features should be set by a small gang of expert workmen. As the setting of these features seldom affects the general progress of construction, these men should be allowed to spend enough time on the work to do it thoroughly.

Weep holes are often provided in the lower edge of courses of terra cotta to allow drainage and ventilation to take place in exposed work. The masons should be cautioned to be very careful not to stop



SIMONSON'S RESTAURANT, NEWARK, N. J.

FRANK GRAD, ARCHITECT

A BUILDING FACED WITH GRAY CONGLOMERATE COLOR TERRA COTTA. THE INSPECTOR SHOULD MAKE SURE THAT ALL ANCHORS SHOWN ON THE CONSTRUCTION DRAWINGS ARE PROPERLY INSTALLED. THE JOINTS OF PLAIN SURFACES MUST BE CAREFULLY MADE TO SECURE SATISFACTORY RESULTS

them up with mortar when bedding the pieces. In order to be sure that there is no mortar in the weep holes, a piece of No. 10 wire should be pushed through each one of them after setting the terra cotta.

When repointing is necessary, the joints should be raked out to a depth of three-quarters of an inch and the pointing mortar should be driven into the joint and struck with a jointing tool. For pointing use the same mixture of mortar as was used for setting. Rich pointing mortar shrinks too much and in a year or two it falls out. Always brush out and wet the joints before pointing or the mortar will not stick.

Exposed mortar joints in the washes of cornices and copings should be protected by covering them with an asphaltic compound or so-called "elastic cement." Light colored elastic cements are usually varieties of oil putty and either dry up, shrink and harden, or else become crumbly and disintegrate in time. The most tenacious and elastic compounds are jet black in color and on this account are not suitable for use on joints or surfaces that are visible from below, but joints in washes should be covered with this type of compound. The best results are obtained by tightly filling the wash joints to within one-eighth of an inch of the face of the wash with two-to-one cement mortar and then plastering the

surface of the joints with about one-quarter of an inch of elastic cement, allowing it to slightly overlap the edges of the pieces of terra cotta.

The back of parapet walls should be flashed whenever possible. Parapets with an exposed backing of brickwork are extremely difficult to keep watertight. It has been found that asphaltic or coal tar coatings painted or plastered on the back of parapet walls, are not permanently effective. The best plan is not to depend on a waterproofing in this case, but to use hard-burned brick set in two-to-one mortar (with only nine pounds of lime added to each sack of cement) and to build the brickwork with vertical air spaces. Weep holes should also be formed in the mortar joints just above the cap flashing, to drain and ventilate these air spaces.

As the mortar joints in copings are likely to leak sooner or later, the top of the parapet wall should be waterproofed with a layer of asphalt mastic and saturated felt or covered with copper, zinc or lead flashing before setting the terra cotta coping course. By running a layer of waterproofing or flashing through the base of the parapet wall, water that enters the parapet at the mortar joints is prevented from soaking down into the main walls of the building.

On wall bearing structures and on steel framed buildings where terra cotta is used as a facing for the



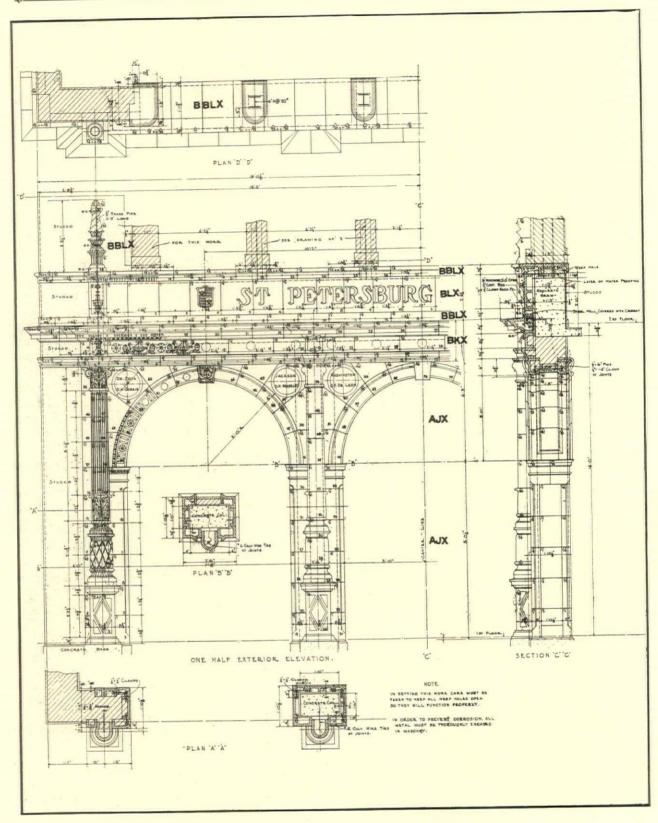


42ND STORY LEVEL, RITZ TOWER, NEW YORK CITY

EMERY ROTH, ARCHITECT; THOMAS HASTINGS, ASSOCIATE ARCHITECT

AT LEFT: ANGLE IRONS ARE FREQUENTLY USED IN LINTEL CONSTRUCTION. A SHORT METAL ROD IS PLACED IN ONE OF THE HOLES SHOWN IN THE TERRA COTTA PIECES AND IN A CORRESPONDING APERTURE IN THE ADJACENT PIECE. AN IRON ANCHOR ENGAGES WITH THIS ROD BETWEEN THE TWO PIECES AND THE REBATES ARE SLUSHED WITH MORTAR TO PROTECT THE IRON FROM RUST. THE ANCHORING ROD IS ENGAGED WITH THE STRUCTURAL STEEL

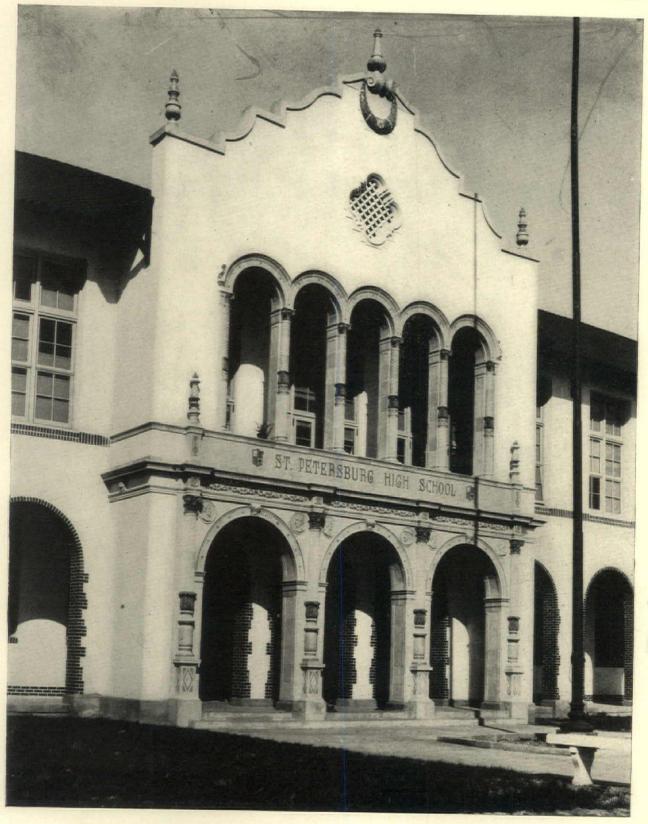
AT RIGHT: SHORT RODS CONNECT TWO ADJACENT PIECES OF TERRA COTTA. THE ANCHOR ENGAGED WITH THIS ROD PASSES THROUGH THE CONCRETE OF THE ROOF AND ENGAGES WITH THE STRUCTURAL STEEL. THE ARCHITECT'S INSPECTOR SHOULD SEE THAT THE ANCHOR IS ENTIRELY COVERED WITH MORTAR. THE SPACE BEHIND THE TERRA COTTA SHOULD BE SOLIDLY FILLED AND THE MASON SHOULD COVER THE ANCHOR WITH MORTAR



ST. PETERSBURG HIGH SCHOOL, ST. PETERSBURG, FLA.

WM. B. ITTNER, M. LEO ELLIOTT, ASSOCIATED ARCHITECTS

SETTING DRAWING PREPARED BY THE TERRA COTTA MANUFACTURER. THE DRAWING SHOULD NOT BE LESS THAN $\frac{3}{4}$ " SCALE AND SECTION DETAILS ARE GENERALLY DRAWN TO $1\frac{1}{2}$ " SCALE. THE ILLUSTRATION SHOWS ONLY A PORTION OF THE COMPLETE SETTING DRAWING. THE LARGE BLACK LETTERS SHOW THE GROUP SECTIONS OF TERRA COTTA. THE FIGURES WITH THE ANGLE SIGN OVER THEM INDICATE PIECES THAT ARE INTERCHANGEABLE.



ST. PETERSBURG HIGH SCHOOL, ST. PETERSBURG, FLA.

WM. B. ITTNER, M. LEO ELLIOTT, ASSOCIATED ARCHITECTS

THE ENTRANCE OF THE ST. PETERSBURG HIGH SCHOOL IS OF POLYCHROME TERRA COTTA ERECTED IN ACCORDANCE WITH THE SETTING DRAWING ON PAGE 554. SECTION LETTERS, AND ANGLE AND SETTING NUMBERS ARE MARKED ON EVERY PIECE OF TERRA COTTA. WHILE PIECES SO INDICATED ARE INTERCHANGEABLE, IT IS BETTER TO SET BY THE NUMBERS. PIECES SO NUMBERED WERE ASSEMBLED AND FITTED TOGETHER BY THE MANUFACTURERS BEFORE SHIPMENT

main wall, and brick is used for backing, the brick should be tightly bonded into the voids in the back of the terra cotta. When terra cotta is backed up with hollow tile it is impractical to fit the tile into the voids in the terra cotta, but in order to provide an occasional bond between the terra cotta and the tile, sufficient brick should be used to come into every fifth course of terra cotta and form a connection between it and the tile backing. In setting belts, cornices and other projecting courses brick should



TERRA COTTA FIGURE ON THE FARMERS LOAN 8 TRUST COMPANY, NEW YORK CITY

STARRETT & VAN VLECK, ARCHITECTS

FREE-STANDING TERRA COTTA SHOULD NEVER BE FILLED WITH MORTAR. ONE ADVANTAGE OF TERRA COTTA FOR WORK OF THIS CHARACTER IS ITS LIGHT WEIGHT. THE FIGURE SHOWN WEIGHS ALMOST A TON BUT IN A SOLID MATERIAL, OR IF FILLED. WOULD WEIGH CONSIDERABLY MORE. A BRONZE ROD EXTENDING THROUGH THE BODY AND HEAD IS SUFFICIENT FOR ANCHORAGE. WEEP HOLES AT THE BASE ALLOW ANY MOISTURE THAT MIGHT COLLECT TO ESCAPE. THE INSPECTOR SHOULD SEE THAT THESE WEEP HOLES ARE NOT CLOGGED WITH MORTAR

be used for backing and should be bonded into the back of the terra cotta as far as the wall line but should not extend into the projecting part of the terra cotta, unless it is so shown on the setting drawings.

On concrete framed buildings where there is only about one inch of space between the back of the terra cotta and the face of the concrete piers of columns, it is impossible to fill the voids in the terra

cotta after setting and it is a waste of labor and material to fill the terra cotta before setting it. On large cornices, the terra cotta that is outside the wall line should be left empty unless for some special reason filling is shown on the setting drawings. Terra cotta used for facing parapets should not be filled because it has been found that the filling collects and holds moisture which may freeze and damage the work. Never fill urns or finials on parapets with mortar. Parapet vases with open tops to hold flowers should have removable copper pans to contain the earth. At the approach of Winter, the pans should be removed and watertight covers should be provided to prevent snow and ice from collecting in the vases and damaging them. Never fill free-standing columns that are made in drums. Masons often want to pour grout into these features. Inspectors should not let them do it. The grout may swell and injure the terra cotta or collect moisture which would expand on freezing and cause similar damage. The inspector should not allow the mason to pour concrete into the back of terra cotta. Concrete expands and contracts a great deal more than other materials and sets up severe strains.

The chief object in filling terra cotta is to knit the facing material to the main body of the wall. Filling is of little value as a support for the terra cotta. In free-standing work that is highly exposed to the weather filling is a distinct disadvantage as it collects



GARGOYLES FOR THE FARMERS LOAN & TRUST COMPANY, NEW YORK CITY

STARRETT & VAN VLECK, ARCHITECTS

PROJECTING GARGOYLES SHOULD NOT BE FILLED WITH MORTAR. NOTE THE SMALL WEEP HOLES IN UNDERSIDE THAT ALLOW DRAINAGE OF WATER THAT MIGHT COLLECT THROUGH SEEPAGE IN THE WALL. WHERE METAL ANCHORAGE IS REQUIRED FOR HEAVY PROJECTIONS IT SHOULD BE OF BRONZE

and holds moisture. The filling of the voids in terra cotta coping courses is a typical instance of where labor and material are frequently wasted.

In all ordinary cases metal rods in balusters are unnecessary. If iron rods are used they rust and expand and damage the terra cotta. Terra cotta balusters should be made with strong dowelled joints and without any hole in the top bed. A hole should be left in the bottom of the pieces for drainage and ventilation. Don't allow masons to pour mortar, grout or anything else inside terra cotta balusters. Filling is worse than useless as it may swell and injure the work. When flat steel bars are used as stiffeners in the hand-rails of balustrades, they should be surrounded on all sides with at least one-half inch of cement mortar. If this protection is not provided the bars will corrode and the expansion of the rust will injure the terra cotta. When iron anchor

bolts are used to hold down the ends of these stiffening bars, they should run up through the pedestals of the balustrade and should be encased in masonry or mortar. Whenever possible, bronze bars and anchors should be used in balustrades.

Balustrades and other free-standing features that are exposed to severe action of the elements, become saturated with moisture if they are not properly drained. Weep holes should be provided in the terra cotta to assist in the drainage and ventilation of the work. The hand-rails and bases of balustrades should not be filled. Leave the voids empty and poke a wire through the weep holes immediately after setting the terra cotta so as to make sure that none of them are stopped up with mortar. Pedestals in balustrades should only be filled sufficiently to protect iron or steel in the center of them. If the metal in the pedestals is bronze, no filling is required.

WELDING AND RIVETING AS APPLIED TO STRUCTURAL STEEL MEMBERS

AT a meeting recently held under the auspices of the Engineers' Club of Philadelphia and largely attended by engineers, fabricators and manufacturers, the matter of welding or riveting the joints of structural steel members was discussed. The following opinions are quoted from a report in the February 24th, 1927, issue of the Daily Metal Trade of Cleveland, Ohio.

A. F. Jensen, president, and J. C. Hanna, chief engineer. of the Hanna Engineering Works, took the attitude that riveting is a successful industry with a background stretching back over many years, and that all the factors in connection with rivets and riveting are known. They pointed out that the intangibles which still characterize the art of welding are not present in riveting. They further outlined the great progress made in riveting methods.

It was admitted by W. L. Warner of the General Electric Company, that personal variables constitute the big problem in welding. He believed that as time goes on methods will be developed for making welds of uniform quality. Particularly, he thought that it would be possible to develop a machine which would bring about the elimination of personal variables in welding. Mr. Warner considered that a big problem to be investigated is the design and testing of welded joints.

Gilbert D. Fish, the engineer who designed the famous welded steel structures at Sharon, Pa., declared that the art of welding has been shown to have its place in the structural industry. But he thought the introduction of welding should be gradual. Experience will demonstrate where welding is useful and desirable in structures, and more will be learned about the design of welded joints. At the present time, he thought, welding may be

regarded as particularly desirable for wind bracing. In the meantime, the welding interests have no immediate ambition to tackle the welding of skyscrapers, although, said Mr. Fish, it is likely that welding will continue to be applied in smaller buildings.

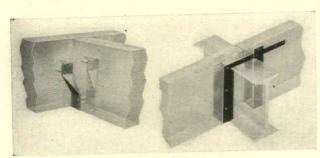
Fred T. Llewellyn said that he first was shocked to learn of the difference in ductility of the steel and of the metal deposited in welding. But on thinking the matter over he came to the conclusion that it remained to be proved whether this was a real obstacle. He pointed out that a steel building rests on concrete, whose ductility is much different from that of steel, and that the concrete rests in the earth, whose ductility again is different. He felt that no harm would result, provided the weld were made sufficiently large. It was Mr. Llewellyn's belief that the structural industry will do well to investigate the possibilities of welding so that it may be in a position to utilize the new art where desirable.

J. F. Lincoln, vice-president of the Lincoln Electric Company, Cleveland, told about a tremendous reduction in investment in its inventory which had been made possible at his plant as a result of supplanting steel castings by welded rolled steel.

A. M. Candy, of the Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., showed lantern slides of a great many welded structural joints, together with views of the same joints after testing. These views showed that failure developed in the structural members themselves before the welds themselves failed. Mr. Candy admitted that the question of design of welded joints still remains to be worked out. This problem now is engaging a committee representing the American Welding Society, the American Bureau of Welding and the American Society of Civil Engineers.

NEW TYPES OF JOIST HANGERS

WHERE steel I-beams are used for supporting wood joists, the usual practice has been to toe-nail the joists to wood strips bolted to the steel members or to rest the joists on shelf angles riveted to the beams. A new type of joist hanger has recently been perfected that appears to aid the solution of this problem in a practical manner. This hanger, known as the Quixset Hanger, supports the joists without



THE JUNIOR AND QUIXSET JOIST HANGERS

being connected to the steel beam and at the same time ties the joists together across the top of the Ibeam.

The manufacturers of the Quixset Hanger have also designed a Junior Joist Hanger for use in framing wooden members around floor openings. Sharp prongs on the end of the hanger are driven into the side of the header beam. The hangers are also punched with holes for nailing into the timbers. The simplicity of the design of these hangers and the apparent ease with which they can be installed, should give them a wide range of usefulness.

20

REMOVAL OF VARIOUS STAINS FROM MARBLE STUDIED BY BUREAU OF STANDARDS

Continuing the study of means for removing various kinds of stains from marble work the Bureau of Standards, Department of Commerce, has developed methods for removing oil stains, copper stains, fire stains, wood stains, and the common service stains sometimes called the "yellowing" of marble.

Linseed oil and lubricating oil stains may be removed by a mixture of acetone and anyl acetate. Old oil stains which have turned yellow can sometimes be effectively bleached with hydrogen peroxide. Copper stains from bronze statuary on marble pedestals may be removed by a poultice made of powdered talc, ammonium chloride and ammonia water. Fire stains due to pine wood burning in contact with the marble can usually be removed with a mixture of trisodium phosphate solution and chlorinated lime by keeping a layer of saturated cotton over the stain for several days.

General service stains which are usually an accumulation of various kinds of discolorations on marble that has not been maintained in a proper

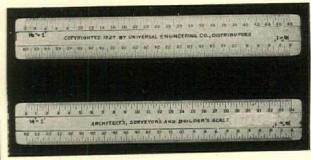
state of cleanliness, can usually be removed by applying a poultice of powdered talc reduced to a pasty consistency with the trisodium phosphate and chlorinated lime solution.

In treating stains on marble the active solvent is usually applied either in the form of a poultice by mixing it with an inert powdered material, or by keeping a layer of cotton over the stain saturated with the solvent. In the case of very volatile solvents the saturated cotton may be covered with a scrap slab of marble.

20

ARCHITECT'S SCALE OF NEW DESIGN

G. SZMAK, managing engineer of the Universal Engineering Company, has recently copyrighted an improvement in architects' scales. The scale, known as an "Architect's, Surveyor's and Builder's Chain Scale," consists of four beveled edges with two scales. On one side the divisions are $\frac{1}{4}$ " = $\frac{1}{-0}$ " and on the other side $\frac{1}{8}$ " = $\frac{1}{-0}$ ", each reading from left to right on opposite edges, making the scale readily readable without turning it end for end. Each foot is divided into twelve equal parts to represent inches. Each foot of the $\frac{1}{4}$ " = $\frac{1}{-0}$ " scale is numbered and alternate feet of the $\frac{1}{8}$ " = $\frac{1}{-0}$ "



AN ARCHITECT'S SCALE OF NEW DESIGN

scale are numbered. These scales can be made for other graduations with each foot subdivided into inches. They can be made in any reasonable length, although practical experience has shown that lengths of 6", 12" and 18" are the most convenient. An advantage of a scale so divided will be found in that feet and inches can be read at once without adjusting the position of the scale to read the inch division at the zero end of the scale as is the case with scales now commonly in use. Also as previously stated, the graduations and numbers are so arranged that the scale can be read without frequent reversal of the instrument end for end.

20

ANNUAL MEETING OF BUILDING OFFICIALS

THE annual meeting of Building Officials' Conference will be held April 26 to 29 at the Sherman Hotel, Chicago, Illinois. H. E. Plummer, Building Inspector of Portland, Oregon, is president of the organization. A program of interest is promised.



RUSS BUILDING, SAN FRANCISCO

Specified and Used throughout for Hot and Cold Water Lines ANACONDA BRASS PIPE

George W. Kelham, Architect

Hunter and Hudson, Consulting Engineers

Dinwiddie Construction Co., General Contractors

Frederick Snook Company, Plumbing Contractors

THE AMERICAN BRASS COMPANY, General Offices: Waterbury, Conn. Offices and agencies in principal cities.

THE LAW AS TO ARCHITECTURE

By CLINTON H. BLAKE JR., of the New York Bar

In view of the spread of legislation in the various states requiring the registration of architects, an architect whose practice is widespread and embraces work in many states is often faced nowadays with

a rather pretty practical problem.

If he is called upon to prepare plans for a building in a state in which he is not registered, he must either secure such registration as will enable him to practice as an architect in that state, or he must handle his services in such a way that he will not technically come within the scope and effect of the state

statute requiring registration.

The provisions for registration differ widely in the various states. In some, the securing of a registration certificate and authority to practice is comparatively simple. In others, there is a much greater quantity of red tape, more stringent provisions and considerably more delay to be encountered. In many cases, by reason of the delay alone, an architect, who is quite willing to comply with the registration law and take the necessary time and incur the necessary expense to secure registration, will find that an application for registration will not meet his problem. If the job is one which must be proceeded with promptly, he will find himself in a position where the work must be done before he can, even by making immediate application for registration, secure the necessary authority to practice. A short time ago, a case was brought to my attention which illustrated this dilemma forcibly. The architect had been asked to accept a commission for a job of considerable importance in a state other than that where he regularly practiced. He had agreed to undertake the work and he was strictly limited in the time in which his work must be proceeded with. He had made application in what he considered ample time for registration in the state where the work was to be carried on. Due, however, to the absence of various members of the State Board of Examiners and other unavoidable causes, with which he had nothing to do, the Board had not acted upon his application, and it was apparent that they would not be able to act upon it for some time. In a case such as this, the architect must either secure some relief in the form of a temporary dispensation or so order his work that he can proceed with it without violating the provisions of the statutes.

What constitutes the practice of architecture in a given state is sometimes a very nice question. If an architect be practicing in New York, for example, and prepares plans for a building to be erected in another state, the mere preparation of these plans does not necessarily constitute the practice of architecture in the other state. It is quite similar to a

burgh, asking him for an opinion on some matter involved in Pennsylvania. His opinion written from his New York office does not amount to the practice of law in Pennsylvania so that he will be required to be admitted to the Bar in that state.

In many cases the line of demarkation between what constitutes and what does not constitute practicing architecture in another state will be determined in large measure by the matter of supervision. If an architect merely prepares plans in his regular office for a building to be erected elsewhere, and does not supervise the erection of that building or enter the borders of the other state, he may well claim that he is not practicing architecture in the other state. If, however, in addition to the preparation of the plans, he personally or through someone from his office, goes to the site of the work and supervises the construction and takes part on the ground in the erection of the building to this extent, he may well be considered as having crossed the line of demarkation and as practicing or attempting to practice in a foreign state. Sometimes a question of where the contract for the employment is made will have some bearing also on the situation, and, where possible, it is the safer practice in any event for the contract to provide or be so worded as to make it clear that it is entered into in the state where the architect's office is located.

Another obvious way to meet the difficulty such as that to which I have referred is, of course, for the architect to associate himself with some architect who has registered in the state where the work is to be done. The advantage of such an association is that the plans, if necessary, can be filed in the name of the associate architect and the work supervised by him. The equally obvious disadvantage is that the architect who is responsible for the work will be compelled to share some of the compensation with the associate and to give to the associate, by filing the plans in his name, credit for work for which he is not responsible.

The registration laws are being gradually tightened and their enforcement more closely followed. The practicing architect must give to them more and more thought and eventually either secure registration in all the states where he is likely to perform work, or by some national registration take care of the situation or be prepared to employ an associate architect just as a lawyer would employ another counsel for work in a foreign jurisdiction.

Where an architect has reason to believe that he may be called upon to perform work elsewhere, he will do well to familiarize himself at once with the registration laws of the state where the work is to New York lawyer receiving a letter from Pitts- be done and decide promptly upon what course he

SERVICE TO BUILDERS AND ARCHITECTS



THIS institution, founded in 1882, renders a service alike to the investing public, the builder, the architect and the community.

In the course of our development into a nation-wide organization we have built up a large, thoroughly trained and thoroughly equipped organization which passes on every plan submitted to us.

This organization, through constructive suggestions and exceptional technical knowledge, has often proved of practical and substantial benefit to architects and owners.

LOAN DEPARTMENT

S.W. STRAUS & CO. Established 1882 Investment Bonds Incorporated

Straus Building 565 Fifth Ave. at 46th St. New York STRAUS BUILDING
Michigan Ave. at Jackson Blvd.
CHICAGO

Straus Building
79 Post Street, San Francisco



The Straus Hallmark on a bond stamps it at once as the premier real estate security.

is to follow and what steps he is to take with respect to registration or the employment of an associate who is already registered in that state. There is not the slightest doubt in my mind that the registration laws as a whole are wisely conceived and administered and that they will benefit the profession in the long run. In some cases, they will result in hardships or seeming injustices. This is true, unfortunately, of every law, and will doubtless remain so as long as legislators remain fallible. It is not a matter of great difficulty for an architect to post himself on the registration laws of other states. A little time given to doing this with respect to those jurisdictions in which he may be asked to perform services will be well spent and productive of worthwhile dividends.

LEGAL DECISIONS

Architects brought suit for the collection of a commission claimed to be due of four per cent on the amount of the contractor's bid of about \$31,000. The defendant claimed that it was agreed that he was not to be called upon to make payment of the architects' fee, unless the house, including all architects' charges could be built for \$24,000. Evidence was presented by the plaintiff, and also by the defendant, in support of their respective positions. A jury trial was waived. The defendant refused to accept the plans or bid and abandoned the building project, because the cost would exceed the \$24,000 which he claimed to be his limit. The architects admitted that they could not secure a bid as low as \$24,000.

The court found, as a matter of fact, that the defendant's version of the agreement was correct, and

judgment was rendered for the defendant, accordingly. On an appeal by the architects, the court found that the record contained ample evidence to support the defendant's claim and that, inasmuch as a jury had been waived, the decision of the court that the \$24,000 limitation had been agreed upon had the same effect as the verdict of a jury and could not be disturbed.

DeArmond v. Tappan, 85 Pennsylvania Superior Court 236.

THE plaintiff brought an action for compensation claimed to be due him for preparing and furnishing the defendant with plans and specifications for the construction of a building. The defendant set up as a defense the fact that the plaintiff was not a registered architect under the Laws of Michigan, where the case arose. The Michigan statute applicable in the case provided in substance that no one not registered under the Act should use the title "registered architect." The Act further provided that no state, county, township, municipality or village should engage in any public work of an architectural character not prepared by a registered architect or engineer, but that the Act should not prevent any person from performing architectural services in connection with private buildings. The building in question was a private building. It appeared that the plaintiff had not claimed that he was an architect or held himself out to be such.

The court held that the Act did not apply to the case in question, and that the objection of the defendant to the recovery of the plaintiff was without

Bollin v. Fahl, 232 Michigan 658.

LONDON ADOPTING NEW YORK'S TRAFFIC CODE

THE Fifth Avenue method of traffic control, with its alternating lights, has been adopted for Piccadilly, from the famous Circus to Hyde Park Corner.

London will not adopt New York's graceful metal watch towers, for all the space in this main artery is needed for the increasing number of automobiles. But signal lights, controlled by an officer in Piccadilly Circus or at the intersection of St. James Street, will stop and start traffic simultaneously all along the street.

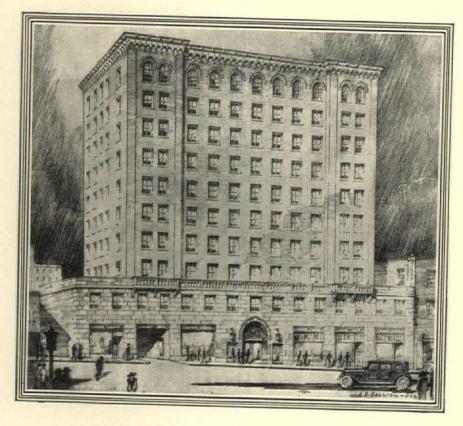
This is only one of the many innovations to relieve the congestion of London's narrow and irregular streets. In the larger squares and circuses the one-way movement of traffic has been adopted, with great success from the standpoint of everyone but the pedestrian.

In Parliament Square, particularly, pedestrians

on their way to the Houses of Parliament or Westminster Abbey have much difficulty in dodging through the steady stream of motors which pours through Whitehall and Victoria Street and across Westminster Bridge. To care for this problem tunnels under the streets will be constructed for foot travelers.

TEACHING CITY PLANNING IN THE PUBLIC SCHOOLS

A VALUABLE bit of co-operation between the organized realtors of a city and the educational authorities is afforded by the city of Fort Wayne, Ind., where the Fort Wayne Real Estate Board recently issued to the pupils of the public schools of Fort Wayne, a City Planning Primer, a textbook issued by Purdue University of that State, the funds necessary for the providing of these textbooks and their distribution being supplied by the realtors of Fort Wayne.



BEAUMONT MEDICAL OFFICE BUILDING
St. Louis, Missouri

Architects—La Beaume & Klein
Contractors—James Black Masonry & Contracting Co.

Carney Cement was used for all the brick and tile mortar in this project.

REPRODUCED FROM THE ORIGINAL RENDERING, THROUGH THE COURTERY OF MESSRS. LA BEAUME & KLEIN.

IN considering masonry materials, it is significant to know that more Carney Cement is used than all other mason's cements combined. The explanation lies in the fact that Carney Cement produces an exceedingly hard bond and that its extreme plasticity and simple mixing specification make labor and material costs far lower than others.

THE CARNEY COMPANY

DISTRICT SALES OFFICES: CLEVELAND, CHICAGO, DETROIT, ST. LOUIS, MINNEAPOLIS

Specifications: 1 part Carney Cement to 3 or 4 parts sand depending upon quality of sand.



COMPETITIONS FOR THE PROMOTION OF GOOD ARCHITECTURE

A MEMORANDUM of rules and regulations adopted by the board of directors of the Fifth Avenue Association, Inc., New York, for the guidance of its committee on architectural betterment in making the annual awards for the best new and best altered buildings in the Fifth Avenue section, is printed herewith for its value in aiding municipalities throughout the country to carry forward similar competitions.

1. Two prizes are awarded respectively to the best new and best altered commercial or non-residential buildings in the Fifth Avenue section. A new building is one erected independently of anything previously existing on the site, except party walls. An altered building is one in which construction previously existing on the site has been used in whole or in part, but in which the street facade has been so modified or reconstructed as to present a new architectural composition.

2. In making the awards, the facade only is to be judged. The facade should express the function of the building. Locality should be considered in determining the civic value of good architecture. The quality of the materials used is not so important as the honest use of materials. Cheap imitations should not be encouraged. Where there are two or more buildings of equal architectural merit, the committee shall give some consideration to the building that shall promote the general betterment of the section, but in no instance shall a medal be awarded to a building which in the opinion of the architect members of the committee is not in itself of architectural merit.

In the case of the Fifth Avenue Association, the committee of awards consists of three architects, appointed by the New York Chapter of The American Institute of Architects, and three laymen appointed by the Association. This committee is furnished with a list of all new and altered buildings that have been completed during the year. The awards are not given merely to increase the value of the buildings chosen, but to impress as firmly as possible on the public consciousness the civic desirability and the commercial value of good architecture. The Association emphasizes the fact that good architecture is not necessarily expensive architecture. It is known that in many instances owners have given their architects greater leeway, in their efforts to obtain the prize, and have often hired responsible professional men to design and supervise their buildings, rather than follow the prevalent custom among speculators of buying a standard set of plans and having construction supervised by a building superintendent, if at all. The Fifth Avenue Association takes pleasure in furnishing complete information as to its meth-

ods to organizations who see in its practice a decided advantage in promoting good architecture and improving the character and appearance of their communities.

200

AN ARTS COUNCIL OF NEW YORK ESTABLISHED

Sponsored by museums of art, societies, educational institutes, and social organizations, an Arts Council of New York City has been established for the promotion of a close unity in the activities and benefits of the three great arts—design, drama, and music; to serve as a clearing house for the existing societies devoted to these arts; and to offer wider opportunities for the production and the presentation of all arts throughout the entire Metropolitan District.

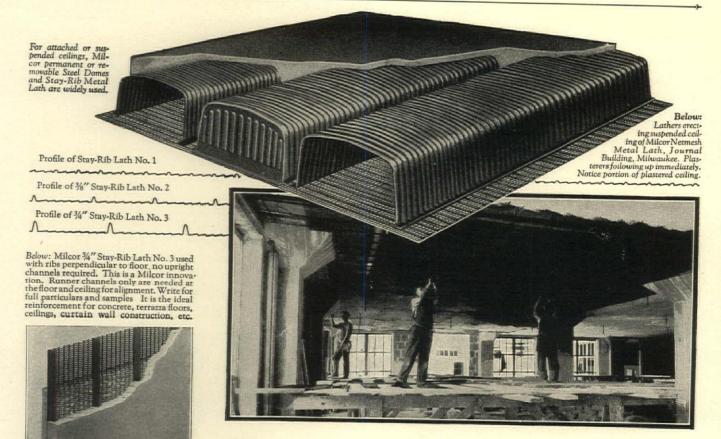
Headquarters have been opened for practical service, and a self-perpetuating Board of Trustees includes John G. Agar, John H. Finley, Ernest K. Satterlee, Mrs. John W. Alexander, Harvey Wiley Corbett, Otto H. Kahn, Florence N. Levy, and Kate Oglebay. The Executive Secretary, Miss Levy, is also Director of the Design Group within the Council.

Educational in character, the Arts Council serves as a channel through which an area of fifty miles may receive the best in arts,—just as the communities have received the best in literature by means of the public branch library—and by encouraging and assisting in the establishment of community art groups, or centers, the presentation of exhibitions, lectures, dramas, and music will be made possible.

Through the initiation of the National Academy of Design, and the Architectural League of New York, the Design Group has been the first to organize, with Harvey Wiley Corbett, F.A.I.A., as Chairman, Alon Bement, Director of the Art Center, elected Advisor, with C. Paul Jennewein, George K. Gombarts, Hardings Scholle, Leon Dabo, and Jean Willem. Fifty-two societies are now working through the medium of the Council, each committee representing their organization through a delegate and an alternate.

Among the first activities of the Arts Council has been a series of lectures given by Gerrit A. Beneker, "portrait painter of the laborer," on the subject of Art in the Day's Work. Nearly six thousand men, women, and students, belonging to art societies, private and public schools, settlements, and museums, were addressed by him at their own request, in twenty lectures during the single month of February. He also spoke before Rotary Clubs, and to four hundred shop teachers at the recent Architectural and Allied Arts Exposition, whose tour of the exhibitions proved of great educational value.

The Council also organized five hundred students under the auspices of the School Art League, for attendance at the Exposition, where they heard a lecture given by Harvey Wiley Corbett, and were



Below: Milcor Stay-Rib Lath No. 1 (1/6" ribs) used as a solid partition, with Milcor Cubro Steel Channels. Stay-Rib is a great plaster saver.4



80 pages of

valuable data

Endorsed by Engineers

HIS Milcor construction has proved its merits. For light-occupancy buildings, the Milcor Steel Dome and Stay-Rib Metal Lath combination is endorsed by engineers who have made reinforced concrete construction their life work. The design of these domes permits considerable saving of concrete without impairing floor strength. The design of Stay-Rib metal lath permits important savings in concrete and plaster, as well as in labor. All three types of Stay-Rib lath are great plaster savers.

For all classes of buildings, Milcor to work with you in designing buildings solid partition construction also deserves your endorsement. It is possible to gain 6% to 10% in usable floor space from the same building area by interested also in the value of Milcor

adopting two-inch solid partitions plastered on Milcor Stay-Rib or Netmesh metal lath. More floor space means more revenue. Fire-safe, crack-free walls and ceilings are also thus assured.

Milcor engineers are prepared

for light-occupancy, to obtain maximum usable floor space from the building area available. You will be

> Steel Domes for reinforced concrete floor construction in light-occupancy structures of all types. This co-operative engineering service involves no charge or obligation. We shall be pleased to discuss plans with you at any time.



All Milcor Products including Metal Lath,

MILWAUKEE CORRUGATING COMPANY, Milwaukee, Wisconsin Kansas City, Mo. La Crosse, Wis.

11LCOR TAL LATH for SAFETY later instructed in the important features of the exhibits. These students were not admitted free of charge, but the price of admission was half that of

the general admission.

Perhaps one of its most important services has been in crystallizing a movement for a greatly needed industrial art school with studios and equipment, where talented boys and girls may be given the opportunity of developing in the applied arts as they continue their elementary studies. Resolutions have been adopted asking the Board of Education to equip twelve unused class rooms in Public School No. 6 for the use of art classes. This request came from the Mothers' Club of that school which is near the Metropolitan Museum of Art, and therefore peculiarly advantageous for that purpose.

At the request of the Fine Arts Federation of New York the Arts Council communicated with each of its affiliated organizations, urging that they appeal to Governor Smith to retain the State Fine Arts Commission in its present form. Many have forwarded signed resolutions and personal letters.

SUMMER COURSES AT THE UNIVERSITY OF MICHIGAN

200

THE College of Architecture of the University of Michigan, Ann Arbor, Mich., will again conduct classes in architectural design and outdoor drawing and painting during the coming Summer. The classes will run from June 27 to August 19.

SCULPTURE AND MURAL PAINTINGS, ST. JOSEPH'S CATHEDRAL, WHEELING, W. VA.

In our issue of February 5th there was illustrated the St. Joseph's Cathedral, Wheeling, W. Va., of which Edward J. Weber was the architect. This building appears to possess sculpture and mural paintings of interest, and we are now advised that Felix B. Lieftuchter is the artist who did the paintings, and Francis Aretz is the sculptor. In this connection, it is interesting to direct attention to the fact that the tympanum, archivolts and caps of the main portal of this building were carved directly on the stone and without the use of models.

CONSTRUCTION COSTS

Construction costs increased during February, reaching a point slightly above the level which they held one year before, according to statistics compiled by the Associated General Contractors of America.

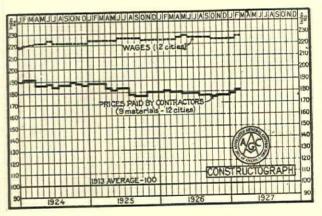
The increase in total costs was the result of wage increases and of higher prices commanded in several localities by certain building materials, notably

crushed stone and gravel.

The average of wages paid in the construction industry rose during February to the highest point

reached since 1920, with the exception of the level occupied in May, 1926.

It is noted that the fluctuation of construction costs during the past 18 months has been within a comparatively narrow range. A scale which has the



WAGES AND MATERIAL PRICES

1913 average as its base shows the highest level reached during that period to be 199, the February mark. The lowest point since midsummer of 1925 was 195, reached in October of last year.

The average of wages rose two points during February to reach the mark of 227. The lowest position held by the average of wages during the past three years was 219, the mark being registered

in January, 1924.

The average of prices paid for basic building materials rose two points during February, reaching the 181 level, the position held one year before. The figures for February, 1924, and February, 1925, were 192 and 188, respectively.

COLORFUL SPANISH DESIGN

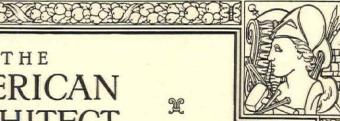
THE March issue of Atlantic Terra Cotta illustrates many examples of terra cotta ornament, where the colors have been worked out under the direction of the architect. These illustrations are in black and white, with explanatory notes as to the colors employed. There is a growing tendency toward the introduction of color in buildings and there is, fortunately, being carried forward a careful study as to its proper use. The buildings shown in this issue of Atlantic Terra Cotta are good examples, and the issue should be helpful to architects who desire to make intelligent use of color possibilities.

Thomas W. Lamb, architect, 644 Eighth Avenue, New York City, desires manufacturers' catalogs and samples to replace files in his office destroyed by a recent fire.

William Pitkin, Jr., and Seward H. Mott, Inc., landscape architects, have moved their office from 4500 Euclid Avenue to their new building at 3866 Carnegie Avenue, Cleveland, Ohio.



THE **AMERICAN** ARCHITECT



WITH WHICH IS CONSOLIDATED THE ARCHITECTURAL REVIEW

VOLUME CXXXI

MAY 5, 1927

NUMBER 2520

CONTENTS

THE CAMPANILE OF GIOTTO, FLORENCE	ntispiece
RESTORING THE STAINED GLASS TREASURES OF RHEIMS CATHEDRAL Orin E. Skinner	. 559
Landscape Architecture as Seen from the Air	. 565
Editorial Comment	571
Everybody's Business	.)/-
THE ORIGIN OF THE SET-BACK	. 5/2
A Crown on Bureause on Manager Com	. 005
A GROUP OF BUILDINGS OF MODERATE COST	. 609
BANKING ROOM OF THE SOCIETY FOR SAVINGS, HARTFORD, CONN Dennison & Hirons	. 615
SWIMMING POOL CONSTRUCTION	. 621

PLATES

House of M. J. Swetland, Pasadena, California	6 Plates
ILLUSTRATIONS OF CURRENT EXHIBITION OF THE NEW YORK CHAPTER OF THE	
American Society of Landscape Architects	3 Plates
Remodelled Building for Deutsch Südamerikanische Bank, Berlin Mr. Schuette	4 Plates
BOULEVARD CONGREGATIONAL CHURCH, DETROIT, MICH Lancelot Sukert	2 Plates
First Church of Christ, Scientist, Flushing, N. Y	
Alexander B. Trowbridge	1 Plate

OWNED AND PUBLISHED BY

THE ARCHITECTURAL AND BUILDING PRESS, INC.

E. J. ROSENCRANS, President and Treasurer

FREDERICK S. SLY, Vice-President

Publication, Editorial and Advertising Offices: 239 West 39th Street, New York City

EDITORIAL DEPARTMENT

WILLIAM H. CROCKER, Editor BENJAMIN FRANKLIN BETTS, Associate Editor R. W. SEXTON, Associate Editor, Department of Interior Architecture E. K. BRUNNER, Editorial Assistant

Board of Directors

H. J. REDFIELD

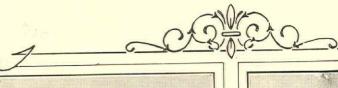
E. J. ROSENCRANS PAGE A. ROBINSON FREDERICK S. SLY

H. H. MINER

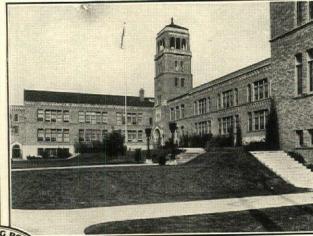
G. E. SLY

WESTERN OFFICE: First National Bank Building, Chicago, PAGE A. ROBINSON, Manager LONDON OFFICE: DORLAND HOUSE, 14 Regent Street, S. W. I.

Yearly Subscription in the United States and Possessions, Canada, Mexico and Cuba, Six Dollars. Other Countries, Eight Dollars, Payable in New York Funds. Single copies (Regular Issues) 50 cents.







Belmont High School, Los Angeles, Calif., D. S. Reynolds, Mechanical Engineer, L. Z. Bruwn, Steamfitter. Two No. 822—10000' Pacific Oil Fired Boilers installed.

Jefferson High School, Los Angeles, Calif., Allison & Allison, Architects. Two No. 814—4500' Pacific Oil Fired Boilers installed by F. J. Donnelly, and one No. 814—4500' Pacific Oil Fired Boiler installed by J. M. Eustace.

Los Angeles Metropolitan Area

33 Pacific Heated Schools

Architects and engineers in California have long been familiar with the special requirements of oil-burning boilers. And, with years of experience, it is particularly significant that they have chosen Pacific Steel Boilers for heating 22 school buildings in the City of Los Angeles alone. Including Pasadena, Glendale, and other nearby cities, the total is 33.

Pacific oil-burning boilers of the rear-fired or "backshot" type possess the special advantage of a four-time fire travel, found in no other type of boiler. The gaseous products of combustion travel twice the length of the firebox before entering the lower bank of tubes, then twice the length of the boiler through the tubes. Thus a maximum amount of heat is utilized in making steam and not wasted up the stack.

Pacific Steel Heating Boilers meet every requirement of oil firing. Built also in direct draft and smokeless types for coal, coke, or gas. Let us send you complete information.

PACIFIC

STEEL HEATING WAUKEGAN, ILL.

BRISTOL, PA.

THE PUBLISHERS' PAGE

FLOYD W. PARSONS, whose portrait appears on this page and whose editorial, Everybody's Business, will be found on page 572, becomes with this issue a contributing editor to THE AMERICAN ARCHITECT. Mr. Parsons' work is perhaps more widely known to the general reader, through the series of articles contributed by him to the Saturday Evening Post during a period of nearly four years. He is now editorial director of several periodicals in the economic field.

Possibly no other writer of current events and their bearing on the present and future, reaches such a large audience as does Mr. Parsons. While his topics are of general interest and are not, therefore,

exactly identified with architecture, the editors and publishers feel that in attracting the service of Mr. Parsons to THE AMERICAN ARCHITECT they are providing a page that will interest all architects by reason of the wide vision shown by Mr. Parsons' contributions and the stimulating character of his writing.

In a recent issue of the Dearborn Independent, Henry Ford propounds this riddle: "The world has never yet come to the point where there was nothing to be done. In the most 'idle' times, when shops are closed and men are out of work, there is always much that should be done. This is a mystery.

With so much to be done, why should there be idle times? Solve this riddle and you will create a new earth."

Large employers of labor, the keenest students of the economic problems that are constantly present, are at all times bending every effort to the solution of Mr. Ford's riddle. Of the many writers whose articles have appeared in journals of the largest circulation, none has delved deeper to find the basic truth, none has more brilliantly set forth his deductions than has Mr. Parsons. We feel sure that readers of THE AMERICAN ARCHITECT will find much satisfaction in perusing his articles.

It has been, untruthfully, claimed that no one reads an architectural journal. If some subscribers

fail to read Mr. Parsons' articles, they will miss something helpful, very much worth while, and reliable in all the statements set forth.

The old saying that what is everybody's business is nobody's business, is less true today than ever before. It is everybody's business to keep abreast with the times, to read stimulating articles that will start the mind to working along the most useful lines. To neglect to interest oneself in the problems that are an insistent part in our national progress is to fail in the highest duties of citizenship. Read Mr. Parsons' illuminating page, appearing in each issue (twice a month) of THE AMERICAN ARCHITECT, and experience the mental reaction that such

clever writing can create.

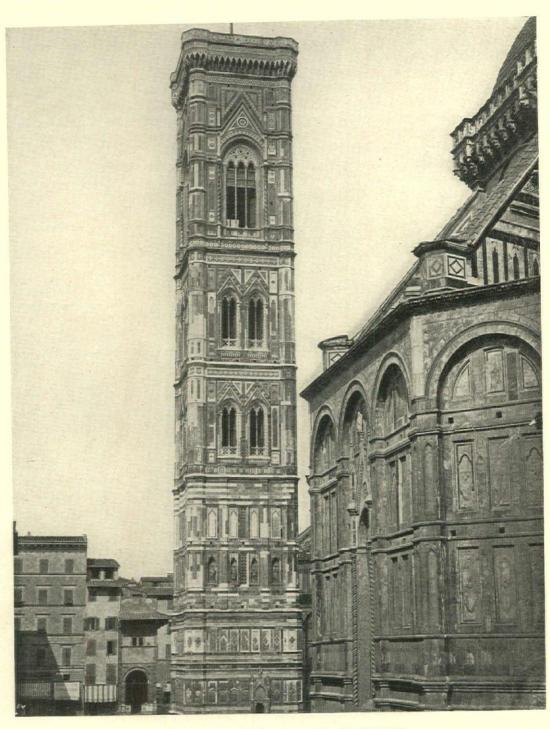
FLOYD W. PARSONS

The recent demolition of one of New York's bank structures has provided the opportunity of demonstrating the physical resistance offered by modern bank vault construction. A new vault installed about five years ago proved to be no easy task for the wrecking contractor. A description of the construction of this vault and the method of demolition will be presented in the department of Engineering and Construction in an early issue.

Structural steel has now been in use a sufficient number of years to warrant the drawing of conclusions as to its dur-

ability and the protection it requires for building safe structures. In the May 20th issue we shall present the report of an investigation to determine the permanence of structural steel in buildings.

The design of the interior of the modern motion picture theatre of the present time tends very decidedly toward the ornate and the elaborate. Two of the largest motion picture theatres in the country have recently been opened in New York City, the Paramount and the Roxy, and they may be said to represent the tendency in theatre design in the East. These will appear in the next issue, and an article will attempt to explain certain reasons for this seemingly unnecessary use of superfluous ornament.



THE CAMPANILE OF GIOTTO, FLORENCE



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

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



HEAD OF AN APOSTLE IN THE CHOIR CLERESTORY— THIRTEENTH CENTURY

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



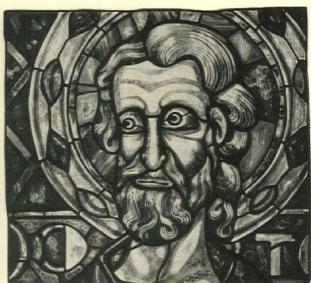
Simon's greatest good fortune, above everything, is in the possession of volume after volume of tracings and rubbings of the ancient windows, the harvest

of his father's foresight.

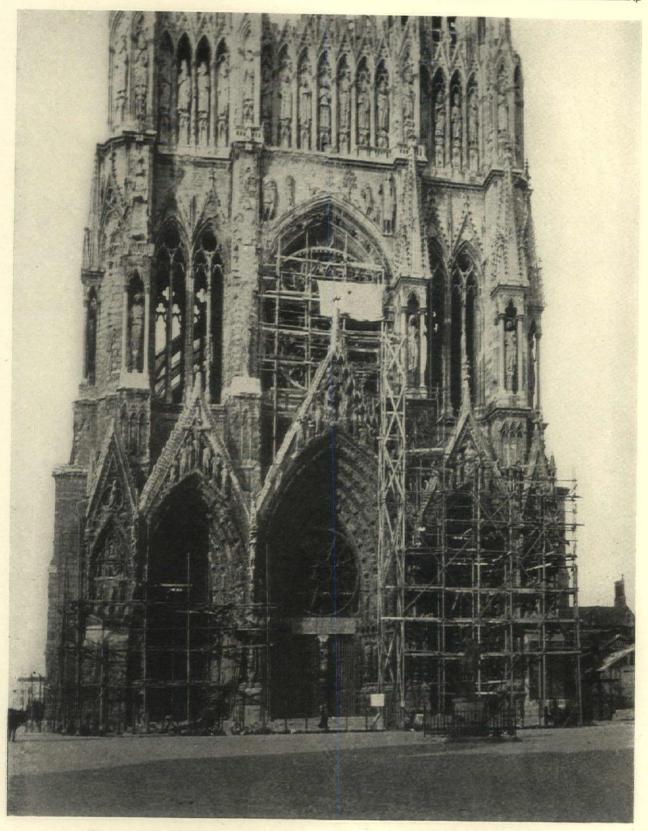
Many years ago, Paul Simon had made hundreds of careful patterns of every detail of his loved windows. He had secured records of each section by placing a sheet of paper over it, and copying every detail. He had made color notes of each piece of glass, so that with the help of these documents trained 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



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.

20

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.

200

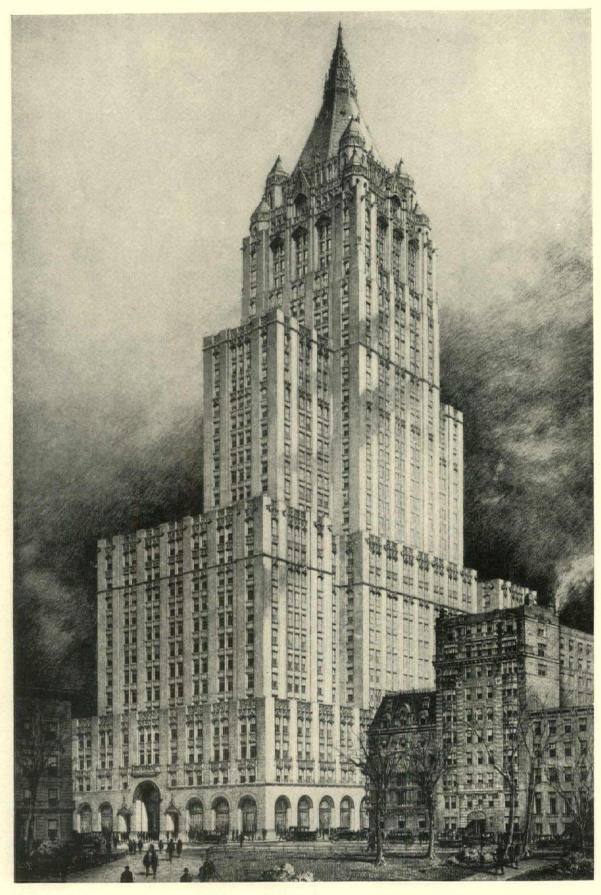
THE WORK OF DWIGHT JAMES BAUM
Published by William Helburn, Inc., New York. Price \$20.

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.

20

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.

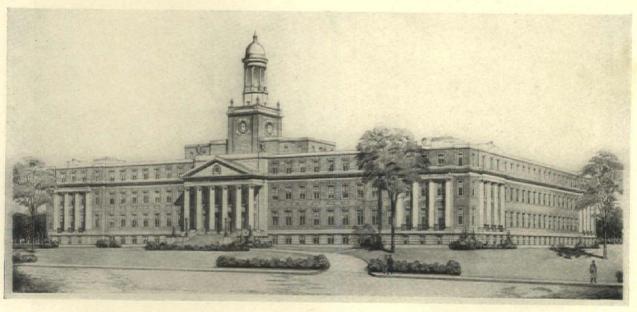
No. 3. The aerial photograph of the property of Ogden Mills at Westbury, Long Island, shows a well developed formal plan along broad lines with formal vistas created by cutting through natural planting.

20

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.

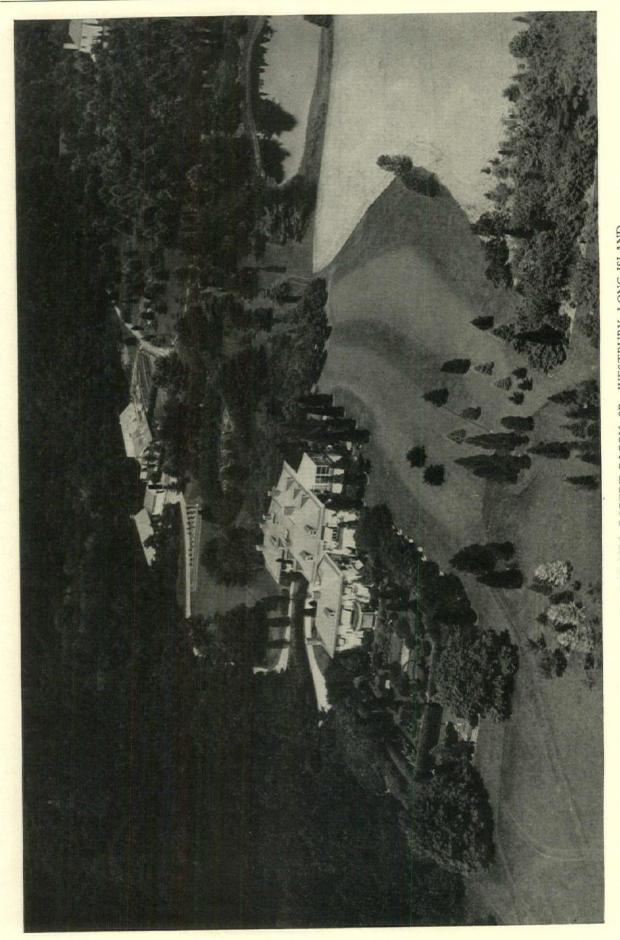
200

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.

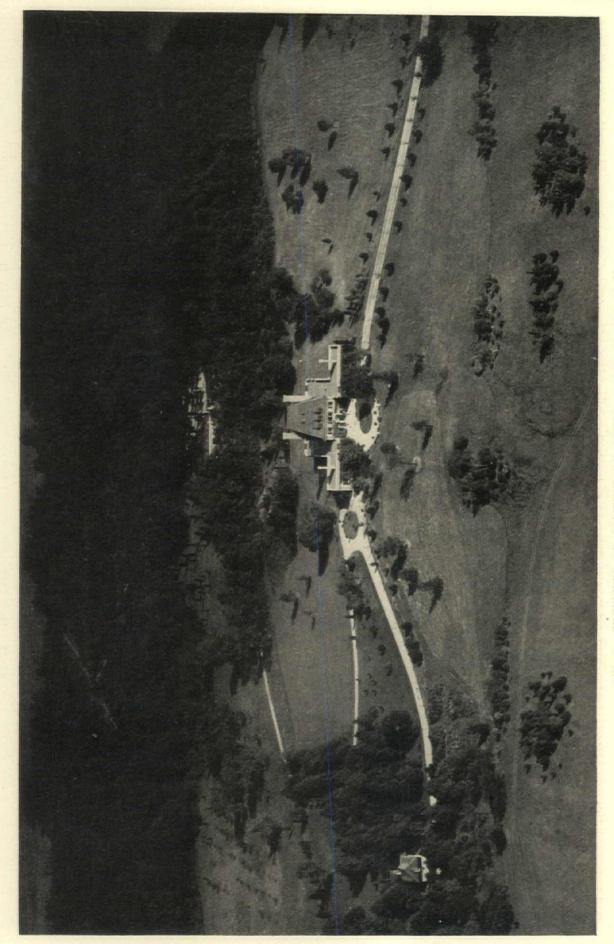


PROPOSED BUILDING FOR MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY, SPRINGFIELD, MASS.

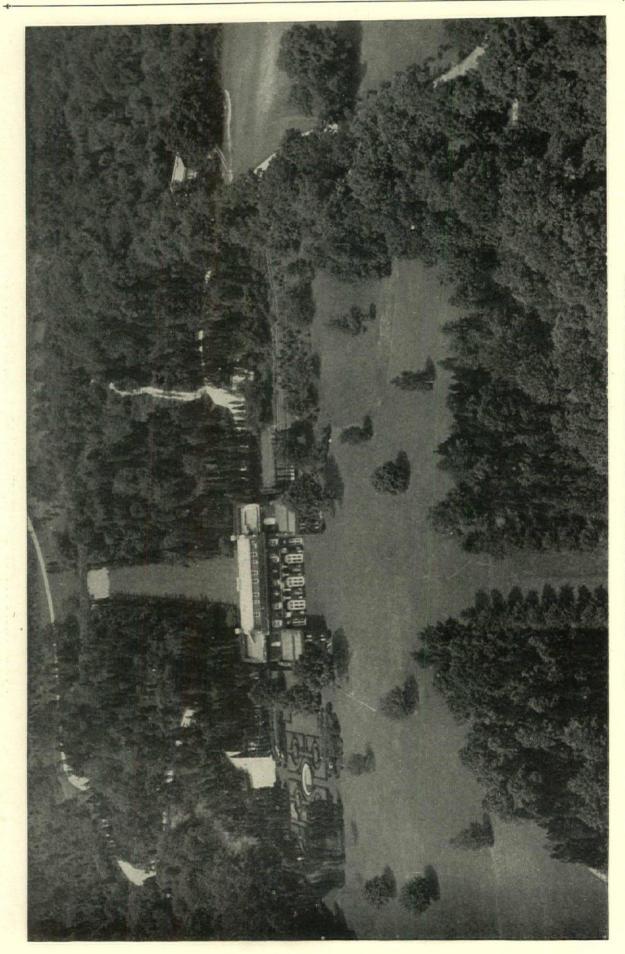
KIRKHAM & PARLETT, ARCHITECTS



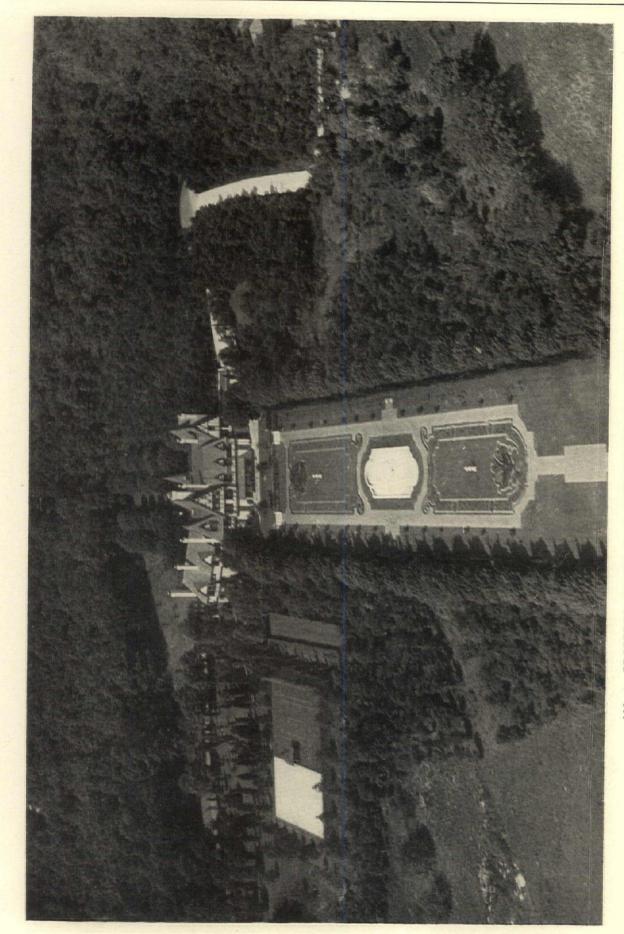
NO. 1. PROPERTY OF MRS. ROBERT BACON, SR., WESTBURY, LONG ISLAND JOHN RUSSELL POPE, ARCHITECT



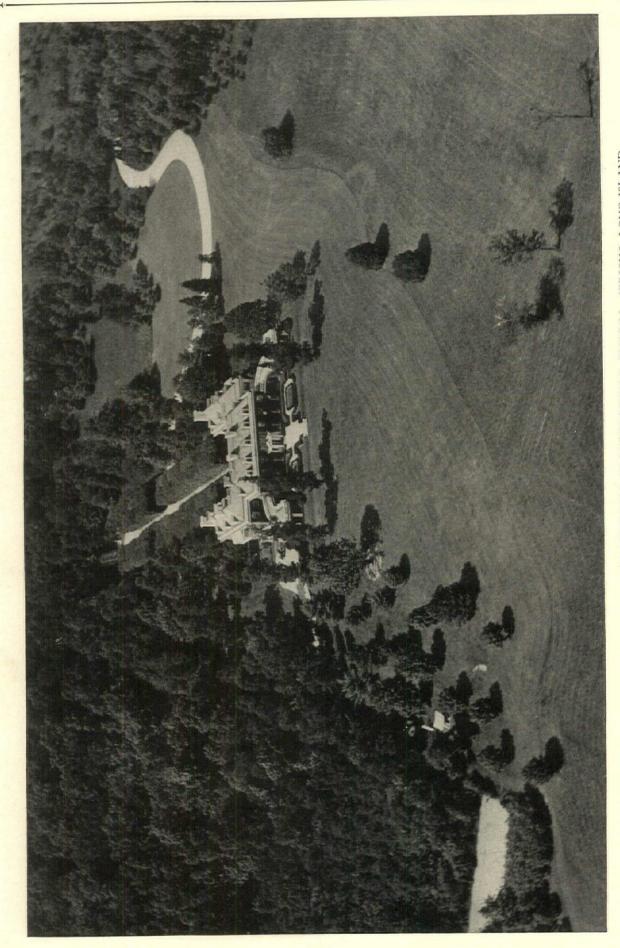
NO. 2. PROPERTY OF COMMODORE GOULD, LONG ISLAND, N. Y. JOHN RUSSELL POPE, ARCHITECT



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.

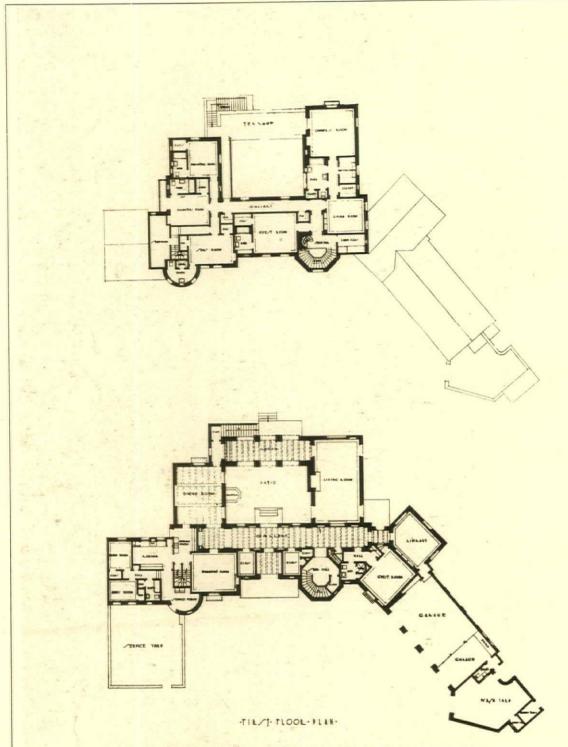
We are starting in an era that really has no "to-day." It is a time when almost every thought must be given to the plans for tomorrow, and when this is done our "todays" automatically take care of themselves. The problems of yesterday seemed large, but they were of small moment compared to the tremendous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

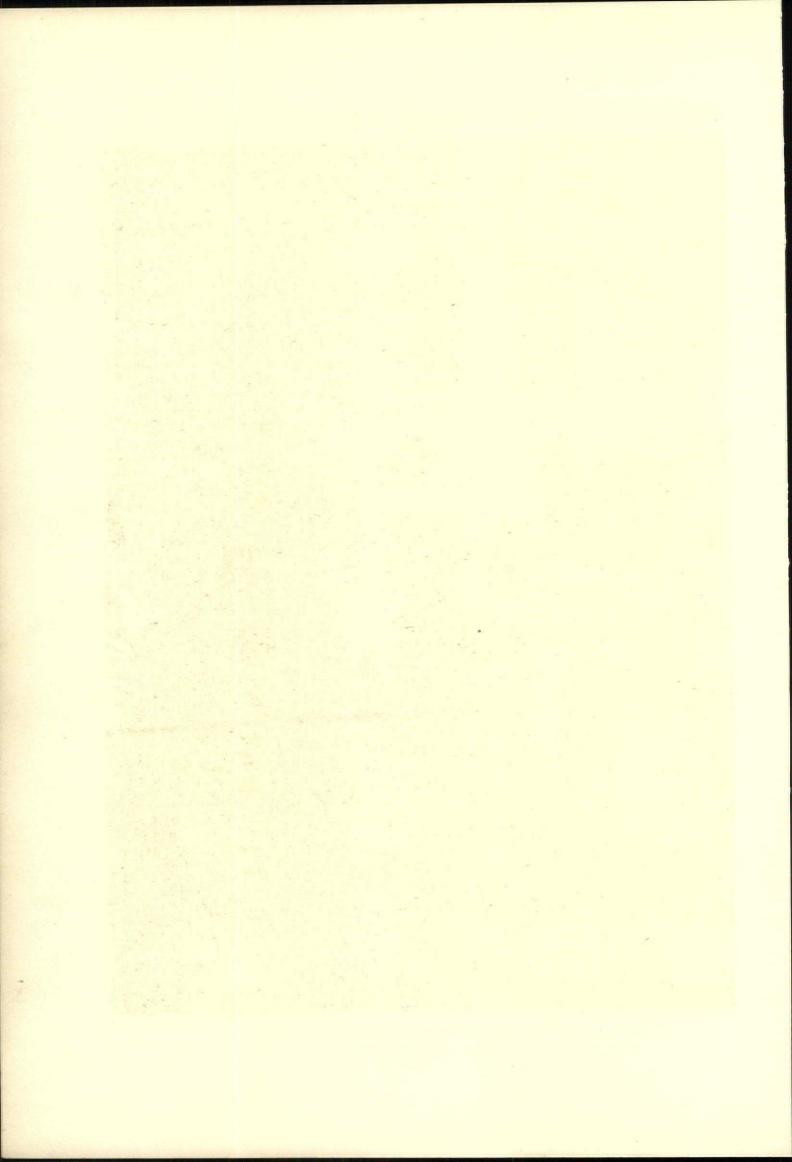
(See plans on back)



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

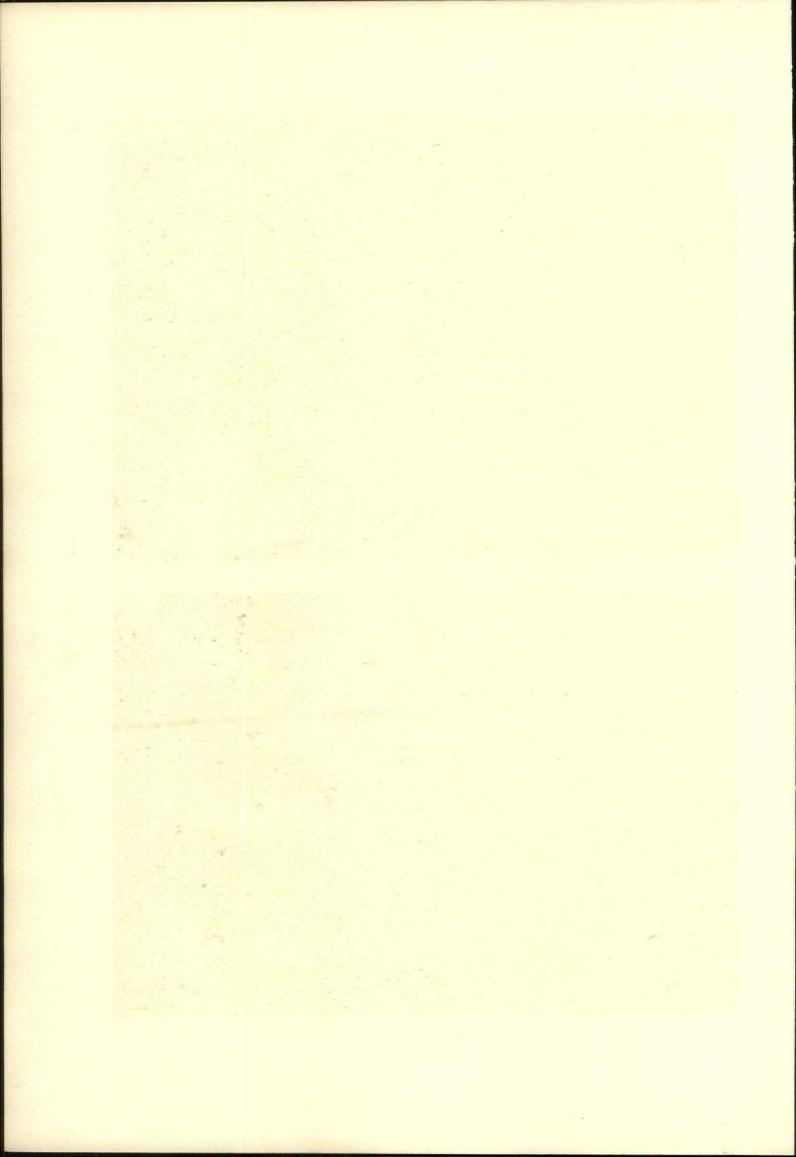


HOUSE OF M. J. SWETLAND, PASADENA, CALIFORNIA McNEAL SWASEY, ARCHITECT

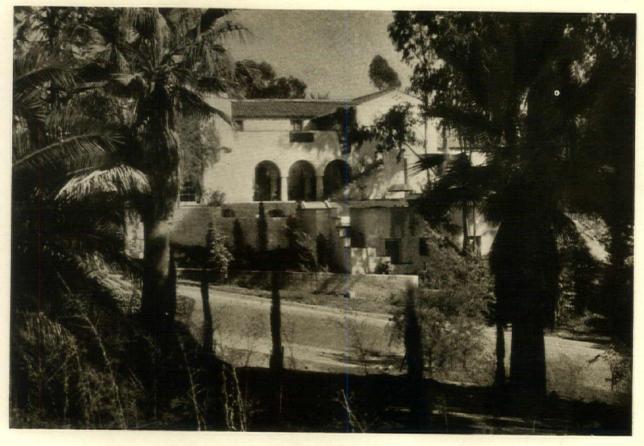




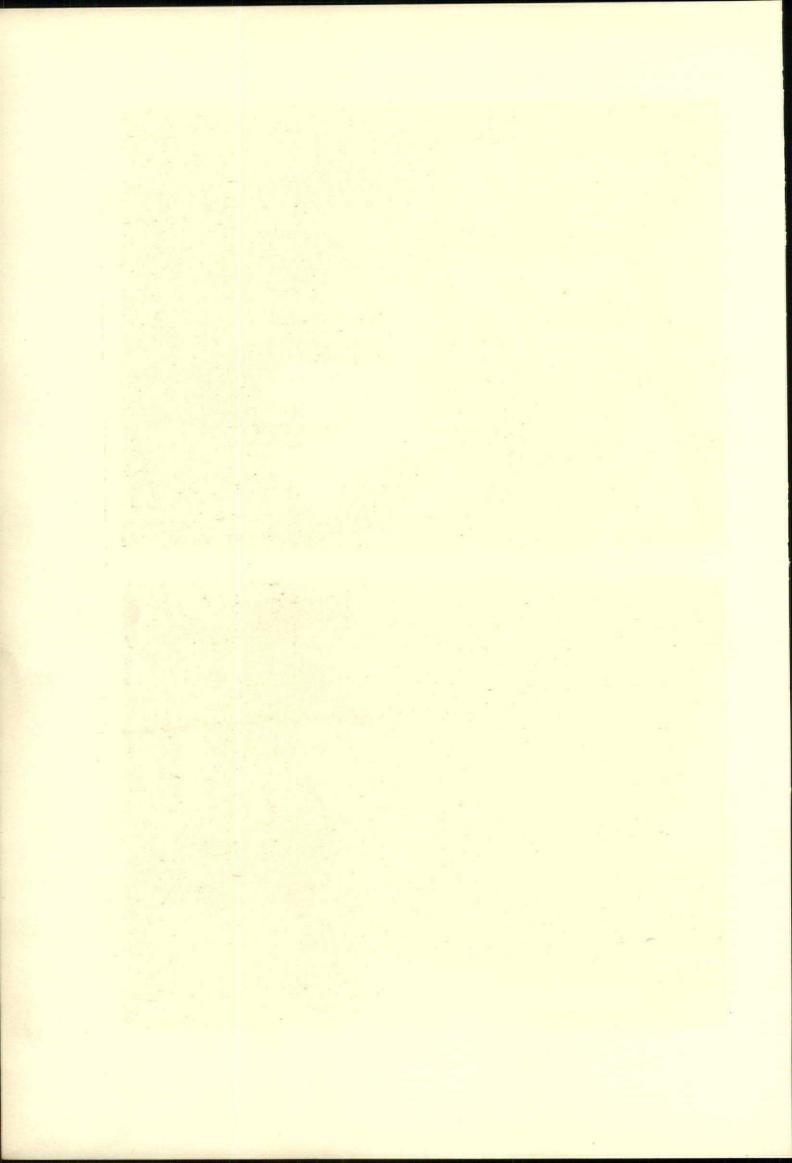
HOUSE OF M. J. SWETLAND, PASADENA, CALIFORNIA McNEAL SWASEY, ARCHITECT







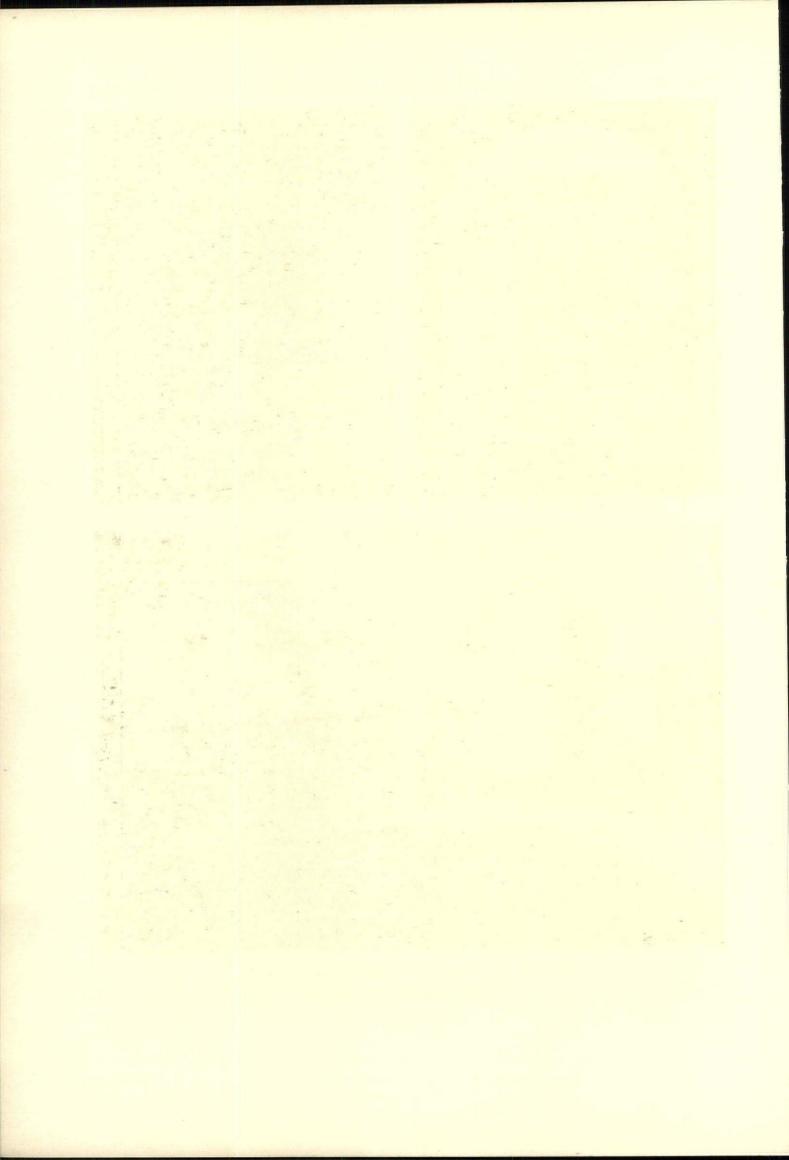
HOUSE OF M. J. SWETLAND, PASADENA. CALIFORNIA
McNEAL SWASEY, ARCHITECT



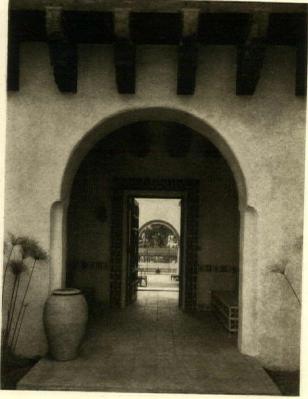


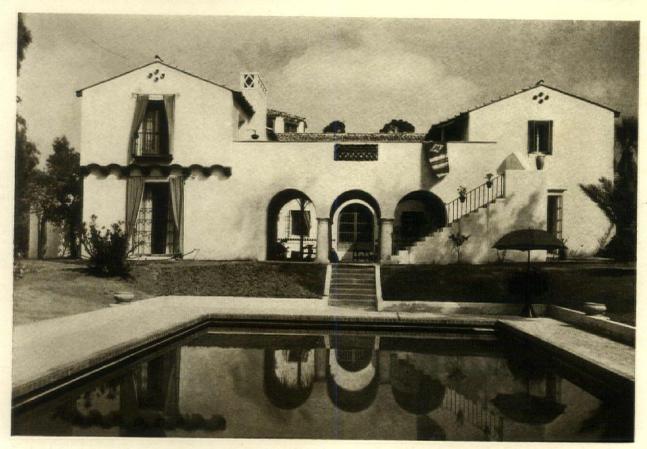


HOUSE OF M. J. SWETLAND, PASADENA, CALIFORNIA Meneal swasey, architect

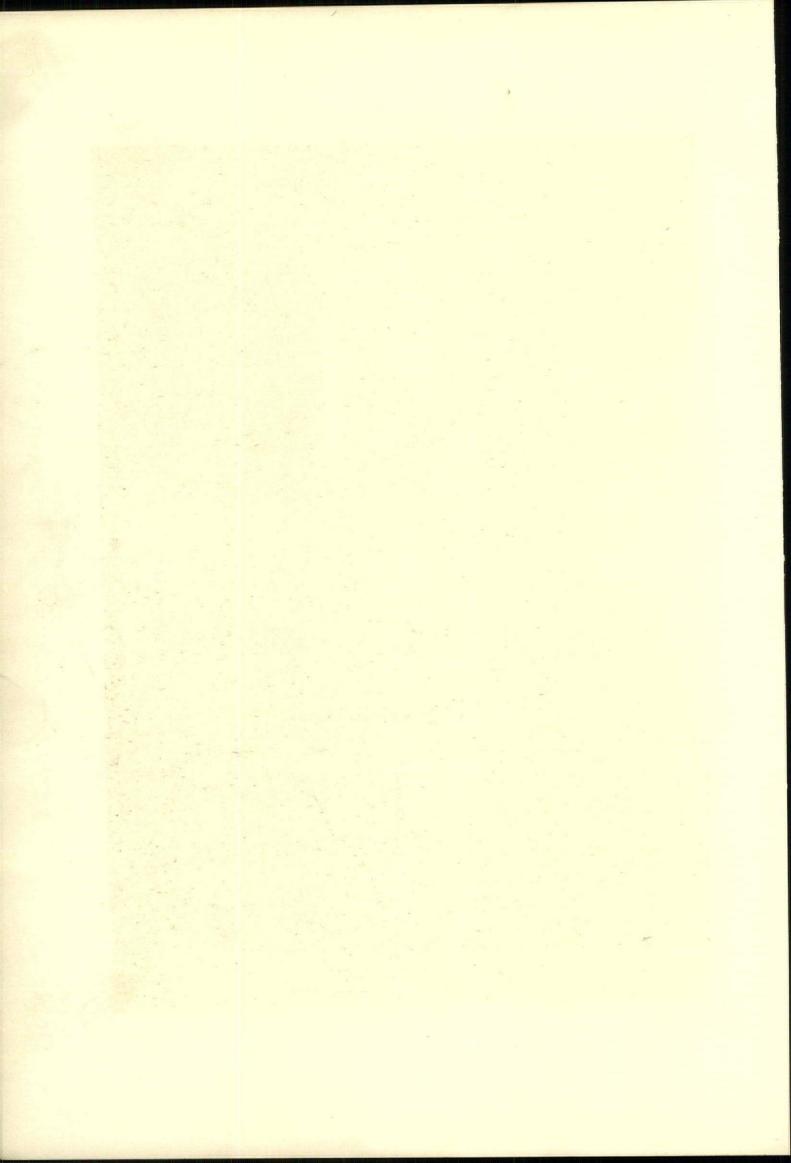


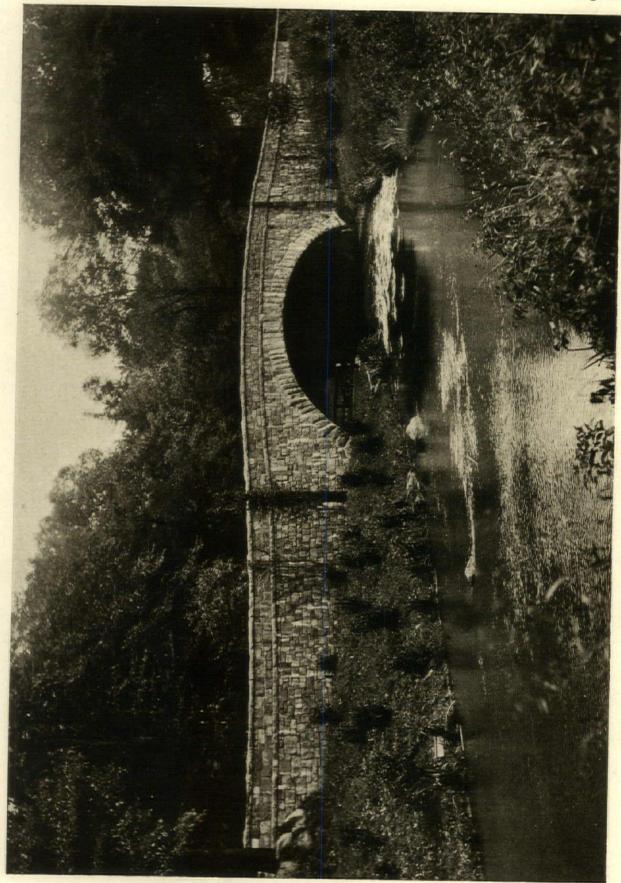






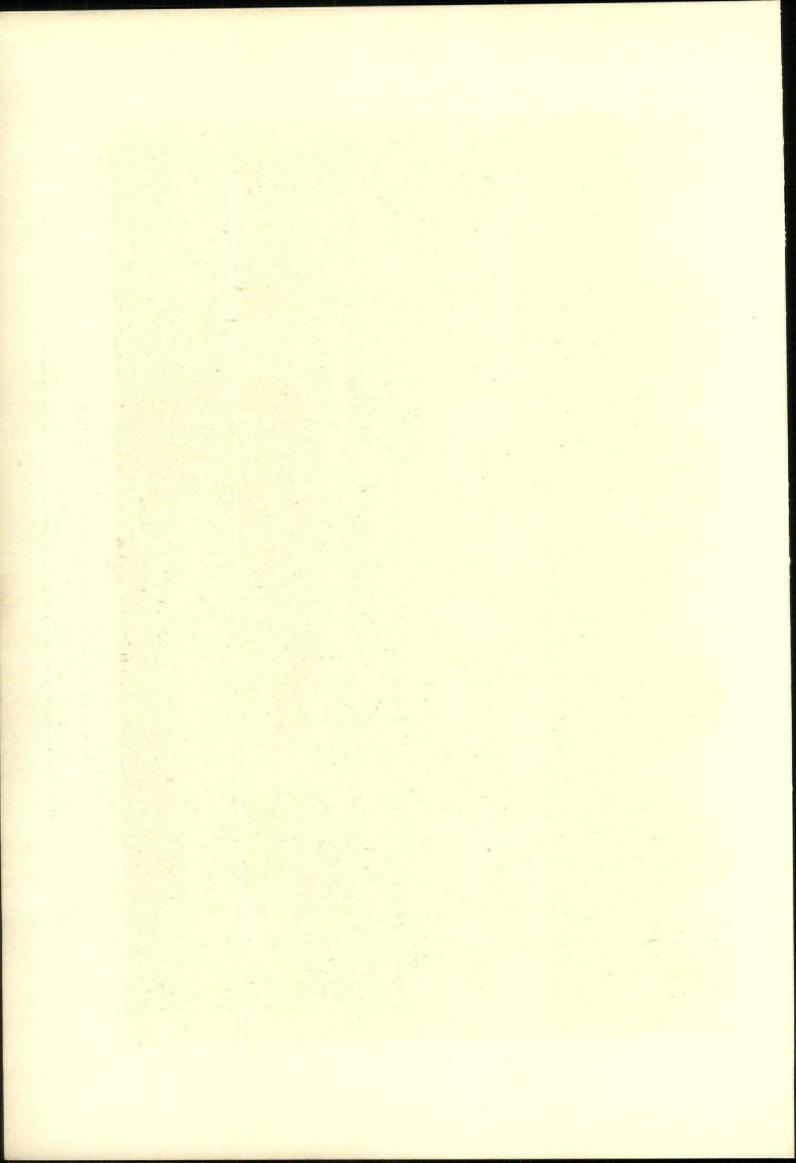
HOUSE OF M. J. SWETLAND, PASADENA, CALIFORNIA McNEAL SWASEY, ARCHITECT

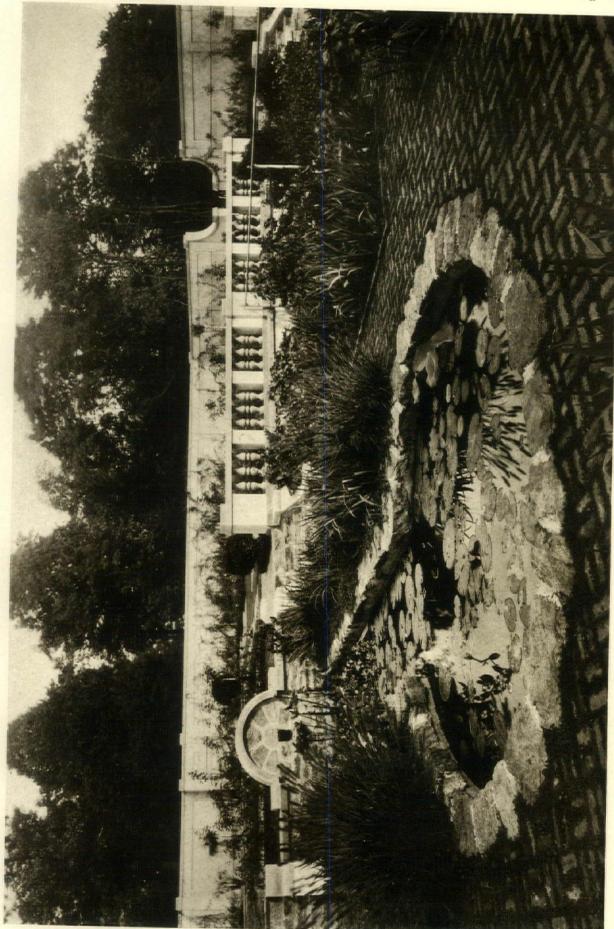




BRIDGE AT TUCKAHOE, BRONX RIVER PARKWAY, N. Y.

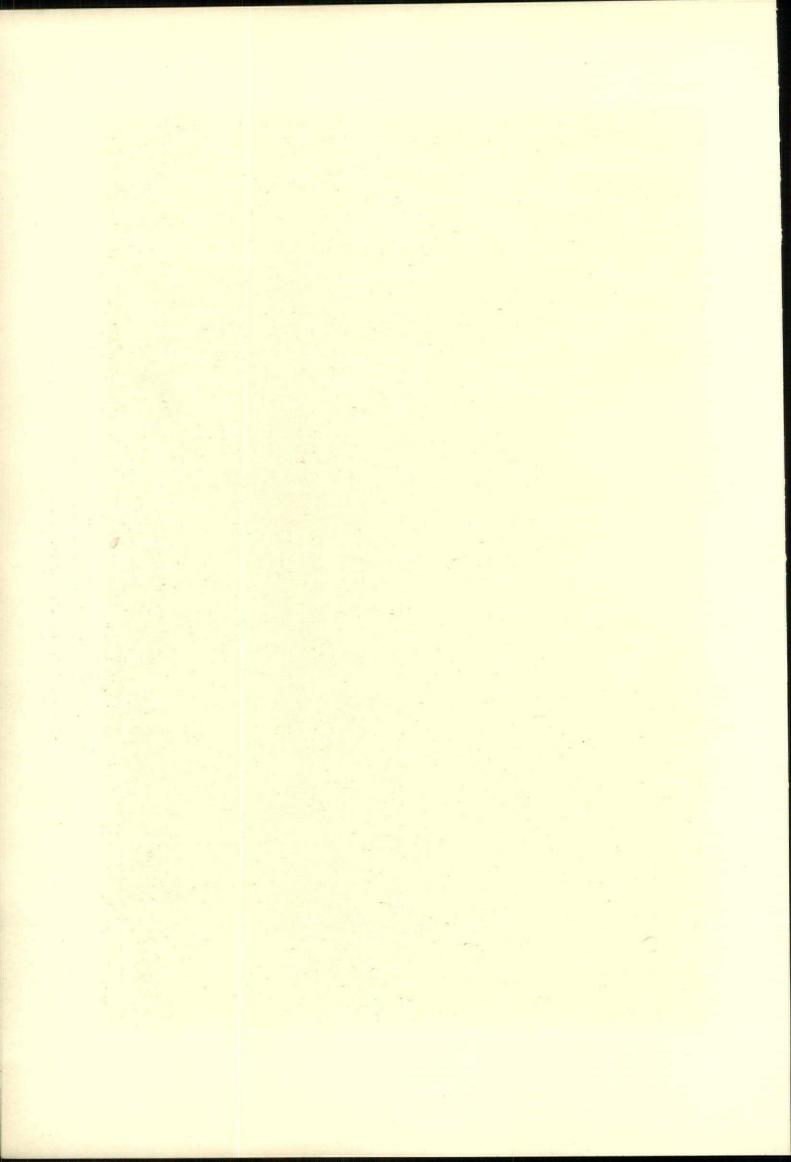
GILMORE D. CLARKE, LANDSCAPE ARCHITECT
(From the current exhibition of the New York Chapter of the American Society of Landscape Architects)

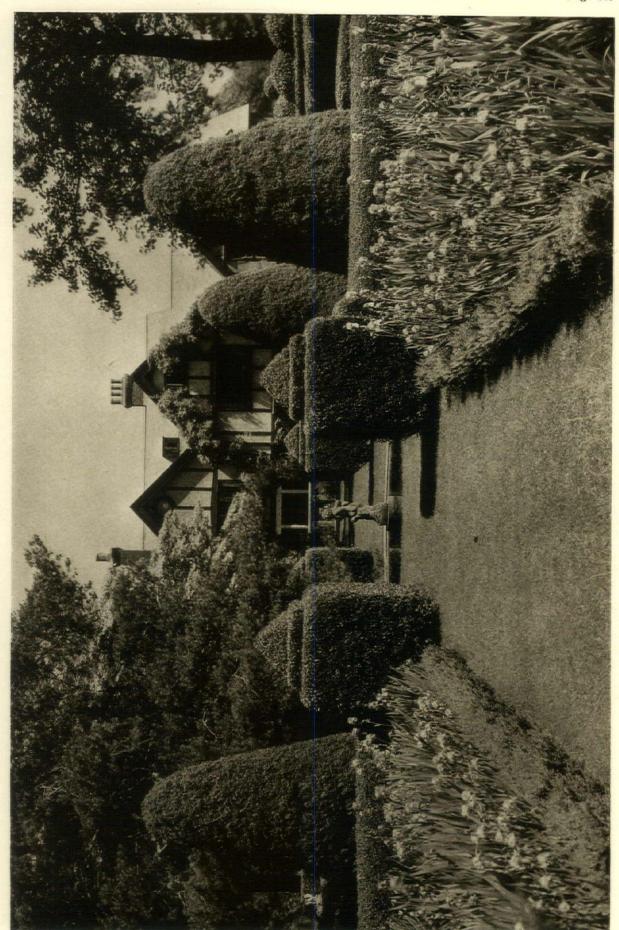




PERENNIAL GARDEN POOL, ESTATE OF COL. A. R. KUSER, BERNARDSVILLE, N. J.

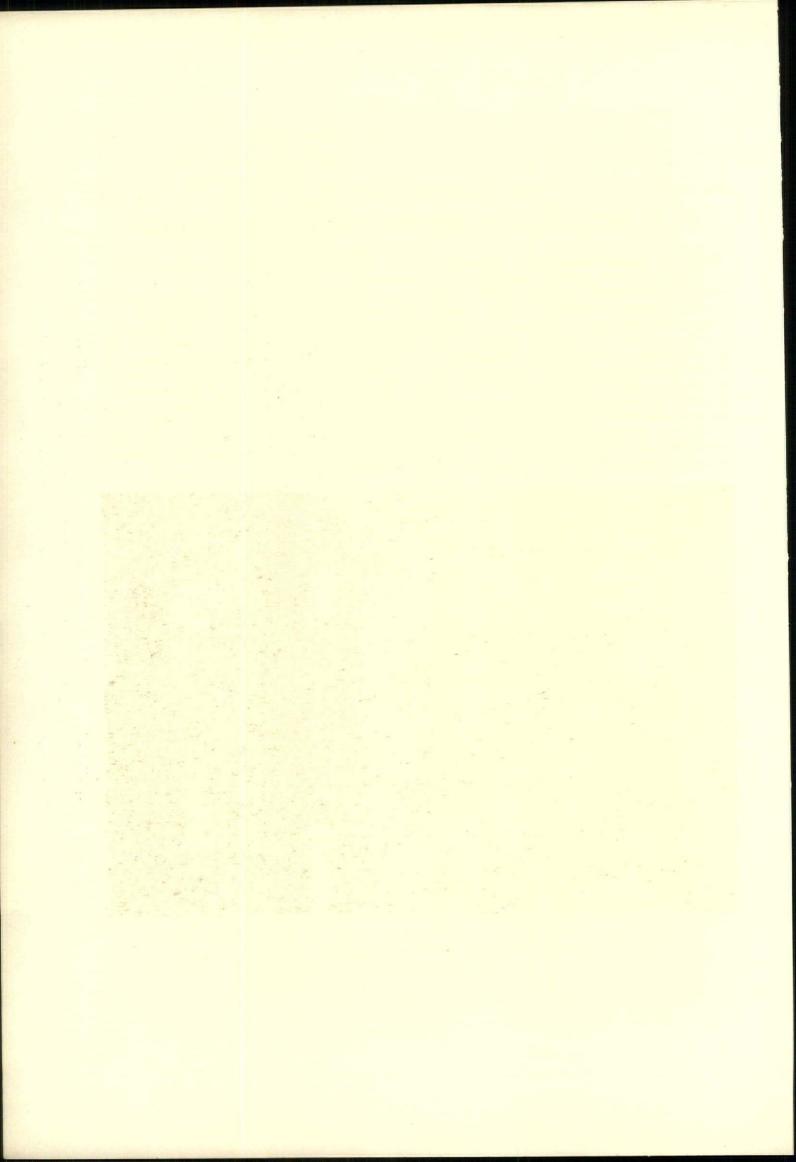
BRINLEY & HOLBROOK, LANDSCAPE ARCHITECTS
(From the current exhibition of the New York Chapter of the American Society of Landscape Architects)





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)



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-

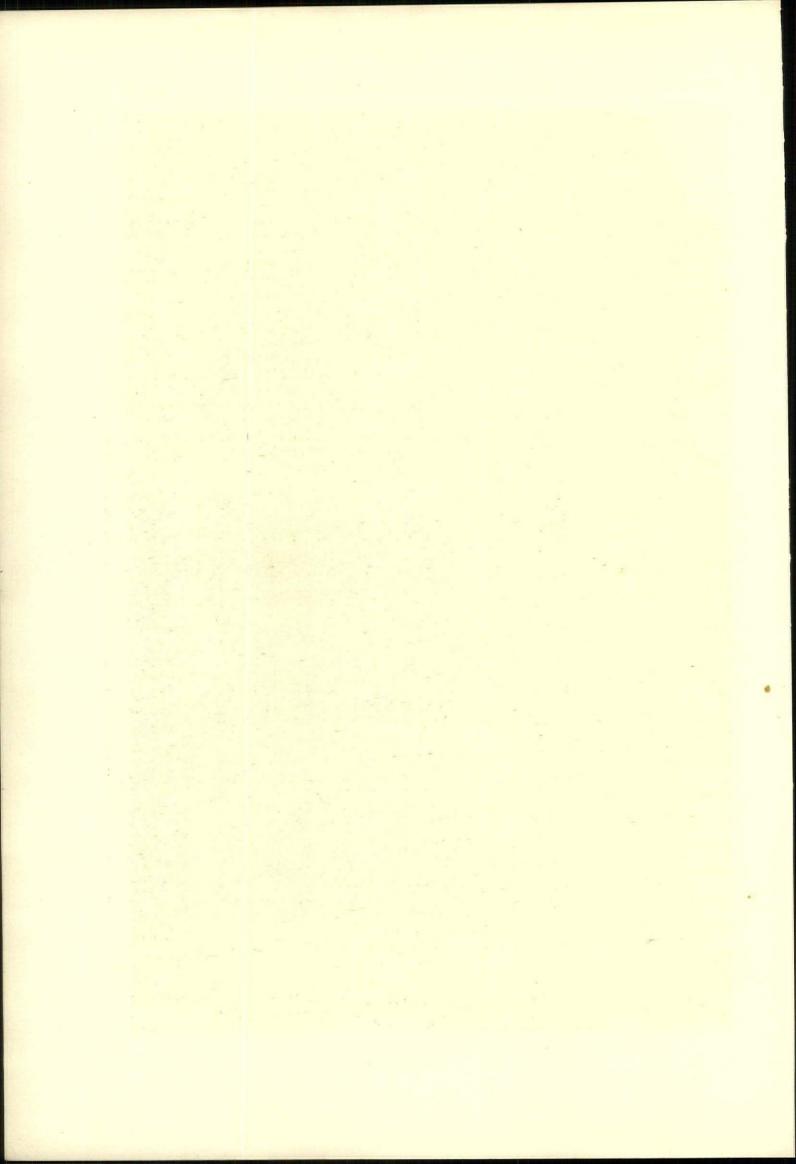
dio. The exterior is carried out in German tufa or travertine.

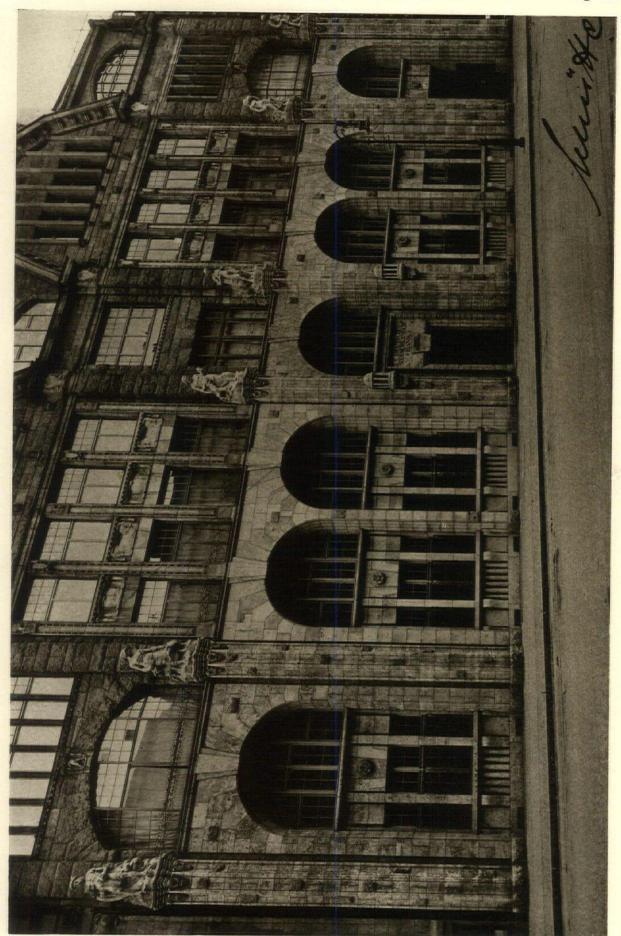
An intelligent critic of this remodelled building has taken exception to the flat arch treatment over the lower windows, claiming it was reminiscent of so much of the work now done in England. It was suggested that if Mr. Schuette had eliminated the flat arch and carried his courses through as lintels, 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

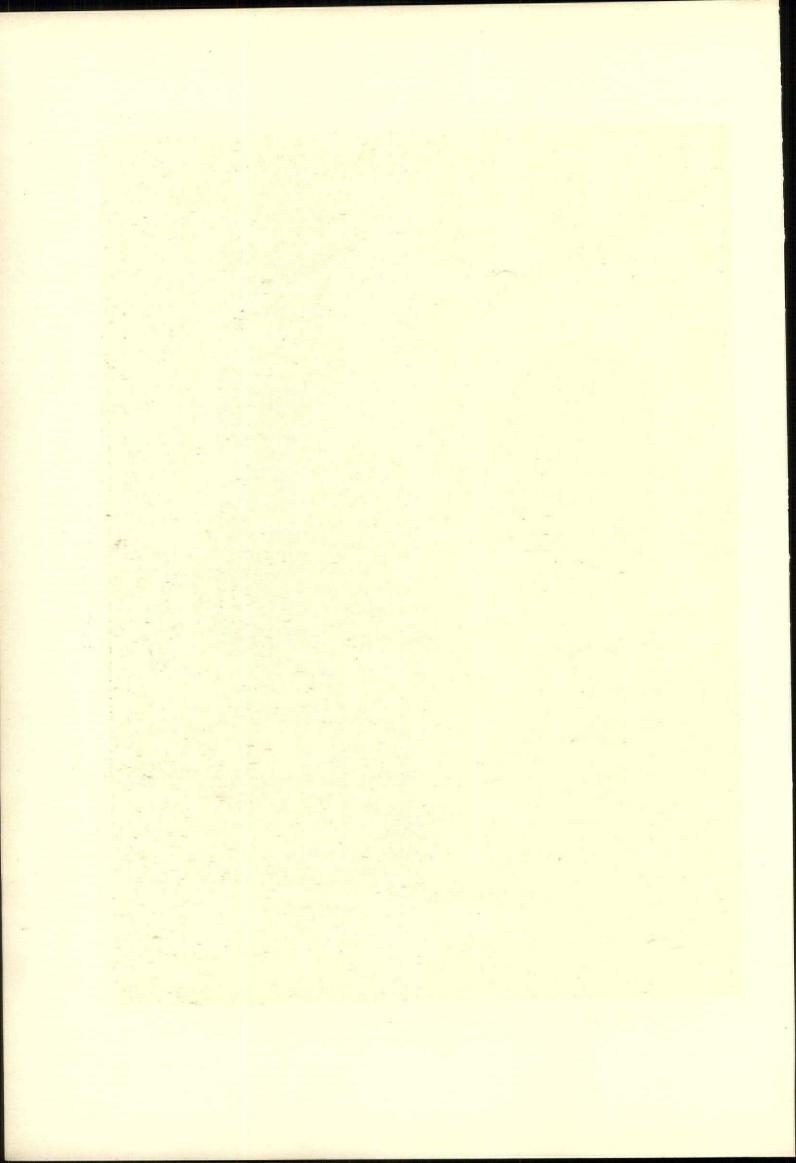
REMODELLED BUILDING FOR DEUTSCH SÜDAMERIKANISCHE BANK, BERLIN MR. SCHUETTE, ARCHITECT

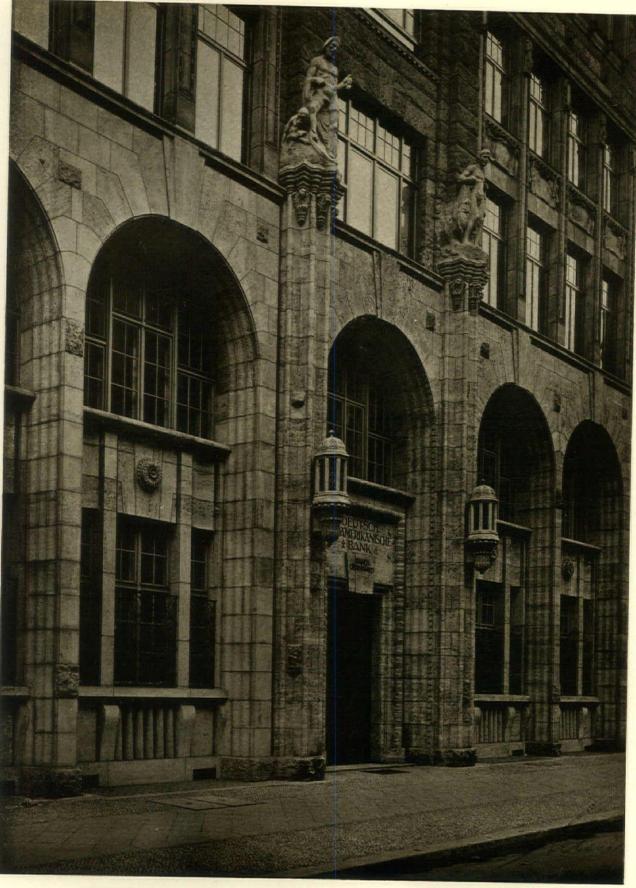




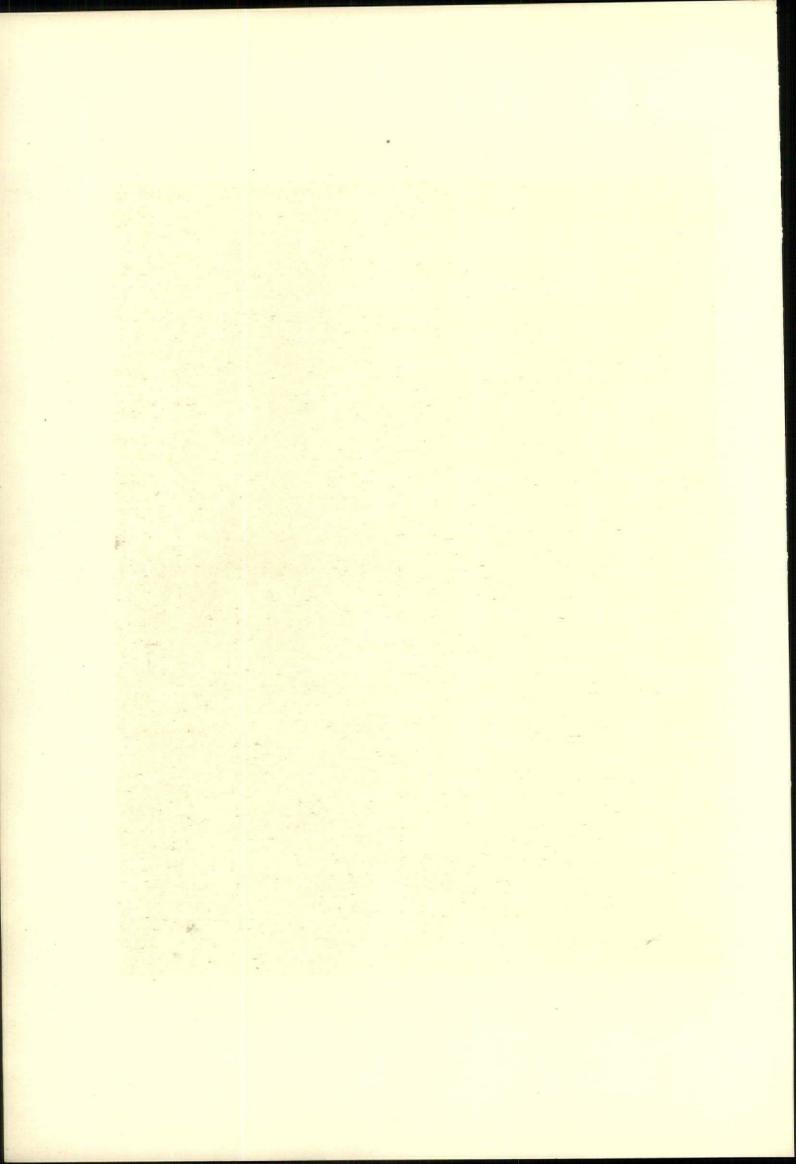
REMODELLED BUILDING FOR DEUTSCH SUDAMERIKANISCHE BANK, BERLIN

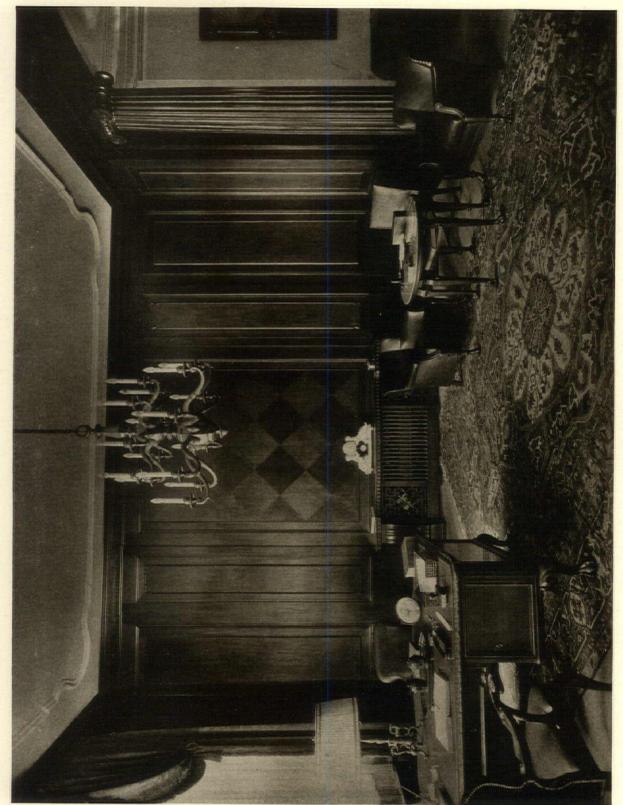
MR. SCHUETTE, ARCHITECT





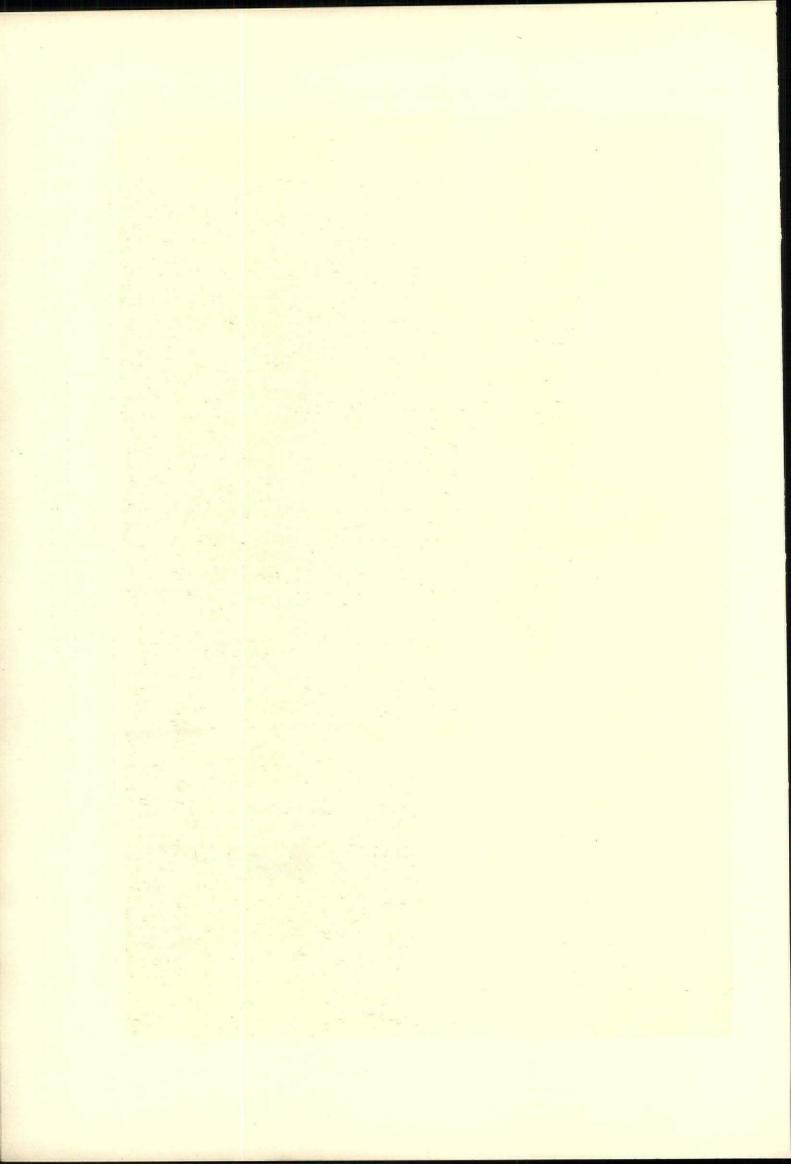
REMODELLED BUILDING FOR DEUTSCH SÜDAMERIKANISCHE BANK, BERLIN MR. SCHUETTE, ARCHITECT

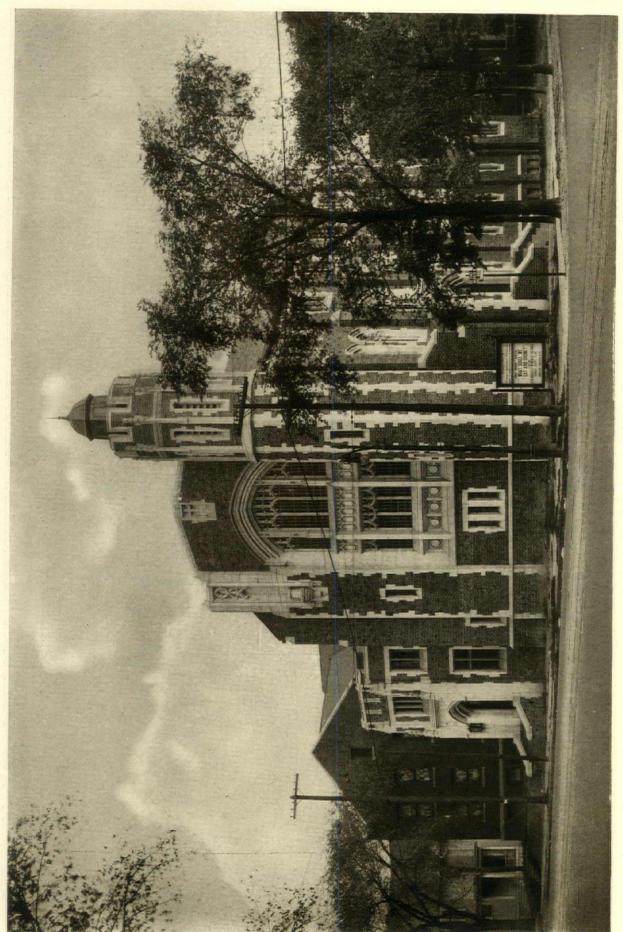




PRESIDENT'S OFFICE

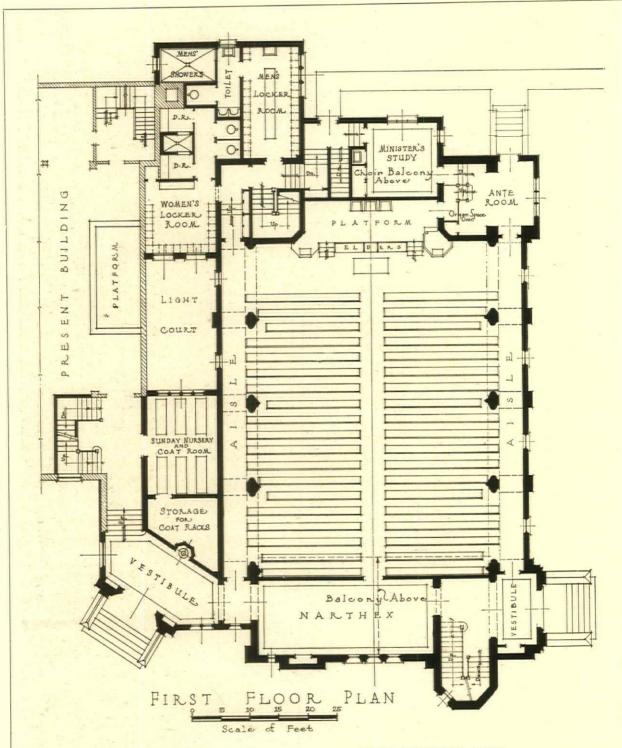
REMODELLED BUILDING FOR DEUTSCH SÜDAMERIKANISCHE BANK, BERLIN MR. SCHUETTE, ARCHITECT



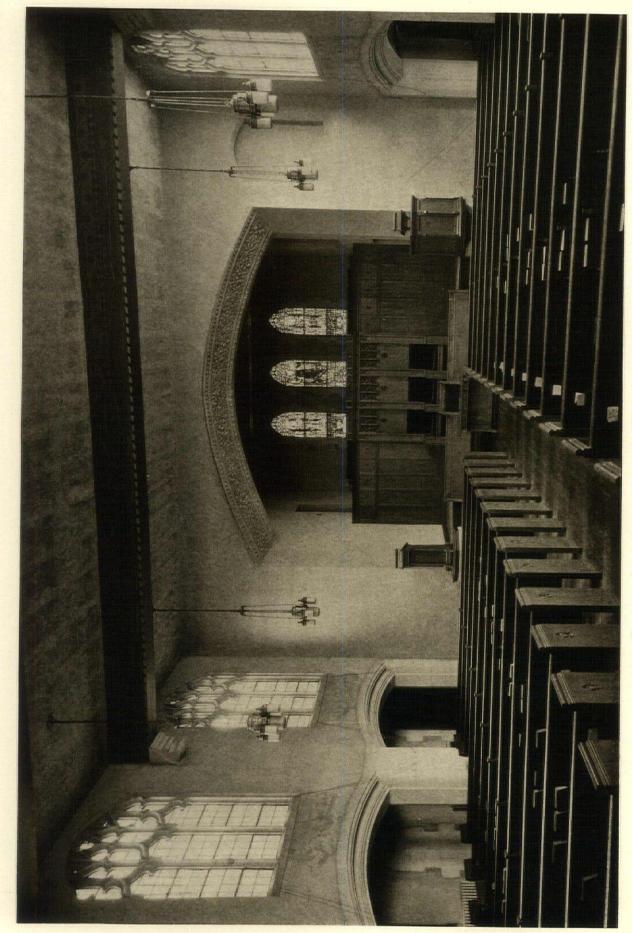


BOULEVARD CONGREGATIONAL CHURCH, DETROIT, MICH.

LANCELOT SUKERT, ARCHITECT (See plan on back)



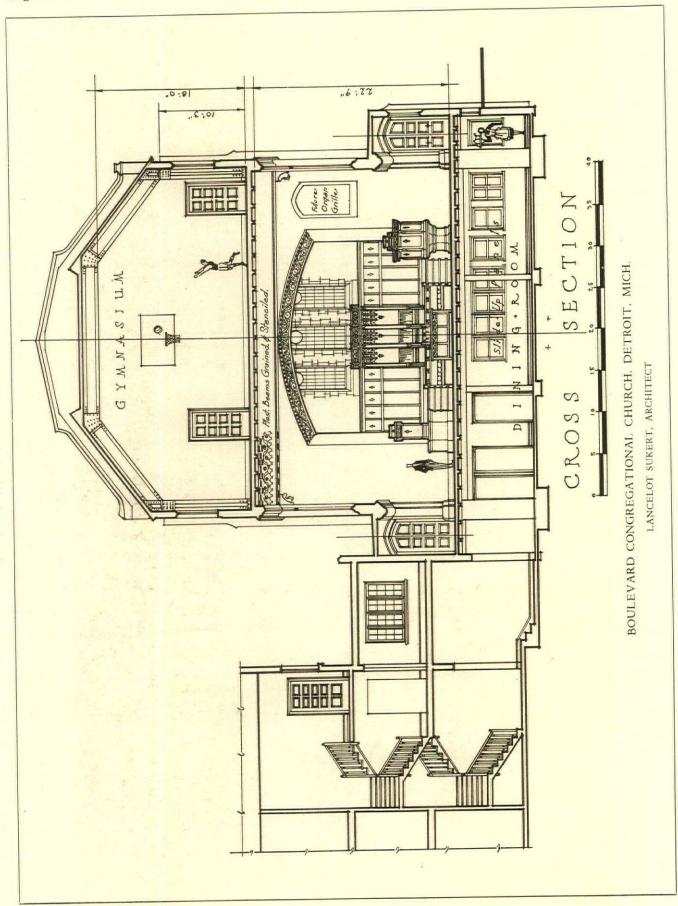
BOULEVARD CONGREGATIONAL CHURCH, DETROIT, MICH.
LANCELOT SUKERT, ARCHITECT

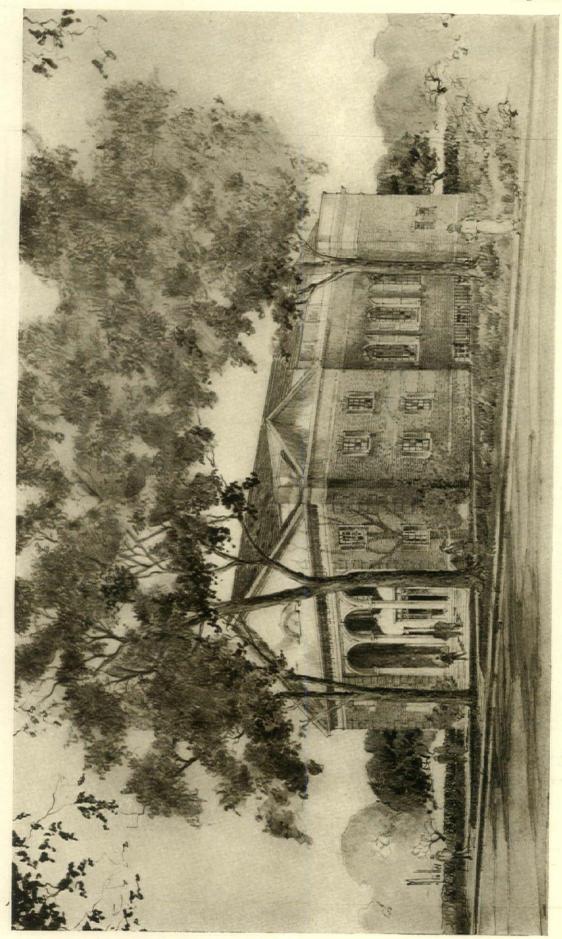


BOULEVARD CONGREGATIONAL CHURCH, DETROIT, MICH.

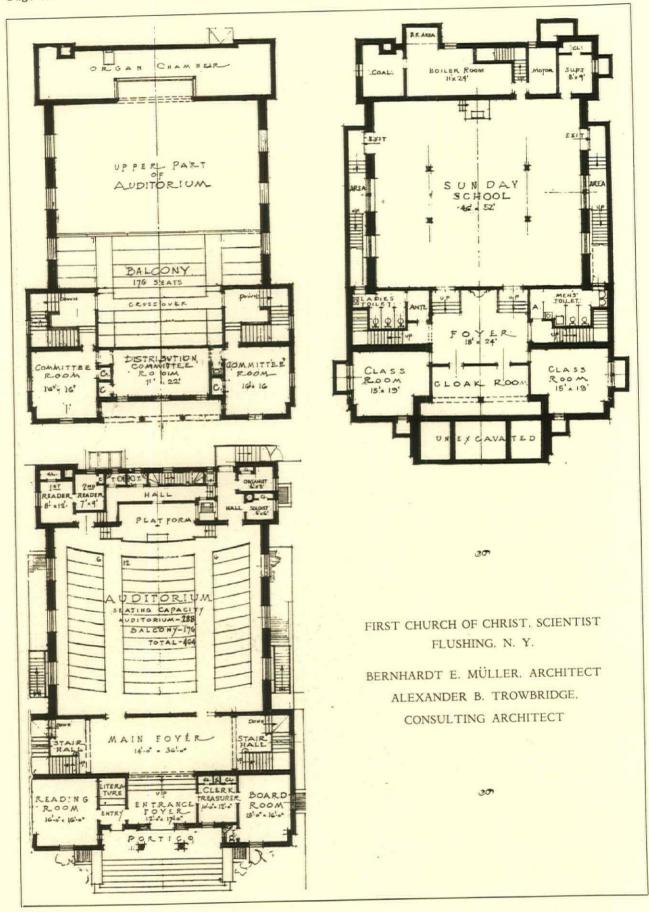
LANCELOT SUKERT, ARCHITECT

(See cross section on back)





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.

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.

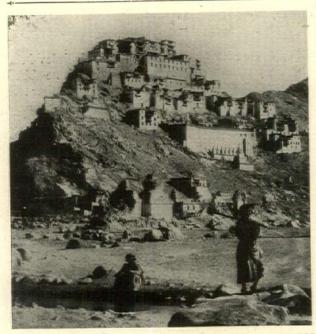
Comparatively speaking, the effect of the tall American set-back buildings might be likened to those of older times set against the side of a hill and climbing that hill in terraces. The terraced front presented by the Palace at Benares ascends from the level of the Ganges very much as do the stepped 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 ascendency, for it possesses not a single structure that reaches back to the close of

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



SET-BACK STYLES IN TOWNS AND CITIES

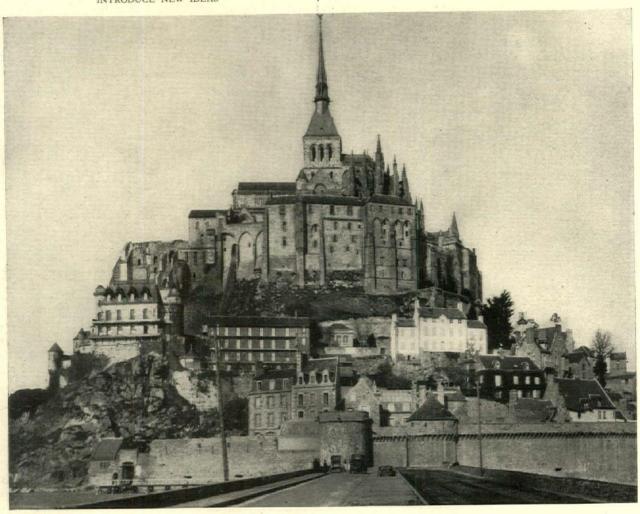
ANA-SYRA, ALSO CALLED HAUTE VILLE, ON SYRA, ONE OF THE CYCLADES GROUP OF ISLANDS (GREEK), RANKS FIRST AMONG BEAUTIFUL STAIR-STEP TOWNS. THE HOUSES ARE NEARLY ALL ATTACHED, LIKE APARTMENTS IN THE OLD INDIAN PUEBLOS IN THE UNITED STATES



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.

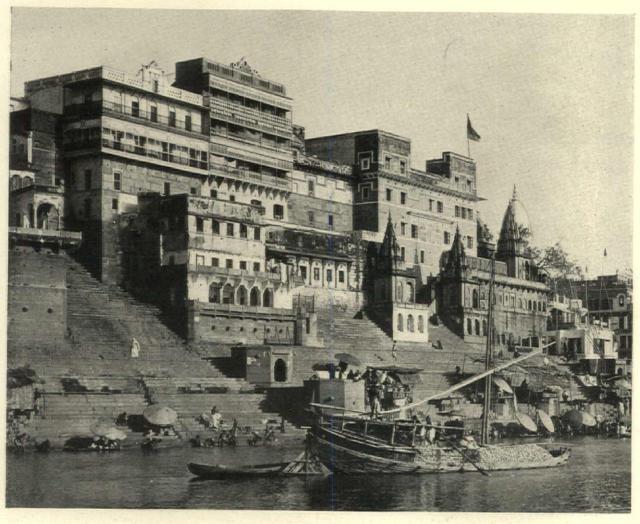
The modern American set-back building is an original expression. It has been developed to solve satisfactorily an economic problem. Whether the principle on which the terraced wall is based is as old as building itself, matters little, for never before was it called upon to serve such a purpose as it 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 Archæological 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.

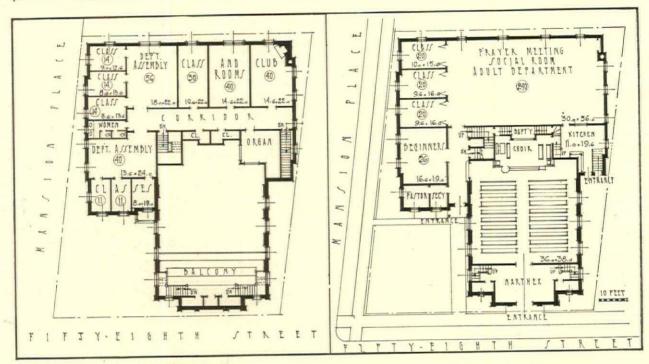
A GROUP OF BUILDINGS OF MODERATE COST

WITH DETAILS OF CONSTRUCTION, MATERIALS AND CUBIC COST





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



PLAN OF SECOND FLOOR

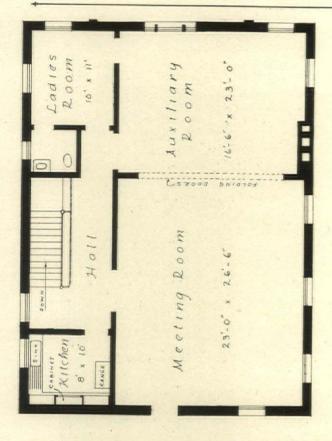
PLAN OF FIRST FLOOR

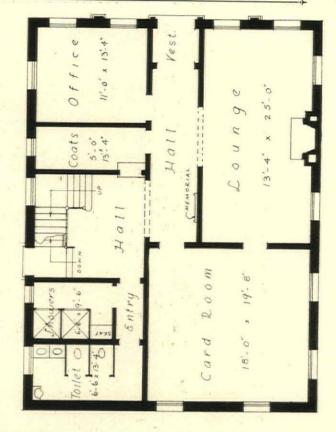


DETAIL OF ENTRANCE

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
CREAMWHITE. 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





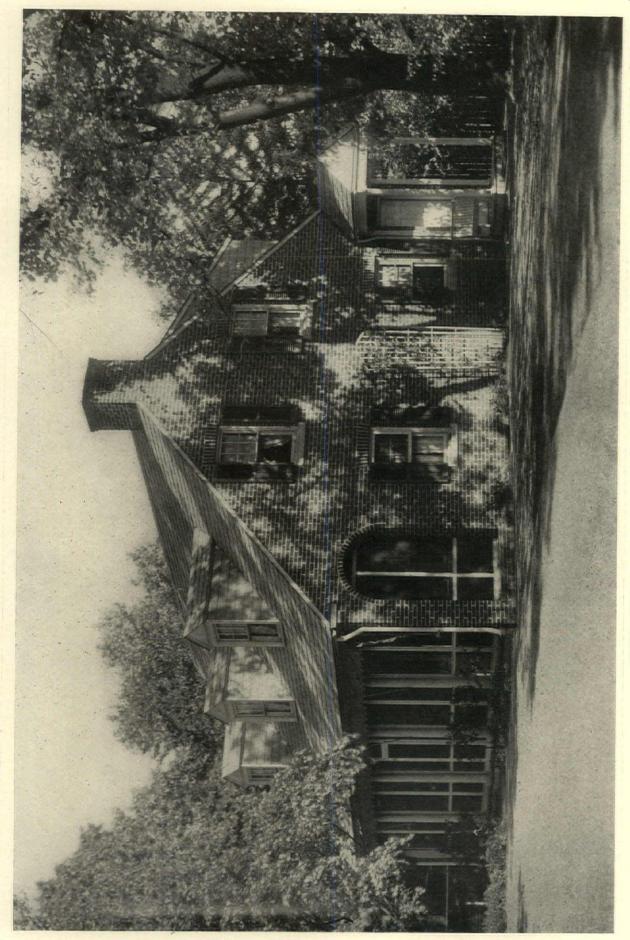


AMERICAN LEGION MEMORIAL BUILDING, KINGSTON, N. Y. CHARLES S. KEEFE, ARCHITECT

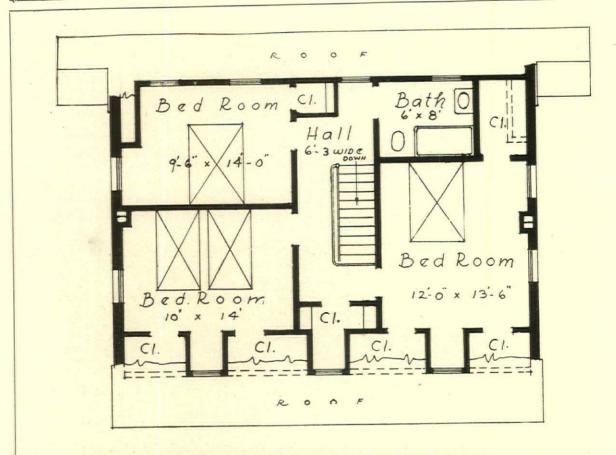


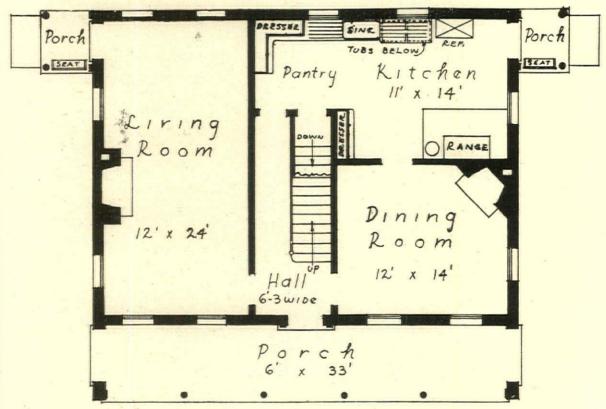
MEMORIAL TABLET

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



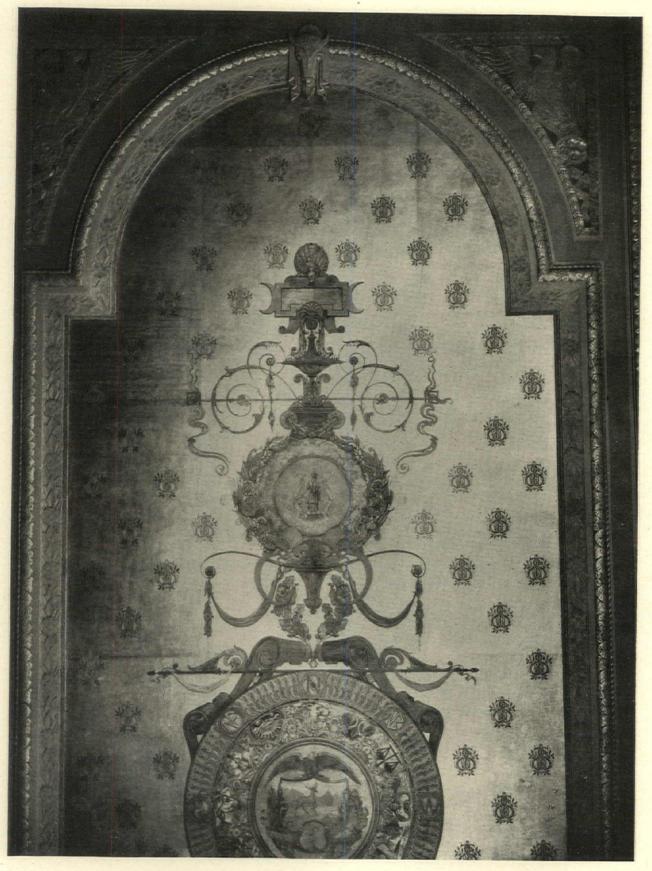
GENERAL VIEW OF BANKING SPACE LOOKING TOWARD ENTRANCE DOOR. THE ROOM MEASURES SIXTY FEET WIDE BY ONE HUNDRED AND TWENTY FEET LONG. THE TWO MASSIVE COLUMNS AT EITHER END ARE OF VALCERINO MARBLE, WITH BLACK MARBLE BASE AND BRONZE CAPS



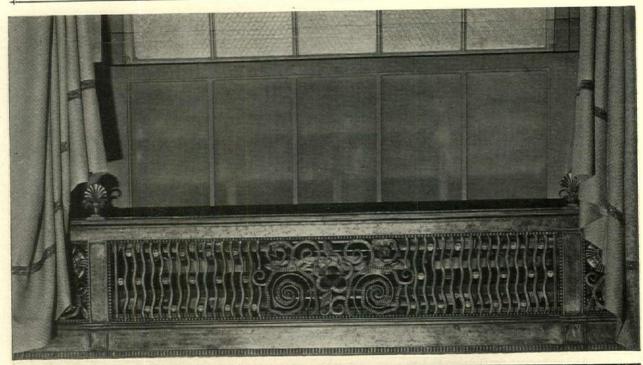
THE ENTRANCE IS OF WROUGHT IRON IN INTERESTING DESIGN. THE CASING OF THE DOOR OPENING IS OF INDIANA LIMESTONE. THE WALLS OF THE BANKING SPACE ARE OF INDIANA LIMESTONE WITH A MIXTURE OF ABOUT TEN PER CENT OF BRIAR HILL STONE

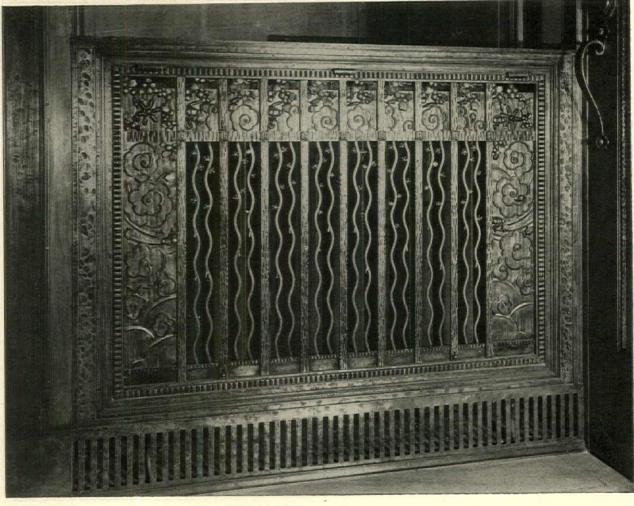


DETAIL OF BANKING SCREEN. THE SCREEN ITSELF IS OF WROUGHT IRON MOUNTED ON A BASE OF VALCERINO MARBLE. THE LOWER SCREEN IS OF BRIAR HILL STONE. THE FLOOR OF THE BANKING SPACE IS OF GRAY TENNESSEE MARBLE. THE ORNAMENT IS OF INTERESTING DESIGN



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





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.



ENGINEERING AND CONSTRUCTION



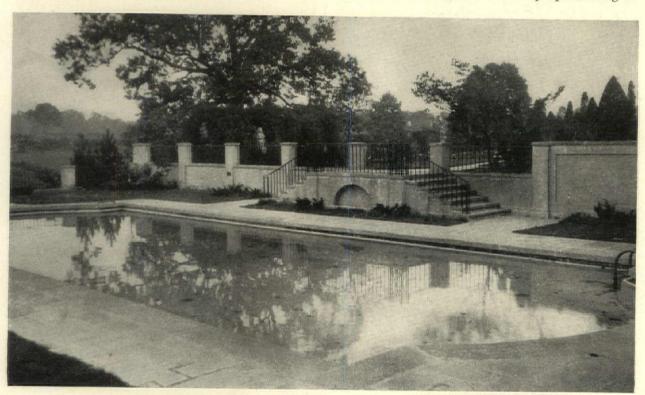
SWIMMING POOL CONSTRUCTION

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.

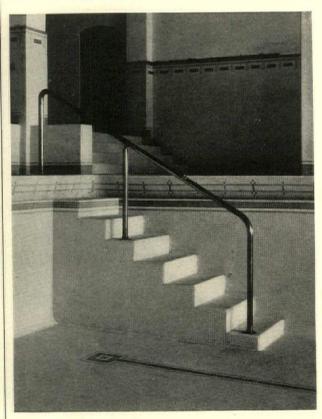
The steel tank is regarded as a container in which the pool is constructed with a reinforced concrete shell designed to resist the pressure of the water.

The lining of the pool should present a smooth,

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

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 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



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-



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

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

Diving boards are made of hickory planks and



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

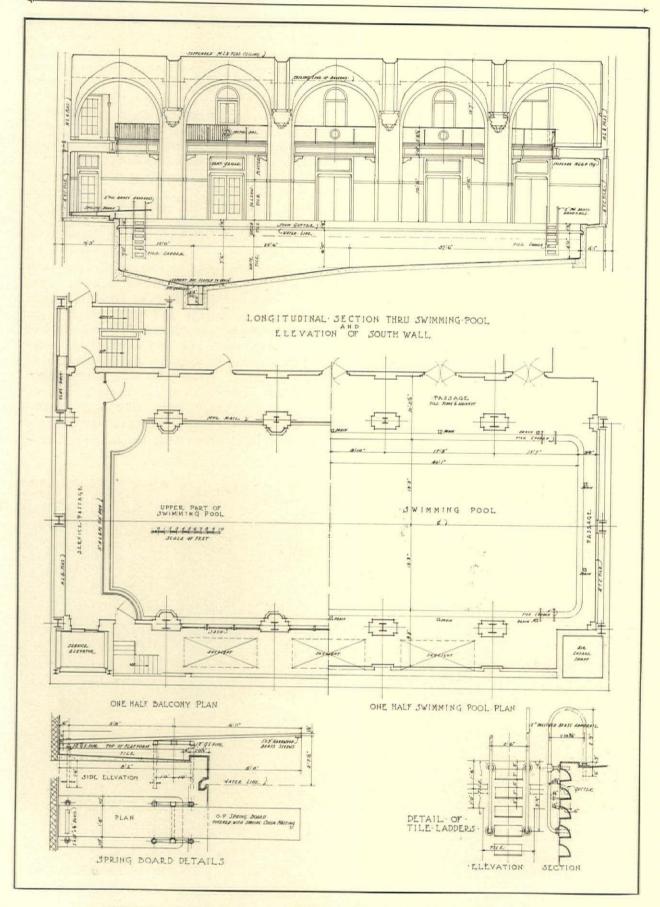
AT LEFT: TILE LADDER WITH BRONZE PULL-OUTS AT DEEP END OF POOL. AT RIGHT: RECESSED TILE STEPS WITH BRONZE PULL-OUTS. NOTE THE UNUSUAL USE OF A DOUBLE SCUM GUTTER



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-

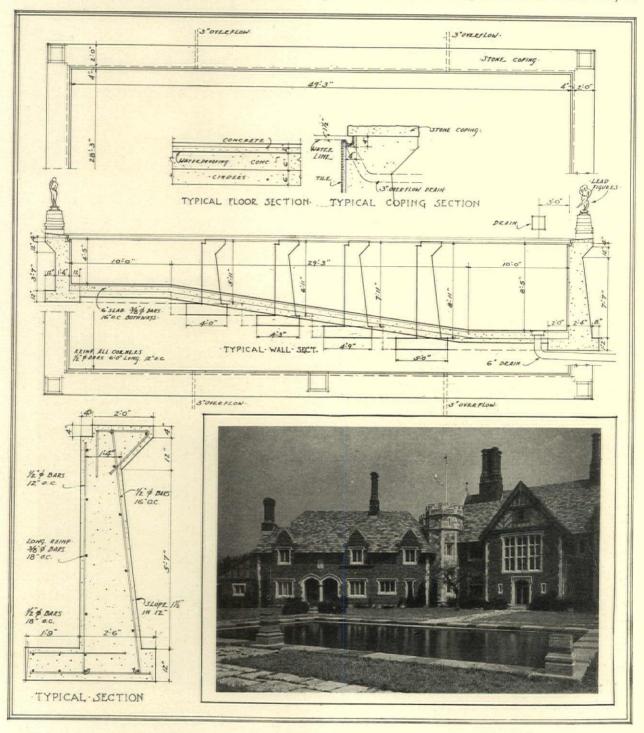


SWIMMING POOL ON ESTATE OF H. T. PARSONS, WEST END, N. J.

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.

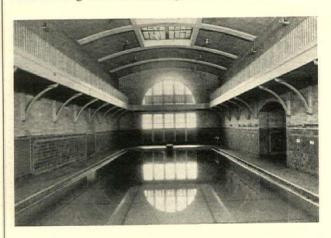
DWIGHT JAMES BAUM, ARCHITECT

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

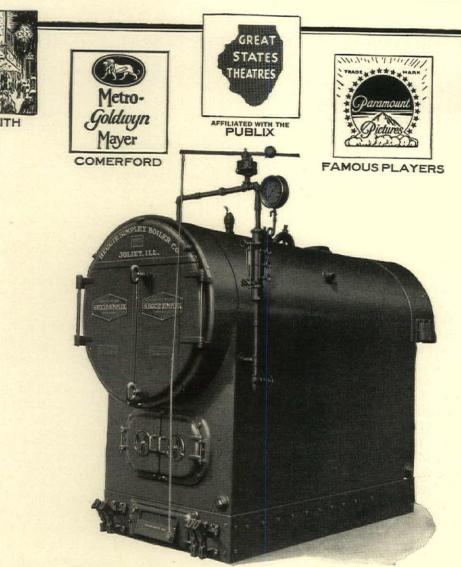
END AND TOP LIGHTED ROOM WITH SPECTATORS' BALCONY ABOVE THE LEVEL OF THE POOL



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)



Leading Theatrical Corporations Specify the Modern Boiler

WHERE COMFORT is essential to continued patronage—where thousands of dollars depend on assured heating at every performance—where heating equipment must show low operating cost—in the newest and finest playhouses—you will find Heggie-Simplex heating boilers in use. The most modern and highly perfected of heating equipment—in the most modern and highly developed of public buildings!

Heggie-Simplex Boiler Co., Joliet, Illinois. Representatives in principal cities—telephone and address listed under "Heggie-Simplex Boiler Company."

HEGGIE-SIMPLEX

ELECTRIC-WELDED STEEL HEATING BOILERS

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



Residence of E. W. Christ, New Britain, Conn. Architects, Perry & Bishop, New Britain, Conn. Stanley Ball Bearing Butts used throughout

Why Ball Bearing Butts?

METAL-on-metal friction extended over a period of years is bound to cause considerable wear. Plain joint butts suffer from this kind of friction.

With ball bearings carrying the load, friction becomes negligible. This means no sagging doors—no repairs—no adjustments—no replacement expense.

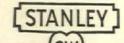
Ball Bearing Butts are an investment in permanency.

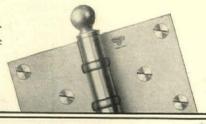
Stanley engineers have originated most butt and hinge improvements since 1852, including cold-rolled steel, the non-detachable (non-losable) washer, non-rising and self-lubricating pin, improved finish, and the use of ball bearings.

Our wide experience enables us to make a product of uniformly high quality that sets the standard in butt manufacture. The Stanley trade-mark is on every butt.

The Architects 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 Catalog, pages B1702 to B1705, and B1722 to B1734.

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





STANLEY BALL BEARING BUTTS

MADE OF BRASS, BRONZE AND STANLEY STEEL



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



School of Tropical Medicine, San Juan, Porto Rico, Rafael Carmaega, Architect, Teodore Vidal, Builder. Enriched with relief ornamentation in polychrome Terra Cotta

SPANISH PRECEDENT

Beautifully Translated

The beautiful possibilities of the Spanish style culminate in their opportunity for employing

COLOR

Terra Cotta offers surpassing resources for achieving this in adaptations of this precedent.

NATIONAL TERRA COTTA SOCIETY

19 West 44th Street

New York, N.Y.

(On Behalf of the Terra Cotta Industry in the U. S.)

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

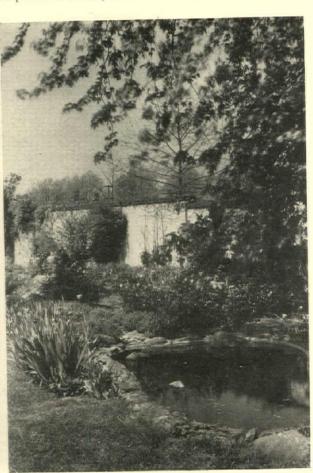
LAWN, ESTATE OF ROBERT McK. THOMAS, BERNARDSVILLE, N. J.

CLARENCE FOWLER, LANDSCAPE ARCHITECT

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.



INFORMAL POOL IN WALLED GARDEN AT PRINCETON, N. J.

MARIAN COFFIN, LANDSCAPE ARCHITECT

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







"Expansion" Casing No. 6 O. G.
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.



"Expansion" Corner Bead No. 1 Pat'd. June 13, 1922

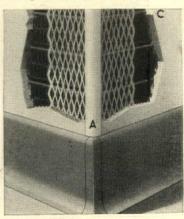
The features contributing to its phenomenal success are patented—cannot be copied. Insist on the genuine Milcor "Expansion" Corner Bead. No. 1 for outer, exposed corners; No. 2 for inner corners and ceiling angles. Made from Galvanized Steel, ARM-CO Ingot Iron, Zinc or Anaconda Copper.



"Expansion" BULL NOSE Corner Bead No. 10

Pat'd. June 13, 1922
The first and only BULL NOSE Bead with expanded metal wings. This "Big Brother" of regular Expansion Corner Bead No. 1 is welcomed by Architects, Contractors and Plasterers everywhere. Samples free.

Below is shown "Expansion" BULL NOSE Corner Bead in position in a wall. "A" is the exposed BULL NOSE corner; "C" is Stay-Rib Metal Lath. Milcor Metal Cove Base No. 112 and Outside Square Corner Fitting No. 112-B also shown here.



MILWAUKEE CORRUGATING CO., Milwaukee, Wis., Chicago, Ill., Kansas City, Mo., La Crosse, Wis.

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 (Sec 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.

20

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**





WITH WHICH IS CONSOLIDATED THE ARCHITECTURAL REVIEW

VOLUME CXXXI

MAY 20, 1927

NUMBER 2521

CONTENTS

Market Scene, Nice	.]	Fro	ntis	piece
NEW TOWNS FOR OLD				629
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A W. H. Dewar				651
EDITORIAL COMMENT			280	657
EVERYBODY'S BUSINESS			5.	658
A GROUP OF BUILDINGS OF MODERATE COST	× ;			675
Modern Tendencies in Theatre Design		. ,		681
REPORT OF INVESTIGATION TO DETERMINE THE PERMANENCE				
OF STRUCTURAL STEEL IN BUILDINGS Frank W. Skinner				691
A PRACTICAL TEST OF MODERN VAULT CONSTRUCTION				697
DI A TEC				

PLATES

PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A John F. Jackson	8 Plates
A House at Mamaroneck, N. Y	4 Plates
FIRST CHURCH OF CHRIST, SCIENTIST, UNIVERSITY CITY, MO.T. P. Barnett Company.	2 Plates
House of Dr. A. M. Cole, Indianapolis, Ind Herbert Foltz	2 Plates

OWNED AND PUBLISHED BY

THE ARCHITECTURAL AND BUILDING PRESS, INC.

E. J. ROSENCRANS, President and Treasurer

FREDERICK S. SLY, Vice-President

Publication, Editorial and Advertising Offices: 239 West 39th Street, New York City

EDITORIAL DEPARTMENT

WILLIAM H. CROCKER, Editor

BENJAMIN FRANKLIN BETTS, Associate Editor

R. W. SEXTON, Associate Editor, Department of Interior Architecture E. K. BRUNNER, Editorial Assistant

Contributing Editors

SAMUEL CHAMBERLAIN

CLINTON H. BLAKE, JR. FLOYD W. PARSONS

Board of Directors

H. J. REDFIELD

E. J. ROSENCRANS PAGE A. ROBINSON FREDERICK S. SLY

H. H. MINER

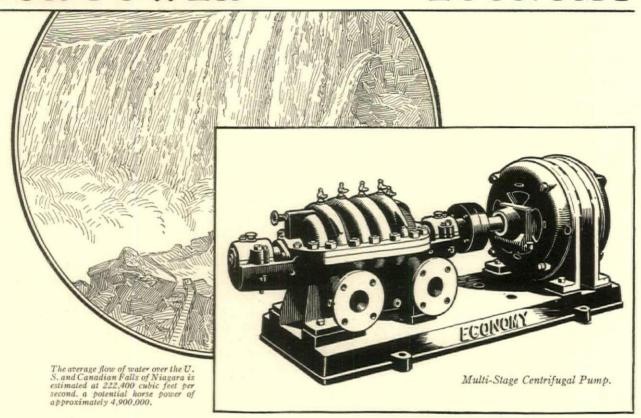
G. E. SLY

WESTERN OFFICE: First National Bank Building, Chicago, PAGE A. ROBINSON, Manager LONDON OFFICE: DORLAND HOUSE, 14 Regent Street, S. W. I.

Yearly Subscription in the United States and Possessions, Canada, Mexico and Cuba, Six Dollars. Other Countries, Eight Dollars, Payable in New York Funds. Single copies (Regular Issues) 50 cents.



ECONOMY FOR POW



Made-to-Measure Capacity Is True Economy

DUMPING economy is in accurate designing—not in the cost of the pump. Too much or too little capacity lessens value. That is true of everything you buy.

When a pump fits a job exactly, it saves money as long as it lasts. Economy engineering cooperation, taken for granted in all Economy installations, assures this. It is worth more than the pump costs in actual savings.

We have cause to be glad that this has always been our guiding principle. Our pumps deliver as specified. We have no "come-backs," but hundreds of favorable comments on past installations. That shows that our service is well applied and correct in principle.

> The experience of Economy engineers under many conditions is at your service. Let them help you tackle your pumping problem.

Economy Pumping Machinery Company 3431 West 48th Place, Chicago

Representatives in Principal Cities—Telephone and Address under Economy Pumping Machinery Co.

ECONOMY Multi-Stage Centrifugal Pump

See illustration above

Suitable for high pressure house supply in tall build-ings, for hydraulic elevator service, high pressure boiler feeding, brine circulation, etc. Designed to operate against pressures from 75 to 350 lbs. per square inch at standard motor and steam turbine speeds.

Outstanding Features

- 1. Silent operation.
- 2. Limited head per stage for high
- 3. Solid one piece bronze dia-4. Split on the horizontal center

- Volute in every stage.
 Sturdy mechanical design with unusual study given to design of minor parts.

Ask for Bulletin No. 406 describing this

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."

20

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.

200

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.

200

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.

20

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.

200

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



AMERICAN ARCHITECT

M

FOUNDED 1876



NEW TOWNS FOR OLD

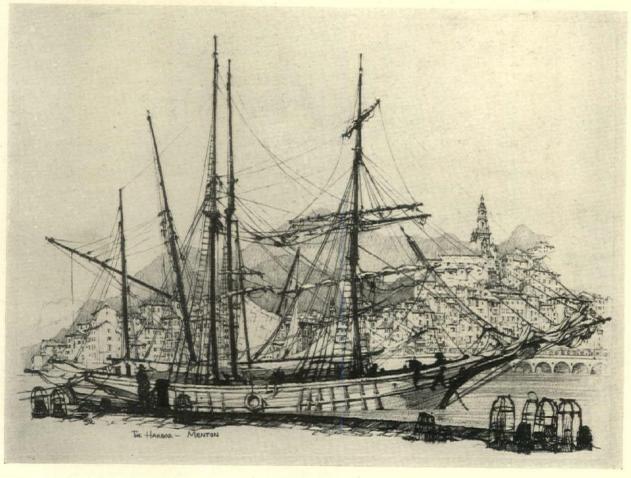
OR "What Happened to Menton"

By Samuel Chamberlain

Illustrated with Drypoints, Lithographs and Sketches by the Author

THERE is probably no more unoriginal place to write about in all France than the very civilized bit of coast which lies between Monaco and the Italian border. The word painters of the travel agencies pound off palpitating paragraphs about it. The

magazines of the haute monde in England would no more think of not publishing frequent photographs and articles about it than they would consider omitting their raincoat advertisements. The bookshops contain dozens of travel books devoted



THE HARBOR, MENTON

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

to this sector, written by retired army Colonels and dear old ladies, books which vary their mild observations on ultra-respectable Menton with worldly discussions of the wickedness of Monte Carlo and the whims of roulette and chemin de fer. This permits the authors to introduce a private "system" or two, without which no roulette plunger is complete.



THE CATHEDRAL, NICE

The more confidential "systems," which are almost guaranteed to earn a good weekly living for the assiduous gambler, are enclosed very mysteriously in sealed envelopes, and are sold to the gullible at a hundred francs a throw. Wedged in between sealed volumes with intringuing titles such as "Life in the Harem Unveiled," (also calculated to tempt the cloistered Englishman), are at least twenty of these envelopes, each with a highly complicated and very sure formula to beat a game which supports the entire principality of Monaco with its nightly gains. Whatever one may write about this

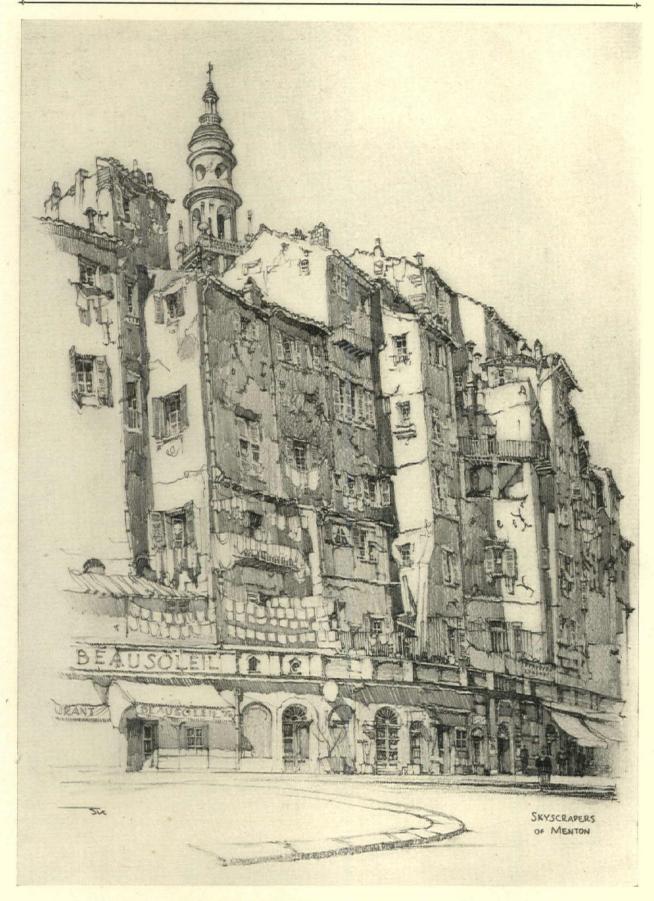


LES OLIVIERS, MENTON (From the Original Drypoint)

region is sure to have been written before, and this hibernating correspondent wishes to beg your indulgence, promising faithfully never to choose such a hackneyed subject again.

The old town of Menton is like the bright body of a butterfly whose gaudy wings have sprouted out on two sides, tinselled with the dross of frivolous villas and pretentious hotels. Originally it was a city of much beauty and romance and blood-curdling adventure. Its narrow old streets were lined with palazzos. Patrician damsels sat on the doorsteps knitting and exchanging bon mots with affable courtiers. But since its sale to France by Monaco in 1861 it has become demure and dowdy, devoted to the sedate amusements of convalescents.

Nevertheless the chaotic gallery of complex planes which make up le vieux Menton can be submitted as the most complex bit of form and color on the whole Riviera. Seen through the shifting screen of masts and ropes and patched sails of vagrant fishing boats, the rising profile of old Menton stands out gloriously against the flat blue-violet of the mountains. Crowning this opalescent chess board is a cemetery of strange solemnity, shaded with groves of plume-like cypresses. Their funereal blackness contrasts sharply with the rain-washed tombstones and the cloudless cobalt of the sky. Aubrey Beards-

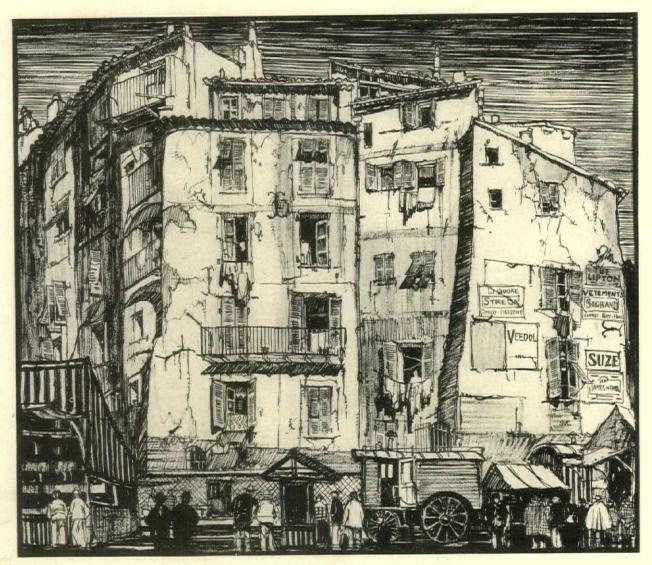


FROM THE ORIGINAL SKETCH BY SAMUEL CHAMBERLAIN

ley is buried here, high above the hub-bub of the fishing port. It is a spot of absolute repose and serenity, despite the beaded wreaths and tin violets. Add an impossibly bright blue-green to the water, bright orange to the sails and a faded emerald to the rust-streaked hulls of the boats and you have a theatrical drop gaudier than the wildest fancy of a scenic artist. It is a subject one often dreams about but really never expects to find in existence.

lotteries and "games of skill and chance." The practical French offer wash bowls or boxes of lump sugar or live pigeons as prizes. These, with the aid of gongs and spangled skirts and much facile oratory, succeed in prying the Saturday night workman away from a respectable portion of his wallet.

The square before the cathedral is the most operatic thing in Menton. It is covered with an elaborate mosaic, effected with mere pebbles which have



MENTON

Seen at closer range, the interlocking skyscrapers of Menton are found to spring from a number of levels along the water's edge, the lofty abodes of laundresses, shoemakers and tinsmiths. The sunlight scorches them in the early morning, gradually twisting around their many-tinted surfaces until, at noon, they become solidified into a few planes of luminous shade. There are Brangwynesque sites, so dramatic that no exaggeration in drawing could give the illusion of their forcefulness. Such a spot is the cliff of walls and shutters and balconies which loom over the remains of a visiting carnival, stray

been ground to flatness by countless footsteps. On two sides are the huge Baroque facades of the cathedral and the ornate Eglise des Penitents Blancs, glittering gold and pink and buff and pale green. Opposite is the conglomeration of old houses, vaults and gateways shown in the drypoint here reproduced. Splendor on two sides, ragged picturesqueness on a third and the bright vista of the Italian frontier on the fourth,—such is the setting of this, the most eminent spot in Menton.

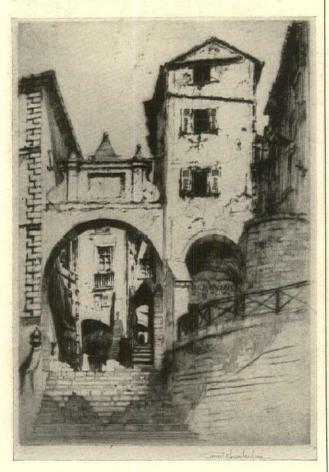
So much for the old town. Of the new tinselled wings, by far the most appealing is that which lies



FROM THE ORIGINAL SKETCH BY SAMUEL CHAMBERLAIN

to the East on an olive-grown slope, known as Garavan. This settlement extends to the very edge of France, to the international bridge which joins the two countries. There is a fascination about this animated pass. It bristles with uniforms and formalities. Troubadours sing loudly before the charabancs filled with bespectacled tourists. Pedestrians stand grinning between boundary posts and have their pictures taken. Automobilists rush to send postcards embellished with Italian stamps. Many a discontented opponent of the regime would give his last penny to slip over this narrow bridge, and more than one has attempted to crawl over the mountains into France, or to steal by in a rowboat in the dead of night.

Some truly beautiful examples of domestic architecture have sprouted in Garavan, as well as some of the most ghastly. Of the former, particular mention should be made of "Les Colombiers," an ambitious estate which has blossomed into something very beautiful, if somewhat showy, under the hand of Ferdinand Bac. Monsieur Bac served as architect, mural painter, decorator and head gardener, and then rounded out his work by writing and illustrating two handsome volumes on the villa and its gardens. Among the latter mentioned villas is the preposterous property of that celebrated novelist



A MENTON GATEWAY
(From the Original Drypoint)

and exile, Blasco Ibanez. Its outer gate features three large tile portraits of Messieurs Balzac, Cervantes and Dickens, done up in the manner of blue Dutch windmills in a cafeteria. This villa runs the monstrosities on the outskirts of Cannes a close race for the distinction of being the Most Indecent Piece of Architecture on the Cote d'Azur. Any self-respecting and moderately modest member of the profession will shade his eyes and look the other way when passing, in the manner of a chaperone at the Folies Bergere. One is filled with conjectures about the portly Spaniard, after gazing horror-struck at what he calls Home. What color pajamas must he wear? What is his taste in cravats? What is the color scheme of his tiled bathroom?

The other wing of Menton may be sketched in a few words. Tea shops, band concerts, poodles, dear old ladies with towering hats and green lined parasols, glistening white hotels, prosaic boulevards, solicitous cab drivers, grocery stores loaded with choice brandies and spirits and Bass Ale, bloater paste and shrimp sauce,—and more tea rooms. Seven hundred and seventy-nine chauffeurs spend their mornings shining the under sides of the fenders of seven hundred and seventy-nine immaculate and frightfully expensive cars.

To be quite en regle in the new Menton, one must conform to one of three standards best exemplified by the following details of male attire:

Class A—A bright blue coat, double breasted, with brass buttons and a tight waist; a lavender silk shirt with royal purple monogram, a stick with a green snake skin handle, a monacle, a jaunty feather in the cap, a florid mouchoir and cravat. Mannish make-up and perfume by Bourgeois. Finger nail polish by Roger et Gallet. A thoroughbred pup is indispensable. This kind usually speaks five languages and finds Menton intolerable after teatime. In the evening they rub elbows with the King of Sweden and Count Salm at the Sporting Club in Monte Carlo.

Class B—This is the home-spun school. Coarse tweeds, plus fours, socks with tassels and elongated spats. A ruddy complexion and a well veined nose. These are the best patrons of the "American Bars" and the be-bottled grocery stores. The favorite diversion is to puff a pipe and gaze speculatively at shop windows filled with imitations of Lalique glass, Venetian leather and tortoise shell. The vast part of the population of the new Menton falls in Class B.

Class C—contains the remaining inhabitants. The costume is very formal, stiff shirt and white bow tie. These are the waiters.

Ah me! The Menton that was and the Menton that is! What a theme for a mellow philosopher!

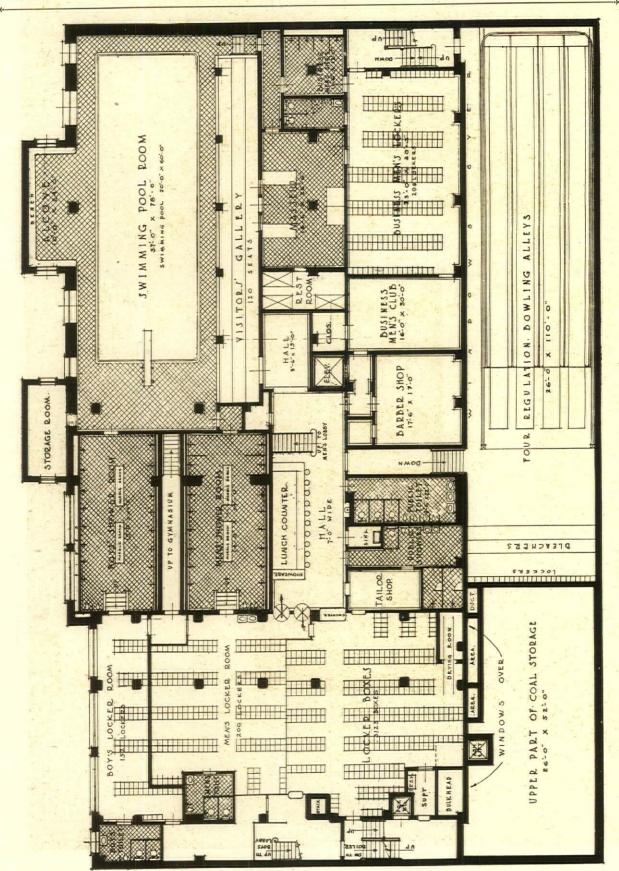
Articles by Samuel Chamberlain, European correspondent of THE AMERICAN ARCHITECT, written in his characteristic style and illustrated with his clever original sketches, appear regularly in issues of the 20th of each month.



PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.

JOHN F. JACKSON, ARCHITECT

(See plan on back)



PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A. JOHN F. JACKSON, ARCHITECT

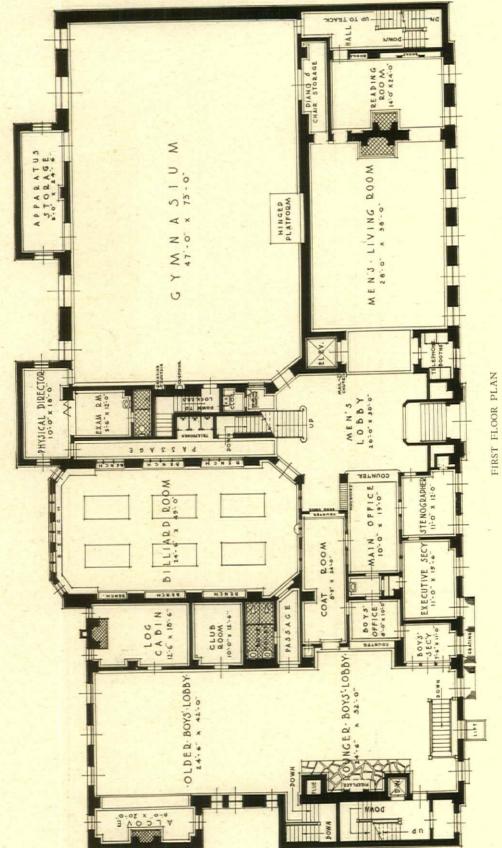


DETAIL OF PRINCIPAL ENTRANCE

PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.

JOHN F. JACKSON, ARCHITECT

(See plan on back)



PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A JOHN F. JACKSON, ARCHITECT

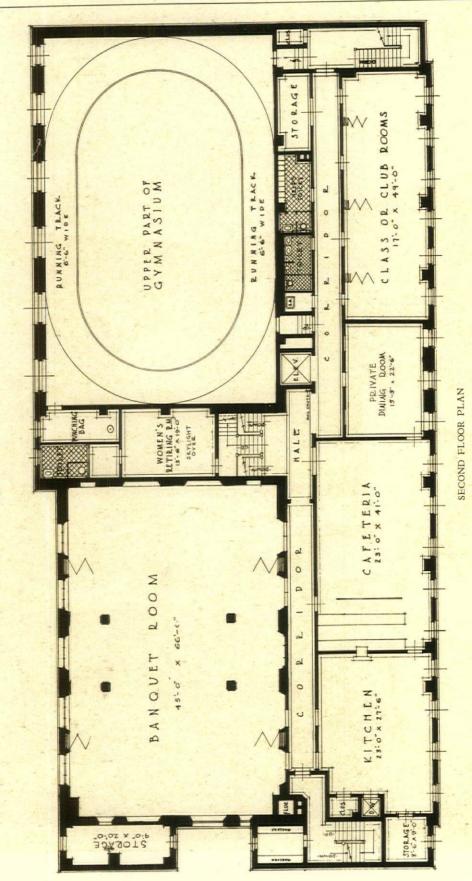


BOYS' ENTRANCE

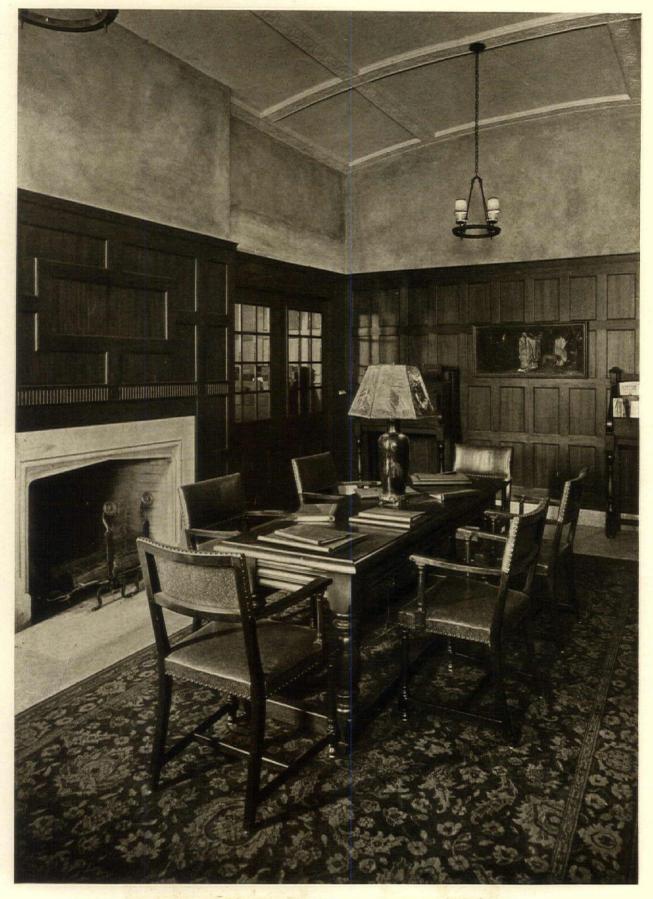
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.

JOHN F. JACKSON, ARCHITECT

(See plan on back)



PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A. JOHN F. JACKSON, ARCHITECT

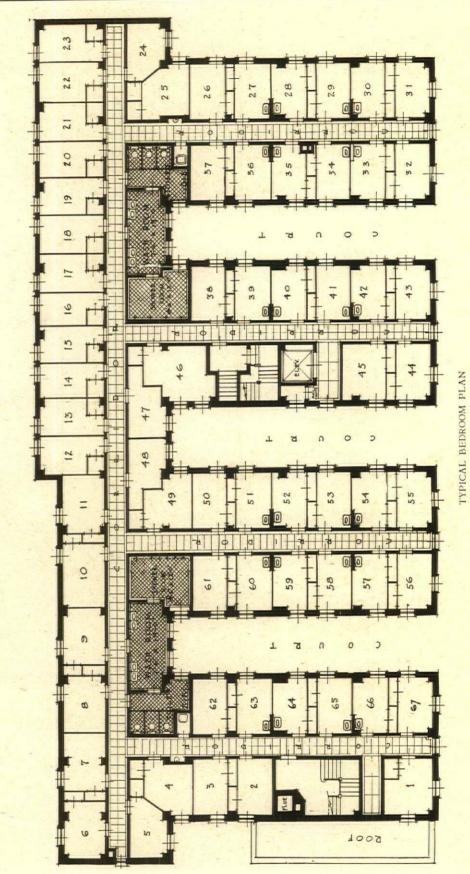


READING ROOM

PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.

JOHN F. JACKSON, ARCHITECT

(See plan on back)



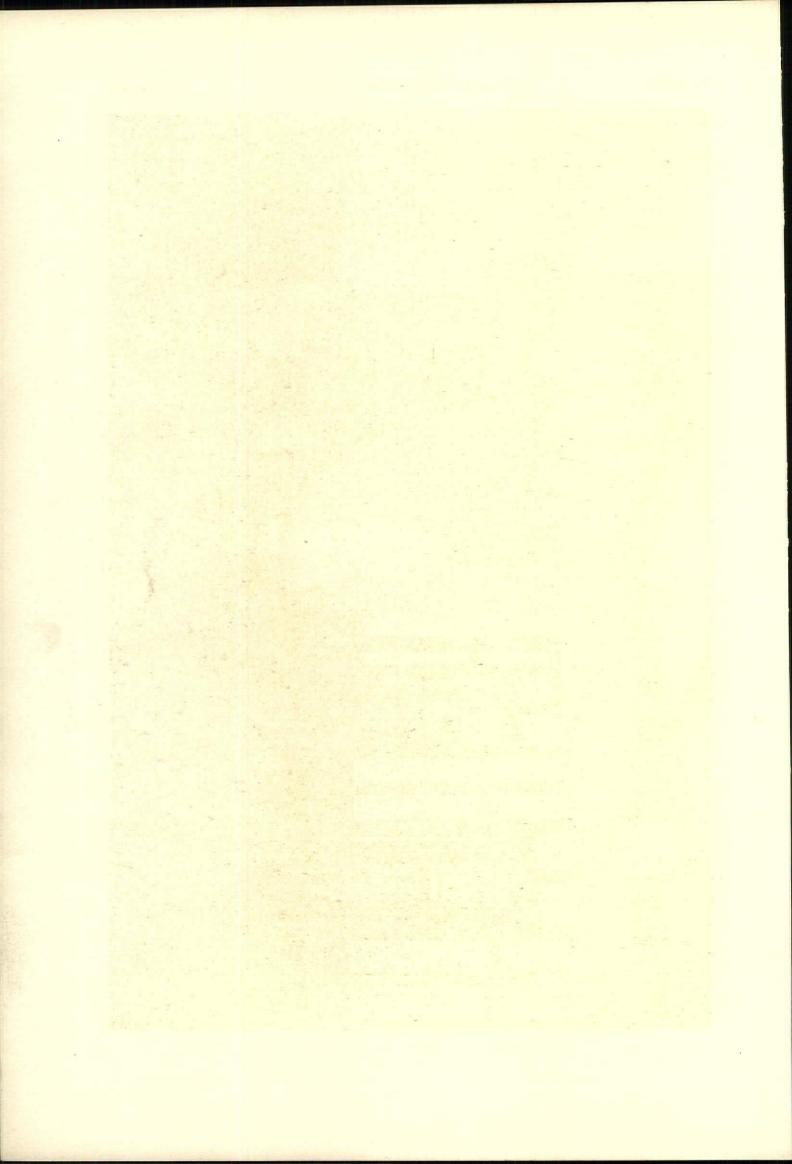
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A. JOHN F. JACKSON, ARCHITECT

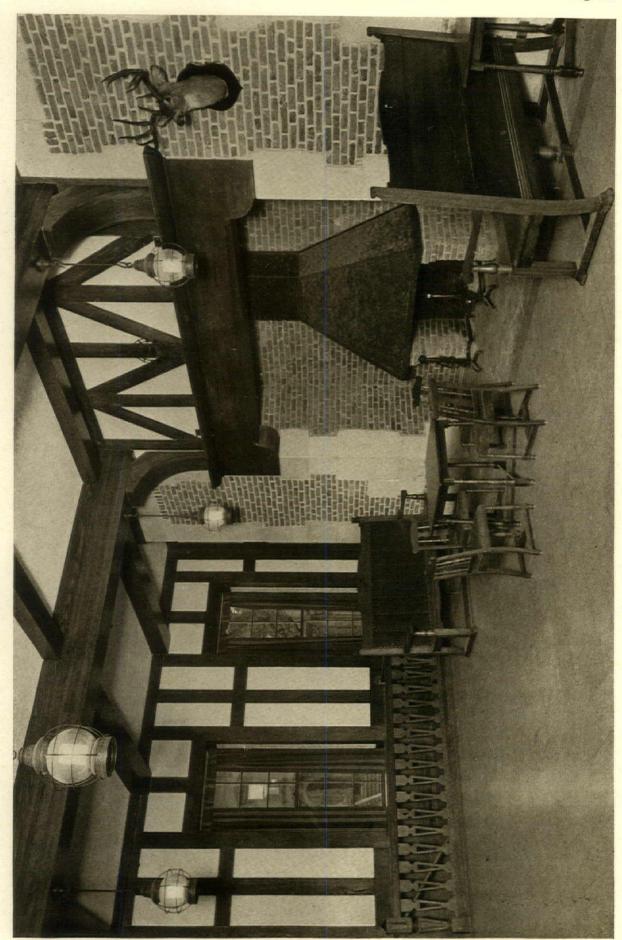


GROUP DINING ROOM

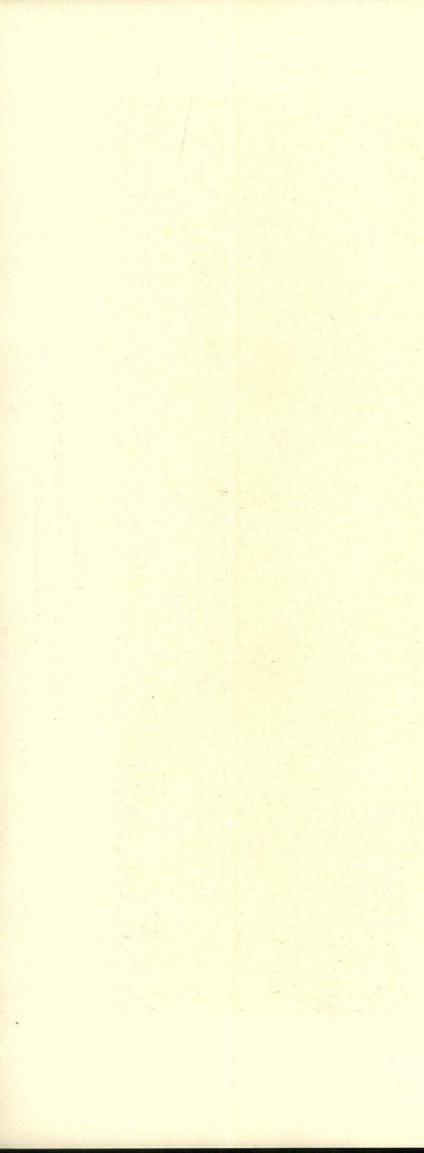
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.

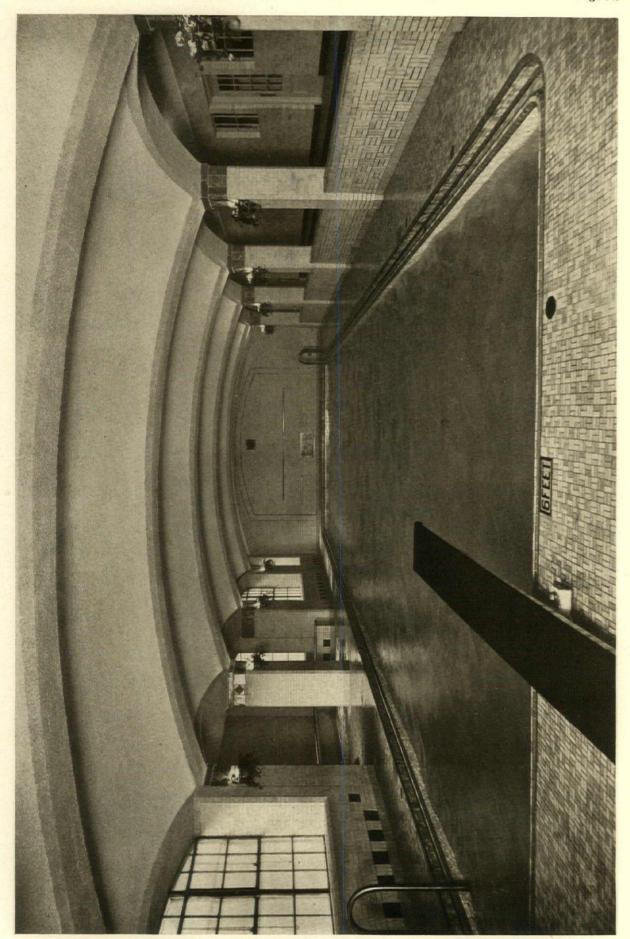
JOHN F. JACKSON, ARCHITECT





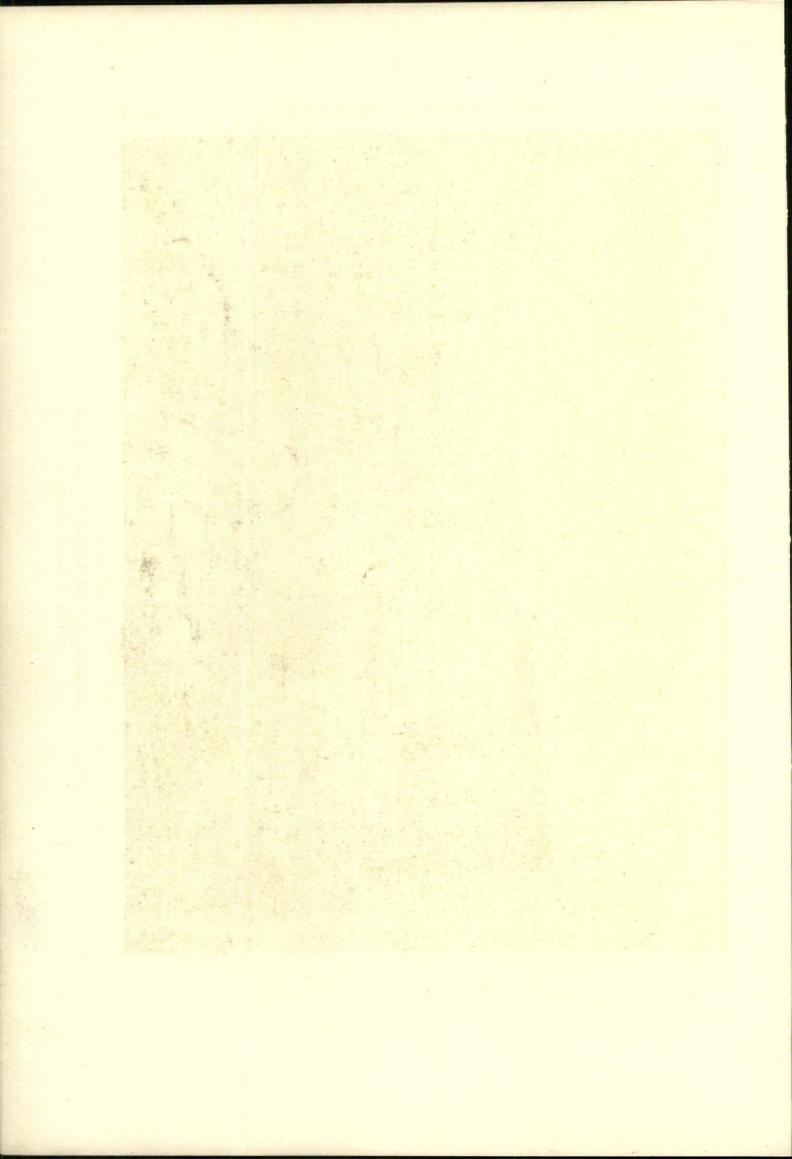
BOYS' ROOM
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.
JOHN F. JACKSON, ARCHITECT

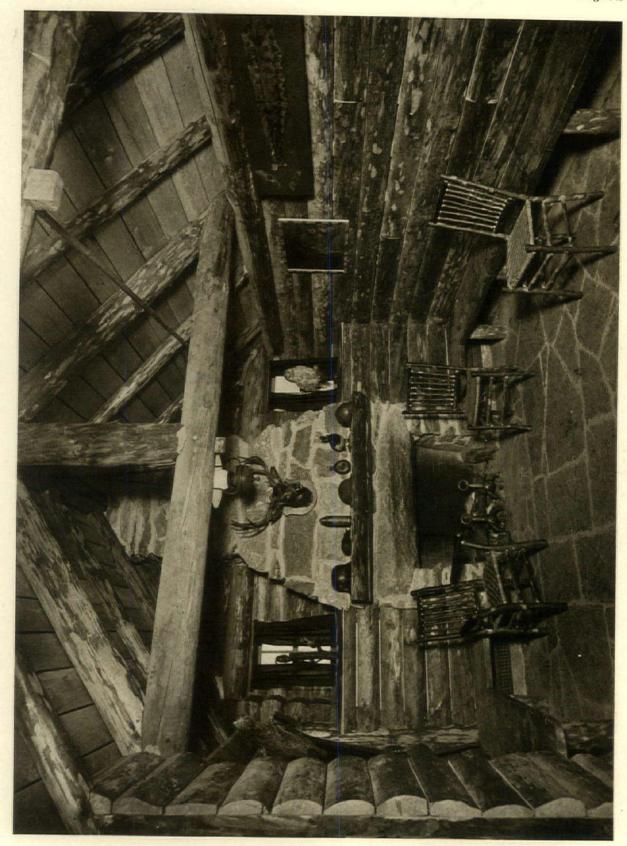




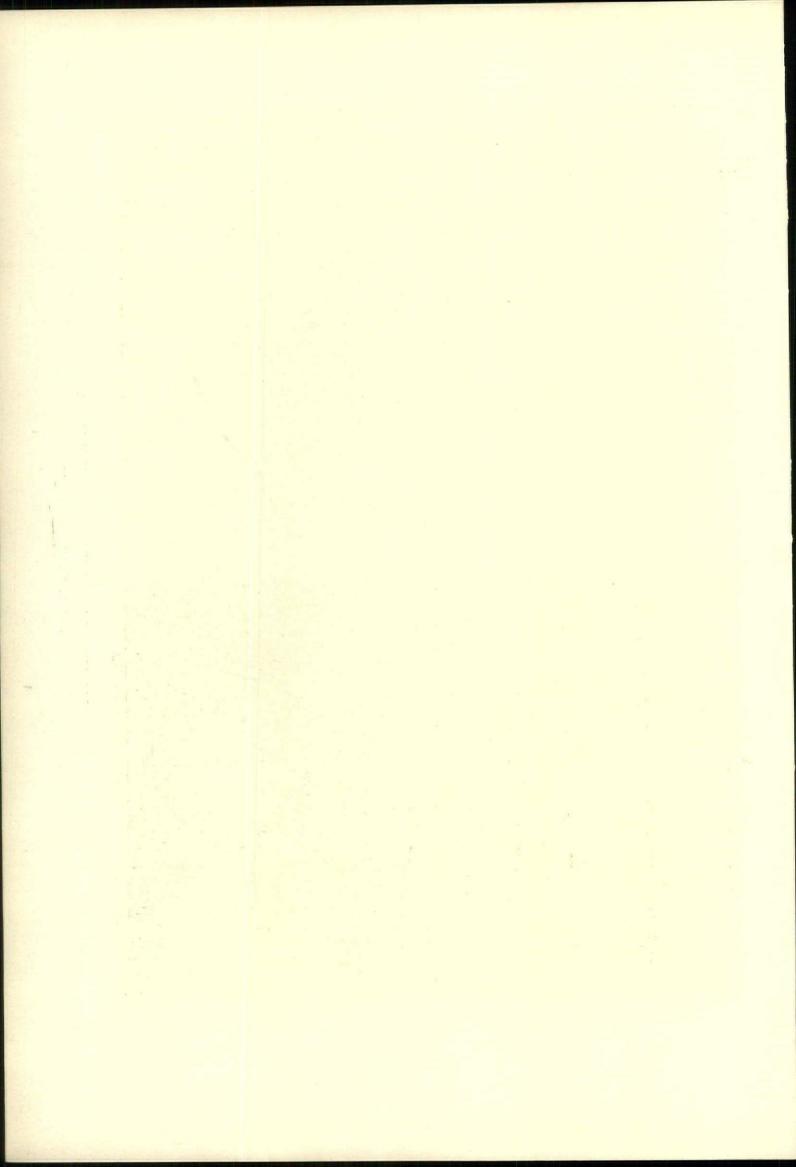
THE POOL

PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.
JOHN F. JACKSON, ARCHITECT





THE LOG CABIN IN BOYS' DIVISION
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A. JOHN F. JACKSON, ARCHITECT



PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.

JOHN F. JACKSON, Architect

By W. H. DEWAR, Executive Secretary

Y. M. C. A. buildings, like most other types of buildings, have undergone great changes with the changing needs of the organization. Within the memory of those little passed middle life, many Young Men's Christian Associations had their quarters in rooms over stores or other business properties. A few rooms, used for table games, socials, religious meetings, and a quiet room for a library were in most Associations the extent of the equipment. Later came an enlarging of facilities to provide billiard rooms, bowling alleys, and gymnasia. Preceding each of these additions, there was much earnest discussion as to whether providing such opportunities for young men would really be helpful to them, or would encourage them to spend time in unprofitable ways.

The next step in housing Young Men's Christian Association activities was the more ambitious one of erecting what were frankly termed Young Men's Christian Association buildings. The earlier of these buildings had stores on the ground floor, for the purpose of providing income. This was necessary because Y. M. C. A. service, except that pro-

vided for business men's groups, was, and still is, given at a cost greater than the membership fee paid by the boys and young men: the difference was then made up by rentals from the stores, and subscriptions of contributors.

In recent years the store type of construction has been abandoned, and the entire building is used exclusively for Y. M. C. A. purposes. Nearly all city Young Men's Christian Association buildings now have living quarters for resident members. The development of this service provides for the young man of limited income, a home with wholesome surroundings and companionship, during the difficult period of his adjustment to a complex city life. The income from the rooms replaces that formerly secured from the stores, and a service in line with the aims of the Association is rendered the young man.

A large modern Y. M. C. A. building presents so many problems peculiar to the needs of Y. M. C. A. work, that there is an increasing tendency to seek the service of architects who have specialized to some degree in this type of construction. The new Pros-



BUSINESS MEN'S CLUB

pect Park Branch of the Brooklyn and Queens Young Men's Christian Association, shown herewith, is a case in point. It was the sixtieth Y. M. C. A. building designed by the architect, John F. Jackson, and is an interesting example in planning a building for the modern program of Y. M. C. A. activities. Here is a building so designed as to give maximum opportunity for work with small groups, in line with that trend in present day Y. M. C. A. methods. This result is not attained at the sacrifice of large space units, but rather by having such units flexible in size and possible of division into smaller rooms.

On entering the building, one is impressed by this

trance to the offices, the main desk, the coat room, and mail boxes for resident members are in the lobby.

The assembly room on the second floor can be used as a large unit for banquets and meetings. It has a portable stage with footlights and border lights. If smaller units are desired, this room can be divided into three sections. The location of the kitchen makes service very convenient to either the banquet room or restaurant.

The group dining room, done in a modified Spanish treatment, provides a meeting place for small groups and committees, where meals can be served, if desired. A novel feature in the end of this group



THE BILLIARD ROOM

change to small units of space instead of a very large space given to lobbies, as is the case in the older Y. M. C. A. buildings. Here we have a small lobby which is not intended for social use but only to serve as a distribution lobby. One does not have the feeling of being in a cramped and small room, however, because of the view of other rooms and the activities in these rooms that is possible from this distributing lobby. From the lobby one looks through an archway to the living room, and beyond that through to the reading room. Activities in the gymnasium can also be seen from this lobby. The billiard room is entered from the lobby and here, too, glass doors make possible a view of its interior. En-

dining room is a blackboard which is concealed when not in use by the doors shown in the photograph, which have the appearance of cabinet doors.

On this same floor is a group of four club or class rooms. This space also can be thrown into one large unit if necessary.

The boys' division section of this building is done in half-timber treatment. By a study of the plan, it will be seen that this section presented a problem. There were the smoke stack and freight elevator projecting into the room, and these features were treated in such a way that an ingle nook is provided, which becomes one of the best features of the room. It is significant that this boys' division, which is de-



VIEW IN ENTRANCE HALL
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.
JOHN F. JACKSON, ARCHITECT

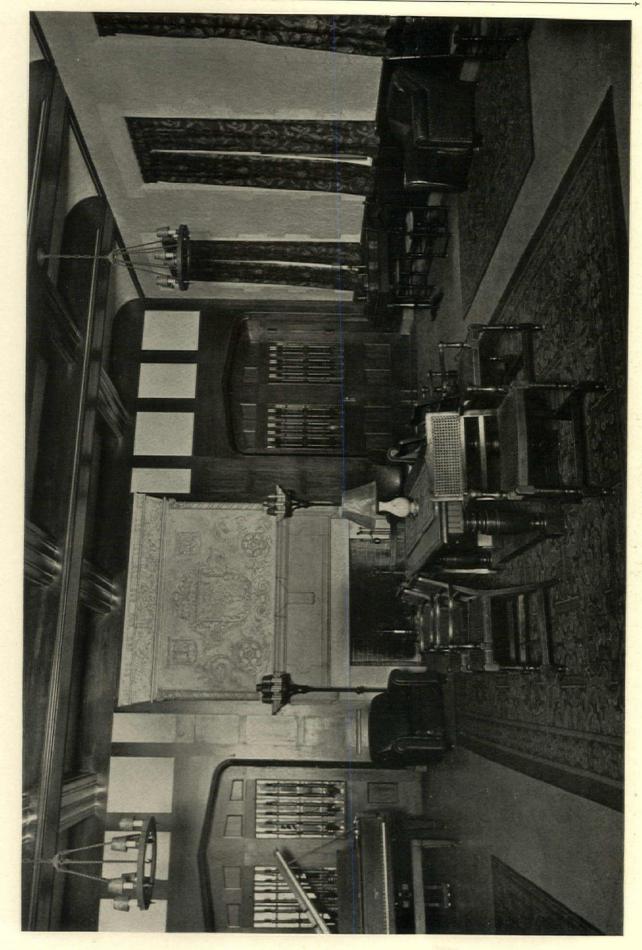




AT TOP: THE LUNCH BAR. AT BOTTOM: GYMNASIUM

PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.

JOHN F. JACKSON, ARCHITECT



LIVING ROOM
PROSPECT PARK (BROOKLYN) BRANCH, Y. M. C. A.
JOHN F. JACKSON, ARCHITECT

signed to withstand the hard usage given it by boys, is of equal beauty and character with other sections of the building. A unique feature is a club room, finished as the interior of a log cabin. This is intended to be more than a novelty. It is planned to have a real place in the program and message of the Young Men's Christian Association. Many Y. M. C. A. boys have had their most vital and helpful experiences in the Summer camp, and the log cabin club room is a continual reminder of those out-of-door days.

The soda fountain or lunch bar provided in the main basement hall is a completely equipped unit with provision for serving light luncheons, comparable to the best modern drug store equipment. Other service features that are provided in the basement include a barber shop, a masseur department and a tailor shop. The tailor shop is located next to the locker room so that members may have their clothes pressed while engaged in gymnasium activities. This shop also has a window in the main hall so that residents of the building may leave their clothes to be serviced. The man in charge of the tailor shop also controls the public shower baths for non-members through a window looking directly into this department.

This idea of maximum supervision with a minimum number of attendants is carried out throughout the building and results in efficiency and economy of operation.

The building faces South and advantage has been taken of this exposure by making the courts open to the front, so that virtually all of the 258 rooms providing for 266 resident members, get sunlight some time during the day.

A special service to the man living in the building is the maintenance of an infirmary. This unit comprises a nurses' living room, a private room, a ward with two beds, and a dispensary.

On the top floor is also provided an apartment for the matron of the building. A feature not usual is the provision for a secretary's study room, located on the top floor of the building.

Visitors to this building have been impressed by the atmosphere of quiet, homelike beauty. It is felt that this end has been achieved through having the architect counsel with the owners on the selection of the furnishings throughout the building. In fact, a considerable portion of the furniture, such as tables, writing desks, bulletin boards, etc., was designed by the architect, with the result that there is complete harmony throughout.

BILLBOARDS

In England, during the course of a debate before the Oxford Union, America was assailed as being responsible for the fashion of smothering pleasant landscapes under a jumble of billboard advertising. And surely the speakers did not go too far, states the New York World editorially. We started this thing and we have carried it to such limits that the tourist cannot travel anywhere in this country, either by rail or by automobile, without having his eyes tortured by these everlasting signs.

There is, without a doubt, a strong sentiment against this condition, for it is a dull man indeed who does not realize that his Sunday jaunt would be much more pleasant if he could only gaze on green hills instead of gaudy encomiums of this man's ketchup, another man's soap and still another man's motor oil. Yet this sentiment has never made itself felt in a manner sufficiently effective to produce concerted action. Why? Part of the reason is easy to see. Newspapers, which are the natural medium for the expression of popular sentiment, hesitate to deal with this question. Some of them are afraid advertisers will be offended and cut off fat revenues; some of them are afraid they will be suspected of a move to force advertisers to buy newspaper space.

These are real considerations; nevertheless we venture to raise this issue. Is it decent for adver-

tisers to ruin the whole American countryside in their efforts to sell their wares? Is it good business? Is a man likely to be attracted to a product that is advertised in such a way as to irritate him? How many sales resulted from the talcum powder advertisement which is painted on the cliff across the Potomac from Harpers Ferry, W. Va., and which cheapens an otherwise magnificent view? Our advertisers might do well to think these points over.

CITY PLANNING IN FRENCH TOWNS

20

As a result of a French law in 1924, obliging all towns of more than 10,000 population to subject their growth to a system of city planning, the suburbs of Paris probably will be divided into zones according as industrial, commercial or residential buildings are allowed to predominate.

Paris itself has developed without such control and it is regarded as impracticable to apply the new ruling to the older quarters.

City planning is a post-war development in France, the first actual zoning regulations to be applied in the country being those of Strasbourg, which were enacted under the German régime there and taken over by France along with other laws and institutions prevailing in Alsace and Lorraine.



EDITORIAL COMMENT



 ${f T}_{
m HERE}$ are in general two types of draftsmen. Both may be capable of making drawings that are accurate, complete and through clever draftsmanship are pleasing to the eye. To one type the drawing is a series of lines acceptable as an example of the draftsman's proficiency with the pencil or pen. To the second type the drawing is a means to an end and in addition to being an acceptable working drawing there is indicated an appreciation of the possibilities and limitations of the materials shown on the drawing. One is academic, based upon theory and knowledge acquired in school; the other may also be based upon theory but there has been added to it that invaluable asset, practical knowledge and experience. Many men leave architectural schools and enter architects' offices as draftsmen. Little or no opportunity has been afforded them to acquire a first-hand knowledge of the characteristics of materials that enter into the construction of buildings. To many this knowledge is limited to a reading acquaintance and information acquired from experienced men in the office. Such knowledge can never be as valuable as that acquired through actual association with the materials and personal knowledge of how these materials are worked by craftsmen or machines.

Every architect knows that no matter how well a building composes on paper, it will not appear well in execution unless materials suitable to the design are selected, correctly detailed and finished. Architects having a large practice cannot personally see to every detail, and much must be delegated and left to the judgment of others in their employ. But whether the practice is large or small, it still remains a fact that every architectural draftsman must have reasonable knowledge of the materials he depicts on paper if he would work intelligently and achieve results in the executed work.

It is hardly to be expected that every draftsman can also be a craftsman in stone, wood and metal; nor is it essential that he actually perform the manual labor required of the craftsman. It is possible, however, for him to secure through association and observation, an appreciation of how the craftsman works and the things that can or cannot be done with the materials commonly used in building construction. Through observation he would learn that fine grained woods can be worked to small mouldings with beautiful subtle contours, but that coarse grained woods must be worked full and bold. He would learn that certain stones are susceptible of delicate carvings and that others are not. The effect produced by polishing certain stones would be

known. The different ways in which the different metals can be worked to secure a variety of effects, the fact that iron cannot be handled in the same manner as brass, would become not only a matter of knowledge but a thing to be felt and expressed in the drawings.

In the pressure of the work to complete the drawings, the desirability of providing draftsmen with the opportunity of becoming familiar with the intimate details of how materials are worked, if not lost sight of, is deferred for a more convenient time and that probably never arrives. Elsewhere in this issue there is outlined a plan recently inaugurated by the New York Chapter of the A. I. A., that will provide for periodic visits to the shops of various craftsmen by the drafting room staffs of architectural offices. This plan is excellent in conception and through schooling draftsmen in the realities of building by the study of the problems of craftsmen, can hardly be other than productive of better buildings, through a more intelligent preparation of drawings and use of materials. Other chapters of the A. I. A. could advantageously adopt the plan in principle with such modifications as might be necessary to meet local conditions. Where group action is not feasible, the idea could be utilized by individual offices. Craftsmen welcome the opportunity to cooperate with the architectural profession. Forethought, judicious visits to work shops, and, if possible, an opportunity for the draftsman to compare his drawings with work in the shop, should produce future results that will repay the cost of such visits made on office time.

20

REPORTS have reached this office that the latest addition to the Atlantic passenger fleet is to feature a real twenty foot bar, of the type which some of us may recall, a church auditorium and a sidewalk cafe which is peculiarly characteristic of the French boulevards. The question immediately arises whether this is in sympathy with marine architecture. It seems to suggest a setting for motion pictures rather than the decorative treatment of an ocean liner. Successful architectural design is based on honesty and sincerity. On board a steamer it would seem to us more logical to create surroundings which will make the passenger's voyage more pleasant in an environment which does not attempt to deceive him into thinking that he is still on shore. This is the same old story of affectation, with which we are so afflicted these days.

EVERYBODY'S BUSINESS

By FLOYD W. PARSONS

THE greatest stumbling block in the progress of man has been what we call the natural forces. Included in this category are various forms of unharnessed energy, nearly all of them being either direct or indirect products of the action of the sun. It is for this reason that when we seek the causation of tornadoes, floods, abnormal weather variations, crop failures or static, we always end up with eyes and minds focussed on the blazing orb around which our earth revolves.

The ancient astrologers were not far wrong in their belief that the violence or inactivity of the sun's radiation has a profound influence on human health and well-being. An eminent astronomer at a recent congress of scientists said that the extra radiation that reaches us from the sun near the end of each sunspot cycle stirs the nervous system and fosters unrest throughout the earth. The Russian upheaval of 1917, the French Revolution in 1789, and a long series of earlier insurrections all coincided with times of maximum sunspot activity.

We no longer believe that the positions of the planets and the moon in the signs of the zodiac—the twelve constellations that appear to circle around the Polar Star—determine the fate of the new-born child. But the facts at hand do clearly indicate that something causes the machinery of man to alter its speed at more or less regular intervals of time.

Tens of thousands of evil germs succumb to sunlight exposure, so that periods of plague and pestilence are favored by a reduction in radiation and the simultaneous lowering of body resistance.

We have developed a working knowledge of the atmosphere above us for 10 or 12 miles. It is clear that the warm air rises in the tropics, returning to the Arctic where it descends and starts once more on its journey to the equator. But as to the secrets of the upper air, not much do we know except that the air is thinner, oxygen and nitrogen have practically disappeared and hydrogen, helium and free electrons probably reign supreme. As we go up, the temperature drops, reaching 60 degrees below zero at an altitude of 10 miles. Studies of shooting stars and other phenomena, have resulted in great differences of opinion concerning the "electric roof" of the atmosphere and the temperature and density of the upper air. In this virgin field of research lies the key to many problems such as the aurorae, magnetic storms and "skip distance" or silent areas in radio broadcasting.

Milliken and Bowen, wizards of the infinite, tell us of electric winds that whistle past the earth's atmosphere at the speed of light—186,000 miles a second. These strange winds are really masses of

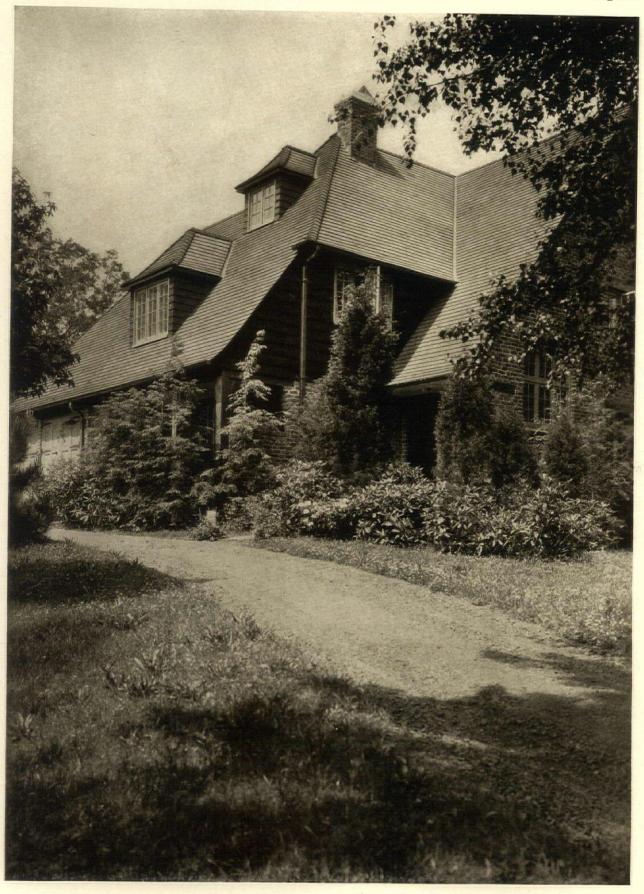
radiation, for according to the new conception, light is not merely wave lines in ether, but comes in lumps of assorted sizes which have both mass and inertia. These "winds of space" blow ceaselessly from those sources of light and life which we call the sun and the stars. By virtue of their mass and speed they exert a pressure on the surfaces of all planets and whatever else they touch. Such cosmic rays are developed by the destruction of matter in far-off stars, some of them so distant that although light travels at such an incredible speed, the rays that reach the earth tonight started toward the earth hundreds of thousands of years ago.

If we reduce the heavens to a scale in which the earth is no larger than the tiniest germ visible under a microscope, then the sun would be only a dust speck three-hundredths of an inch away, and our entire solar system would be less than an inch across. On this scale, the nearest star would be 1500 feet away and our private universe or star cloud would have a diameter of about 9000 miles.

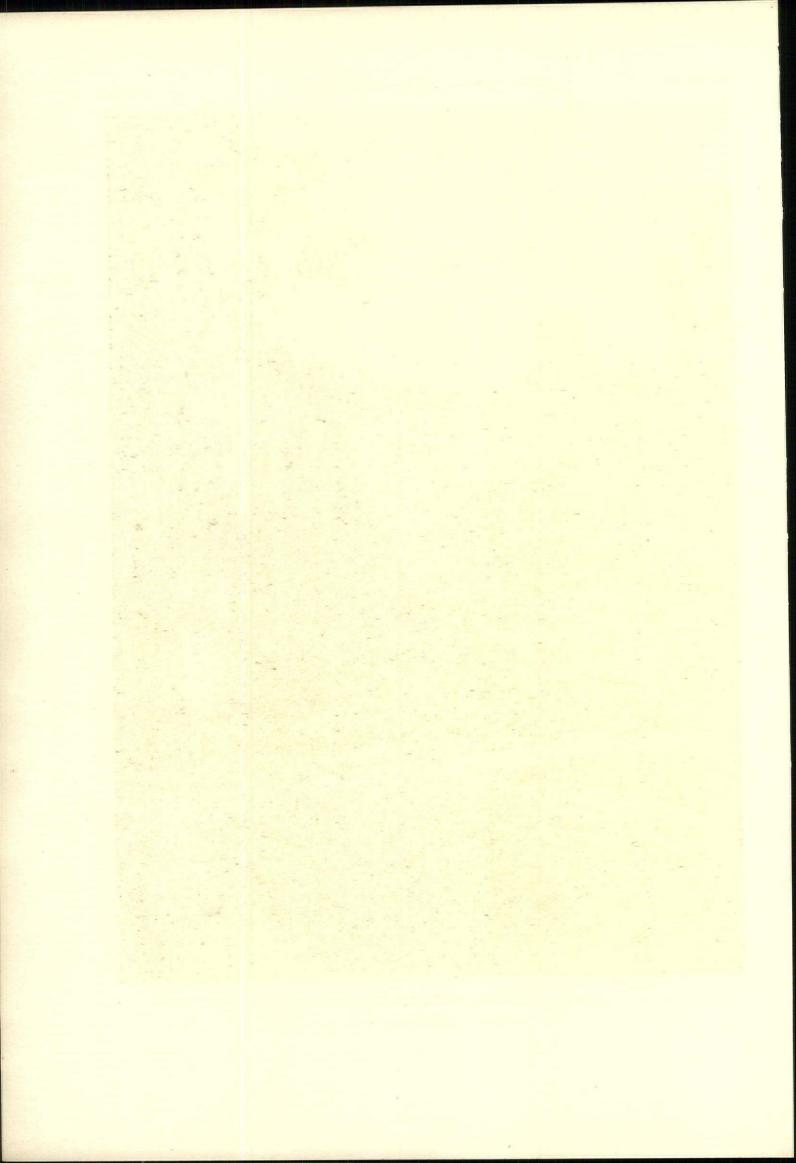
Searching the heavens for the secrets of life is far from being a waste of time. The astronomer is just as likely to discover the clue to infinity as the physicist. On every hand are puzzling questions. Are there living organisms on other planets? Have our own planets been thrown off from a central orb, or have they been picked up by the sun in its whirl through space, as the earth picks up meteorites? Is our solar system cooling off or heating up? Are the spots on the sun immense volcanoes thousands of miles in diameter and shooting great geysers of super-heated gases tens of thousands of miles into space, bombarding the earth with electrical bullets, or are they gigantic whirlpools set up between the moving layers of gases within the sun?

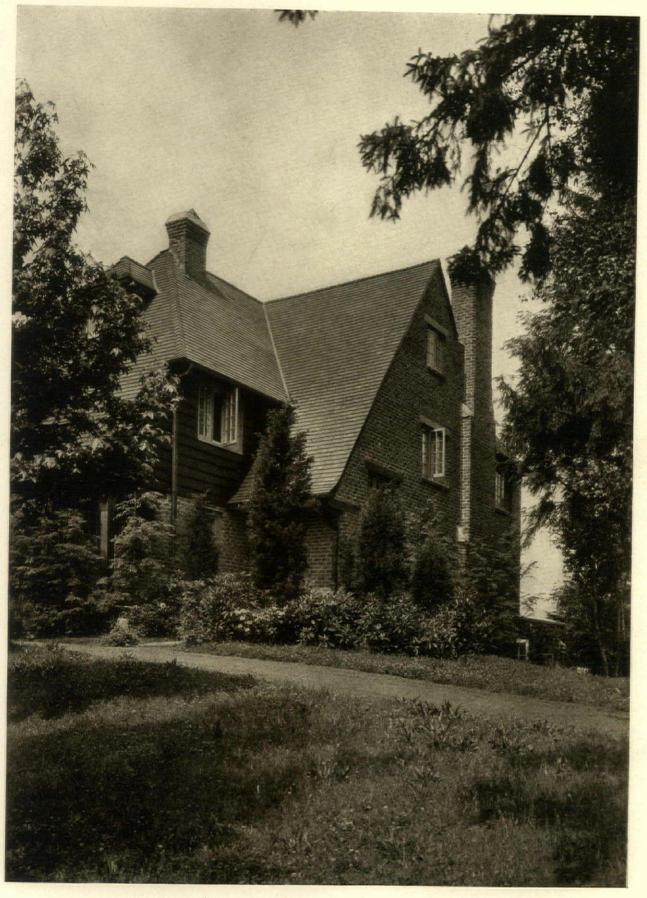
Each scrap of new knowledge helps in our search for the master key of the universe. Evolution really begins with the formation of the atom. But for the origin of matter we may look to the stars as the source of the electrons and protons necessary to the construction of atoms. It is for such reasons, as well as its close proximity that the sun must become an object of ever-increasing interest to man. It is our power plant—the source of all the energy that sustains life. From it we get the vital ultra-violet rays that build health, and from it come the variable forces that create destructive hurricanes and manufacture weather. Eventually a better knowledge of the sun and its changing spots will make longdistance weather forecasting a valuable and dependable science. Droughts, floods and abnormal temperature changes will be anticipated and losses of

life and property avoided.

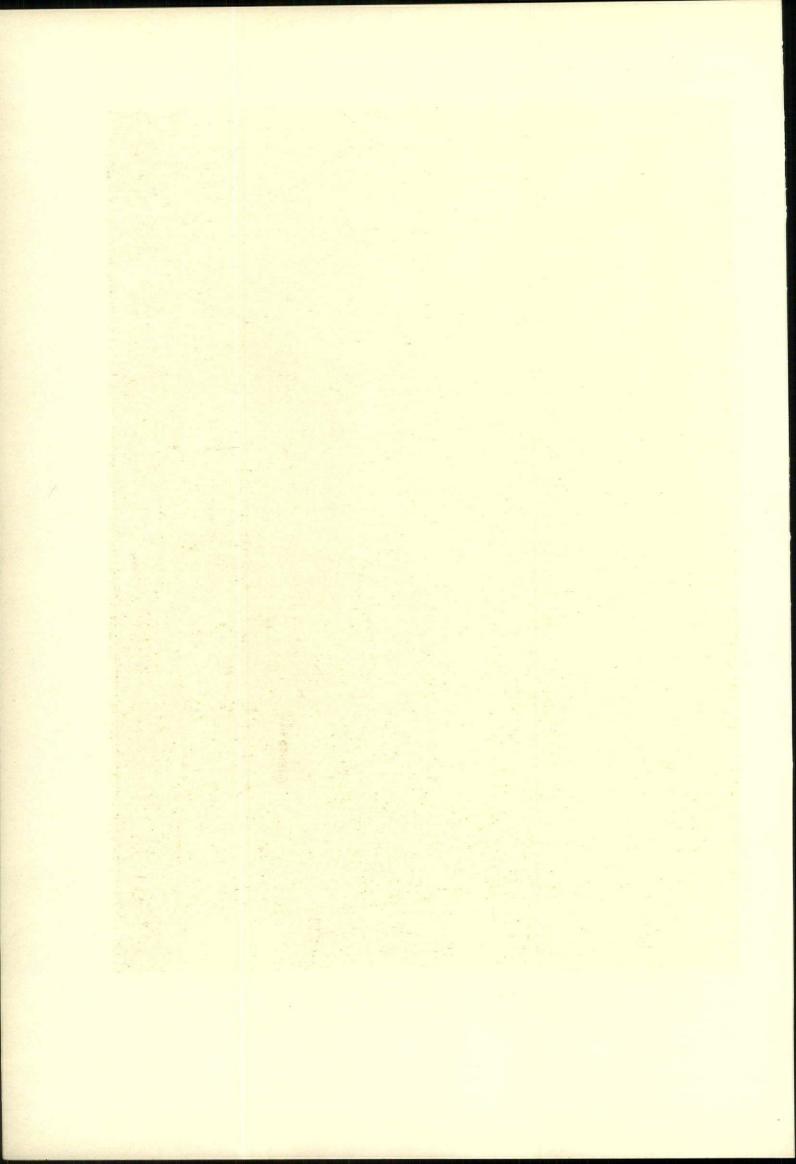


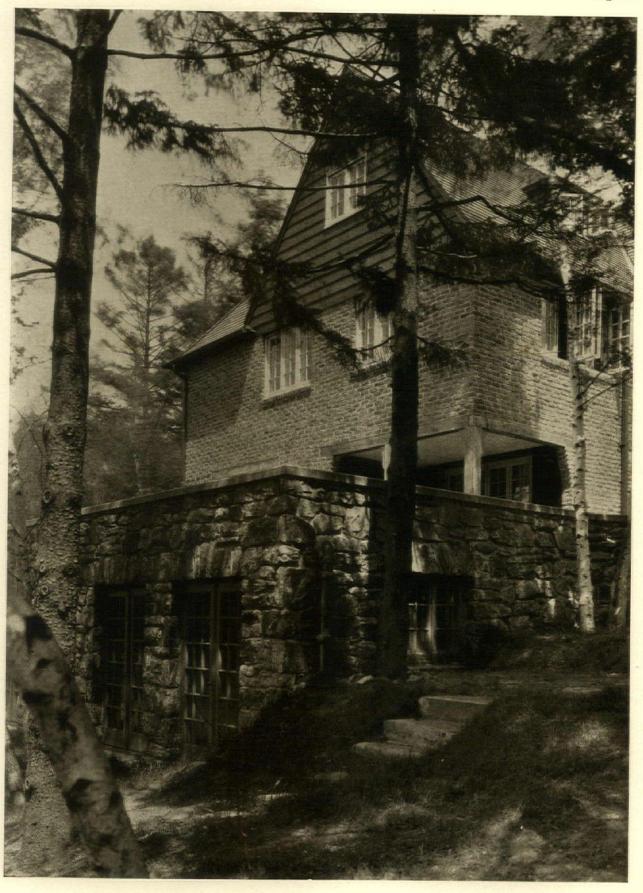
A HOUSE AT MAMARONECK, N. Y.
HENRY J. BERTRAM, ARCHITECT



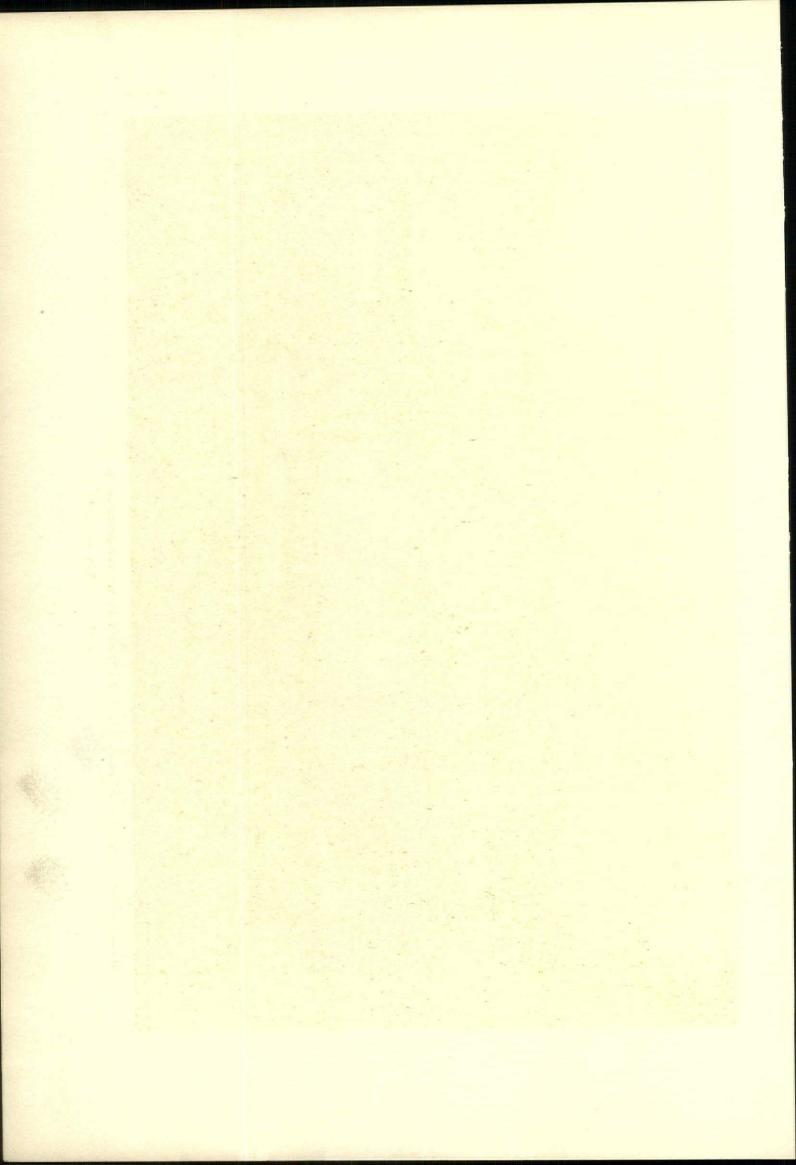


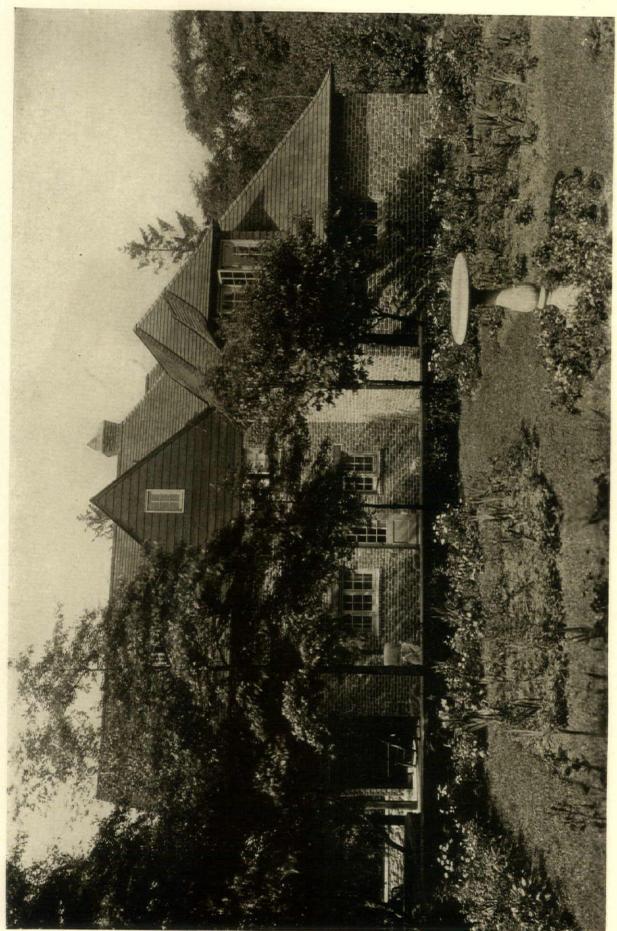
A HOUSE AT MAMARONECK, N. Y.
HENRY J. BERTRAM, ARCHITECT



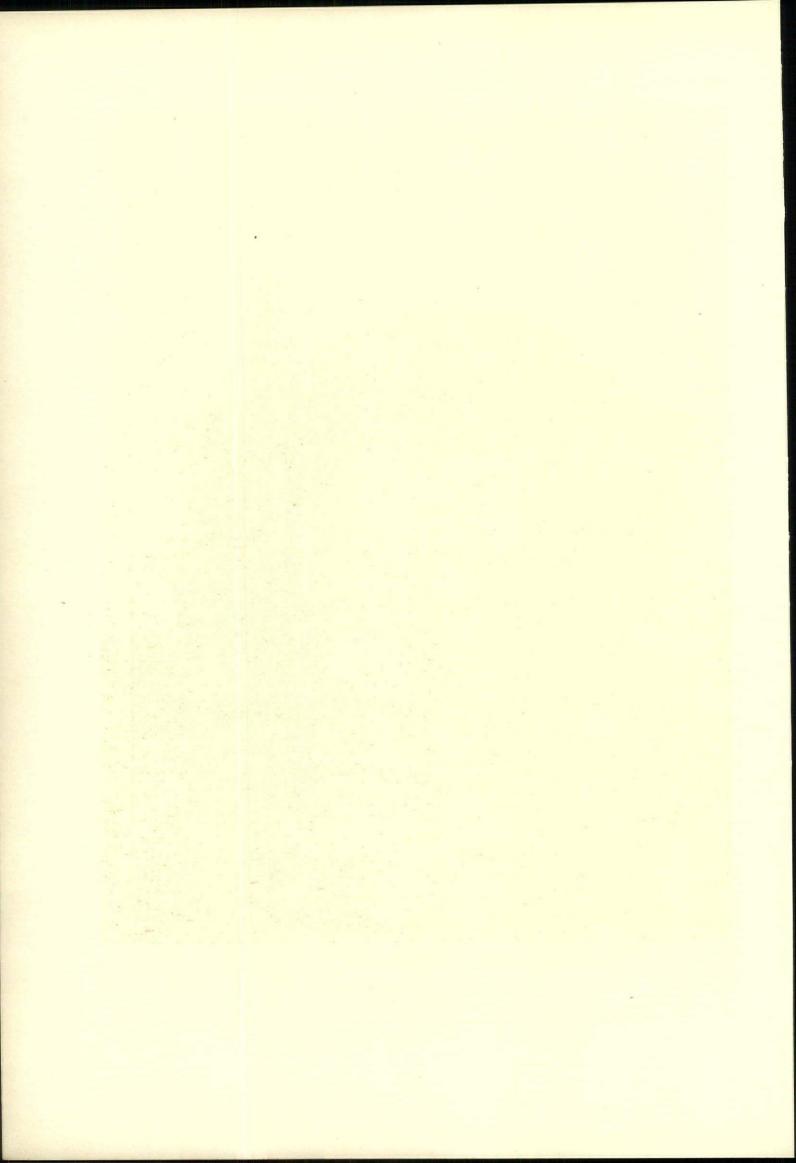


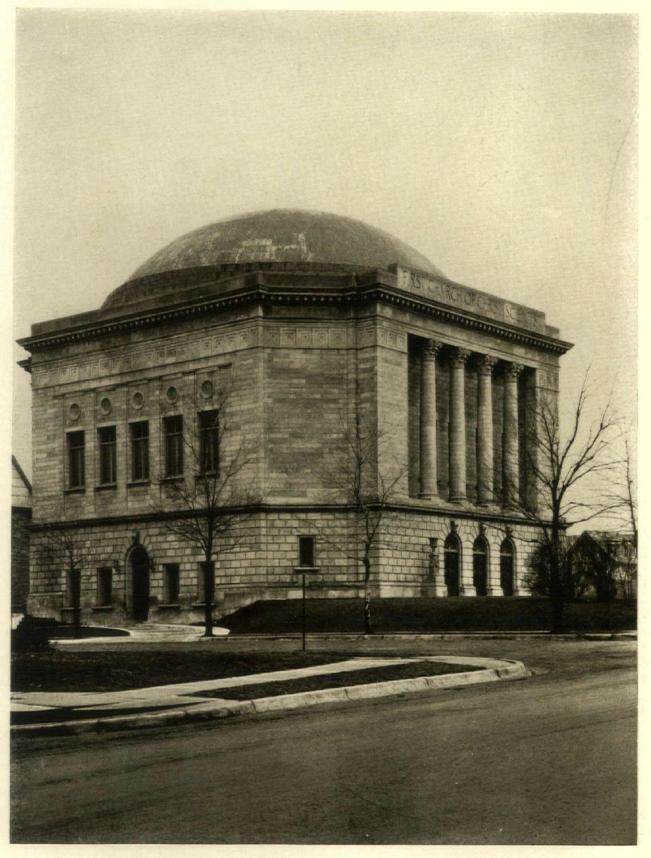
A HOUSE AT MAMARONECK, N. Y.
HENRY J. BERTRAM, ARCHITECT





A HOUSE AT MAMARONECK, N. Y. HENRY J. BERTRAM, ARCHITECT

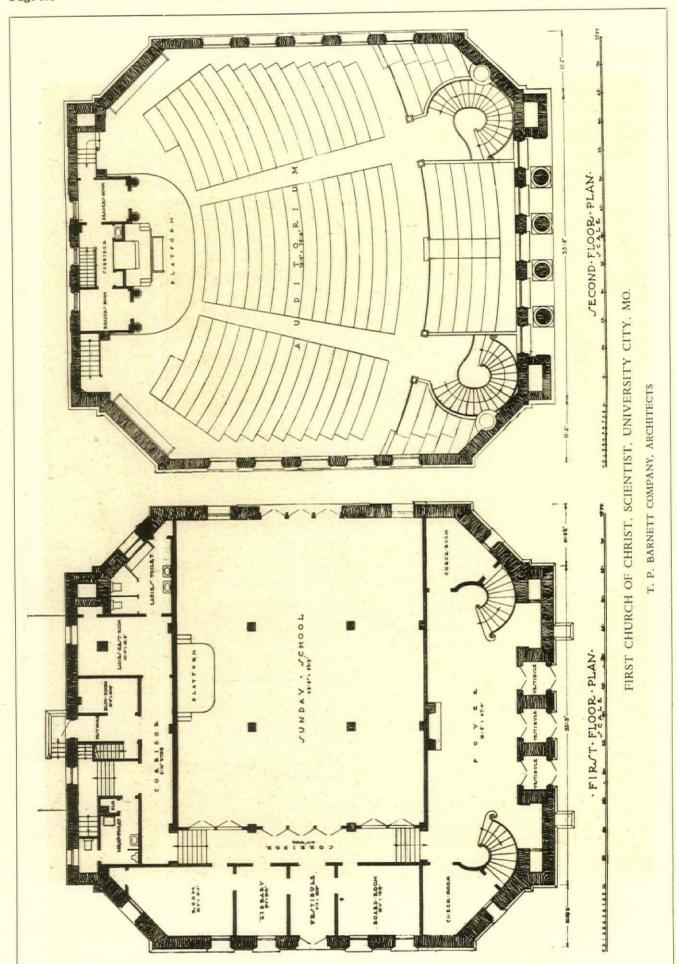




FIRST CHURCH OF CHRIST, SCIENTIST, UNIVERSITY CITY, MO.

T. P. BARNETT COMPANY, ARCHITECTS

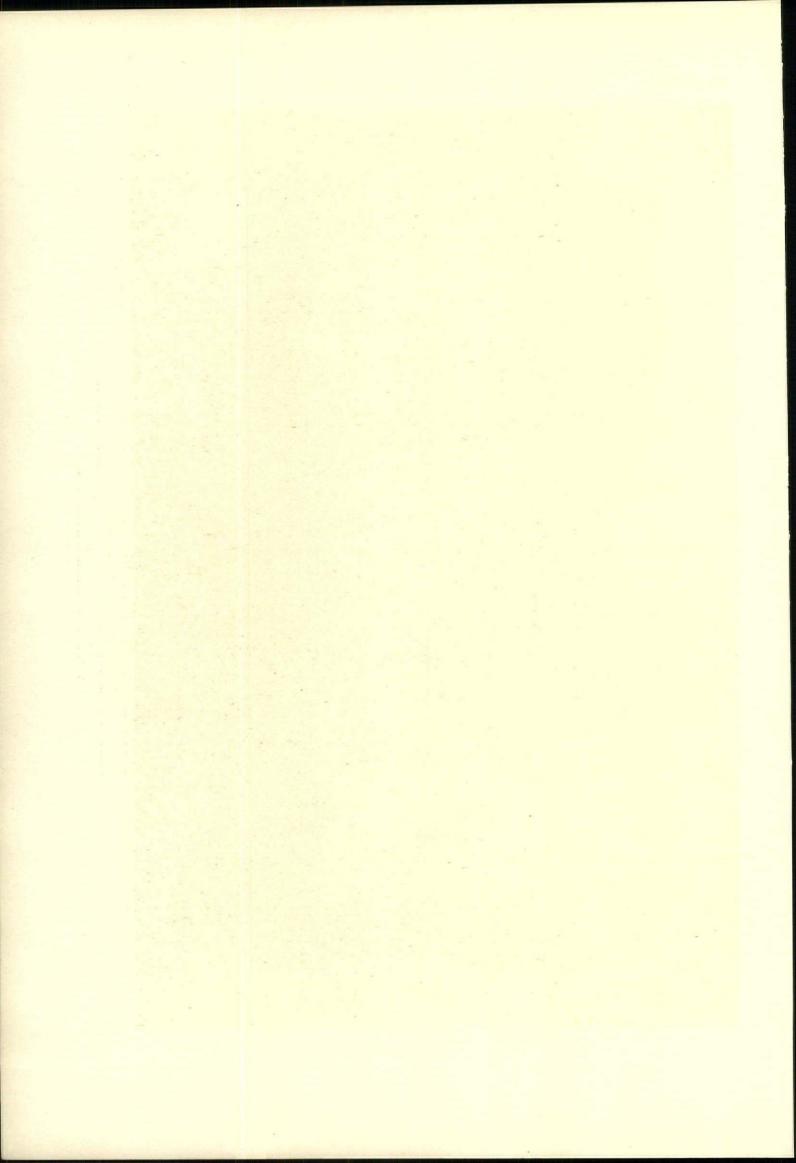
(See plans on back)

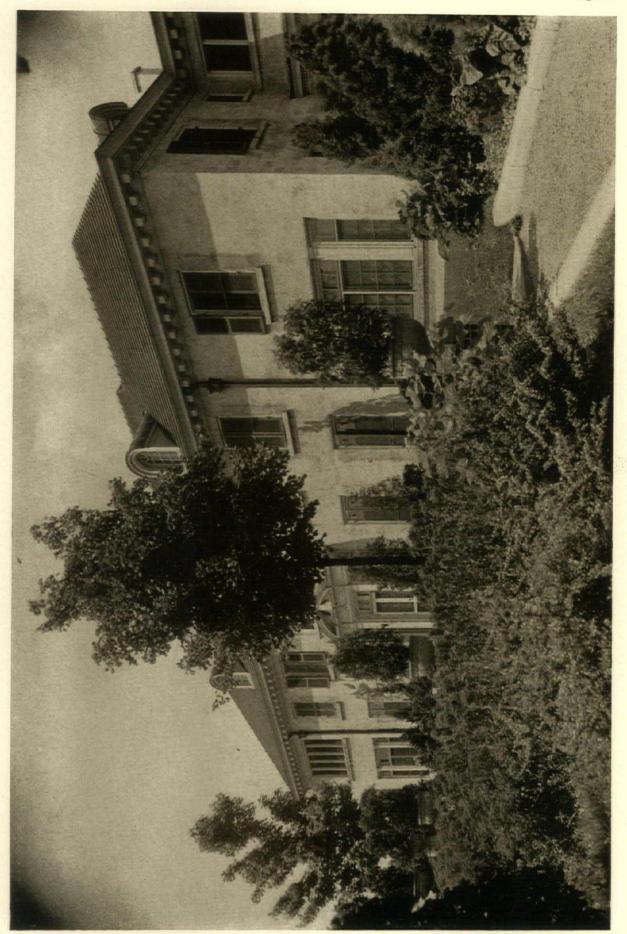




FIRST CHURCH OF CHRIST, SCIENTIST, UNIVERSITY CITY, MO.

T. P. BARNETT COMPANY, ARCHITECTS

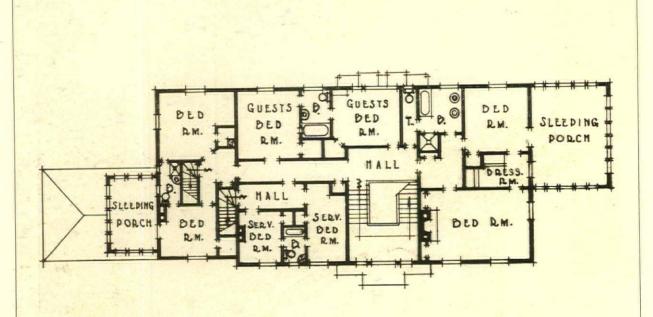


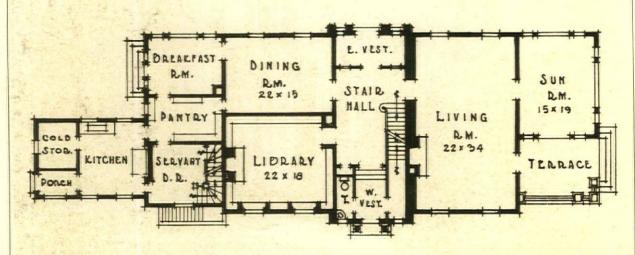


HOUSE OF DR. A. M. COLE, INDIANAPOLIS, IND.

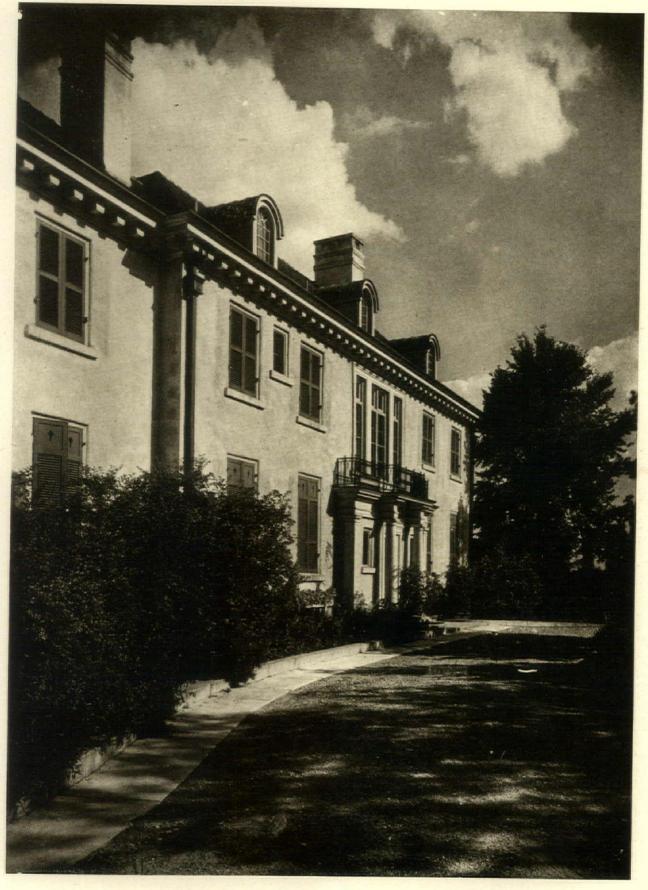
HERBERT FOLTZ, ARCHITECT

(See plans on back)

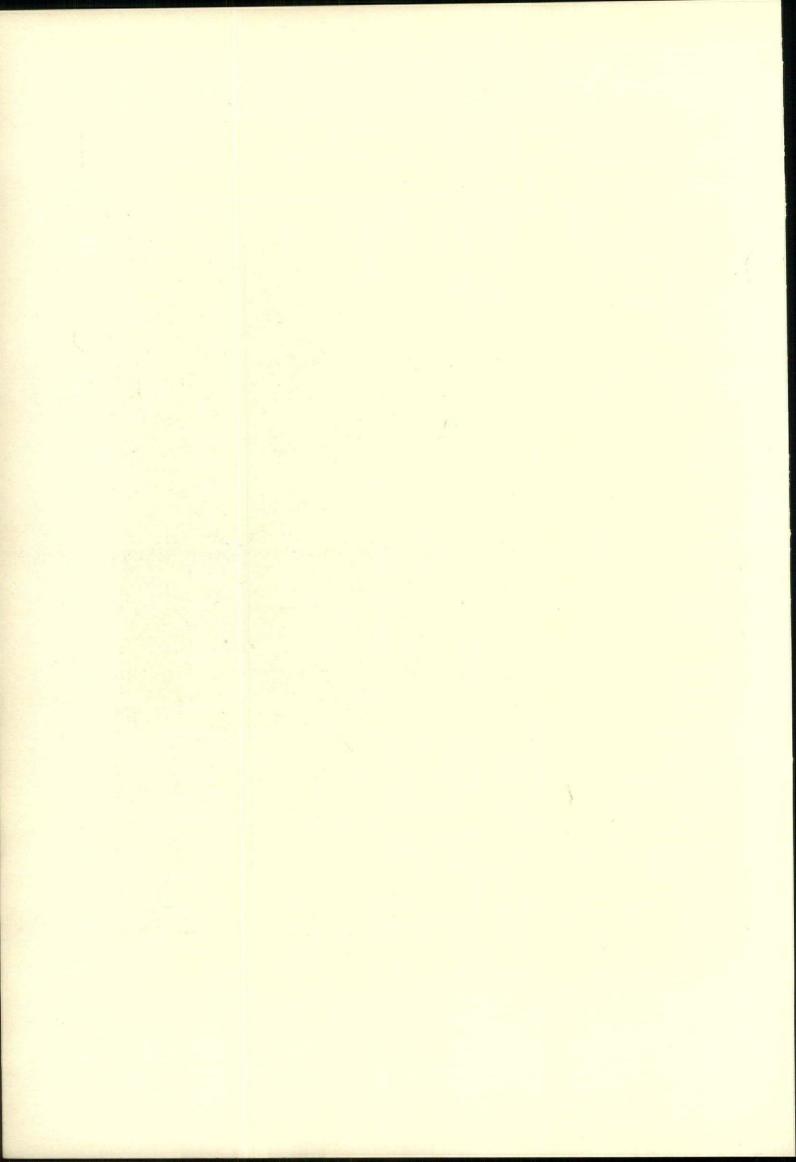




HOUSE OF DR. A. M. COLE, INDIANAPOLIS, IND.
HERBERT FOLTZ, ARCHITECT



HOUSE OF DR. A. M. COLE, INDIANAPOLIS, IND.
HERBERT FOLTZ, ARCHITECT



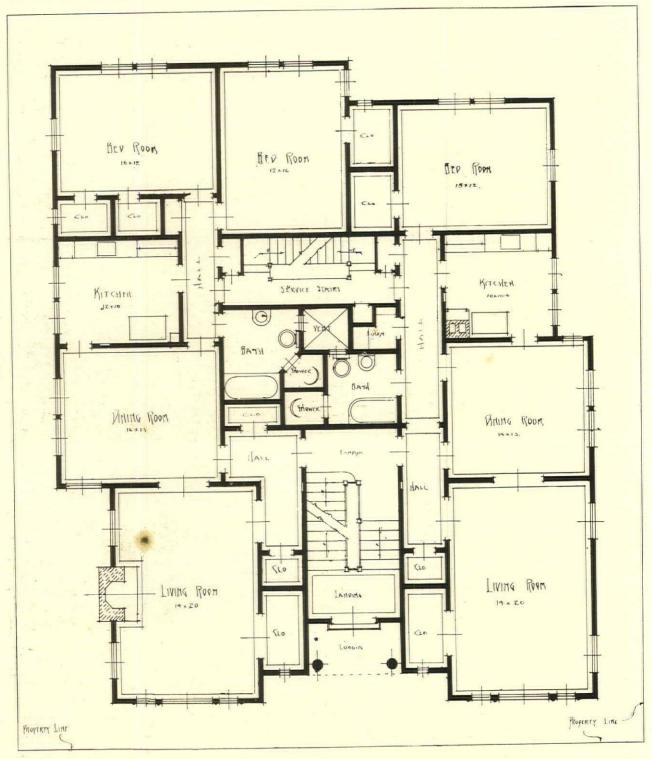
A GROUP OF BUILDINGS OF MODERATE COST

WITH DETAILS OF CONSTRUCTION, MATERIALS AND CUBIC COST



APARTMENT HOUSE AT BERKELEY, CALIFORNIA—LEONARD H. FORD, ARCHITECT

The building is of frame construction on a concrete foundation. The base is of brick veneer, above which the walls are finished in stucco, scraped with a wire brush. The roof is of tile. The walls are of wood sheathing and in certain cases hollow tile and metal lath. The walls are all insulated against sound. The building is equipped with steam heat; drainage is supplied by a sewer system, and water supplied from a public supply. Plumbing fixtures are of enameled iron. An electric refrigeration system is installed, and the building is lighted by electricity. The building is also equipped with water softeners and a garbage disposal plant. The interior walls are papered. The trim is of mahogany, and the ceilings are in sand finished plaster. The doors are also mahogany. The building was erected in 1926 at a cost of 30 cents per cubic foot



PLAN OF SECOND FLOOR

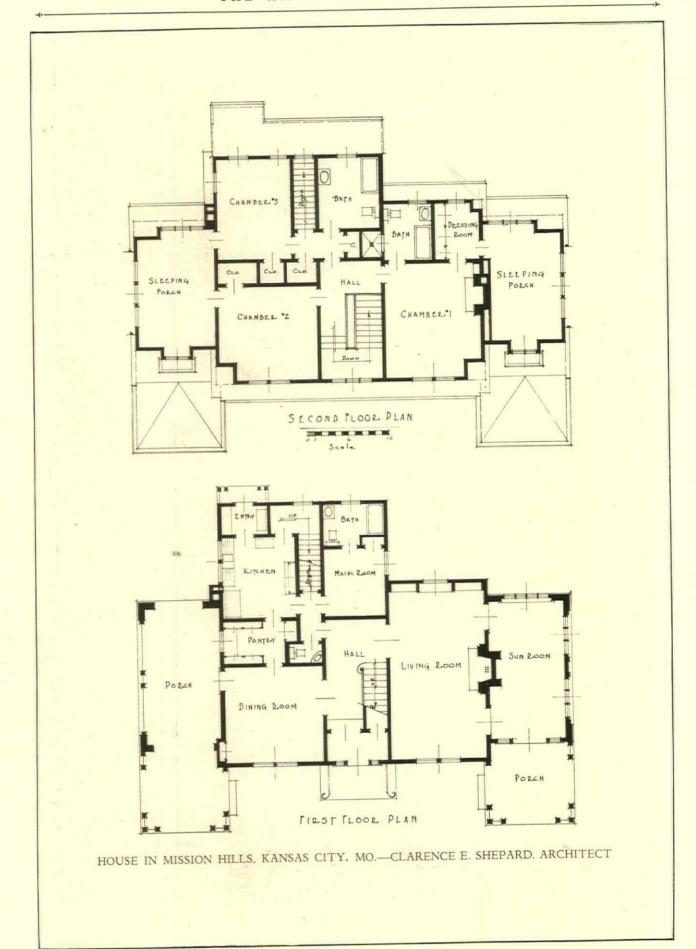
APARTMENT HOUSE AT BERKELEY, CALIFORNIA—LEONARD H. FORD, ARCHITECT

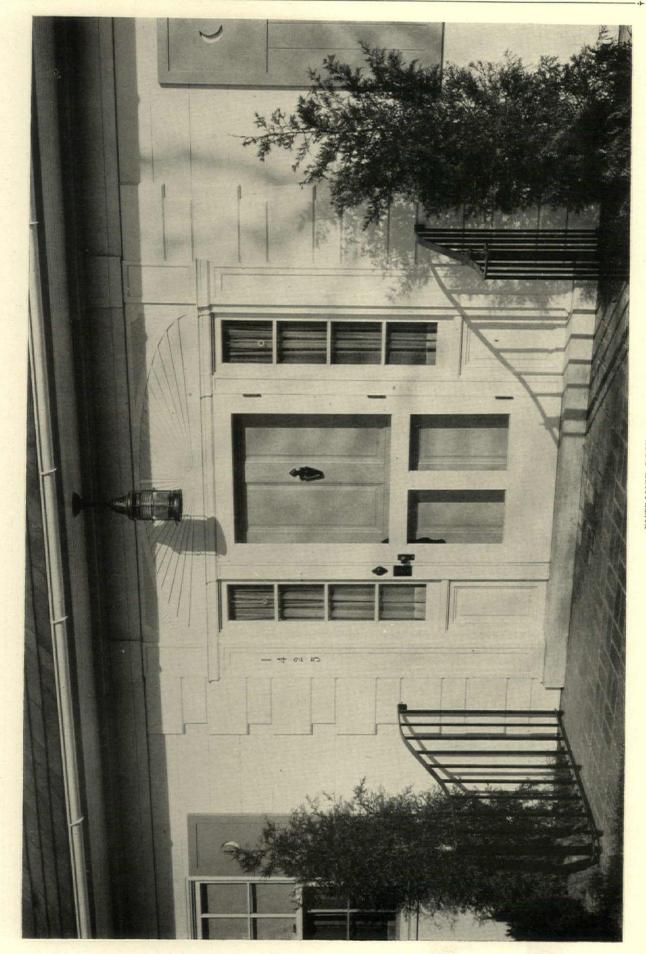
THE APARTMENTS ON THE FIRST AND SECOND FLOOR ARE SIMILARLY ARRANGED. THERE ARE TWO APARTMENTS ON EACH FLOOR. ONE BEDROOM IN ONE APARTMENT AND TWO BEDROOMS IN THE OTHER. EACH APARTMENT CONTAINS A LIVING ROOM, DINING ROOM, KITCHEN, AND BATH. THE LIVING ROOM IN ONE APARTMENT IS EQUIPPED WITH AN OPEN FIREPLACE. IN ADDITION TO THE MAIN STAIRS, THERE ARE SERVICE STAIRS IN THE REAR LEADING TO THE BACK HALL AND KITCHEN



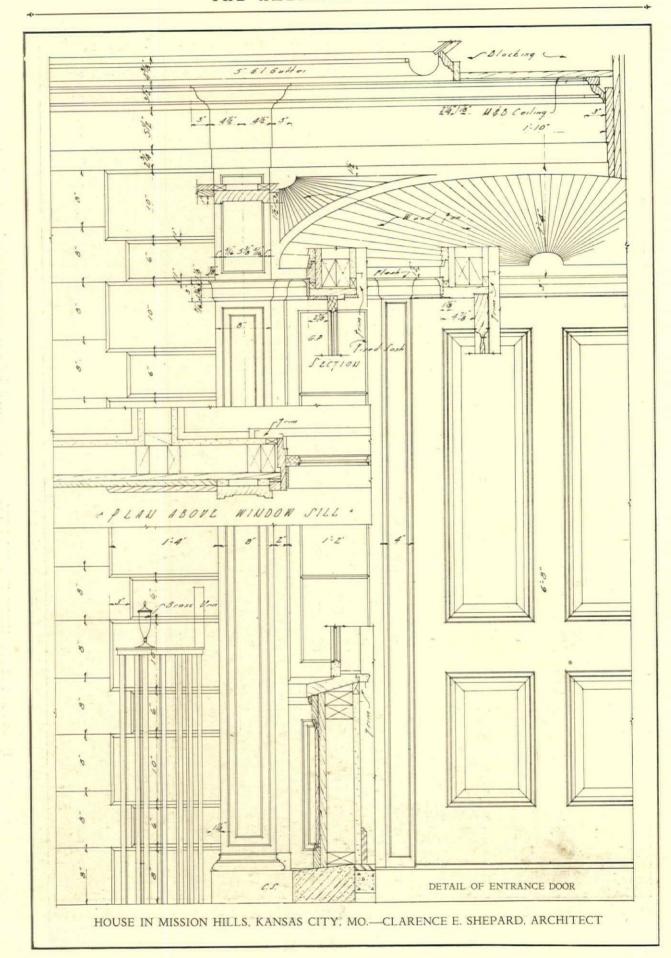


AT TOP: FRONT VIEW. AT BOTTOM: REAR VIEW
HOUSE IN MISSION HILLS, KANSAS CITY, MO.—CLARENCE E. SHEPARD, ARCHITECT





HOUSE IN MISSION HILLS, KANSAS CITY, MO.—CLARENCE E. SHEPARD, ARCHITECT





INTERIOR ARCHITECTURE



MODERN TENDENCIES IN THEATRE DESIGN

Based on the principle which is being continually emphasized in the articles of this department that character should be given to the design of a building, both inside and out, by the purpose that it is intended to serve—it would seem justifiable to say that the design of a theatre should be theatrical. And yet, that is hardly the word to use. Theatrical is commonly interpreted as meaning an illusion, an effect, something unreal, and these are all terms which have no place in architecture. They are, however, directly applicable to stage settings, so that the word theatrical would seem to refer more to the stage than to the building proper. There is a fine distinction between the stage and the theatre itself. It is true that the dominant purpose of the theatre is to offer entertainment to its patrons. But this is really more true of the stage than of the theatre. Actually the entertainment is limited to the stage.

The theatre, on the other hand, affords its patrons—those who pay to witness the performance depicted on the stage—opportunities to enjoy this entertainment to the fullest, comfortably, and amidst pleasant surroundings. There, then, lies the purpose of the theatre, by which character is given to its design—to stimulate the imagination of those that enter in order that the spirit of romance may be quickened, allowing them to enjoy the performance to the utmost.

It was not so very long ago that the theatre was looked upon as a luxury. The masses did not frequent the theatre, and, when they did, they were obliged to occupy seats in the top of the house, and looked down longingly at those more fortunate, in full evening dress, seated in orchestra stalls. The "movies" have revolutionized the theatre. They have made the theatre democratic. People of all



ENTRANCE TO PARAMOUNT THEATRE, NEW YORK—C. W. & GEO. L. RAPP, ARCHITECTS

classes pay the same price,—a price which all can afford—sit side by side, see the same performance, and all are made equally comfortable. An unusual condition has thus been brought about, which accounts in no small measure for the present tendency to create elaborate theatre interiors—designs which often fairly ooze ornament, in which an undecorated surface is seldom seen, and luxury is suggested in every detail.

The audiences in these motion picture theatres are largely made up of the masses. These people revel in luxury and beauty which are beyond their means. They, therefore, patronize those theatres which appeal to them most in luxury and beauty. At the same time, these theatres satisfy the intelligentsia. To them, their ornateness is not a suggestion of luxury, but serves actually as a stimulant to their imagination. It thrills the one class and attracts the other.

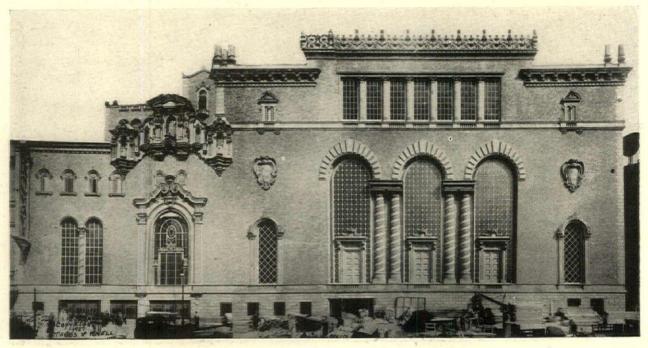
The plan of a theatre is largely a matter of seating. In the larger houses in the metropolitan districts, where land cost is high, it is necessary to include as many seats as possible in order to reduce the cost per seat. This necessitates mezzanine and balcony floors in addition to the orchestra. The actual layout of these several floors is governed to a very great extent by building codes and fire laws enforced in the various cities. Projection and sight lines, too, must be properly considered. Based on these stipulations, the problem is to give the occupant of every seat in the house a clear and unobstructed view of the stage. Ten or fifteen years ago, it might have been necessary to allow of an unobstructed view of the screen only. But, today, the photoplay is only

a part of the entertainment which the motion picture theatre presents. It is often preceded by "jazz" and classical selections by a capable orchestra, and followed by solo or chorus numbers which are presented with elaborate stage settings. These, then, necessitate a clear view not only of the entire stage, but of the orchestra as well.

Modern engineering skill has come to the assistance of architects in the solution of this phase of theatre design. The piers and columns which supported the balcony in the old-fashioned theatre are now dispensed with, so that one seat is just as good as another, and apparatus may be installed by which the floor of the orchestra pit is raised so that during a feature number the musicians are in clear view of the audience, and when the picture goes on, they are again lowered out of sight.

The modern motion picture theatre must allow for the presentation of numbers which require a full stage setting, as well as a screen. Acoustics, too, must be considered, and not only sight lines. Dressing rooms, property rooms, and an organ,—sometimes simply to relieve the orchestra and break its monotony: at other times, to furnish the music instead of an orchestra—are all essential in the modern theatre: also a screen room, where future run pictures are demonstrated and selected, and a rehearsal room, whereby overtime on the part of the orchestra is eliminated, for, during the organ numbers, the orchestra is rehearsing its next week's score.

The modern theatre is neither a motion picture house nor a legitimate theatre. The problem which its plan and design present is one which requires most careful study and consideration.



REPRODUCED FROM ARCHITECT'S RENDERING OF EXTERIOR OF ROXY THEATRE, NEW YORK
WALTER W. AHLSCHLAGER, ARCHITECT



LOOKING DIAGONALLY ACROSS THE ORCHESTRA, SHOWING BALCONY SOFFIT



GENERAL VIEW OF LOGES AND BALCONY SOFFIT

PARAMOUNT THEATRE, NEW YORK—C. W. & GEO. L. RAPP, ARCHITECTS



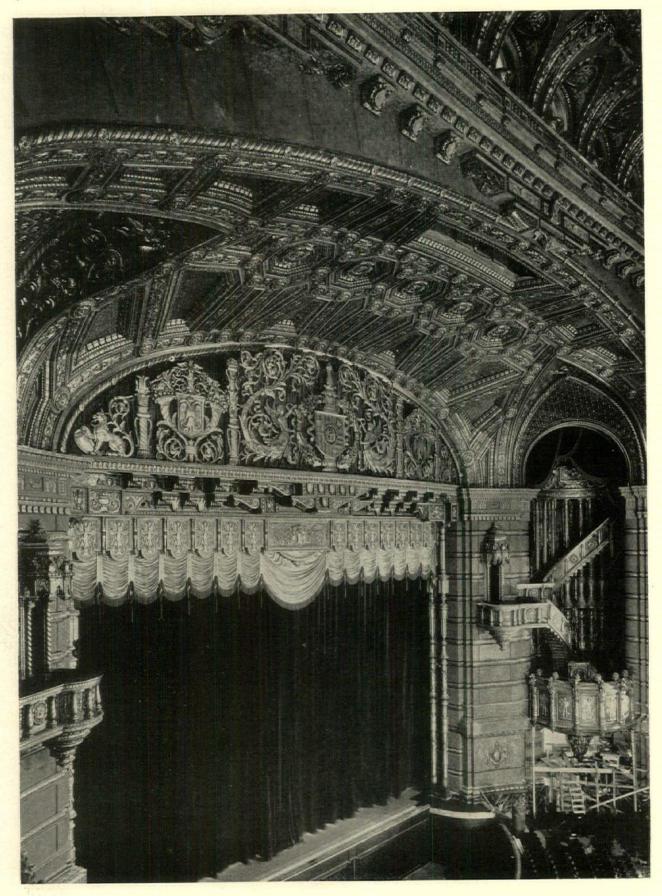
THE PROSCENIUM

PARAMOUNT THEATRE, NEW YORK—C. W. & GEO. L. RAPP, ARCHITECTS



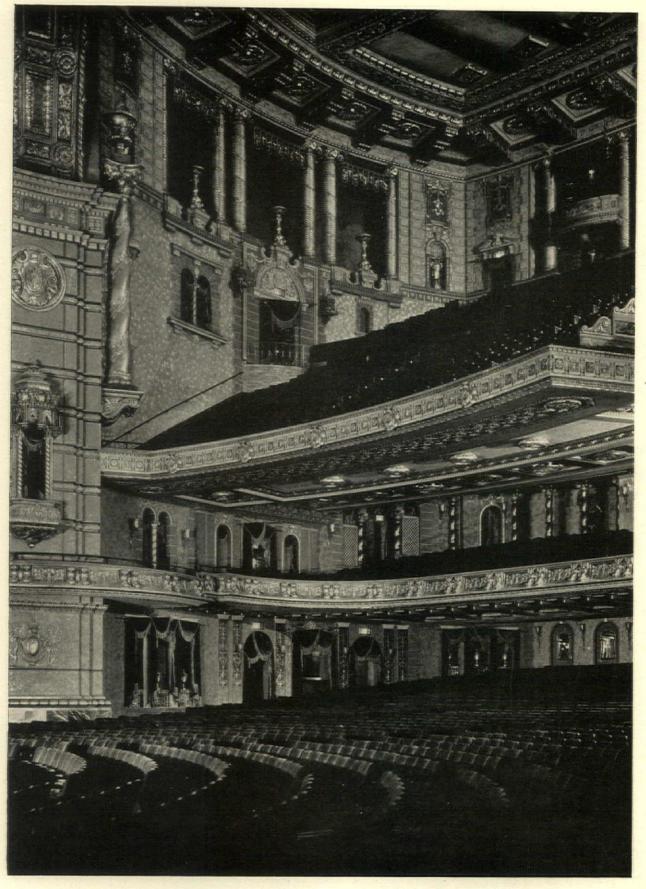
LOOKING DIAGONALLY FROM THE STAGE

PARAMOUNT THEATRE, NEW YORK—C. W. & GEO. L. RAPP, ARCHITECTS



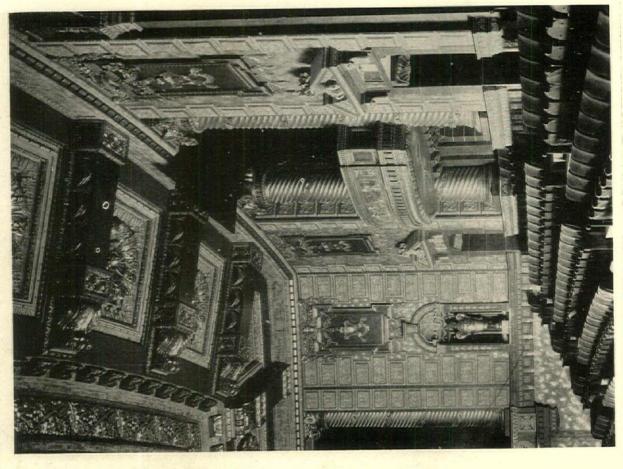
THE PROSCENIUM

ROXY THEATRE, NEW YORK—WALTER W. AHLSCHLAGER, ARCHITECT

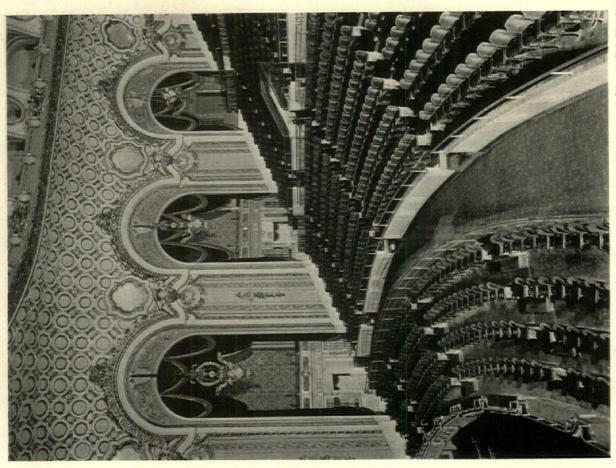


LOOKING DIAGONALLY FROM THE STAGE

ROXY THEATRE, NEW YORK—WALTER W. AHLSCHLAGER, ARCHITECT



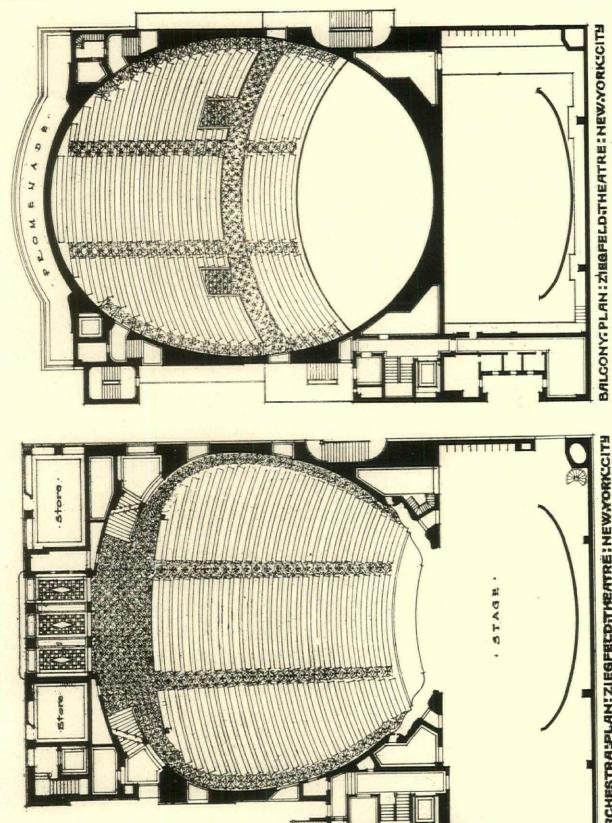
LOOKING DIAGONALLY ACROSS THE BALCONY—ROXY THEATRE. NEW YORK WALTER W. AHLSCHLAGER, ARCHITECT



LOOKING DIAGONALLY ACROSS THE BALCONY—PARAMOUNT THEATRE, NEW YORK
C. W. & GEO. L. RAPP, ARCHITECTS



EXTERIOR VIEW OF THE ZIEGFELD THEATRE, NEW YORK JOSEPH URBAN AND THOMAS W. LAMB, ASSOCIATED ARCHITECTS



PLANS OF ORCHESTRA AND BALCONY—ZIEGFELD THEATRE, NEW YORK ORCHESTRA PLANIZIEGFELD THEATRE; NEW YORK CITY

JOSEPH URBAN AND THOMAS W. LAMB, ASSOCIATED ARCHITECTS



ENGINEERING AND CONSTRUCTION



REPORT OF INVESTIGATION TO DETERMINE THE PERMA-NENCE OF STRUCTURAL STEEL IN BUILDINGS

By Frank W. Skinner, M. Am. Soc. C. E.

ARCHITECTS, engineers and builders have always been aware of the tendency of all ferrous compounds to corrode. It is but natural and to be expected that precautions of various kinds were employed to prevent corrosion. For that reason, the performance of structural steel in actual use has been most satisfactory. In considering the subject of the corrosion of structural steel, it must be remembered that no structural material is immune from the destructive action of the elementsair, water and temperature changes.

former investigation.

air, water and temperature changes.

In 1918, the writer presented a paper on "The Life of Iron and Steel Structures" to the International Engineering Congress, held at San Francisco. In the preparation of this paper an exhaustive investigation was made of the subject. Eight years later the writer made another comprehensive investigation of the subject. The last investigation confirmed and strengthened the conclusions established by the

A feature of the second investigation was sixty very carefully prepared and considered questions which were submitted to more than one thousand prominent architects and engineers and officials in charge of steel frame buildings and other structures. An unusually large number made replies, many of them at length, answering all questions specifically with numerous suggestions and expressions of opinion as well as statements of recent facts.

A remarkable unanimity of experience and opinion was disclosed in all phases of the questionnaire. For instance, four questions as to the actual danger

SINCE the first use of structural steel in building construction in the '80s, sufficient time has elapsed to measure its durability and establish its probable useful life. This can be done only by inspecting its present condition and considering the surrounding conditions of exposure to destructive agents and the period of time it has been in use. Because of its use in buildings, constructed on sites whose values have since increased greatly, in many instances to an extent making it profitable to either enlarge or demolish the original structure to provide sites for larger and better buildings, the structural steel has frequently been exposed to inspection after years of service. Mr. Skinner has carried on a personal investigation of the permanence of structural steel in buildings for a number of years. The results of this investigation are set forth in the accompanying article.—The Editors.

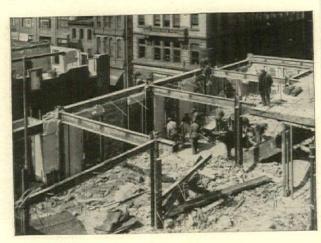
and damage from corrosion received 727 replies, of which only eight mentioned buildings which had been damaged by corrosion. The tabulated returns from the questionnaire show that character of exposure to corrosion, and portions usually exposed in order of importance, are-column bases, places where debris and dirt collect in contact, brine and salt water, parts near the ground, alternate wetting and drying, salt air, heat, accumulation of condensed water, weather, leaks, no circulation of air, active agents such as chemical

fumes and liquids, substructures, contact with coal or ashes, great dampness, very thin steel, basement steel, roof members, steel in outer walls, retaining walls, grillages embedded in poor concrete, chemical plants, sidewalk beams, parts supporting architectural details, coal and boiler rooms. To the question as to the feasibility of protecting steel in buildings and other structures, eighty per cent of the replies stated that entirely adequate protection could be provided.

There are five distinct causes or types of corrosion: (1) Atmospheric corrosion is the most common and is caused by the contact of air and water with unprotected steel; (2) underground corrosion caused by contact with earth, ashes or concrete which is capable of absorbing moisture; (3) submerged corrosion where the steel is in direct contact with water in which there is usually a limited amount of dissolved oxygen, and is greater when submerged in salt water and where the surfaces are alternately submerged and exposed to the atmos-

phere: (4) chemical corrosion caused by exposure to corrosive chemical solutions or vapors; (5) electrolytic decomposition caused by electric currents of external origin leaving the steel, and extremely rare in the framework of buildings.

Variations in the usual chemical composition of commercial steel have little effect on its resistance to corrosion, except that steel alloyed with a very small percentage of copper is much more resistant to cor-



BLENHEIM APARTMENTS, PHILADELPHIA, ERECTED IN 1901, DEMOLISHED IN 1927. STEELWORK WELL PRESERVED AND FREE FROM CORROSION

rosion. The presence of an electric current accelerates corrosion. Corrosion is three times as rapid in pure oxygen as it is in air. Large masses of steel do not corrode as rapidly in proportion to the area of the exposed surface as smaller masses do under the same conditions. Chemically considered, corrosion is the reverse of smelting and develops the same amount of heat that was required for the original reduction of the ore.

Paint is a perfect protection against corrosion when it forms a complete, continuous, unbroken film that prevents contact between the steel and air and moisture in combination, or oxygen, corrosive chemicals or vapors. Paints suitable for this purpose have been developed by manufacturers. A dense covering of concrete or gunite also provides protection and in many situations masonry enclosure is sufficient. When concrete or masonry is used they must be of such a character as to positively prevent the passage of moisture by absorption or otherwise.

It is not laboratory investigation and scientific discussion that will establish the fact of the permanence of steel construction, but rather observation of actual performance. Perhaps none are better qualified in this respect than wrecking contractors who have demolished or altered old structures.

For twenty-five years Jacob Volk has been a wrecking contractor in New York City and during that time has demolished structures containing at least 200,000 tons of structural iron and steel. Mr.

Volk has never found any member of the main framework dangerously corroded and very seldom any serious corrosion even under bad conditions or when in some cases unprotected from considerable moisture. In general, the condition of the steel is excellent and practically uncorroded. Generally, as a matter of convenience, all structural steel is sold for junk, after which it is sorted out and ninety per cent of the beams and some riveted girders are sold for new building construction.

G. W. Jump, President, Jump Housewrecking Company, Philadelphia, specifically states that in his experience he has never found structural steel seriously corroded or that there was any appreciable loss of weight due to that cause. When buildings are wrecked the steel beams and columns are generally free from rust and the beams are usually sold for use in new buildings.

W. Waixel, for more than twenty years president of the Garden City Wrecking Company, Chicago, states that he has wrecked more than one hundred buildings containing large amounts of structural steel and that the steel was invariably in good condition. Interior beams and columns were usually without trace of corrosion whether painted or not. Usually the beams were entirely uninjured and sold for stock, painted and re-used.

Architects and engineers are observers whose opinions and experiences are of the utmost importance because they are responsible for the owner's safe investment in durable building construction. Their observations may well be accepted as the normal behavior of steel frame construction.



BLENHEIM APARTMENTS, PHILADELPHIA, ERECTED IN 1901, DEMOLISHED IN 1927. STEELWORK AS CLEAN AND IN AS GOOD CONDITION AS WHEN FIRST ERECTED

Samuel C. Weiskopf has been one of the most prominent consulting engineers in New York City since structural steel was first introduced. Mr. Weiskopf is quoted:

"I have examined parts of the steel framework of many important buildings that were exposed by demolition or changes or extensions from ten to thirty years after erection and I have never seen any deterioration from corrosion sufficient to threaten

the safety of the building.

Where water has collected around columns or girders or where the paint has been removed or was defective, or was originally omitted, there may be discoloration or light surface rust but seldom enough to perceptibly impair the cross-section except possibly in carelessly designed roof houses and the like where light steelwork is unprotected from the weather and is

not kept well cleaned and painted.

"In the interior of ordinary closed buildings not exposed to smoke, steam or acid fumes, there is little need of painting to protect structural steel from corrosion. Beams and girders are protected by the floor; ceiling and roof construction and columns are usually enclosed so as to be dry and clean. Columns and beams built into outside thin brick walls may be exposed to moisture penetrating cracks or the porous bricks and should be thoroughly painted when erected. Foundation beams and girders should be thoroughly waterproofed by enclosing in permanent masonry, usually concrete, and should never need to be exposed for inspection. The properly designed and maintained steel framework of a building should never become seriously damaged by corrosion.

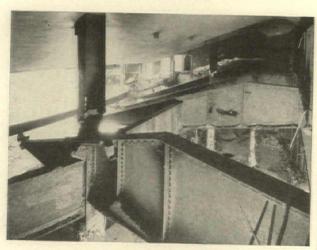
"Alterations made in the Bankers Trust and Stock Exchange Buildings, New York, exposed portions of the structural steel framework fully twenty years atfer their erection, and showed

them in all cases to be in excellent condition.
"In the Harriman Bank Building, New York, three first story steel columns were removed after many years' service and none of the steel in them or elsewhere was corroded or showed any signs of deterioration. * * *

"In excavating for the Bankers Trust Building, New York, there were removed from the wet sand, pieces of 18-inch hollow steel piles that had been in service, unpainted, for twenty years, and were uninjured by corrosion."

A. J. Palmer, Engineer, George A. Fuller Company, says:

"A few years ago, about twenty-five years after its erection, the George A. Fuller Company made extensive alterations of a New York hotel, cutting out 14 columns and removing several hundred tons of structural steel, all of which was in excellent condition and showed no serious corrosion. A large part of the old I-beams were used again, probably 300 tons of them.



FORREST THEATRE. FORREST THEATRE, PHILADELPHIA, ERECTED IN 1905, DEMOLISHED IN 1927. BALCONY GIRDERS AND STEELWORK CLEAN AND FREE FROM CORROSION

Professor W. A. Boring, Columbia University, a prominent architect of New York City, states:

"I examined, unofficially, the steel which came out of a building torn down fifteen or twenty years ago at the corner of Broadway and Wall Street to make room for the present Bankers Trust Building. This steel had been in the building a great many years, and the bloom of the mill was on it still

when it was taken out. I am convinced that if steel is properly protected there is really no practical limit to its durability, if it is not overstressed."

Cass Gilbert, architect of the Woolworth Building, has an international reputation. Mr. Gilbert

"The first condition necessary to the permanence of structural steel is that it shall be thoroughly protected from damage by water, fire, and chemical or electrical action, and such pro-



FORREST THEATRE. PHILADELPHIA, ERECTED IN 1905. DEMOLISHED IN 1927. STEELWORK WAS FOUND TO BE FREE FROM CORROSION

tection should be constantly and rigidly applied and main-

"Under usual conditions and with proper maintenance and attention I do not believe there is or will be occasion to fear injurious corrosion in structural steel. If such precautions are not taken the danger is constant and likely to cause serious trouble. Such trouble may not be immediately apparent and in fact may be unobserved for many years but ultimately will appear with results that are dangerous and difficult to overcome. The fact that this danger exists is not a sufficient reason for avoiding the use of structural steel but it is a sufficient reason for giving it the best possible protection.

"It has been my constant endeavor throughout my practice to maintain a very high standard in this respect, but I find that it is increasingly difficult to maintain this standard in view of the fact that the rapid methods of building now in vogue and the carelessness of owners, as well as of other contractors, tend

to a lessening of vigilance in this matter. * * *

"The use of cinder concrete for floor construction consti-

tutes, in my opinion, another danger. *

I have noted several cases where deterioration in minor portions of the secondary steel framework has occurred due to the penetration of moisture from leakage or absorption. It could and should have been prevented if the building has been continuously under proper care with periodical inspection. * * *

I have occasionally found examples of steel or iron corroded apparently by steam or gas where due precautions had not been taken to thoroughly exclude this form of attack and while these instances are not numerous, they are of such a character as to suggest that no precautions should be omitted to thoroughly protect the steelwork from moisture rising as well as from moisture descending. In short, all columns should be parged or thoroughly covered with cement as well as with paint and should be solidly encased in brick or other fireproof material. Where steelwork is embedded in concrete it should be thoroughly cleaned of initial rust. It is not necessary that it should be painted provided the cement is in direct contact with the steel.

E. A. Munger, New York Telephone Company,

"The regular construction of the New York Telephone Company includes annually from twelve to fifteen important buildings, that cost from \$200,000 to \$500,000 each and contain a large amount of structural steel, and are equipped with apparatus involving the constant use of a large quantity of electric current.

"In thirty years' experience with the construction and maintenance of these buildings, I have never found a single instance of straight electrolytic action. In buildings having important electric connections there is certain to be electric leakage but this has a much greater effect on any other metal than on steel so that the electrolysis of the latter, should it occur, would be

One of the most notable examples of immunity from corrosion, when no special pains were taken to prevent it, is afforded by the famous Madison Square Garden, one of the first buildings in which structural steel was used, which after thirty-five years' service showed not even a trace of corrosion in ninety-nine per cent of its steel beams, columns, girders, purlins, braces and especially in the great roof trusses over the arena which apparently had never been repainted since their erection. They were in absolutely perfect condition so that they were removed with especial care to provide for their reerection in a new building.

The above and many other communications and reliable data make it evident that under ordinary conditions of construction and maintenance, such as are found in good buildings, adequate protection is generally afforded the structural steel framework. No fear need be had of serious corrosion except under specially adverse conditions, such as exposure to wet cinders, acid, steam, leaks, acid fumes, brine and other active destructive agencies which should and can be discovered and guarded against. In general, enclosing the steel of buildings in cement, concrete or masonry, and painting it are complete protection.

Bridges are more exposed to corrosion than almost any other steel structures because of the corrosive effects of smoke and locomotive blasts. They are entirely unenclosed and subject to the full effects of rain, snow, fogs and ice; the constant action of wet, salt air near the seacoast; leaking and draining from the floors, and often brine drippings from refrigerator cars; in addition to which some parts of the structure are somewhat inaccessible and others are entirely so, for painting.

Nevertheless, the universal testimony of a large number of the most experienced bridge engineers, and engineers of maintenance of ways, are unanimous in their statements that railroad bridges never, and highway bridges seldom, are replaced on account of deterioration from corrosion. Most of them consider that with regular standard cleaning and painting, corrosion is negligible. In high and dry climates many railroad bridges go unpainted for ten or fifteen years, and are still in excellent preservation. On the Pennsylvania Railroad alone there are more than 500 bridge spans still in service that have been in use for about thirty years and some of them still longer.

Since corrosion is practically negligible under such severe conditions there can be no hesitation in disregarding its effects for the enclosed and protected steel in well maintained buildings. This conclusion is well supported by the evidence here presented.

Notwithstanding the general resistance of structural steel to corrosion, often when ill protected, it is quite possible to injure or even destroy structural steel by subjecting it to dangerous conditions through ignorance, carelessness or neglect. The results of such misuse are fortunately slow enough so that they may always be detected by reasonable inspection and the corrosion checked and repaired.

The following examples of destructive corrosion should serve as warnings against imposing improper conditions and negligence. In all cases injury to the steel could have been absolutely prevented by reasonable care, attention, moderate expense of protection and maintenance.

One of the most impressive cases of rapid and extensive corrosion due to inexcusable neglect combined with poor design and lack of protection is that of a portion of the tower supporting the statue of Diana, Madison Square Garden, New York, described in THE AMERICAN ARCHITECT, issue of December 20, 1925. The upper portion of the structural steel framework, exposed to all the severities of weather at a high and unprotected elevation, was protected only by a copper sheathing which became damaged at a certain part of the tower only, and freely admitted water, which together with atmospheric moisture, perhaps combined with electrolytic action, practically destroyed that part of the structure. This part of the tower which was seldom, if ever, visited, never inspected, painted or repaired, was badly corroded. When it was removed, about thirty-five years after erection, it was in a dangerous condition and required very careful handling. The horizontal flanges of the circular plate girders, made of 3" x 4" angles, and portions of the web, had entirely disappeared. Great flakes of rust several inches in length and more than 1/8 inch thick could easily be detached. Parts of the metal furring and framework, to which the copper sheets were attached, had entirely disappeared.

The conditions were such as to invite rapid corrosion which might easily have been entirely prevented if the steel framework had originally been properly protected, frequently inspected and occasionally repainted.

Another instance is that of the steel framework supporting a large copper cornice which was anchored through terra cotta blocks. After many years the copper developed holes and open seams and admitted water freely which followed the steel tees and angles into the recesses in which they were placed. This caused them to corrode badly, forming such thick scales of rust that they forced open the





BOILER AND COAL ROOM WHERE WATER RAN OVER SLACK ILLINOIS BITUMINOUS COAL. DISSOLVED ACIDS PENETRATED THE FIREPROOFING AND DESTROYED THE PROTECTIVE PAINT ON THE STEELWORK, CAUSING CORROSION OF THE STEELWORK. UNDER THESE CONDITIONS STEEL MUST BE PROTECTED WITH AN ACID-PROOF COATING, AND THE FIREPROOFING EITHER OF TILE OR CONCRETE MUST BE ABSOLUTELY WATERPROOF AND ACID-RESISTING. NO CORROSION FOUND IN OTHER PARTS OF THE STRUCTURE

horizontal joints between the terra cotta blocks, allowing more water to enter from the face of the cornice and increasing the corrosion.

The I-beams carrying the concrete floor of an express platform in the New York Central Terminal Building, New York City, were continually wet with brine from fish barrels and, after a few years, large holes corroded through their flanges. They were still good enough to be retained in service after being cleaned and reinforced and protected from future brine drippings. This is the only case of dangerous corrosion that has occurred and there have been no other cases of even serious corrosion of the main framework which is kept painted and is in excellent condition.

In conclusion, it is found that, under favorable conditions, structural steel may exist for an indefinite period uninjured by corrosion.

When exposed to injurious conditions, structural steel, if unprotected, may be subject to rapid and serious deterioration by corrosion.

It is possible in all cases, where steel is a suitable material for use, to protect it so as to entirely prevent corrosion.

Structural steel cannot corrode except under the continued presence of moisture and oxygen.

In dry, warm air corrosion is negligible, except when exposed to acid fumes or gases.

The greatest factors for corrosion in buildings are moisture, acid fumes and corrosive liquids.

Moisture and injurious chemical reagents are dangerously maintained against the surface of steel by the accumulation and retention of dirt and debris that could be removed.

The best protection against corrosion is afforded by keeping the steel well cleaned and covered with

a perfect coating of satisfactory paint or by enclosing it in a waterproof covering of concrete.

When exposed to certain kinds of fumes and acids, steel should remain exposed to view.

In most cases, the corrosion of steel in buildings would become obvious before it endangered the safety of the structure.

The steel in the interior of dry, warm and clean buildings never corrodes, and scarcely needs paint as a protection.

The principal possible causes of corrosion in office buildings and the like are hasty construction, the laziness, incompetence and carelessness of workmen and the indifference, parsimony and sometimes ignorance of designers, superintendents and owners.

In general, it is entirely practicable, at reasonable cost, to eliminate all danger of deterioration from corrosion by intelligent and proper attention to the design, fabrication, erection, protection, inspection and maintenance of steel structures.

ARC WELDING COMPETITION

A COMPETITION, the purpose of which is to encourage improvements in the art of arc welding, and extend the application of the process, has recently been announced by the American Society of Mechanical Engineers. The three best papers will be awarded amounts of \$10,000, \$5,000 and \$2,500 as first, second and third prizes, furnished by the Lincoln Electric Company of Cleveland, Ohio. All papers to be eligible must be forwarded to the American Society of Mechanical Engineers, 29 West 39th Street, New York City, before January 1, 1928. For further information communications should be addressed to the Society at the above address.



SUSQUEHANNA RIVER BRIDGE AT HAVRE DE GRACE, MD. OPENED FOR RAILROAD TRAFFIC IN 1878 BY THE PENNSYL-VANIA RAILROAD COMPANY. CONVERTED TO A HIGHWAY TOLL BRIDGE IN 1910. AN UPPER DECK ROADWAY INSTALLED FOR TWO-WAY TRAFFIC IN 1927. ORIGINAL METAL IN PERFECT CONDITION

A PRACTICAL TEST OF MODERN VAULT CONSTRUCTION

BANK vaults that have been demolished have usually been in use over so long a period that observation as to their resistance to wrecking would be of little value in view of present day construction methods. When a vault is removed even but a few years after its erection, it becomes an object of more than popular interest to bank vault engineers. Wrecking contractors' workmen operating in the open with every facility given them to easily "crack" the "strong box" have a distinct advantage over the bank vault burglar. Where the construction resists the efforts of the workmen to a marked degree, it may confidently be expected to resist the burglar even more effectively.

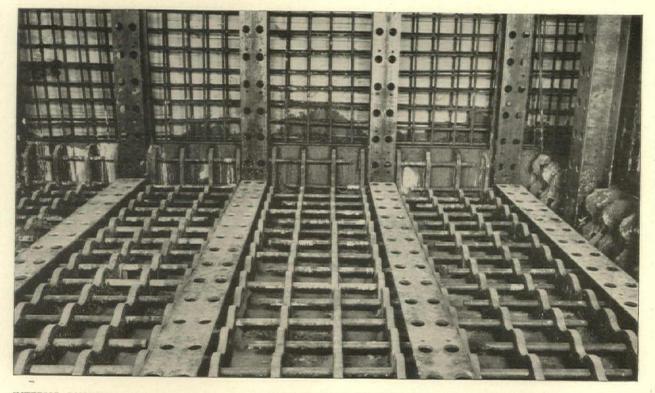
About six years ago, the Mechanics and Metals National Bank of New York required a vault of much larger capacity than the one then in use. It was decided to install a two story vault of modern construction. Separate foundations were necessary and many structural difficulties had to be overcome to install in the old building this vault weighing about 2,500,000 pounds. The engineering work was in charge of Frederick S. Holmes.

Following the recent merger of the Mechanics and Metals National Bank with the Chase National Bank of New York, plans made to demolish the old building and replace it with a thirty story structure included the removal of this comparatively new vault. The building was removed to the street level

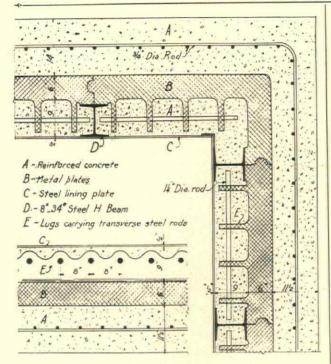
while work was begun on the vault. The vault construction, however, taxed the resources of the wreckers and required a period of about two months to completely demolish it.

It is understood that this vault was the first of this particular design to be erected. The walls 27 inches in thickness were composed of concrete, a lining of special metal cast in plates, steel columns and steel plates. The outside of the vault was built of concrete 14 inches thick reinforced horizontally and vertically with 3/4 inch steel rods 6 inches on centers. Special metal cast in plates 6 inches thick about 30 inches high and 40 inches long were used as an interlining next to the concrete. This interlining was made of a matrix combined with an aggregate of magnesium oxide fused at a temperature of 8000° F. in an electric furnace. Eight inch steel "H" columns were placed inside as structural supports and located at the vertical joints of the plates. The plates and columns were so bolted together that no bolts were exposed on the outside. One-half inch steel plates bolted to the H columns formed the inner face or lining of the wall. The space between the steel plates and the special cast plates was filled with reinforced concrete. This reinforcement consisted of 11/4 inch rods extending through lugs cast on the plates for this purpose.

The contractor employed to remove the vault had anticipated cutting it apart in sections, convenient to

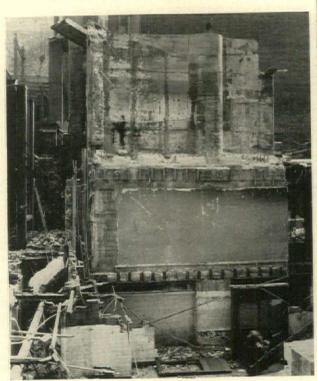


INTERIOR CONSTRUCTION OF RECENTLY DEMOLISHED VAULT OF THE MECHANICS AND METALS NATIONAL BANK, NEW YORK CITY. NOTE THE H COLUMNS, REINFORCEMENT OF CONCRETE CASING, METAL PLATES AND LUGS CARRYING THE TRANSVERSE 11/4" STEEL RODS USED TO REINFORCE THE CONCRETE LINING OF THE INTERIOR



DETAILS OF CONSTRUCTION OF DEMOLISHED VAULT, MECHANICS AND METALS NATIONAL BANK

handle, by means of oxy-acetylene torches. This procedure proved impractical due to the resistance offered by the plates to drilling or burning by means

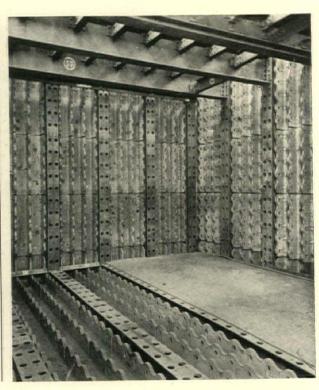


of the most powerful torch available. It was found necessary to first strip the concrete from the exterior and to then remove the ½ inch steel plates forming the lining of the interior of the vault. The removal of these plates exposed the inner flanges of the H columns. The roof plates were next removed by cutting the exposed bolts from the inside. Sufficient concrete was removed from the inside wall to permit the cutting of the H columns with an oxy-acetylene torch. Hydraulic jacks of 2000-ton capacity were then used to lift out the cast plates. Three tiers of plates were removed at a time by tipping them off the wall by means of hydraulic jacks.

The accompanying illustrations will give the reader an intimate account of the method of construction used in the design of the vault of the Mechanics and Metals National Bank. The difficulties encountered in demolishing this vault would make it appear that this type of construction may be regarded as highly resistant to attack from the outside.

PARIS MASONRY SCHOOL

A TRADE school of masonry, stonecutting and reinforced concrete has recently been established in Paris. It provides students with sleeping quarters at 1 franc a night and meals at 3 francs 50 centimes each. Payment is made for student labor.



VAULT AT THE MECHANICS AND METALS NATIONAL BANK, NEW YORK CITY

AT LEFT: DEMOLITION OF VAULT IN PROGRESS ON MARCH 18, 1927. VAULT WAS TWO STORIES HIGH, 22' x 23' x 30' OVERALL. AT THE TIME THE ABOVE PHOTOGRAPH WAS TAKEN THE EXTERIOR CONCRETE CASING HAD BEEN STRIPPED FROM THE UPPER PORTION OF THE VAULT AND THE METAL PLATES OF THE INNER LINING ARE SEEN EXPOSED TO VIEW. AT RIGHT: VIEW OF INTERIOR CONSTRUCTION OF VAULT TAKEN AT THE TIME THE VAULT WAS BUILT. METAL PLATES AND LUGS ARE SEEN SET IN POSITION BEFORE REINFORCING BARS HAD BEEN INSERTED. ONE SECTION OF FLOOR AT EXTREME RIGHT HAD BEEN PLACED. THE H COLUMNS AND ROOF SUPPORTS ARE CLEARLY SEEN



The Savoy Plaza

McKim, Mead & White, Architects; Tenney & Olms, Consulting Engineers; George A. Fuller Co., General Contractors; Jarcho Brothers, Plumbing Contractors.

THE Savoy Plaza Hotel, New York, will be permanently protected from rusty water by the use of Anaconda Brass Pipe for hot and cold water lines.

Jarcho Brothers, plumbing contractors, report that the use of this lifelong pipe with brass fittings added only 5.69% to the cost of the plumbing installation over the cost of the best grade of corrodible pipe and fittings. Anaconda Brass Pipe is trade-marked and guaranteed by The American Brass Company, General Offices: Waterbury, Connecticut. Offices and Agencies in Principal Cities.

ANACONDA BRASS PIPE

THE LAW AS TO ARCHITECTURE

By CLINTON H. BLAKE, JR., of the New York Bar

AN architect expressed to me the other day a very interesting point of view with respect to the recommendations which I have made from time to time as to the advisability of a contract between the architect and the client and with respect to my statement

of the law as to the ownership of plans.

The position which this architect took and which is apparently shared by at least a substantial number of other architects is as follows: With respect to the plans, he claims that from time immemorial it has been the recognized custom of the profession that the plans belong to the architect and that it is ridiculous and irritating to the profession to state that the legal rule is otherwise. With respect to the necessity of a contract, he claims that the execution of a written contract between client and architect tends to lessen the dignity of the profession and to treat it as a business and not as a profession. Both of these criticisms are perfectly understandable and deserve to be answered. The answer to each of them is, to my mind, conclusive and entirely clear.

It is true that the custom of the profession has for years, in any event, been to treat the plans as the property of the architect. The plain and unescapable difficulty is that the courts, in passing on the question of the ownership of the plans, have disregarded any such practice and have held distinctly that the plans, in the absence of a special agreement to the contrary, belong to the client who orders and pays for them. In other words, they treat them as they would any other merchandise or product of human intelligence and work. For the members of the profession to shut their eyes to this legal proposition would be extremely foolish. The retention of ownership in the plans by the architect is a matter of real importance, and the custom in the profession on this point was based upon sound reasons. The architect who proceeds with his work, without an agreement that the plans shall be his property, deliberately runs the risk of having the owner invoke these legal decisions against him. I see no reason why any architect ordinarily should run this risk and every reason, in the ordinary case, why, in common sense and sound judgment, he should protect himself against it and secure a simple and proper agreement recognizing his ownership of the plans which he creates. Otherwise, he will find that, if the issue is raised by one of his clients, at any time, the court will rule that his claimed ownership of the plans is no more sacred than the ownership of other property and that the client will be considered as the purchaser of the plans, exactly as the purchaser of a painting or other work of art or of any commercial object is considered as having acquired title to it.

It is not necessary, although it is advisable, that the agreement covering the plan ownership should be in writing. The difficulty with a verbal agreement is that it is less conclusive and more difficult of convincing proof. It is not necessary, either, that the written agreement should be at all formal in its character. If the architect objects to the Institute form of agreement or any other similar form, he can cover the point by an exchange of letters. If he is really interested in maintaining the position of the profession with respect to the ownership of plans, however, he will in every case take the trouble to cover this point by an agreement, formal or informal, sufficiently definite to make clear the fact that the plans belong to him and that the ownership of them does not pass to the client at any stage of the pro-

With respect to the second point which my friend raises, namely, the effect of a contract on the dignity of the profession, I frankly disagree. I can see nothing cheapening to the profession in an agreement outlining the work which the architect is to do and the terms upon which it is to be done. Just as it is necessary to cover by agreement the question of the ownership of the plans, so, in my view, is it necessary to cover the many other points with which the contract between the client and the architect ordinarily deals. If one go to an artist and order a painting, the artist does not in any way lose his status as such or cheapen his profession if, before proceeding with the work, he stipulates the price to be paid for it. The agreement as to this may be oral or it may be written. The principle involved remains the same. The very fact that the architect is a professional man places upon him an obligation to his client to make clear to the latter the basis upon which his work is to be done and the agreement covering their professional relationship.

In addition to all of this, whether the practicing architect likes it or dislikes it, he will, in my opinion, be exceedingly foolish to close his eyes to the fact that the practice of architecture today involves many business questions and considerations. The successful architect today must be more than an artist. He must have, himself, or someone in his organization certainly must have, good business sense and judgment, and he must make use of these qualities himself or through others, both for his own protection and for the protection of his clients' interests.

The American Institute of Architects has very clearly indicated its sympathy with the idea of a contract between architect and client by preparing and making available to the profession its standard form of this contract and its schedule of minimum charges. There surely can be nothing unprofessional



other form of contract. I cannot believe that either layman or other professional man will think the less of the architect or look upon him as any less whole-heartedly a professional man, because he seeks, both for his own protection and for the protection of his client, to avoid misunderstandings with respect to the services which he is called upon to perform, and, by reducing the terms of his employment to definite form, makes clear to all concerned the basis on which his professional services are rendered.

The discussion is an interesting one. If any of the readers of THE AMERICAN ARCHITECT care to express themselves further with respect to either the ethical or practical side of the questions involved, I shall be glad to have them do so. A free discussion of points such as this is of benefit to all concerned. They are of sufficient importance to every practicing architect to merit his careful thought and consideration. I shall be glad to give such additional space as I can in this department to further discussion of any new considerations which may be urged or by way of clarification or elaboration of points of view already considered, if this be necessary. I should dislike exceedingly to see any architect fail to protect himself by a proper agreement through a misapprehension either of his legal rights with respect to the plans or of his professional status.

LEGAL DECISIONS

THE plaintiff prepared plans for the defendant, and the defendant paid for them, after he had gone over them with the contractor, who later erected the building. Six months later, the construction of the building was begun and a new contract was made between the architect and the defendant for the supervision of the building by the architect, including the supervision of heating and plumbing work, which was not provided for in the original plans and specifications, for which payment had been made. The client himself watched the erection of the building daily, and made a contract with the plumber and steamfitter for the installation of an oil heating equipment. This was improperly located, some of the evidence showed, and because its base was set too high, a proper distribution of heat throughout the building was not obtained. This evidence was contradicted by the architect, however, who stated that he saw the heating plant after it had been installed and believed that it was placed at a proper level. The trial court submitted to the jury, as a question of fact, the question of whether the

architect had or had not been negligent, and the jury returned a verdict for the architect for the amount of the commission which he claimed under the agreement for the supervision of the work. On appeal, the court held that, while there was a considerable question whether the boiler should not have been placed at a lower level, yet upon the evidence, the defect, in the court's opinion, was not so apparent to a qualified observer as to necessitate a finding, as a matter of law, that the architect had been guilty of negligence by failing to insist that the boiler be installed at a lower level. The court further held that the first transaction under which the plans had been prepared and paid for was complete and that the defendant was not entitled to recoup, as against the present claim of the architect, for the defects which he claimed characterized the plans previously prepared. The court pointed out that he had accepted them on the judgment of his contractor and after an examination, and that it was too late, after six months had gone by, to object to details which were apparent on the plans at the time they were presented and accepted and paid for by him.

Wolf v. Dimond, 129 Atlantic 342.

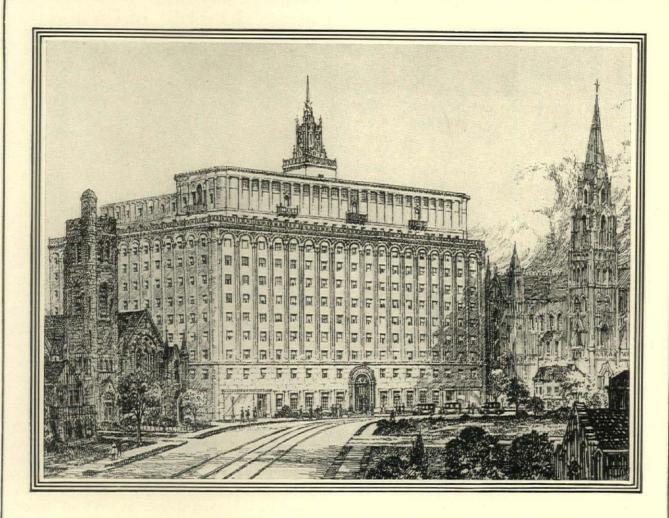
20

PLAINTIFFS sued the defendant, an architect, for damages which they claimed they had suffered as a result of his negligence in the performance of his services. The two chief items of damage claimed were that the building had been so erected that the eave overlapped the eave of an adjoining building, also owned by the defendant, and that the defendant had negligently allowed the use of $5\frac{1}{2}$ inch flooring instead of $4\frac{1}{2}$ inch in certain instances, as

called for by the specifications.

The court found that the overlapping of the eaves would not affect the selling value of the premises to any great extent, and that it might have a certain value in keeping the space between the houses and their opposing walls dry. The court also found that, inasmuch as the clients did not complain of this while the building was being erected, their allowance for damage on this item should be very moderate. The court found that, with respect to the flooring, the wider boards would be more liable to warp and that some allowance should be made. The court finally set off the commission due the architect against the claim made by the client on the other items and held that neither side was entitled to recover as against the other.

MacDonald v. Edey, 3 Dominion Law Reports 893.



WEBSTER HALL APARTMENT HOTEL Pittsburgh, Pennsylvania

Architect—Henry Hornbostel Contractors—Everett Winters Company

Carney Cement was used for all the mortar in this project.

REPRODUCED FROM THE ORIGINAL RENDERING,

WHEN asked why Carney is used so consistently on their projects, architects invariably put forth the following reasons:—an intensely hard bond—a mixing specification so simple that errors are improbable—a decidedly low labor and material cost, resulting from the unusual plasticity, and the time saving qualifications of Carney Cement in mixing.

THE CARNEY COMPANY

DISTRICT SALES OFFICES: CLEVELAND, CHICAGO, DETROIT, ST. LOUIS, MINNEAPOLIS

Specifications: 1 part Carney Cement to 3 or 4 parts sand depending upon quality of sand.



A MOVEMENT FOR CLOSER RELATIONSHIP BETWEEN ARCHITECTURAL DRAFTSMEN AND CRAFTSMEN

EXPEDITIONS of the drafting staffs in the offices of New York's architects to the shops and studios of the arts and crafts involved in the production of buildings will be made under the direction of the New York Chapter of the A.I.A.

The aim is to establish closer relationships between the architectural draftsmen and the craftsmen of the building trades, according to a report of the Chapter's Committee on Education.

Better buildings, it is believed, will result from schooling the draftsmen in all the realities of building through a first-hand study of the problems of the craftsmen.

"We are convinced," the report states, "that a constant effort must be made to assure contact between draftsmen and craftsmen, in order not only to maintain the vitality of our art, but to prevent a vast amount of wasted effort in the drafting room, due to a lack of understanding of the possibilities and limitation of materials and workmanship.

"The ignorance of the average draftsman of such operations as the sawing, planing and polishing of stone and marbles, the modeling and casting of bronze, or the forging of iron is abysmal, and is expressed in many an expensive detail drawing.

"There is in all architects' offices the constant tendency, produced by pressure of work, to hold the men so closely to the production of drawings that we believe we can discern the growth of a generation of designers and detailers who are losing all contacts with the materials of architectural construction, and with the arts and crafts which prepare them for use in our buildings.

"We have particular reference to the artistic aspects of our work, for we realize that the structural and mechanical aspects are most often handled by men who actually superintend at least a portion of their work in the field, and so maintain contact with the realities of production.

"Members of the New York Chapter of The American Institute of Architects are asked to arrange for the entire drafting force working on a building to visit, at least once during the course of the job, all the shops such as cut stone, terra cotta, marble and mosaic, decorative plastering, modeling and sculpture, bronze and ironwork, woodworking, decorative and mural painting, furniture and draperies, where work is being executed for that operation, when these shops are within a reasonable radius of travel.

"We believe that the knowledge of the possibilities and limitations of materials and craftsmanship which will result from the carrying out of this plan will be most helpful to the art of architecture and all allied arts and crafts.

"To make a definite start on this program, the Committee is now securing the co-operation of a selected list of shops and studios, within convenient reach of the offices, all representing high standards of artistic achievement, where members of the architects' staffs will be welcome visitors."

Shops and studios with which arrangements for expeditions have already been made include those devoted to marble and stone, metalwork and lighting fixtures, cabinet work and furniture, modeling, carving, plastering and art stone, glass, mosaics, sculpture, mural paintings and decorative design, leather, landscaping, and textiles.

The plan is to send the draftsmen in groups to the shops. There will be none of the architects present, so the draftsmen may talk freely with the craftsmen. There is no question about the willingness of the craftsmen to co-operate.

An unexpectedly cordial response has been received both from the architects of the New York Chapter and from craftsmen in the building trades. Over thirty architectural offices have replied and will send probably double that number of men to the shops for one or two visits a month. All of the craftsmen notified have responded favorably. Many of the City's most prominent architects are supporting the plan.

No matter how fine a design is, in the last analysis it cannot be entirely successful unless it is carried out with an inspired and accurate execution of the smallest details.

HENRY RUTGERS MARSHALL, F.A.I.A., DEAD

Henry rutgers marshall, F.A.I.A., died on May 2nd after a brief illness. Mr. Marshall was seventy-five years old. He was born in New York City on July 22, 1852, the son of Henry Perry Marshall and Cornelia E. (Conrad) Marshall. He was graduated with the degree of A.B., from Columbia in 1873, and three years later he received the degree of A.M., at the same institution. The degree of L.H.D. was conferred upon him by Rutgers in 1904, and in 1910 Hobart made him a Doctor of Science.

In 1878 he began practice as an architect, and in 1881 he married Miss Julia R. Gilman, who died in 1888. After the death of his wife he turned to university work, and became lecturer on aesthetics at Columbia University in 1894-'95. The next two years he spent as lecturer in the same subject at Yale, and in 1915-'17 he lectured at Princeton University.

During many years he served as a member of the New York Art Commission. In 1919, fourteen



Memorial Art Gallery Rochester, New York

McKim, Mead & White, Architects

Zenitherm Company, Inc., Newark, New Jersey

ZENITHERM

REG U. S. PATE OFF

LOOKS LIKE STONE-WORKS LIKE WOOD

years after the expiration of his term as commissioner, he was offered the position of secretary to the Municipal Art Commission, which he accepted. He held this position until the day of his death and virtually became the executive of the commission.

Throughout his long and useful life, Mr. Marshall gave valuable service, but none of more lasting nature than his well directed efforts to maintain the artistic integrity of New York City. Under his direction, the Municipal Art Society became a model for every similar organization in the country. He stood bravely in the defense of municipal art, and that New York has not been compelled to receive statues, tablets and similar features, offered by well meaning but often misguided groups or individuals, was largely due to his untiring effort. He will be greatly missed.

THE ELEVENTH INTERNATIONAL CONGRESS OF ARCHITECTS

At a recent meeting of the permanent committee of the International Congress of Architects held in Paris, it was decided to hold the Eleventh International Congress in Amsterdam and The Hague from August 29th to September 4th. This will be the first truly International Congress of Architects held since the war.

The Tenth Congress, held in Brussels in 1922, although international, was confined to the allied and friendly powers, but to the coming Congress Germany and Austria, in fact all of the countries of the world, are cordially invited. It is fitting that such a meeting should be held in a neutral country like Holland. The architects of the Netherlands have long desired this meeting and are exerting every effort to make it a notable gathering and one of value. Five of the subjects thus far decided upon to be discussed are:

1. International Competitions

2. Legal Protection of the Title of Architect

3. Architectural Copyright

4. Architecture as Practiced by the Architect and by the Architect-Builder

5. Artistic Development of Architecture since 1900

A more detailed program will be published later. The International Congress of Architects was organized in Paris in 1867, where the first three meetings were held. The fourth was held in Brussels in 1897, the fifth in Paris in 1900, the sixth in Madrid, in 1904, the seventh in London in 1906, the eighth in Vienna in 1908, the ninth in Rome in 1911, and the tenth in Brussels in 1922.

These great international gatherings have brought architects together from all parts of the world to discuss matters of great importance to the entire profession. They have lasted from a week to ten days and, although not unlike conventions of

The American Institute of Architects, are naturally on a much larger scale, and being in countries of great architectural interest, the visits and excursions to architectural monuments and the brilliant receptions and entertainments offered by the various governments—for these Congresses are always under the auspices of the country in which they are held—make these gatherings of thrilling interest to all who are able to attend. These meetings are truly inspiring and all American architects are urged to attend the coming Congress.

Those expecting to be present will kindly communicate with the Secretary of the American Section, Geo. Oakley Totten, Jr., 808 17th Street, Washington, D. C.

The American Committee of the International Congress of Architects, comprises:

Cass Gilbert, Chairman
William A. Boring, F.A.I.A.
Glenn Brown, F.A.I.A.
J. Monroe Hewlett, F.A.I.A.
William Rutherford Mead, F.A.I.A.
C. Howard Walker, F.A.I.A.
C. C. Zantzinger, F.A.I.A.
Geo. Oakley Totten, Jr., M.A.I.A., Secretary

ELECTED TO MEMBERSHIP OF NATIONAL ACADEMY OF DESIGN

Announcement was recently made of the election of thirteen men and women artists as associate members of the National Academy of Design. Those who may now write A. N. A. after their names are: painters, George M. Bruestle, Maurice Fromkes, New York; Lillian Westcott Hale, Charles Hopkinson. Marie Danforth Page, Boston; Douglass Parshall, Santa Barbara, Cal.; E. K. K. Wetherill, New York; sculptors, John J. Gregory, Lee Lawrie, New York; Albert Laessle, Philadelphia; architects, Benjamin W. Morris, Egerton Swartwout, New York; Glenn Brown, Washington.

WEST COAST WOODS ARCHITECTURAL COMPETITION

Following are questions on a number of points submitted by competitors, together with the answers by J. Lister Holmes, professional adviser, in the West Coast Woods Architectural Competition:

Q. Have any arrangements been made for passing plans through the Canadian and American customs houses?

A. Arrangements have been made for R. H. H. Alexander, Secretary, British Columbia Lumber & Shingle Mfrs., Ltd., 917 Metropolitan Building, Vancouver, British Columbia, to act as the representative of the West Coast Lumber Bureau in connection with the West Coast Woods Architectural

350,000 sq.

ft. of MEYER Steelforms





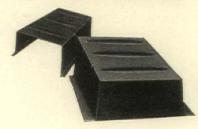
"The Wardell,"
Detroit Apartment Hotel—
Weston&Ellington, Architects.
Bryant & Detwiler Company,
Contractors,

Another Example of the Money-Saving Qualities of MEYER Steelforms

HE general contract for "The Wardell" at Detroit was let January 13, 1926, and the building was ready for occupancy September 1, 1926. This speed of erection was made possible by the use of Meyer Removable Steelforms in the joist floor construction. The simple centering required for this particular form makes possible the quick removal and re-use of the forms from floor to floor.

It is thru such performances and their saving in concrete,

MEYER



steel, formwork, time and labor, that these heavy 16 gauge Meyer Steelforms are winning recognition for their economy throughout the entire Middle West.

They are sold only on a rental basis and their installation and removal can be figured in our charge if desired.

See Sweets for Specifications.

CONCRETE ENGINEERING CO.

Offices and Warehouses:
Omaha Chicago Kansas City Des Moines Dallas Los Angeles
Houston St. Louis Minneapolis Milwaukee Detroit San Francisco



Reinforcing Bars, Bar Chairs and Spacers, Metal Lath, Woven and Welded Wire Mesh, Meyer Steelforms, Corner Bead, Hook Hangers, Road Strip, etc., are all carried in stock in our warebouges listed below.



Ceco Reinforcing bars are of the mos efficient type. Their bond resisting value being determined by the lugs placed at right angles to the axis of the Bars Tested by Robt. W. Hunt & Co.



Our Engineering department is technically trained, ready to assist architects and contractors in designing the reinferced concrete portion of huilding work



Our Free "Handbook of Fireproof Construction" explains in detail the advantages of Ceco products. Address our Omaha office. Dept. 271 Competition. All architects in Canada who participate in the Competition are requested to send their designs to Mr. Alexander in Vancouver, who will see that the designs are passed through the customs and delivered in proper form to the professional adviser in Seattle. All those in Canada who enter the Competition should have their designs in the hands of Mr. Alexander in Vancouver not later than 4 P. M., July 20, 1927, so as to allow sufficient time for delivery of the drawings to the professional adviser before the closing date.

Q. Shall the perspective drawing be clear and

sharp or in sketch form?

A. This is at the option of the competitor.

Q. Are there any obligations in entering this competition?

A. None whatever.

Q. Is it permissible for two persons to submit a joint drawing or one person two drawings?

A. Two persons may join in submitting one drawing or any competitor may submit as many as he or she chooses.

Q. Does the delivery refer to mailing time or

delivery in Seattle?

A. No drawing received later than 5 P. M., August 1, 1927, at the office of the professional adviser, in Seattle, will be accepted.

200

WHEAT STRAW TO BE USED IN A NEW INSULATING BOARD

WE have recently received announcement of the formation of a company at St. Joseph, Mo., for the purpose of manufacturing insulating board from wheat straw.

The mill, which is now being built within a few miles of the geographical center of the United States, will be of modern concrete and steel construction, 935 feet long by 200 feet wide, equipped with the latest machinery having a capacity of more than 100,000 square feet of finished insulat-

ing board per day.

The project is said to be the result of experiments conducted by Dr. Sidney D. Wells, who for many years was in charge of the Forest Products Laboratory at Madison, Wis. Insulating board is used extensively for building purposes and in the manufacture of refrigeration devices. The greater amount of that manufactured at the present time is made from cork, sugar cane, wood pulp, flax and other fibres. It is claimed that board made from straw has a very high rating as an insulating material.

The list of officers, directors and stockholders appended to the announcement includes many names of men of national prominence in business and financial affairs.

It is stated that the new mill will be in operation about July 1st of this year.

PERSONALS

Voorhees, Gmelin & Walker, architects, announce the removal of their offices from 342 Madison Avenue to 101 Park Avenue, New York City.

20

L. O. Berg, architect, of Mitchell, S. D., has moved to 1924 Broadway, Oakland, Calif., where he is engaged in the practice of ecclesiastical architecture.

20

Clarence W. George, architect, announces the opening of his offices at 203 Becker Building, Aberdeen, Wash. Manufacturers are requested to send catalogs and samples.

200

McLean & Iarrobino, architects, have opened an office at 30-15 Broadway, Long Island City, N. Y., for the practice of architecture. Manufacturers' catalogs and samples are requested.

20

Hewitt-Miller-Shirey, Inc., are now installed in their new quarters at 609 Petroleum Securities Building, Los Angeles, Calif., where they will continue the practice of architecture and engineering.

20

T. Firth Lockwood, architect, of Columbus, Georgia, has opened branch offices in the Royal Building, Albany, Georgia, under the management of L. Doyle Raines. Manufacturers are requested to send literature to the Albany office.

.20

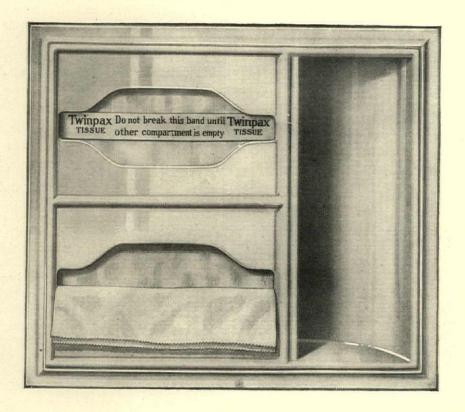
A new partnership has been formed for the practice of architecture, known as the firm of Kenneth M. Murchison, with offices in the Architects' Building, 101 Park Avenue, New York City. The partners are Kenneth M. Murchison, F.A.I.A., Bruce Price Post and J. Hunter Field.

20

Hugo E. Magnuson, formerly senior member of the firm of Magnuson & Kleinert, architects and engineers, 250 Park Avenue, has withdrawn from the above partnership and has formed an association with Leroy P. Ward and Harry J. Kerrigan with offices in the Graybar Building, New York City.

200

Everett H. Merrill and John C. Rahn announce the consolidation of their interests under the firm name of Merrill & Rahn, architects, engineers and contractors, and the removal of offices from 4475 Santa Monica Boulevard to Suite 617 Financial Center Building, 704 South Spring Street, Los Angeles, Calif.



A Reserve Package of Toilet Tissue is Always at Hand in this Fixture

THIS new double chamber fixture insures a continuous supply of toilet tissue. Either chamber may be filled when empty.

Illustration shows recessed type, made of high quality white tile. Fixture may also be had in any desired color.

Twinpax fixtures are also made in projecting type to

be attached to wall or tiling. Twinpax fixtures are made especially to dispense Twinpax toilet tissue, recognized for its superior quality. Because of the universal demand Twinpax toilet tissue is easily obtainable.

Architects are invited to send for blue prints and full information regarding Twinpax fixtures.

NATIONAL PAPER PRODUCTS COMPANY

CARTHAGE, N. Y.

Architectural Service Division

Our A. I. A. Filing Catalog will be mailed upon request.

NEW OFFICERS OF THE ARCHITECTURAL LEAGUE OF NEW YORK

AT the annual meeting of The Architectural League of New York, held on May 5, the following were inaugurated:

President, Kenneth M. Murchison 1st Vice President, Eugene Savage 2nd Vice President, Chester Beach 3rd Vice President, A. F. Brinckerhoff 4th Vice President, Leon V. Solon Secretary, Walter D. Blair Treasurer, F. Livingston Pell

Executive Committee, Term Expiring May, 1930 Alfred Geiffert, Jr. C. Paul Jennewein Francis L. S. Mayers

Mr. Murchison, the new President, is also the President of the Society of Beaux-Arts Architects.

YEAR BOOK OF THE SOCIETY OF ARCHITECTS

THE sixteenth annual printing of the Year Book of the New York Society of Architects has been received. Ever since its first volume was issued, we have felt considerable satisfaction in commenting on its usefulness, the care that has marked its compilation and the many pages of valuable information it yearly contains. This year's printing is a book with flexible leather covers, and contains 460 pages of printed matter. It is a compendium of all the essential laws, rules and regulations as referring to building in the State of New York. There are many things an architect can learn from this manual that saves time and trouble in hunting down. For example, it presents the building code and regulations as to zoning in New York. A special table sets forth the width of streets on Manhattan Island, mechanics' lien law, registration of architects and the tenement house law.

MODERN ARCHITECTURE ASSAILED IN ENGLAND

1200

PRIME MINISTER STANLEY BALDWIN emerged recently as an uncompromising critic of modern English house architecture and sounded a call to Britons to return to the old Tudor cottages of two centuries ago. "The beautiful old cottages of England," he told the Royal Society of Arts, "seem to have risen with a spontaneity wholly lacking in those abortions of red brick and slate which have risen over the country since the industrial era began." Good housing, the Prime Minister asserted, was a great civilizing power, and England had been neglecting it in the last few generations. "We want to bring the old houses back into the main stream of the national life." he said.

Mr. Baldwin moved a resolution supporting the action begun by the Royal Society of Arts to preserve the ancient cottage architecture and pledging assistance in the establishment of a fund for this purpose. Sir Alfred Mond, M. P., denounced the "denuding" of the English countryside of its "pictures, statuary and very stones" by Americans.

20

MOVE IN FRANCE TO PREVENT SALE OF ANTIQUES TO UNITED STATES

Aroused by the transfer to the United States of many works of art, chateaux and other objects which could be classed as historic public monuments, Henri Auriol, Deputy for Haute Garonne, has, it is learned, recently prepared a measure which, if approved, will prevent such sales to Americans and other foreigners.

M. Auriol says that 32,000 historic monuments in France are going into decay for lack of State funds to keep them up. Antique dealers are reaping huge profits through sales to American millionaires and others. The bill would definitely place ruined chateaux, objects of art, etc., in the category of State treasures and authorize the seizure at ports of any of these destined for shipment abroad.

"France has already been despoiled of many of her priceless works of art and it is high time that an end was put to this shameful practice," said M. Auriol.

OLD CHIMNEYS

A GERMAN correspondent, whose letter I published some time ago, writes Astragal in The Architects' Journal, London, declared that buildings have souls. I have never doubted it. Since they are born, since they exist for a certain length of time, suffer old age, and ultimately die, they may be said to live. They must breathe, because when their various structural materials have lost their porosity, they decay and are turned to dust. Old chimneys lean to the northeast, as if to offer up smoky incense to some Mecca there. This I have been assured again and again, but never was any explanation vouchsafed. And now I have found it, and here it is: The southwest face of a chimney becomes hotter during the day than the northeast face: then at nightfall the sudden marked drop in temperature develops greater shrinkage. This phenomenon may be regarded as being like the progressive lengthening of a bar of cast iron that is alternately heated and cooled. If brick or stone is alternately heated and cooled, it probably expands progressively up to a certain point, causing the southwest face of a chimney to increase in height. Old chimneys should, therefore, lean to the northeast.



AMERICAN ARCHITECT

K



WITH WHICH IS CONSOLIDATED THE ARCHITECTURAL REVIEW

VOLUME CXXXI

JUNE 5, 1927

NUMBER 2522

CONTENTS

Topical Architecture—Capitals Priest House in Siam. From the Original Sketch by Sixtieth Annual Convention, The American Institute	. Ferenc Imrey Frontispiece
Architects, Washington, D. C. Editorial Comment The Problem of Light in Fixture Design	Harold W. Rambusch
From Candlelight to Kliegs . Impressions of an Architect's Visit to Normandy . T e Capital Garage, Washington, D. C.	Frank I Foreter

PLATES

FIUS A SCHOOL OF MUSIC, MANHATTANVILLE, NEW YORK	3 Plates
CITY House of Frank Bannerman, Scarsdale, N. Y. Municipal Building, White Plains, N. Y. House of A. D. Koppel, Pelham Heights, N. Y. Delano & Aldrich Julius Gregory J. H. Freedlander William Gehron	3 Plates 3 Plates 4 Plates 3 Plates

OWNED AND PUBLISHED BY

THE ARCHITECTURAL AND BUILDING PRESS, INC.

E. J. ROSENCRANS, President and Treasurer

FREDERICK S. SLY, Vice-President

Publication, Editorial and Advertising Offices: 239 West 39th Street, New York City

EDITORIAL DEPARTMENT

WILLIAM H. CROCKER, Editor

BENJAMIN FRANKLIN BETTS, Associate Editor

R. W. SEXTON, Associate Editor, Department of Interior Architecture

E. K. BRUNNER, Editorial Assistant

Contributing Editors

SAMUEL CHAMBERLAIN

CLINTON H. BLAKE, JR.

FLOYD W. PARSONS

Board of Directors

H. J. REDFIELD

E. J. ROSENCRANS FREDERICK S. SLY

PAGE A. ROBINSON H. H. MINER G. E. SLY

Western Office: First National Bank Building, Chicago, PAGE A. ROBINSON, Manager London Office: DORLAND HOUSE, 14 Regent Street, S. W. I.

Yearly Subscription in the United States and Possessions, Canada, Mexico and Cuba, Six Dollars. Other Countries, Eight Dollars,
Payable in New York Funds. Single copies (Regular Issues) 50 cents.

Experiment with ordinary lighted candle showing the importance of combustion space in a heating boiler.



A thimble placed over wick extinguishes flame immediately



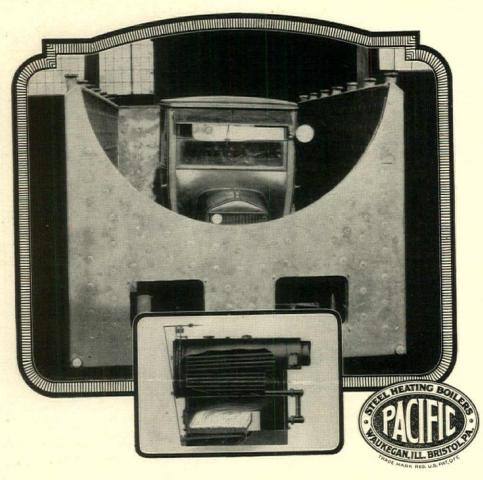
Small glass placed over flame causes it to die down. Minimum amount of heat given off.



combustion but causes smoke.

Large combustion space provided by placing pail over flame Permits maximum combustion. Candle burnes brightly, generating heat without smoke.

GREATER Combustion Space



Greater combustion space is one of the factors responsible for the remarkable efficiency of Pacific boilers.

Observe the illustrations at the left. They explain why maximum combustion space is so vital to satisfactory boiler performance.

The large illustration (showing Ford car standing in fire box of a Pacific Boiler) gives some idea of the tremendous combustion space as compared with the complete boiler. The result is maximum heat generated from fuel consumed—real heating economy. The firebox in all Pacific Boilers extends full length of boiler, affording the greatest possible combustion space and direct heating surface.

This is only one of many Pacific features. Let us send you complete information.

PACIFIC

STEEL HEATING BOILERS

WAUKEGAN, ILLINOIS

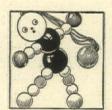
BRISTOL, PA.



NEW YORK CENTRAL



WILLYS-OVERLAND



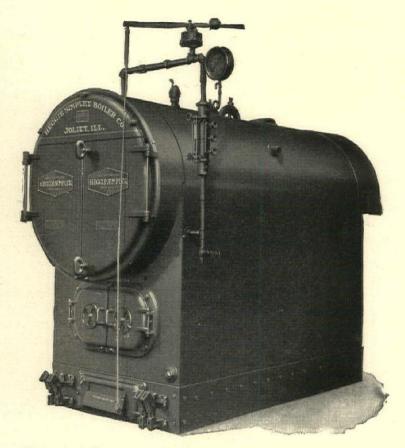
THE TOY TINKERS



THE CHICAGO DAILY NEWS



GENERAL OUTDOOR ADVERTISING CO.



Leaders Buy From Leaders

LEADING corporations are distinguished for the certainty with which they buy the most modern equipment and secure the most satisfactory service at lowest final cost. That explains why these and many other of America's best known companies are installing Heggie-Simplex heating boilers in steadily increasing numbers. Heggie's 35 years of doing one thing well have culminated in a product whose performance has won their confidence.

Heggie-Simplex Boiler Co., Joliet, Illinois, Representatives in principal cities — telephone and address listed under "Heggie-Simplex Boiler Company."

HEGGIE'SIMPLEX

ELECTRIC-WELDED STEEL HEATING BOILERS

EVERYBODY'S BUSINESS

By FLOYD W. PARSONS

MONEY is a universal agent, for it speaks every tongue and is the soul and sinew of world business. But when earthly goods rise as high as our hearts, they begin to bury us alive. When we let ourselves believe that money can do everything, we have put ourselves in a position where it is easy to do everything for money. When we have accepted the notion that four or five per cent interest is not worth talking about, we have indicated clearly our disbelief in the proved principle that it takes ten times as much wit to keep wealth as was required to accumulate it in the first place.

We turn our eyes to the spectacular achievements and lose sight of the thousands of failures. We forget that the great lesson of history is that the profit on the sum total of the world's capital is very small over a long span of years. The combined wealth of all peoples now amounts to nearly a thou-

sand billion dollars.

For a number of years we have been enjoying a period of record "good times," and we should not forget that "those who consider in prosperity, will be less afflicted in adversity." We will again repeat most of the mistakes that were made in the past. In the lives of many will be dark hours when plans will be laid to get money without earning it. Hundreds of millions of dollars have been tied up recently in all kinds of unproductive investments from idle land to watered stock in dozens of consolidations. Graft is rampant and the pursuit of fortune is as keen as ever with little or no improvement in the ethics employed. Vaults overflowing with gold and reformed banking laws will not make prosperity safe from the effects of that most primitive and uncontrolled force, man's natural self.

We have widened our viewpoint, largely surmounted the wall of resistance to innovation, snapped the chains of precedent, and established a new mental freedom that questions everything from the fundamentals of religion to current practices in economics and industry. But still that most lawless of all things, the human mind, which can completely reverse itself in the fraction of a second,

renders it impossible for anyone to draw an accurate picture of tomorrow's conditions. It now appears that there is no last word to be said on any subject. We are even wondering if there is sense in our present ideas of conservation of resources because the things saved will probably not be needed by our children's children as a result of radical changes in life. In conformity with this thought we are told that we should be guided in our business operations not by what is theoretically possible, but by what is economically justified.

Forty million of our people do not belong to any church, and most of them never attend any form of religious service. Atheist societies have been organized in twenty of our greatest universities, and a national association has been legally chartered and is now operating with the avowed purpose of destroying every form of religion. A few years ago the trust was a target for the politician, and the forces of government were opposed to large units in business. Now the swing is in the other direction, and research has become such an irresistible force in the hands of powerful aggregations that the road

is very rough for the little fellows.

Today is a time for cautious and conservative action. Stability of profits, even if they are small, should be given precedence over speculative operations that will not stand up under the sting of adversity. Eventually there will come a day of reckoning—a period of readjustment. Fear will supplant confidence, and people in many industries will wonder how they could have been so foolish as to give all thought to building fast and high without directing first attention to the character of the foundation. The more of us who get this thought into our systems and keep it there, the longer it will be before we will have to face the next period of unemployment and business distress.

And before long, science, which has made such a great success in pushing us ahead so rapidly in material fields, will have to lend the same willing and effective hand in the modernization of economics, politics and man's human nature.



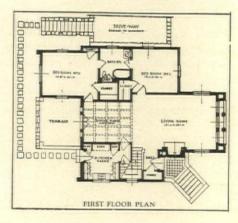
Residence of Dr. Evans, Davenport, Ia. Clausen, Kruse & Klein,

Architects





Above—Exterior Below—First Floor Plan



An Interesting Home Interestingly Decorated

Designed in a modified Spanish style Craftex was used to carry the Spanish spirit throughout the interior of this home.

Had the design been English, Early American or any other period, versatile Craftex would have as ably carried out the spirit. With Craftex you not only have at your command all period textures but the possibility of innumerable original textures in any color or combination of colors. Complete details, samples and information are yours for the asking. Dept. D.

CRAFTEX

CRAFTEX COMPANY

37-39 ANTWERP ST., BRIGHTON STA., BOSTON, MASS.

BOOK NOTES

AMERICAN ARCHITECTURE OF THE TWENTIETH
CENTURY

THE masterpieces of modern American architecture serve as illustrations to a volume entitled American Architecture of the Twentieth Century, edited by Oliver Reagan, A.I.A. The book is to be published in parts, each part presenting a series of photographs and measured drawings of modern civic, commercial and industrial buildings. Part 1, which has recently been published, illustrates the Bowery Savings Bank, New York, by York & Sawyer: the Shelton Hotel, New York, by Arthur Loomis Harmon; the American Radiator Building, New York, by Raymond M. Hood, and the Ford Engineering Laboratory, Detroit, by Albert Kahn. There are twenty plates, size 14 x 20, printed on heavy paper, with cardboard portfolio. Each building is shown by a series of photographs, followed by plans, sections and details in line drawings. It is the intention of the publishers to publish additional parts at regular intervals of four months. The following buildings are listed to appear in Part II: New York Telephone Company's building, by McKenzie, Voorhees & Gmelin: Indianapolis Public Library, by Zantzinger, Borie & Medary, and Paul Cret; Army Supply Base, Brooklyn, by Cass Gilbert; and the Hollywood Terminal Warehouse, by Morgan, Walls & Clements. The illustrations are carefully selected, the drawings are accurately made, and all the plates are beautiful reproductions of the material. The complete series will no doubt furnish a valuable addition to the library of the modern American architect. Each part is complete in itself and is sold separately.

American Architecture of the Twentieth Century—Part 1. Edited by Oliver Reagan, A.I.A. Twenty plates, 14 x 20, in cardboard portfolio. Architectural Book Publishing Company, New York. Price, \$8.50.

BRICKWORK IN ITALY

20

THE American Face Brick Association has recently put out a very interesting volume entitled, "Brickwork in Italy." Copies of this book have been presented to a number of the architects on behalf of the Hydraulic-Press Brick Company and the book is so thorough and so well gotten out and contains so many suggestions of value to the practitioner that it constitutes a real addition to an architect's library and is quite free from any suggestions of advertising. The Hydraulic-Press Brick Company years ago put forth a most delightful work on Spanish American Brick Architecture and this present volume is a worthy complement to it. The publishers are to be congratulated on having undertaken a work of this

kind and having presented it in so admirable a form. The scope of the work includes brick in Roman antiquity and carries the development of brick architecture down to the modern period with very practical notes on the manufacture and the use of brick of today. It also has an interesting map of Mediaeval and Modern Italy showing that part of the world as divided in the 12th century. The text is restrained but quite sufficient and is the work of Comm. Prof. Gustavo Giovannoni, Engineer and Professor of Architecture of the Royal School of Applied Engineering and Royal School of Architecture, and there is a short preface by G. C. Mars, Ph. D., which shows in a way this work was greatly furthered by suggestions and aid of Prof. Stevens, Director of the American Academy, and Prof. Arthur Kingsley Porter, and a number of other people whose names give great credit to the work. It is not often that a trade association finds itself able to put forth so worthy a volume as this, one which is not only of positive value to an architect, but is of artistic and archaeological interest.

C. H. BLACKALL.

20

THE SMALLER HOUSES AND GARDENS OF VERSAILLES

A LITTLE known but interesting phase of French domestic architecture in the 17th and 18th centuries is covered in a book recently published on "The Smaller Houses and Gardens of Versailles." The authors are Leigh H. French, Jr. and Harold Donaldson Eberlein. The authors' foreword states: "As commonly conceived, Versailles is the Palace and the Palace is Versailles. In a measure this is true. But it is not wholly true. The royal residence, to be sure, has overshadowed all else in the vicinity. * * * What many people forget is that there is also a city of Versailles." The city of Versailles is partly composed of dwellings occupied by personages who were attached to the French court. These houses built in the 17th and 18th centuries to satisfy the demand of courtiers seeking relief from the formality of Palace life, developed a type unique, modest and unlike any other found in France. "The Smaller Houses and Gardens of Versailles" contains notes, numerous photographic illustrations, plans and detail drawings of these houses dating from 1680 to 1815. This volume is the latest addition to The Pencil Points Library.

The Smaller Houses and Gardens of Versailles, 1680-1815. By Leigh H. French, Jr. and Harold Donaldson Eberlein. More than 250 photographs, plans and measured details, size 9 x 12 inches, bound in boards. Price \$6.00. The Pencil Points Press, Inc., New York City.



Apartment Building, No. 1, Sutton Place South, New York City Cross and Cross, Architects Equipped with Stanley Ball Bearing Paumelles.



Why heavy duty doors . . . need Ball Bearing Butts

SOME doors on dwellings and public buildings open and close from 15,000 to 1,500,000 times a year. Plain bearing butts wear down under such frequency. Repairs or replacements become necessary.

Repairs and replacements are costly. These can be avoided by using butts with ball bearing joints.

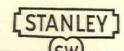
On all heavy doors, or where the doors are to receive high-frequency service, we recommend the use of ball bearing butts.

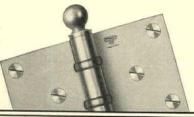
Stanley engineers have originated most butt and hinge improvements since 1852, including cold-rolled steel, the non-detachable (non-losable) washer, non-rising and self-lubricating pin, improved finish, and the use of ball bearings.

This wide experience enables us to make a product of uniformly high quality that sets the standard in butt manufacture. The Stanley trade-mark is on every butt.

The Architects 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 Catalog, pages B1702 to B1705, and B1722 to B1733.

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





STANLEY BALL BEARING BUTTS

MADE OF BRASS, BRONZE AND STANLEY STEEL



THE BOOK OF LITTLE HOUSES

THE Book of Little Houses is a compilation of previously published illustrated articles relative to the design of the small house. It is arranged in three parts: Part I, entitled The Heritage of the Presentday House; Part II, Good Small Houses of Today; and Part III, Things Every Home Builder Wants to Know. The first part treats, by photographic illustrations, of our Colonial inheritance, England's contribution, and the Mediterranean influence. Interesting examples of each style are shown. Part II is composed of plans and perspectives, with occasional photographs, of various types of small houses. Under Part III, the reader finds enlightening articles on such subjects as Investments in Beauty That Pay in Cash, Fitting Your House to Its Site, and the Perfect Little Maidless House. The illustrations are well selected, and the book is valuable to architects who make a practice in designing small houses.

The Book of Little Houses. Edited by Lucy Embury Hubbell. 128 pages, $9\frac{1}{2} \times 12\frac{1}{2}$. Board covers; illustrated. Published by Doubleday, Page & Company, Garden City, N. Y. Price \$3.00.

WORSHIP IN WOOD

WORSHIP IN WOOD, a well prepared volume of eighty odd pages, freely illustrated, is the title of a book by Thomas M. Boyd, and published by the American Seating Company. It traces the introduction of wood in ecclesiastical buildings, starting from the aesthetic period when the medieval church was in its austerity a mass of stone. It also traces the development of wood through the various centuries in the different countries in the several places of worship. It is not intended as a history, the author states in the preface, but is a modest effort to tell what the temple builders of the ages undertook to do in honor of the Deity or the gods they worshipped. The first chapter, entitled "The Dawn of Worship in the Heart and Mind of Man," describes the primitive sanctuary in the forest. The shrine, the sacred grove, became the forum, the meeting place of the tribe. Even our religions of today, our churches, our forms and ceremonials, our priesthoods, may be traced back to the sanctuary in the forest. The very fire that always burned in the sacred grove is kept lighted today in thousands of our churches. Even our pulpit is the modern counterpart of the large stone upon which sat the king or "law-man." As man became less nomadic, he built a home for his gods, as he built a home for himself. While no one cared much about the appearance of his dwelling, the temples became of the greatest importance in both the religious and economic lives of the people who built it. Artists and artisans were often imported to erect and embellish them. The author then goes on to state in the next chapter, on "The Glory of the Temple in Egypt, Greece and Rome," that in Egyptian times, the coronation of the king and the taking

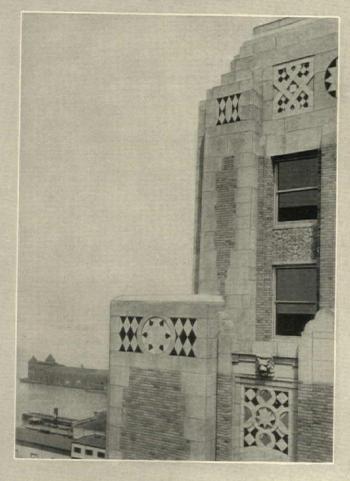
of office of a tax collector were both temple functions. Such occasions called for feasting and rejoicing. Then, too, there were festivals to the numerous gods, which were all a part of the temple life of the Egyptians. Their temples were of the highest architectural beauty and were most gorgeously furnished.

In the same chapter it is stated that our guiding impulse in symmetry and orderliness was derived from the Greeks. Their religion was the outgrowth of legendary worship, always happy and cheerful. More than any other temple builders, the Greeks used the columns, the isolated supports of the roof, the beam, the cornices, the paneled friezes. The Greek prayed standing, and his religious rites consisted of festivals, sacrifices and tributes to his gods. The temples of the Greeks were architecturally perfect and were embellished by the noblest works of their sculptors and painters, and erected by craftsmen who were themselves artists. They reflected the dreams, the ideals, the life of a great people free in mind and soul, just as our church edifice represents. or should represent, the combined urge of the community or society to reach the best, the most elevating, the most inspiring. Rome's grandeur, the author claims, was borrowed, particularly from Greece. So was her religion. But Rome converted her borrowings into Roman achievements. Her temples were Roman in fact. The worship of the Romans found expression only in the best and the noblest. They also prayed to the gods standing, with their arms raised toward the east.

The following chapter records that the early man in Europe built no temples. He worshipped gods, to be sure, but it was a worship of fear. Neither had he a home, but what he lacked in building, he made up in fantasy. Early Europe's book of the dead was a book for the dead. It is fitting that the light of Christianity should have emanated from a star, and that in that light it should find its brightest and clearest reflection in the church edifice. Then is traced the development of the Christian church, the development of its plan, the introduction of plain and carved wood, and the presence of three virtues to church building, without which the church will not bring to you that which you seek-purity, spiritual beauty and comfort. The Byzantine, the Romanesque and the Gothic are then described in detail. Another chapter deals with the introduction of reverence and beauty in the design of the chancel, the altars, the chancel rails, the screens, the pulpit and the lecterns. A short treatise follows on the developments of the early American churches, and the final chapter emphasizes the value of comfort and repose in worship. A very readable book, well illustrated, holding educational value and highly useful to designers of church edifices and their furnishings.

Worship in Wood. By Thomas M. Boyd, President of the American Seating Company, 9 x 12 inches; board covers; eighty-eight pages; illustrated. Published by the American Seating Co., Chicago, Ill. Price, \$8.00.

TERRA COTTA



for a
Golorful
American
Architecture

DETAIL of upper stories, New York Evening Post Building, New York City, Horace Trumbauer, Architect. Trimmed with Terra Cotta and enriched with Polychrome Terra Cotta panels.

The setback type of design which carries the promise of a beautiful American style calls insistently for the decorative grace of appropriate color enrichment.

Splendid possibilities exist in Terra Cotta for attaining a colorful modern style worthily perpetuating the dignity of past architectural tradition. The public is receptive and the opportunity measured only by the architect's ability to grasp it.

NATIONAL TERRA COTTA SOCIETY

19 WEST 44TH STREET

NEW YORK, N. Y.

TOPICAL ARCHITECTURE

THE examples of Jacobean and Georgian mantels, shown in the Topical Architecture section, issue of May 20th, are from the fine collection of Mr. Arthur Todhunter, of New York. We regret that it is necessary to make an acknowledgment so belated. The source of those excellent examples should have been stated in the issue in which they appeared.

Topical Architecture is now a regular feature of each issue of THE AMERICAN ARCHITECT. If subscribers, on receipt of their copies, fail to find this insert, we should be notified at once in order that we may rectify the omission.

THE ARCHITECTURAL LEAGUE OF NEW YORK TO HAVE NEW HOME

FOR a great many years The Architectural League of New York headquarters have been in the Fine Arts Building on Fifty-seventh Street. The phenomenal growth of this organization has made the present quarters inadequate to take care of the extensive educational and collaborative work of the League and the various arts and crafts allied to architecture that it has so efficiently promoted.

We are now advised that the League has arranged to build on the property at 113-117 East Fortieth Street, which adjoins the Architects' Building. The plans are not yet ready for presentation but they will provide exhibition rooms, dining rooms, studios and the like, necessary for the efficient carrying forward of the League's work.

PARTICEPS CRIMINIS

200

WE have received, with a request for a review, a copy of the Chicago Tribune's Book of Homes. The plates, size approximately 8 x 10 inches, comprise nineteen prize winning plans and eighty other plans submitted in the competition conducted by the Homebuilders' Department of the Chicago Tribune.

In a careful study of this book, there are two things that forcibly impress us. First, the excellence of the designs; second, that the Chicago Tribune offers "complete working plans, including blue-prints and specifications" for the sum of one dollar. Of course, some one is making a large contribution for the putative benefit of the small homeowner, for obviously the cost of a set of plans and specifications is much greater than the selling price.

Perhaps the most surprising thing about this volume is the fact that the *Tribune* has been able to secure the entries of so clever a lot of architects and draftsmen as participated in this competition. As a

rule, these "mail order house" methods present a lot of poorly designed, inartistic houses. Those in this book all bear the stamp of good design and excellence of plan. But no matter how excellent the result, the method employed to exploit these houses is one that has failed to receive the approval of organized architecture and also one that The American Institute of Architects has stoutly opposed during the past five years. This disapproval has not, however, been unanimous.

There have been strongly expressed differences of opinion at Institute conventions as to the desirability of giving approval of the Small House Service Bureau. The principal difference between the work of the Bureau and this effort on the part of the Chicago *Tribune* appears to be that the *Tribune* has outbid to the general public the price of this "blue-print" service.

The plans and designs in the Tribune's book are good and they are of evident originality. Of course, this price of one dollar stops short of supervision, which is the very essence in the carrying forward of small houses of this nature. It is highly probable that attempts to build without professional supervision will lead to unsatisfactory if not disastrous results. But the Small House Service Bureau also fails to solve the problem of supervision. After all, the outstanding thing is the willingness of architects to co-operate in a matter that undermines the very roots of architectural practice, particularly by the young men just starting, whose early work is exactly along the lines of small house design. Is it the altruistic thought that they are serving the public by making good architecture available to the masses which is perhaps more important than the welfare of the individual or the profession?

CARNEGIE INSTITUTE OF TECHNOLOGY GRADUA-TION EXERCISES

20

According to an announcement, Harvey Wiley Corbett, of the architectural firm of Helmle and Corbett, New York, N. Y., has accepted an invitation from President Thomas S. Baker to deliver the commencement oration at the Carnegie Institute of Technology this year. Mr. Corbett is a graduate of the University of California and the Ecole des Beaux-Arts in Paris. He is lecturer in architecture at Columbia, a member of the advisory board of the School of Architecture at Princeton, and a member of the Fine Arts Commission of the State of New York.

Graduation exercises at the Carnegie Institute of Technology will be held Tuesday, June 7. Among the class of about 350 who will receive documents of graduation, it is announced, will be 12 graduates of the Department of Architecture.



Write for details concerning our Contract Division and Cut Order Service.

Fine Buildings deserve Fine Carpets and a growing appreciation of the fact that carpets are really a part of a building's architecture has led to the ever-increasing popularity of Poulson Carpets.

Of an unusual beauty and durability, the Poulson line can solve any carpet problem encountered by the Architect,—and for the convenience of the Interior Decoration division of the Architect's Office we have established a special Contract Division, with a complete Cut Order Service, including estimating and shipping. This service is also available to your dealer.



Wilton Figured Qualities: Arundel Saxony, Wardman, Hermitage and Special Designs and Qualities.

Axminster Figured Qualities:
Niagara, Lancaster, Poulson
and Special Designs
and Qualities.

Velvet Qualities: Girard, Willpenn Plain, Heathers, and Moresque.

Charles W. POULSON & Sons

295 Fifth Avenue Carpet Co. Inc. New York City

DALLAS, TEX. PHILA., PA. SEATTLE, WASH. CHICAGO, ILL. DETROIT, MICH. OMAHA, NEB. LOS ANGELES MILLS: PHILA., PA.

HOMES IN THE UNITED STATES

HERE are 26,219,100 homes in the United The density of dwellings is greatest in and about the State of New York. Count shows that in New York, New Jersey and Pennsylvania there are 5,476,000 homes. In six New England States there are 1,815,000, and in the nine South Atlantic States there are 3,219,300.

WATER CHARGE FOR CONSTRUCTION USES

THE city of Mobile, Ala., imposes a charge of 6 cents per cubic yard of concrete for water taken by construction companies from city mains, states Engineering News-Record. This is in lieu of a fire hydrant rental. A charge of 121/2 cents per thousand of brick for masonry structure is also made. For concrete work the charge amounts to about one cent per square yard for a 6-inch slab. It is probable some change will be made in this schedule of charges, as they are believed to be too high. However, some charge is necessary to curb needless waste of water for construction uses.

ATLANTIC TERRA COTTA

THE April, 1927, issue of Atlantic Terra Cotta, the house organ of the Atlantic Terra Cotta Company, is devoted to the illustration of a revival of Lombard Romanesque architecture in this country. The illustrations are confined to ecclesiastical architecture and show an interesting interpretation of Romanesque design and how well it can be carried to successful results by the use of colored terra cotta. Copies of this interesting monthly magazine may be had by addressing the Atlantic Terra Cotta Company, 19 West Forty-fourth Street, New York City.

20

PAN-AMERICAN CONGRESS OF ARCHITECTS

WARREN POWERS LAIRD, D. SC., Dean of the School of Architecture, University of Pennsylvania, has been appointed by The American Institute of Architects as one of its four delegates to the Pan-American Congress of Architects to be held in Buenos Aires, July 1-20, 1927. The other delegates are Frank R. Watson, Philadelphia; Kenneth M. Murchison, New York, and John Galen Howard, San Francisco.

Dean Laird will present a paper to the Congress entitled "Public and Private Competitions." He has probably conducted more competitions than any other American architect and is particularly competent to discuss this important phase of architectural practice.

Dean Laird will also act as delegate of the Association of Collegiate Schools of Architecture which

also will be represented by an extensive exhibit of students' work; and he will represent the School of Architecture, University of Pennsylvania.

This Congress promises to be one of unusual interest and value. The personal contacts made and the exhibition of American architectural scholastic work, exemplifying American architecture, should yield benefits to the architecture and the architects of the South American countries. We of the United States are well represented.

A. I. A. FRENCH TRAVELING FELLOWSHIP

CO-OPERATION between America and France in art and education was urged at a dinner May 23 at the Harvard Club of New York in honor of Marcel Gogois of Paris, first holder of the French Traveling Fellowship of The American Institute of Archi-

Julian Clarence Levi of New York, chairman of the Institute's Fellowship Committee, which sponsored the dinner, presided. Speakers included Jules Henry, First Secretary of the French Embassy; Maxine Mongenzre, French Consul-General, and D. Everett Waid, past president of the Institute.

M. Gogois recently arrived in this country for study and travel. He is a native of Amiens, receiving his architectural education in the Ecole des Beaux-Arts and Atelier Deglane. He won the diploma in architecture from the French government. Paul Leon, Director of Fine Arts at the French Ministry of Education, was chairman of the committee which appointed the fellow.

The American Institute of Architects, it was said, established this fellowship as "a valuable contribution to international architectural education and a graceful recognition of our educational debt

to France."

The fellowship will continue for an experimental period of three years, and will be administered by a committee of the Institute consisting of Messrs. Aldrich, Corbett, White and Levi.

PERSONALS

Hewitt & Emerson announce that Richard Seaton Gregg has been admitted to partnership and that the firm name will now be known as Hewitt, Emerson & Gregg, architects, 1600 Peoria Life Building, Peoria, III.

20

LeRoy Bradley and Dan Babcock have formed an association for the practice of architecture and engineering under the firm name of Bradley & Babcock, 221 West Wayne Street, Fort Wayne, Ind. Manufacturers' catalogs and samples are requested.

THE PUBLISHERS' PAGE

To the man on the side lines the big outstanding fact of the recent convention of The American Institute of Architects was the public recognition upon the part of the Institute of the place which related arts and industries have in the successful achievement of creditable architectural work.

The keynote of this recognition was sounded by President Milton B. Medary in his opening address. The theme was further developed by C. Grant La Farge as chairman of the Committee on Allied Arts. Various strains were amplified by members of the allied arts and crafts in the persons of Flavel Shurtleff, President of The American Society of Landscape Architects, Arthur Covey for the mural painters, John Gregory, sculptor, and Lorentz Kleiser, Vice-President of the Arts and Crafts Club of New York. The final chord was struck by A. K. Baylor of the General Electric Company, speaking on behalf of the Producers' Council in his luncheon talk to the Institute on "Give and Take."

The essence of the discussion was that the architect, while continuing to be the guiding genius of all good building, could not reach his highest achievement without recognizing and drawing upon the experience and knowledge of all those related in any way to the structure he envisions.

With the complexity of our social and civic problems: with a growing appreciation on the part of the general public that architecture embraces more than four walls and a roof or some added embellishment; with the rapid development by science and industry of conveniences, necessities, safeguards and luxuries, there has come about a growing interdependence and respect.

From the time of Michael Angelo there have always been some master builders or architects who, in themselves, possessed the combined abilities of all the arts and crafts, but the rapidity with which our modern civilization moves might make the task too great today for even him to cope with. Some of our structures of this generation have served their useful purpose and been replaced by others in a shorter span of years than it took to construct many of the ancient masterpieces of architecture.

A half century has seen the change in architecture in this country from a very mediocre average to the position of leadership in world design. Much that is ugly and uninspiring is still built, but there is a constantly growing improvement in every type of structure which mirrors the efforts of the architectural profession to attain that perfection which it longs to have the opportunity to express.

The arts and crafts directly allied to architecture, as enhancing the beauty of design, have always had some measure of recognition but it is only within a comparatively few years that any credit has been given the producers of materials and equipment entering into the fabrication of structures for the success of the architects' work.

The first public step toward such recognition was taken in 1921 when the Directors of the Institute invited certain manufacturers of building materials to attend a conference on "Better Advertising to Architects." From this conference grew the "Producers' Section" of the Structural Service Committee of the Institute. In 1923 a further development brought forth the Producers' Research Council, or as it is now known, the Producers' Council, which contacted with the Institute through a special committee of the Institute.

Even though the contacts thus established constituted a quasi recognition of the important position occupied by the material man, there were many members of the profession, both within and without the Institute, who looked upon the producer with a sense of toleration, if not suspicion. Happily, however, the more intimate intercourse which has been possible between the Producers' Council and the Institute committees has clearly developed the fact that the material men are sincerely desirous of serving the profession in a way in which they can be of greatest help and with the least amount of effort on the part of the architect.

While the Producers' Council at the present time has in its membership a comparatively small number of all the purveyors of material in the building industry, its activities are creating greater confidence in all material men and the methods it develops may well serve as a pattern for others to follow.

It, therefore, cannot help but be gratifying to architects and producers alike that the Board of Directors of the Institute recommended, and the convention approved, an extension of the activities of the Council and the continuance of the relationship between the two for a further period of at least five years.



PRIEST HOUSE IN SIAM
FROM THE ORIGINAL SKETCH BY PROFESSOR FERENC IMREY



AMERICAN ARCHITECT

K



SIXTIETH ANNUAL CONVENTION, THE AMERICAN INSTITUTE OF ARCHITECTS, WASHINGTON, D. C.

FOUNDED 1876

THE sixtieth convention of The American Institute of Architects, held in the main auditorium of the building of the Chamber of Commerce of the United States, at Washington, D. C., on May 11-13, must be treated differently from previous conventions as it was a different sort of convention.

Institute conventions, as a rule, are business meetings, during which the affairs of the organization are discussed, based on the reports of various com-

mittees. This routine business finished, the conventions have in the past discussed in a general way the various policies that it is deemed right to adopt, and then adjournment.

At the sixtieth convention there were two outstanding things and they dominated the various meetings. The first and most important was the report of the Board of Directors. This proved to be a radical discussion of the intimate affairs of the organization and was accompanied by recommendations that startled the conservative element and brought satisfaction to the groups of men who for years have been urging action as to the various appendages that have been attached to The American Institute

of Architects. The report of the Board of Directors is a voluminous document and contains a vast amount of meaty reading for every architect whether affiliated with the Institute or unattached. The whole matter has been set forth in a thoroughly competent manner, and shows without doubt the result of long hours of deliberation. A summary of this report will be found elsewhere in this issue, together with brief statement of final action by

the convention.

The second outstanding feature was the report of the Committee on Allied Arts, presented on the morning of the first day, by C. Grant La Farge, chairman of the Committee. Mr. La Farge's summing up of conditions as existing between the profession of architecture and the allied arts, was ably supplemented by a series of special addresses, each by a man high in his chosen art or craft. Arthur A. Shurtleff, president of The American Society of Landscape Architects. spoke for landscape architecture. Arthur Covey, mural painter, made a strong presentation of the painter's point of view. John Gregory, sculptor, made a witty address on the present and proposed relation-



MILTON B. MEDARY, JR.
RE-ELECTED PRESIDENT 1927-8

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

ship of sculpture to architecture; and Lorentz Kleiser, craftsman, held his hearers to close attention while presenting his side of the discussion.

Features of the afternoon sessions during the first and second days were a tea in the gardens of the Octagon, a most enjoyable social gathering, and the address on American Industrial Art—Sidelights on Design Today, on the afternoon of the second day, by Richard F. Bach of the Metropolitan Museum of Art of New York.

The luncheons held at the Washington Hotel between the morning and afternoon sessions were fine social features, and the short addresses pithy and entertaining as well as of considerable educational interest. On the occasion of the first luncheon President Medary spoke on The Meaning of Institute Membership. This thoughtful discussion of the Institute's place in the profession of architecture, what membership should mean to every member, would make a fine argument to broadcast to that part of the profession outside of Institute ranks. If we can obtain a copy of Mr. Medary's address, we will present it in the earliest possible issue.

At the luncheon on Thursday, the 12th May, A. K. Baylor, of the General Electric Company, in his address referred to the present era of national prosperity and the steps that must be taken to safeguard it. The Producers' Council movement was cited as furthering the "Golden Rule" in the building industry. Extracts from Mr. Baylor's address will be found elsewhere in this issue.

PAST PRESIDENT WAID AND VICTOR MINDELEFF, CHAIR-MAN OF THE CONVENTION COMMITTEE

Wilbur Watson, engineer, delivered the address at the luncheon on the last day of the convention. Mr. Watson spoke on the Historical Development of Bridge Design, emphasizing his remarks with a most interesting series of illustrations.

These luncheons were listened to by an audience of delegates and visiting architects that taxed the capacity of the large dining hall.

At the afternoon session Sullivan W. Jones, State Architect of New York, reported that replies to a questionnaire sent to the governors of 48 States showed that in only 7 is there an official architect. A resolution was adopted by the Institute declaring that an office of State Architect should be created by act of legislature in every State where the needs warrant, and that he should be responsible for the design and construction of all public buildings.

The discussion of the report of the committee in charge of the development of the Octagon property and the proposed new building consumed the larger part of the evening session of the second day. This building, which will be erected on property adjacent to the Octagon, is intended to contain administrative offices, library, exhibition rooms, and a convention hall. The particular point discussed was whether the convention hall should be of hemicycle type with a seating capacity of some six or seven hundred people, or whether it should be a simple rectangular room which could be used either for exhibition purposes or for meetings of three or four hundred delegates. The sentiment of the convention



TWO DELEGATES FROM BOSTON, MISS LOIS LILLEY HOWE AND MISS ELEANOR MANNING

seemed to be nearly equally divided, and the matter was left to the Board of Directors and the Building Committee.

The Board of Directors believe that it is a more practicable proposition for the Institute to build a simple type of meeting hall which will for a number of years suffice for the ordinary convention and that on special occasions the Institute can engage the use of other more spacious rooms, such as the auditorium of the Chamber of Commerce. This is the basis on which the Building Committee is now proceeding.

At the banquet, which marked the closing of the convention, and which was presided over by President Medary, Charles Moore, chairman of the National Fine Arts Commission, in the course of a brilliant address told the assembled guests, that the outlined Government program is going to call for the greatest works of artists. It will call for architects and sculptors and mural painters, he said, to continue the history of this country in pictures. He told them to remember, however, that this is the Capital of the United States, and that nothing can be too good, too fine or too large. Unless they can have the biggest and finest plan here the people of America will not have it. The expense is not too great.

Mr. Moore went into the history of the various commissions that have made plans for Washington, and told of some of the difficulties faced by the Fine Arts Commission in its work. He pointed out that art in this country really got its start at the Chicago World's Fair, and what the artists had done there for a season they would be expected to do here forever during the course of the Government's build-

ing program.

George B. McClelland, former mayor of New York, praised the work of The American Institute of Architects and said that they had aided him,

while mayor, to save the quarter of a billion-dollar building program from "the blight of the engineer."

Two gold medals were awarded for outstanding achievement in the arts last year, one to Lee Lawrie, sculptor, of New York, and one to Frank G. Holmes, art director and pottery designer, of Trenton, N. J. The presentations were made by C. Grant La Farge, of New York.

The gold medal awarded in 1926 to Howard Van Doren Shaw, of Chicago, who died the day after the award was made, was presented to his widow, the citation being read by D. Everett Waid,

of New York.

The following results of the election were announced at the banquet: Milton B. Medary, Jr., of Philadelphia, re-elected, president; William Emerson, of Boston, first vice-president; C. Herrick Hammond, of Chicago, second vice-president; Frank C. Baldwin of Washington, D. C., secretary, and Edwin Bergstrom, of Los Angeles, treasurer and

The following were elected to the Board of Directors: William H. Lord of Asheville, N. C.: Olle J. Lorehn of Houston, Tex., and Myron Hunt of Los Angeles.

The following elections to the rank of Fellows

were announced:

Theodore E. Blake, New York Lindley M. Franklin, New York Sullivan W. Jones. New York H. Hobart Weekes, New York Henry K. Holsman, Illinois C. Herrick Hammond, Illinois James O. Betelle, New Jersey H. A. Overbeck, Texas George I. Lovatt, Pennsylvania Louis Stevens, Pennsylvania.

HEARD AT THE CONVENTION

It seems to me that this whole subject of architecture and beauty and all that sort of thing depends upon a certain degree of imagination and inventiveness.

Albert Kelsey

The demand on the part of the press for a new style of architecture, as they call it, as you know has been very strong and the effect of that has been not so much on the architect, because he knows the causes which produce loose styles of architecture, as upon the client. The client now demands a departure from the old line of work. He wants something new.

George C. Nimmons

The arts we deal with today are the arts of use, of practical service, the arts of industry rendering that service without loss of the emotional reaction of pleasure in the mind.

Richard F. Bach

Architecture is a great art and we want to make it, in this country, as great as it can be made, and we can only make it as great as it can be made when we learn to work together, all of us.

C. Grant La Farge

Collaboration is needed between the artistic mind and the scientific mind.

Wilbur J. Watson

SUMMARY OF CERTAIN FEATURES OF THE REPORT OF BOARD OF DIRECTORS

No More comprehensive report of a Board of Directors has ever been presented to a convention of the Institute than this one. It fully justifies the long hours spent on its framing. In fact, the discussion of this report practically absorbed a large part of the last two days of the convention. Its deductions and suggestions were in most instances unanimously approved by the convention, and where changes were suggested, they were as a rule so trivial as practically to leave the report approved as presented. A fine piece of constructive work was done by the Board in the preparation of this report.

Following are excerpts from this report. These are practically in addition to discussion of committee reports, a resume of which appears elsewhere in this issue.

The Architects' Small House Service Bureau

The Board of Directors has devoted much time and study during the year to the Architects' Small House Service Bureau of the United States, Incorporated. It has considered both the majority report and a minority report as presented by one member of the Committee on Small Houses.

The representative of the Institute Board attended an Executive Committee meeting of the Bureau at Minneapolis last June, and the President of the Bureau made an extensive report to the Institute Executive Committee during February in New York City. A complete copy of this report has been published in the Minutes of the meeting and is available.



ABRAM GARFIELD, CLEVELAND

The organization and purpose of the Bureau have been explained to the Institute at six consecutive conventions. The Board of the Institute has carefully considered all phases of the Bureau and its relation to the Institute and to the profession, and believes that the plan of the Bureau, as operated, is such that it can bring no responsibility to the Institute other than the nomination of Directors to the Bureau Board who exercise a control of the policies of the Bureau.

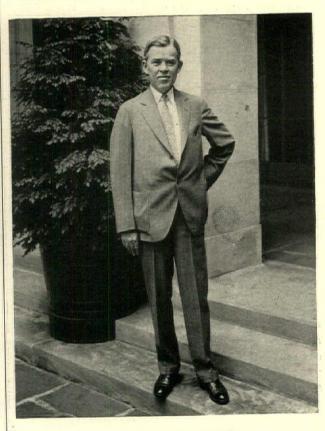
The Board of Directors reaffirms its endorsement of the Bureau and in so doing it is not overlooking the objections which have been stated in opposition to the Bureau, but firmly believes that the good the Bureau is doing in its contribution to a better type of small house far outweighs the objections.

Report approved.

Structural Service and Scientific Research Department

The work of the Institute with respect to the technical, structural, and related elements of the practice of architecture is in the care of the Scientific Research Department and the Structural Service Committee. This work has been done well and with commendable enthusiasm, through the efforts of a large group of our membership. They have set a pace in Institute and public service which other Committees charged with equally important duties might emulate. In order to simplify titles and place these activities under one Committee the Board has changed the name of the Scientific Research Department to be "The Structural Service Department." It also recommends that the By-Laws be amended as follows:

Amend Article XIII, Section 1, by striking out the following words: "Structural Service Committee." The purpose of this is to remove the Structural Service Committee from the list of Standing Committees and to assign its duties to the Structural



N. MAX DUNNING, CHICAGO

Service Department. The action is recommended by the Structural Service Committee itself and by the Scientific Research Department. Under the new plan the Structural Service Department will have a representative in each Chapter of the Institute.

Resolved, That the above amendment be adopted.

Resolved, By The American Institute of Architects in Sixtieth Annual Convention assembled, That the Scientific Research Department, hereafter the Structural Service Department, be and hereby is continued as an essential element of the Institute activities, and the findings and information of the Department disseminated through the Journal or other organ of the Institute, and that the contact with the Producers' Council shall be encouraged and continued for a period of at least five years;

Provided, That the cost of the services rendered by the Institute to the members of the Council shall be paid by the Council, and the President and the Treasurer be and hereby are empowered and authorized to execute and deliver contracts with the Producers' Council to that effect for and on behalf of the Institute.

Resolved, That the following organizations, insofar as their affiliation with the Institute is concerned, be placed under the jurisdiction of the Scientific Research Department; The American Construction Council; The American Engineering Standards Committee; The American Society for Testing Materials; The National Board for Jurisdictional Awards; The National Fire Protection Association; and The Producers' Council, and be it further

Resolved, That hereafter proposals for similar contacts or affiliations shall be submitted to the Institute through the Scientific Research Department and with its recommendations.

Four resolutions adopted. Report approved.

The Producers' Council

The Board has received the annual report of the Producers' Council which covers its activities for the past year; submits a

C. HERRICK HAMMOND, SECOND VICE-PRESIDENT; CHARLES H. HIGGINS; PAST-PRESIDENT D. EVERETT WAID AND RALPH C. LLEWELLYN, CHICAGO

list of members of the Council; and a complete financial statement for the year ending January 1, 1927.

It has also received a draft of the proposed brochure, to be issued by the Producers' Council to the architectural profession and the building industry. The draft has been considered, commented upon, and approved by the Board. It will be issued by the Council in due course.

Report approved.

Report of the Nominating Committee

In addition to the nominations presented by the Nominating Committee, the following were nominated from the floor:
Director 4th District—William H. Lord, Asheville
Director 7th District—Olle J. Lorehn, Houston, Texas

Nominations of Honorary Members

The Board nominates the following laymen who have rendered distinguished service in the interests of the fine arts for election to Honorary Membership in The American Institute of Architects:

Thomas Adams of New York
Dr. Hartley Burr Alexander of Lincoln, Nebraska
Charles Dickey Armstrong of Pittsburgh
Arthur Sinclair Covey of New York
John Gregory of New York
Carl Paul Jennewein of New York
Lorentz Kleiser of New York
Dr. Wm. Alexander Lambeth of Charlottesville, Va.
Charles Jacob Livingood of Cincinnati
Eugene Savage of New York
Samuel L. Sherer of St. Louis
Arthur A. Shurtleff of Boston
Ferruccio Vitale of New York
Charles Henry Wacker of Chicago
Harry Wearne of New York



THE GENTLEMEN FROM TEXAS, JOHN M. MARRIOTT, HARRY D. PAYNE, JOSEPH W. NORTHROP, JR. AND ATLEE B. AYRES

Nominations of Honorary Corresponding Members

The Board nominates the following distinguished architects in foreign countries for election to Honorary Corresponding Membership in The American Institute of Architects:

Georges Gromort of Paris Ludwig E. E. Hoffman of Vienna Ragnar Ostberg of Stockholm

Allied Arts and Craftsmanship Medals

The Board has awarded, on the recommendation of the Committee on Allied Arts, the Allied Arts Medal for distinguished achievement in Sculpture to Lee Lawrie; and the Craftsmanship Medal for distinguished achievement in Ceramic Art to Frank Holmes.

Pan American Congress of Architects

The Third Pan-American Congress of Architects will be held in Buenos Aires from July 1 to 10. The Institute was represented at the Second Congress by enthusiastic members who paid their own expenses. This year the Carnegie Endowment for International Peace made an appropriation of \$3,000, to be disbursed by the Institute, to meet the expenses of three delegates of the A. I. A.—who will represent architecture and the United States at this important gathering in Argentina.

Those who will go to South America as delegates of the Institute are: Frank R. Watson, of Philadelphia, Vice-Chairman of the Committee on Foreign Relations; Kenneth Murchison of New York; and John Galen Howard, of San Francisco.

In addition, the Institute has appointed Professor Warren P. Laird as a delegate, although he will primarily represent the University of Pennsylvania.

Membership Statistics

The total membership of the Institute on May 3, 1927, was 3,162 (as against a total on May 3, 1926, of 2,994) and it was made up as follows:

Members 2,762 Honorary Members 73 Honorary Corresponding Members 31	Fellows .									00.00	(4)	e0.50						-	96	-
Honorary Members	Members												-4				100	2.7	62)
Honorary Corresponding Members	Honorary	Membe	rs							-					*				73	,
1101101111	Honorary	Corresp	one	din	g	M	en	ıb	er	s.		. ,				, .			31	-

Community Planning

Community Planning—Henry Wright, Chairman. This Committee proposes this resolution:

Whereas, The A. I. A. through its Community Planning Committee, and in special meetings and conferences, has come to the belief that the best advancement of the interests of our cities, the effective application of city planning principles, and the improvement of the conditions that affect the daily practice of architecture are alike jeopardized and hampered by present methods of land exploitation; and

Whereas, It is our belief that little improvement is possible unless methods of regulation are contrived which will relate the subdivision of land to the needs of the community and to the prescribed functions to which the land is to be devoted; and

Whereas, We believe that it is high time to take action which shall result in altering the present basis of land exploitation and direct it toward the improvement of our communities; therefore, be it

Resolved, That the Institute, through the Committee on Community Planning, make special study of the problems of land development and regulation, and report its findings to the next convention.

Resolution adopted. Report amended and approved.

Public Works

Resolution to be framed relative to proper position of "state architect" for adoption. Resolution not available but this was intended to recommend that where the various states maintain a State Architect's office, this department be separate from all others, the architect to be appointed by the governor, the department to act in an advisory capacity on all public works, and that a Commission of Fine Arts should be created under the "wing" of the State Architect's office.

Report approved.

Fellowships

If the convention decides that Fellowships shall be continued the Board offers the following resolutions:

Fellows.

Amend Article II, Section 1, to read as follows:

Fellowship in The American Institute of Architects is conferred upon a member who is a citizen of the United States who, in the opinion of an authorized Jury of Fellows, shall have notably contributed to the advancement of the profession in design, construction, literature, education or public service.

Membership in the Institute for not less than ten years shall

be a prerequisite to Fellowship.

The Jury of Fellows shall consist of six Fellows appointed by the President, two of whom shall serve for periods of one, two, and three years, respectively, and until their successors are appointed. The President shall fill all vacancies occurring in the Jury of Fellows by death, resignation, expiration of term or otherwise.

Any group of five or more members may recommend to the Jury for consideration the name of a member whom they deem qualified for Fellowship. Such recomendation shall contain a brief statement of the notable service or achievements which, in the opinion of the nominators, justify the nomination.

Names of nominees for Fellowship shall be submitted with full and explicit data to the Jury of Fellows on forms prepared for this purpose. The Jury shall then request from the Chapter Officials, the Directors of the Institute, and such other sources as it deems necessary privileged communications relating to the qualifications of the nominees. All recommendations shall remain on file with the Jury of Fellows for at least twelve months prior to final action, except that nominations filed before October 30, 1927, may be acted upon in season for the 1928 Convention.

The Jury shall formulate rules for its procedure subject to the approval of the Board of Directors.

Section 2. Mode of Election. Amend Article II, Section 2, to read as follows:

Election to Fellowship shall be by the Jury of Fellows. Fellows may be elected at any regular meeting of the Jury of Fellows.

Such election shall be by ballot. Four affirmative votes shall be necessary to elect.

The names of all Fellows so elected shall be announced to the convention.

Section 3. Nomenclature. Amend Article II, Section 2. to read as follows:

Fellowship in the Institute shall be designated by the initials "F. A. I. A."

Convention decided that Fellowships shall be continued and the proposed resolutions were adopted.

THE PRESIDENT'S ADDRESS

THE American Institute of Architects, through the devoted service of its members over many years, has contributed to the machinery of practice, to the knowledge of materials and methods of construction, not only documentary forms but a fund of information invaluable to the profession, without which the inexperienced architect at the threshold of his career must meet many discouraging obstacles before finding himself free to devote his best talents to the realization of his creative impulse in physical form.

The freedom with which his imagination may realize the noblest dreams of his spirit, within the limits set by material facts and forces, is greatly increased by this work of Institute committees which puts into his hands the slowly accumulated

experience of his forerunners.

The heights to which the art of architecture may reach, freed from these concerns of its machinery, are limited only by the heights built under our feet, and as we build, greater heights are made possible of attainment.

In every phase of life we have below us the product of the toil and the aspirations of those who have gone before us—ours to use and to extend to the limits which their work has brought within our reach. In our own art, the scientific research work in the field of materials and methods and in the preparation of orderly procedures of practice has given the architect tools tried and ready for his use. To these tools our future architecture must owe great obligation; the artists who use them, yield grateful acknowledgment.

In another aspect, The American Institute of Architects has served the art of architecture well in preparing the ground for a nobler future growing out of a more understanding and sympathetic soil, for no great art so intimately expressing the humanities of any social system can long remain exotic. It must be woven out of the whole of life and be present to some degree

in its every expression.

The American Institute of Architects has sensed and accepted this obligation and, through its publications and lectures and the proper use of publicity, has worked faithfully and diligently for a broader understanding of architecture as the physical language of human activities, and of the immense significance of all the arts in their power to make material necessities beautiful, and further, to destroy forever the fallacy that a gulf exists between the material and the beautiful. It is the artist's privilege and obligation to challenge this latter doctrine. It is ours to make all material things beautiful, and their use an ennobling and joyous experience. For this, I believe The American Institute of Architects has undertaken to pave the way.

With the work which has been done so far and which must be vigilantly prosecuted, it has seemed the time was ripe to build our art upon the ground prepared and with the tools gathered for our use, and it has been thought well to devote as much of the time of this convention as may be to a consideration of the elements of an art which have made it a living index to the social and religious institutions of nations and peoples

since Abraham lived in the city of Ur.

Sincere civilization has always sought to express the life within itself and has never been satisfied with the expression of other lives, no matter how noble or how beautifully expressed, knowing instinctively that the form is but a shell except for the spirit of its creator contained within it.

Science is by its nature preoccupied with things which may be seen, or touched, or weighed, or measured—all else must be discarded as "unreal"—and by its searchings for facts and reasons is the invaluable handmaiden of creative art; but every conscious living creature knows that it is only the vital part of himself, the part that cannot be seen, or weighed, or measured, that he wishes to express—the intangible, the universal, the eternal, that part of himself which is not material, which science has never reached, and which only in exalted moments seems within his own reach.

In the myriad confusions and complications of twentieth century life, men are bewildered by the surface manifestations of constantly changing forms pressing upon them and stretching as far as the vision may reach, and in this confusion is the promise of the awakening of a new springtime of art. In literature, in religion, in sculpture and painting, in music and the drama, as well as in architecture, the world is in revolt. We refuse to repeat the expression of other lives and demand the opportunity to add our own expression to the sum of truth and beauty built up through the ages. But, as in all revolts, we are passing through the extreme forms of complete repudiation with all its crude accompaniments, called for want of a better word, by the name of "Jazz."

The architect hears everywhere: Let us have a new architecture, an American architecture; let us have done with the dealers in classic and medieval forms; let us try something truly American! . . . This is plain sophistry. Just as well say: Let us have an entirely new written language, as well as the physical one; let us stop using the words used by Shakespeare and express our thoughts by sounds never heard before; and let us be entirely individual and no two of us use the same sounds! . . . This sophistry is due to the confusion which ails to differentiate between using the soul and mind of Shakespeare as our own and using the words with which he expressed the thing born in his own spirit; words which have become exquisite with every delicate shade of meaning only because nen have long used them and understand them. Without them the power of beautiful expression would disappear. The written language is a living, changing thing, however, and slowly and surely, as Doric architecture became Ionic, and Roman Romanesque, and Romanesque Gothic, the English of Chaucer became that of the sixteenth century, of the eighteenth century, and of the present day.

Let us, then, in looking to the future close our eyes to the changing multitude of surface manifestations and look below the surface for the roots out of which they spring, and let us search among the roots for those which are universal and have abiding character. On these let us build in our own way, with the freest fancy, expressing our own spirits. We need not copy last year's blossomings but we may and should take what made these blossomings beautiful as our inspiration. Our work will then surely be ours and cannot be confused with carefully reproduced expressions of great souls long since dead. This latter is the plagiarism which proclaims its author's belief that

architecture is no longer a living thing.

May I speak of the fallacy of an American architecture as a new national art, distinct and altogether different from other national architecture and from our own forms of the past? Every nation as long as we shall have nations, and particularly every clime, whether coinciding with national boundaries or not, will of necessity develop identifying characteristics in any truthful architecture; but the nineteenth century with its revolutionary contributions to communication between the peoples of the earth, put behind us forever the isolation of national thought and expression in self-contained units, the influence of each unit limited to a slow advance along the commercial routes of Europe and Asia or transplanted violently as part of the spoils of war. To the rich inheritance of all past time, representing the most exalted expression attained by the noblest spirits of China, India, Persia, Egypt, Greece, Rome and Medieval Europe, are added streams of inspiration pouring in upon us from contemporary art throughout the world. The so-called "modern" movement in Central Europe and the Scandinavian countries is as well known to American architects as to Europeans and its outstanding examples are published and analyzed in the architectural press of America as freely as the work of our own architects. Most probably the new Town Hall at Stockholm has been given as careful study by American architects as any of the outstanding contemporary works in our

own country. And I believe that architects throughout Europe keep as closely in touch with the work done here.

All of which points clearly to the fact that the architecture of the future will be influenced as directly by great work in any part of the world as the architecture of Greece was influenced by the works of neighboring cities or as each cathedral built in Western Europe was influenced by those which immediately preceded it.

With the timely passing of period art and its forgeries of other men's minds and souls as well as the idiosyncrasies of their manual craft and skill, the architectural future has a field cleared of the blighting influence of the sophistries which have beset it on every hand, whenever we are ready to declare that we have done with them. We should not fear to build our own interpretation of today, as God gives us the inspiration and power to know and feel and see it in its most beautiful aspect, upon the great foundation made up of the aspirations and the sweat and blood of the past.

Our obligation is to contribute to the utmost that is in us to the great architecture of the world and to help those who follow us to contribute more on the structure we have thus developed. It is here that we feel the need of understanding clearly the nature of our opportunity and its challenge. We have chosen architecture as a medium by which each of us shall give his personality to the evolution of life. If we are to insure as great a contribution as comes from those who have chosen other media for their life expression, we must seek the fullest expression of our art.

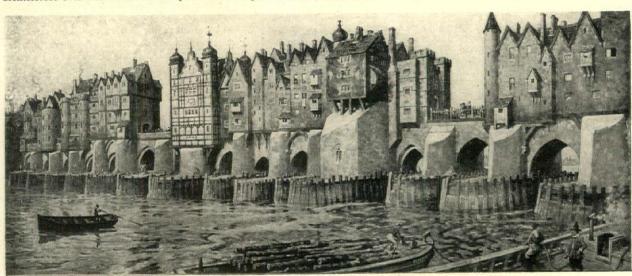
What, then, is architecture in its fullest manifestation and what are the elements which must be present?

In schools and among professional artists, architecture is usually listed as one in a catalog of the arts. The crafts, for some indefensible reason, are classed separately, but certainly they are the very essence of art as applied to material things. Architecture has been called the "mother" of the arts, and this expression reveals recognition of a necessary relation of all the arts and their interdependence—in short, a family of the arts. I have come to the firm conviction that architecture can have no existence apart from the elements of which it is composed; that no architecture can be created or ever has been created which is not an assemblage of the arts; and that no truly great architecture ever was or can be except it be a complete fusion

of all the arts into a perfect harmony, each dependent upon the other, the whole inspired at its conception by the appropriate beauty each holds ready for the enrichment of every other and of the whole. This is more than co-operation; it is the stimulation and cross-fertilization of all by the collective presence of a full orchestra of creative impulse. Who can read of the gatherings of artists in the gardens of the great art patrons of the Renaissance, or that earlier description of the building of Solomon's Temple, where the workers in stone and wood and iron, in gold and ivory and precious stones, were called to give their best to a glorious fabric, without feeling the influence these contacts must have had upon the whole? The objects taken from Tutenkhamen's tomb might have been the work of the cathedral builders of the thirteenth century, for both proclaim the presence of all the arts at their conception.

Here, then, lies the trail over which we must travel, hand in hand, a happy company of the arts, each enriching the others with a power and vision none could hope to achieve alone.

This convention has been planned to make such a theme its major motif; to inaugurate understanding co-operation of all those whose lives are dedicated to the service of the several arts, both in the schools and in the actual building of the fabric of the world; to help us to know each other better, that each of us shall be enriched by that knowledge, that in creating the material we may help each other to express the spiritual, that sculpture may once more be thought of as part of a parthenon without losing its dignity as sculpture, that painting may become again a vital part of walls and ceilings and altar-pieces, that the names of artists will recall their part in collective compositions as do the names of della Robbia, Giotto and LeNotre. Upon this theme there has already been founded The American Academy in Rome, The American Federation of Arts, and The Architectural League of New York. Upon it our Committee on Education, backed by the Carnegie Foundation, has launched its program for a wider understanding of the significance of the arts and upon it I hope The American Institute of Architects will build a program for the future in which all the elements of architecture shall be represented in all our contacts with the schools and the public as well as within our own profession.



OLD LONDON BRIDGE

FROM A PAINTING BY MONROE S. ORR, REPRODUCED FROM THE BUILDER, LONDON

THE COMMITTEE REPORTS

THE VARIOUS committee reports submitted to the convention have always in previous years been documents of unusual value. They were marked by many indications of careful study and thorough knowledge of the subjects treated. This year these reports are equally good, but as it happens they are in many instances able to present the evidence of constructive results based either on the recommendations of previous years, or carrying forward good solutions of problems that have arisen since the last convention.

Committee on Public Works Abram Garfield, Chairman

THE WORK of this Committee is probably more intensive than any other. Its problems are seldom constant and change with every building problem of the Government. As more closely in touch with Government programs than any other section of the Institute, such recommendations as the Institute may believe desirable to make are largely founded on the reports of the Committee on Public Works. This report, first dealing generally with the matter of public buildings, states:

When the present building bill was proposed in the House of Representatives it carried with it a provision that Government buildings should be standardized, or words to that effect. Fortunately this was modified, but it is well for us to consider why the phrase was used and it does not do for us to wave it

aside as something too far removed from reality for argument. The history of the design and planning of Federal. State and other public buildings is not of the best from certain reasonable standpoints. Consider the view of an observing citizen who has no great knowledge of architectural practice or history. He works in an office building, a factory where the greatest attention has been given to the economy of arrangement and where the planning of the interior received the first and greatest attention. He may be correct in his view that the outside of his building is good even though it does little more than closely fit the plan; and, curiously enough, his observation is quite along the lines of that architectural philosophy which we have all been taught. The same citizen is called upon to admire some public building. It may well be a building that architects have approved and commended, but his observations may lead him to wonder why. The corridors are too wide. The rooms too high and not easily divisible. Their depth precludes the use of the side furthest from the light. It seems to him very extravagant. His attention is called to the fact that public buildings are not to be judged on the basis of a building which must be made to pay and he is ready to admit this but suspects that many of them have been built so well that they will stand for generations after they have become obsolete. The citizen becomes outraged. He believes that he sees waste and unintelligent planning. He knows that the cost of building is greater than formerly, and not being familiar with all of our vocabulary, asks for reform and uses the word which most quickly expresses his method of reaching a result. He does not think that the architect is sympathetic and has come to believe that monumental design means only one thing-extravagance. He asks for standardiza-

Truly he does not want that thing; but his argument finds such universal illustration that we must be ready with an answer and a solution in terms which he can understand. We have



ALFRED GRANGER AND EARL REED, JR. OF CHICAGO. AND KENNETH MURCHISON OF NEW YORK



GORDON D. WHITE AND TEMPLE H. BUELL OF DENVER, AND OSCAR T. LANG OF MINNEAPOLIS

our ideas of Government buildings but it is possible that we have always described them in our own terms and not in the terms that another will comprehend. It is also possible that we have accepted the usual plan with too little consideration. If we build a Government building upon lines that were laid down and found satisfactory a hundred years ago, we must prove that Government has not progressed or changed. If this is lamentably true in certain respects, it is not always so. Let us, therefore, meet the demand for standardization not as obstructionists but as students. The demand has a meaning and one need not fear that the same close study of the use of a building that is given to a project which must pay, will remove Government work from the realms of art. It is also possible that standardization has had its part in bringing about the very things that are criticized. We have been told that a post office plan is a determined thing. Everyone knows the plan of a state capitol. These are some of the standardizations that exist and if improvement and economy are to be brought about it may well be that we must first escape from the very thing that has been demanded.

Architects themselves have demanded something new in Government buildings and have begun by assailing colonnades. This is no nearer to a valuable suggestion than the demand for a standardized workshop. If our training and pronouncements mean anything we know that the subject of improvement is not to be approached from the outside of a building. If Government architecture is to be improved or greatly changed it may only be done by a study of the workings of Government. If the workings of Government have changed, the plans will change and the exterior of the buildings will follow as they must. There is no dictum of the schools which is older but we do so often forget our first lessons.

Committee on Education George C. Nimmons, Chairman

THIS IS an extremely valuable report as dealing with one of the most important matters that can

W. A. PAINE, C. L. INSCHO, M. L. MILLSPAUGH OF COLUMBUS, AND WILLIAM B. ITTNER OF ST. LOUIS

engage the attention of the Institute. The field considered has become so large that a report in the usual form would be inadequate.

This Committee has originated a well considered plan of presenting as a report, special papers by different members of the Committee, each dealing with a specific phase.

Mr. Nimmons, the chairman, discussed the Carnegie Art Courses given at the Art Institute of Chicago to the representatives of twenty-one colleges of the country.

Charles Butler's paper discussed the Beaux-Arts Institute of Design and the American Academy in Rome. In summing up the activities of the Beaux-Arts Institute of Design, Mr. Butler states:

The Committee on Education takes the liberty of suggesting to the membership of the Institute that they might well show their appreciation of the work of the Beaux-Arts Institute of Design by becoming Associate Members of that body.

These two activities, the Beaux-Arts Institute of Design, serving principally the student who is supporting himself, while he struggles to fit himself for the practice of his profession, and the American Academy in Rome with the opportunity which it offers to the graduate student to do collaborative work under unique surroundings, are achievements of which the profession may well be proud.

Every architect, whether or not he is a member of the Institute, should read the report of the Committee on Education in its entirety. It seems to be a duty to do so. We regret that our available space will not permit us to reprint this report in full.

The report concludes with a paper by C. C.



WM. C. WEST, VIRGINIA, AND WM. POPE BARNEY, FRANK R. WATSON AND PAUL A. DAVIS III OF PHILADELPHIA

Zantzinger. This is, in a sense, the report of a sub-committee on the educational work that is being done at the Foundation for Architecture and Landscape Architecture, by Ferruccio Vitale and his associates. This effort on the part of the Foundation is heartily endorsed in this report. Mr. Zantzinger also discusses the American Federation of Arts and the series of lectures made possible by the Waid Education Fund. The sub-committee states that a great and valuable work is being accomplished by these lectures.

Committee on Public Information Wm. Harmon Beers, Chairman

THIS IS a committee that has functioned in the most valuable way. Never in previous history has the cause of the Institute been better served. The value of good architecture as a sound commercial asset, the value of the architect's services in every building operation have been broadcast in a manner never before achieved.

The policy of the Committee, as set forth in this report, to arouse interest in the Institute and its chapters, has been efficiently carried forward.

The following extract from this report shows the grasp that the Committee has on the matter of public information. It states:

Any estimate of the worth of the "Plan for the Education of the Public as to the Character and Value of Architectural Service" must recognize the distinction between news and advertising. It is a fundamental principle of newspaper-making

W. E. FISHER, DENVER, N. MAX DUNNING, CHICAGO, W. R. B. WILLCOX OF OREGON

that news channels itself. By this we mean that news is news wherever found. Should news arise in the profession of architecture, this news will be printed by the newspapers. But, obviously, the newspapers have not the means of ascertaining when news arises in architecture, and even if they did, the news could not easily be identified when it did arise because of the lack of vigilance which must necessarily result from the separation of the newspaper organization and the source of architectural news.

Advertising, on the other hand, deals primarily with the commercial aspects of social organization. The public can be educated through the advertising columns, but this method of publicity always implies bias of the advertiser. Advertising expresses the point of view of the author of the advertisement. News reflects the point of view of the newspaper. In advertising, the advertiser goes forward upon his own initiative. In news, the newspaper goes forward upon its initiative. In other words, news calls for the exercise of a reporting function, which is disinterested. Advertising calls for the exercise of a commercialized editorial function, which concededly is one of self-interest.

To sum up: a publicity system has been established and is in full working order—one which we feel is sure of steady development, if properly financed. Your Board of Directors, at its meeting in December. 1926, increased the appropriation of this Committee to \$4,000.00 for the present year; but your Committee earnestly requests that additional \$2,000.00, total appropriation being \$500.00 per month, this sum to cover the complete cost of the continuous and nationwide service.

Committee on Foreign Relations Professor William Emerson, Chairman

THE WORK of this important Committee has been marked by the finest accomplishment. Due to its



DAVID J. WITMER AND SUMNER P. HUNT, LOS ANGELES, WM. STANLEY PARKER, BOSTON

well directed efforts, the isolation that architects in this country experienced, has been dispelled. American architects will find that in most countries of the old world and in South America, the way has been paved for the most fine and pleasant intercourse. The report is reprinted herewith in full.

The Committee on Foreign Relations has established contacts during the current year with the Committee of the International Building Exhibition at Turin, Italy; with the Royal Victorian Institute of Architects at Melbourne, Australia; and with the Pan-American Congress of Architects in Buenos Aires, South America; all of these in connection with exhibitions of American architecture. The relations that have been developed during the past year with the South American architects, largely through the instrumentality of Mr. Watson and Mr. Plack of the Philadelphia Chapter, have resulted in just that form of co-operation that is most likely to promote a better understanding between the countries affected, and it is hoped that in addition to the exhibition referred to above, the architects of the United States will in increasing numbers find it possible to attend the Annual Congress of our neighbor architects in South America.



THREE DELEGATES FROM LOUISIANA, HERMAN J. DUNCAN, ARTHUR FEITEL AND WILLIAM P. SPRATLING

The Committee has further, with the co-operation of other members of the Institute, secured facilities for visiting groups of German architects and is at present engaged in co-operation with the American Engineering Council in placing architectural students, recommended by the Czechoslovakian Government, in offices in this country.

It has established relations with the Royal Institute of British Architects in regard to the best means of approaching the question of the restoration of Sta. Sophia in Constantinople, and with both French and British architectural organizations concerning the possibility of friendly aid to visiting French and British architects and students.

The most time-consuming of these activities has certainly been that of the exhibitions which the Committee believes might properly be handled by a separate group existing exclusively for this purpose. So valuable and essential in the opinion of the Committee are the possibilities of international professional relations, and so desirable that the policy established in one year by the Committee be continued in successive years, that the Committee would like to recommend the establishment of a Standing Committee on Foreign Relations of nine members, three to be appointed each succeeding year for a period of three years, in order that the opportunities which these contacts with foreign architects provide shall be utilized to the best possible advantage not only to the end of a better international understanding, but in order that we in this country may profit by that longer acquaintance with the arts in all their expressions which marks the civilization of Europe.

To carry out recommendations that have previously been made to this Committee it desires herewith to nominate for Honorary Corresponding Membership in the American Institute of Architects, Georges Gromort of Paris, France, architect and writer of distinction, a teacher whose devotion to the best interests of his art has endeared him to the many students that have profited from his criticism both at his atelier in Paris and from his lectures at the School in Fontainebleau. Also as Honorary Member, Thomas Adams of London and New York, who has brought the light of wisdom and common sense to bear upon many of the complex problems involved in town planning, and whose guidance of the investigation at present being made by the Sage Foundation has won the admiration of all who have co-operated with him.

Other, and equally valuable, reports will receive attention in later issues. The limits of space, and time before going to press, prevent their notice at this time.

HEARD AT THE CONVENTION

We have reached a point in our national culture which demands that our architects should be more insistent upon the practical art of architecture than upon the economic side which is such a fierce game at the present time.

Albert Kelsey

It is now perfectly evident that state architects throughout the nation are coming.

Henry K. Holsman

The Structural Service Department is a contact that makes it possible to bring together the professional mind with the business mind and I believe that in this movement we are the forerunners of what will be followed by professions and industries generally throughout the United States.

N. Max Dunning

If the architects ever in their lives needed help about the ornament of the building and about the mural painting and the decorating of a building, they need it now because these brother artists know more than the architects about this and the best talent and assistance should be called in, particularly in the design of the future building.

George C. Nimmons



EDITORIAL COMMENT



N season and out, for a period exceeding ten years, this journal has advocated the closest affiliation between architecture and the allied arts. The keynote of this important matter was first struck at a convention held in Washington some years ago. Ralph Adams Cram, chairman of the Committee on Education, in presenting the report of that committee, stated that the craftsman was the architect's alter ego. That made a lasting impression. Architecture was at that time entering on the period of its greatest achievement. We had begun to cast off the influences of an old world tradition and to move forward on the course that has brought us to our present fine achievement. But the one thing that at the outset retarded the freedom of our progress was the fact that the architect could only design and plan up to the point where the craftsman could co-operate.

Architectural societies began to sense the imporance of the higher education of the craftsman. They felt then, as they do in a higher and fuller degree now, that craftsmen should know something more than the mere details of their craft; they should know something of the art of architecture, if they hoped to collaborate successfully. The exhibitions of The Architectural League of New York began to assign space to the work of the craftsman. The Metropolitan Museum of Art in New York began a series of exhibitions and a course of lectures that supplemented the education of the craftsman to a fine degree of performance. And now, The American Institute of Architects at its annual convention has announced through its Committee on Allied Arts, its intention to foster and promote the closest possible relation between architecture as an art and the various arts and crafts that co-operate to produce a splendid result.

During a long experience we have often heard, and sometimes met, that misguided architect who likes to tell us that he never reads an architectural paper. There's that other individual who tells us he has no time to read architectural journals. If by any chance these lines should reach his eye,—perhaps one of his draftsmen will tell him that we are referring to him,—we strongly urge him to read the address of C. Grant La Farge, chairman of the Committee on Allied Arts, presented on the first day of the convention. This address is, in a sense, introductory to the general report of the committee, and will be found on page 745 of this issue. It was enthusiastically approved by the convention, and the work outlined will undoubtedly be the major effort of the Institute from now until the next convention.

The Institute will now, said Mr. La Farge, turn its attention to architecture as an art, after long debate of it as a science, a profession. The landscape architect, the sculptor, the mural painter and the craftsman have now become trained to a degree never attained before. The schools in which these men are trained are brought to the highest state of efficiency.

There is now the greatest possibility of unison between architecture and all the crafts and this movement to unify them is of the first importance.

If we observe, continues Mr. La Farge, a beautiful building, wisely placed in a beautiful setting, complete in all its details and appointments, ready to serve its human purpose, who amongst us dare have the hardihood to draw the rigid boundary line demarking its architecture, separating that art from its sisters?

This is truly the right spirit in this matter. It is the attitude that the Institute should assume, the point of view that will bring the whole subject to a glorious, successful conclusion.

An obstacle that has barred the way to a better alliance between architecture and the sister arts and crafts, has been the submergence of the craftsman by those who pay him for his work. In the past, there has been scant recognition that he was an artist in his line, aside from the money he has found in his payroll envelope.

Here, again, The Architectural League of New York deserves mention. During its last exhibition the announcement of awards to firms, either of architects or of manufacturers, carried with it the name or names of the designers who were largely responsible for certain features. If there is to be a closer contact between all the artistic units that combine to make a beautiful result, it will be more quickly attained when there is recognition of individual effort on the part of every collaborating art and craft. This point has been admirably explained in Mr. La Farge's address. It is so pertinent that we believe it may be proper to quote it in full here. Referring to Benjamin Wistar Morris' description of the Great Hall of the Cunard Building, Mr. Morris stated: "Together we (the architect, the mural painter, sculptor and craftsman) worked, composing the subdivisions of space, the enrichment of the dividing members and the general distribution and key to color. Throughout, Winter showed his mastery of the problem and never for a moment forgot his architecture; himself he forgot completely it really was a great happy family." He speaks of Faulkner's lovely wall maps, and tells how the color

of the composition had to be brought down upon the walls, "and the whole arranged in a single composition, lying in peace and quiet upon the surfaces:"—how John Gregory had the floor as a virgin field, on which to make his wonderful seal, and of the good fellowship and harmony in which appear the works of Jennewein and Nobel and Yellin. Most movingly, in a few words, he refers to the Sunday vists of the mechanics and laborers of all trades come with their families to admire. And he says that "here were the works of painter, sculptor, modeller and ironworker living in harmony and not intentionally, at any rate, shouting at one another. What an age! What glorious fun!"

We shall look forward with a very large amount of interest to the work of the Committee on Allied Arts during the coming year, and it is not necessary to assure that committee that THE AMERICAN ARCHITECT, believing as do its editors in the importance of the work in hand, will contribute everything in its power to help in reaching a consummation so devoutly to be wished.

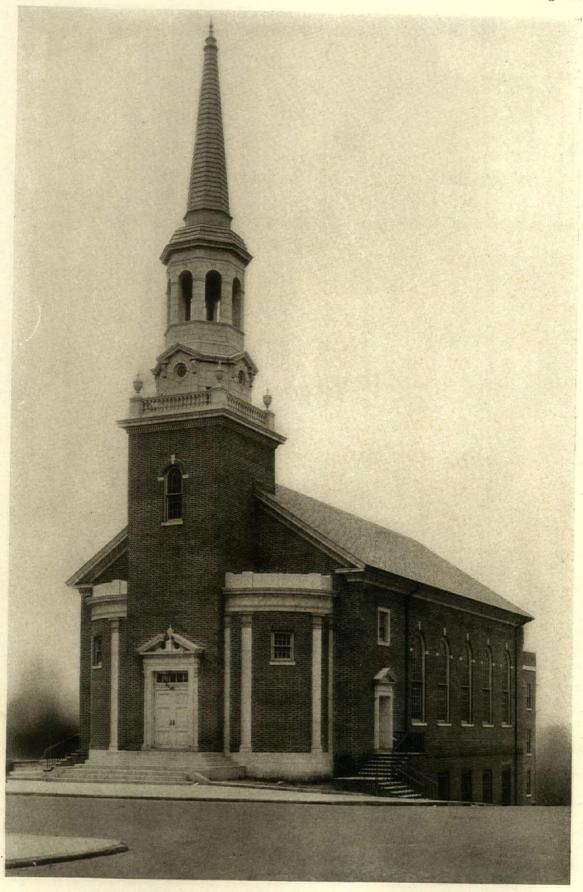
20

FOREIGNERS often criticize Americans as mercenary and too much wrapt up in commercial enterprise to appreciate true art. We are, most of us, bent on wealth, and often forget that there are other things much more lasting and enduring than the accumulating of money. A New York clergyman recently declared that the dominating purpose of modern education in this country is first of all the acquisition of wealth as a means to securing social position and political prestige. Architecture is, of course, nothing if not an art, so that the architectural student may not be included in this sweeping charge.

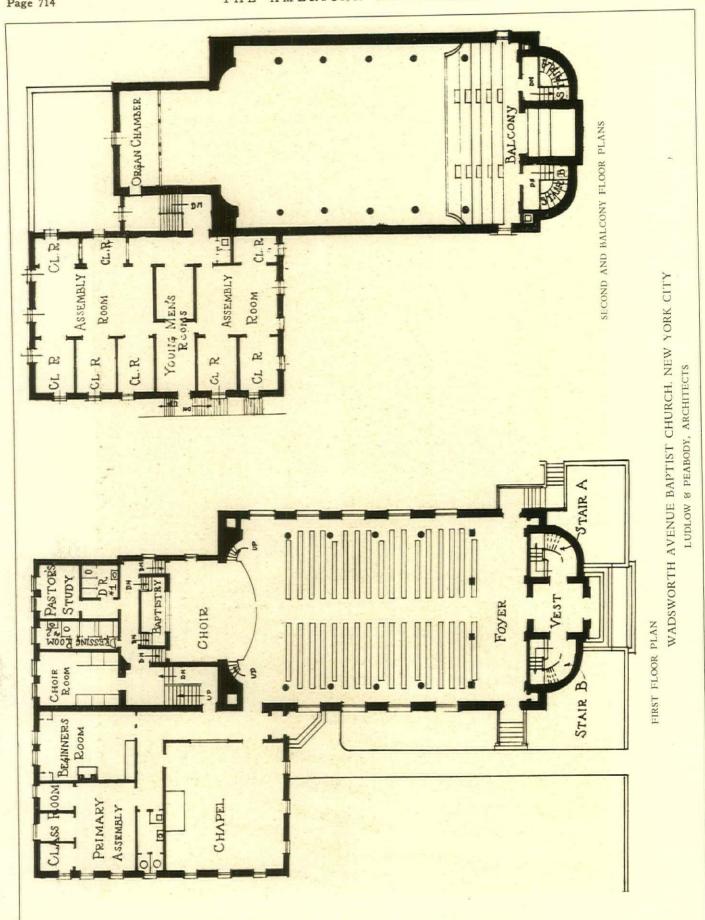
But, while there is a definite relationship of architecture to commerce, architecture can never be divorced from art altogether. One of the greatest problems with which the architectural profession in this country is faced is the necessity for designing artistic structures that shall at the same time meet certain economic and occupational requirements. In the design of a skyscraper, for example, the architect must consider the rental value per cubic foot, the land cost, and the cost of construction before he can determine the height of the building and its mass design. But, still, architecture in this country remains the art of designing buildings, although certain critical foreigners, believing that art and industry cannot mix, are prone to admit it. Occasionally a foreigner comes to these shores and is immediately carried away by the artistic quality of our architecture. Senator Luigi Luiggi, famous Italian port engineer and professor of structural engineering at the University of Rome, who recently visited this country to make a study of America's tall buildings, saw life as well as art in our skyscrapers. "I have studied the pyramids of Egypt," he said, "but they are simply the creation of brute force. I have studied the works of the Greeks and Romans and the cathedrals of Europe. These show the highest achievement in art and science, but they are not alive." He then goes on to state that when one sees an American skyscraper he feels that he is observing a living, human being. "The skeleton of steel, the flesh and muscles of stone, heat flowing like blood from the boilers which are the heart, and the intricate system of telephone wires, serving the part of the nerves." A unique picture, certainly. In conclusion, the Senator states that our great architecture thus seems alive to him, while that of the ancients is dead.



OFFICE SKETCH BY O. R. FREEMAN OF THE OFFICE OF KILHAM, HOPKINS & GREELEY, ARCHITECTS

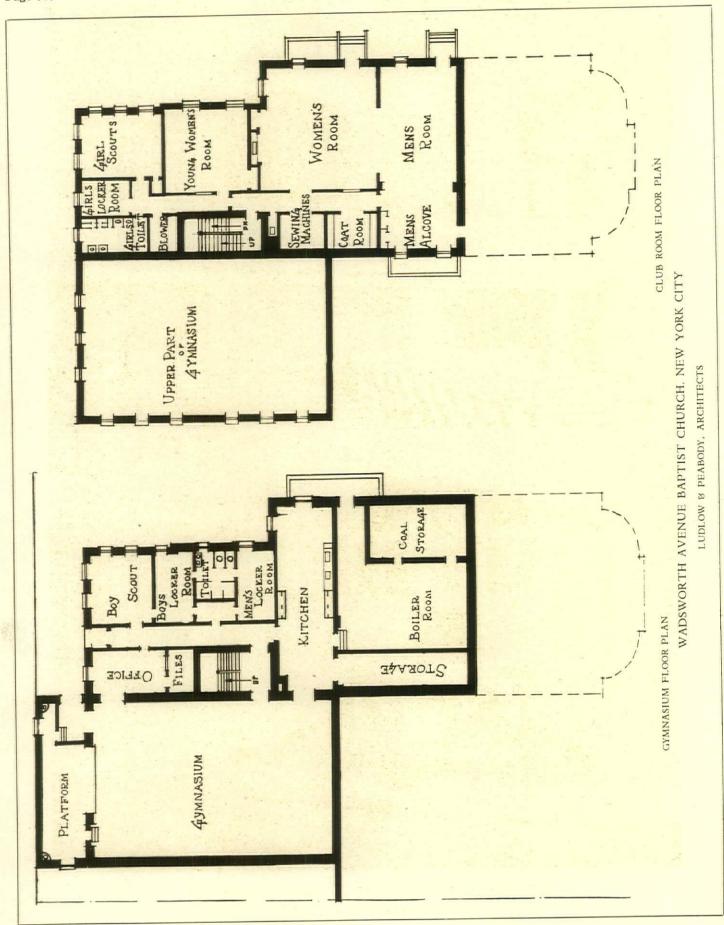


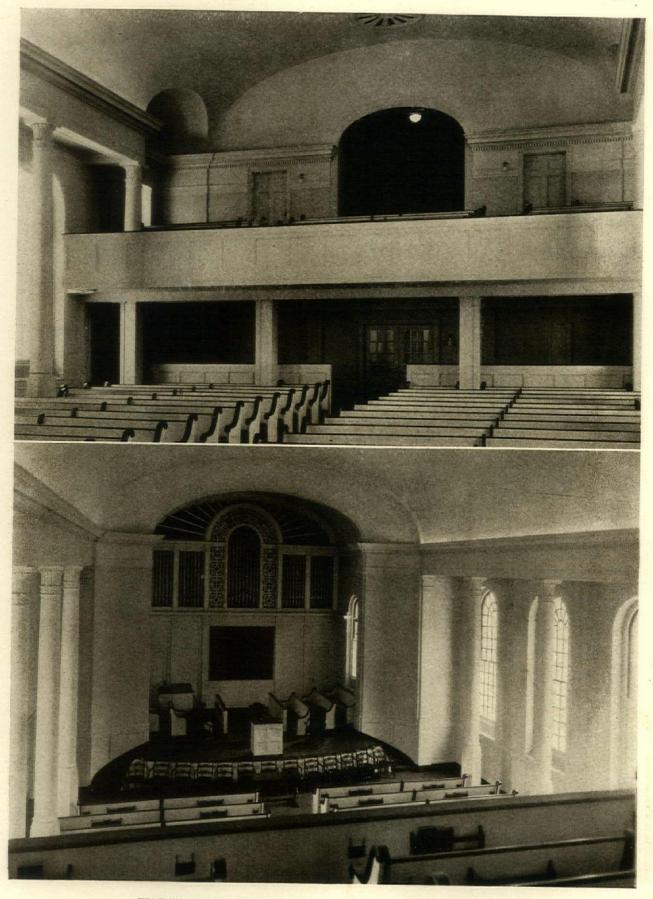
WADSWORTH AVENUE BAPTIST CHURCH, NEW YORK CITY LUDLOW & PEABODY, ARCHITECTS (See plans on back)



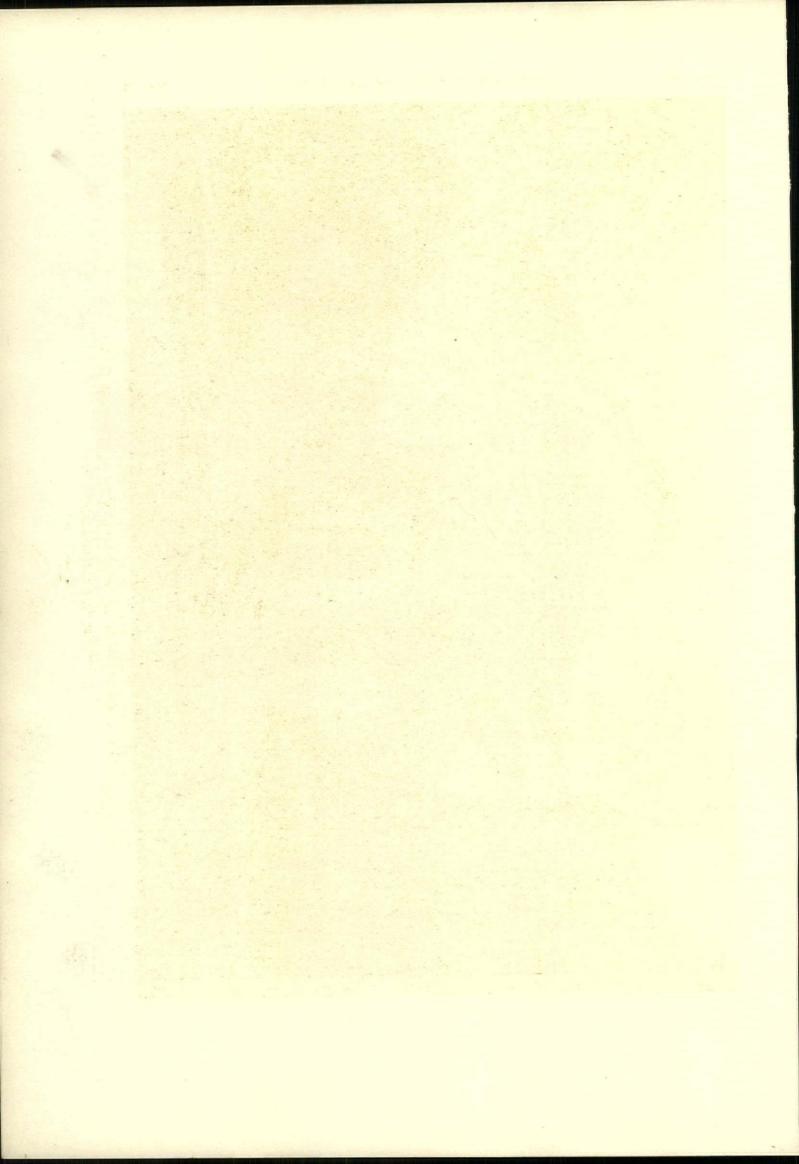


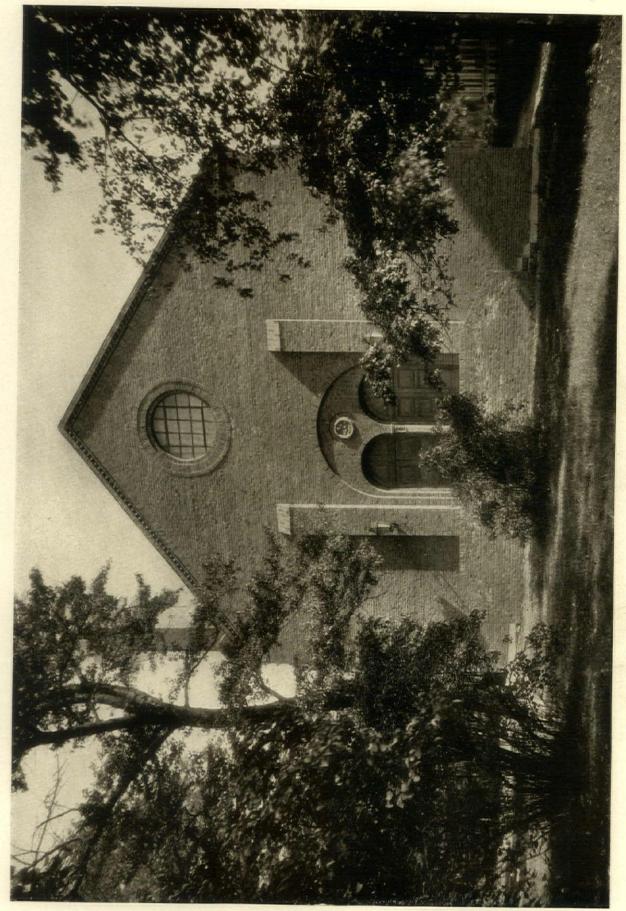
WADSWORTH AVENUE BAPTIST CHURCH, NEW YORK CITY LUDLOW & PEABODY, ARCHITECTS (See plans on back)





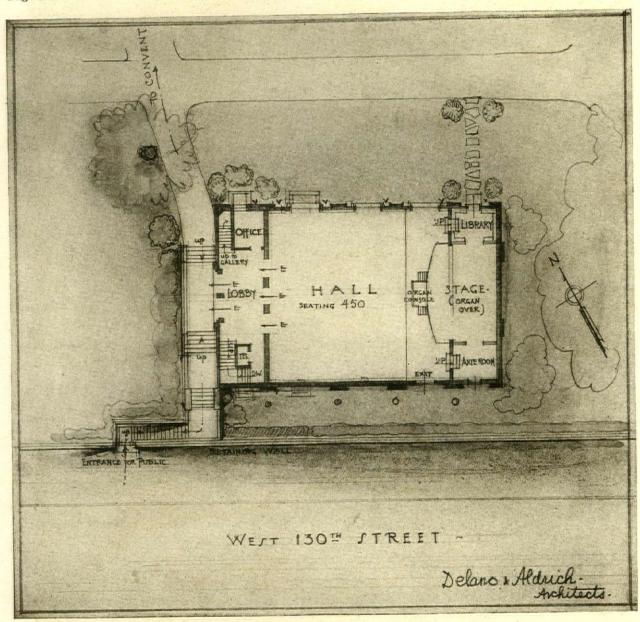
WADSWORTH AVENUE BAPTIST CHURCH, NEW YORK CITY LUDLOW & PEABODY, ARCHITECTS



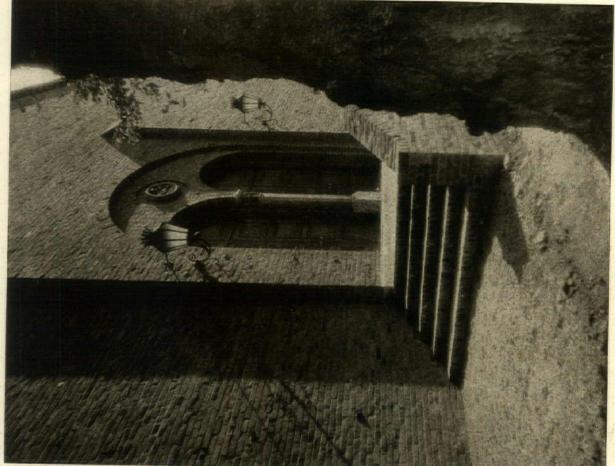


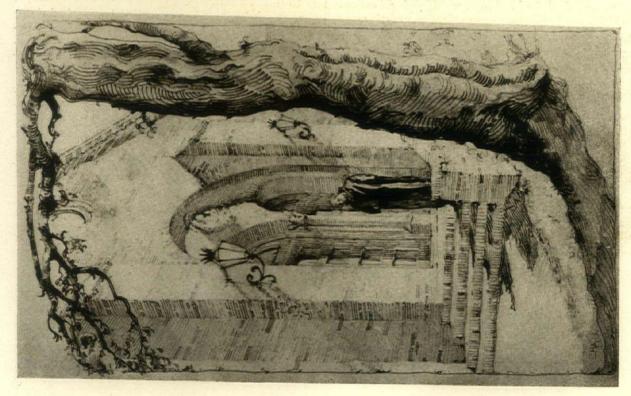
PIUS X SCHOOL OF MUSIC, MANHATTANVILLE, NEW YORK CITY

DELANO & ALDRICH, ARCHITECTS (See plan on back)



PIUS X SCHOOL OF MUSIC, MANHATTANVILLE, NEW YORK CITY DELANO & ALDRICH, ARCHITECTS





PIUS X SCHOOL OF MUSIC, MANHATTANVILLE, NEW YORK CITY

DELANO & ALDRICH, ARCHITECTS

(See description on back)

HALL FOR PIUS X SCHOOL OF LITURGICAL MUSIC, MANHATTANVILLE, NEW YORK CITY

DELANO & ALDRICH, Architects

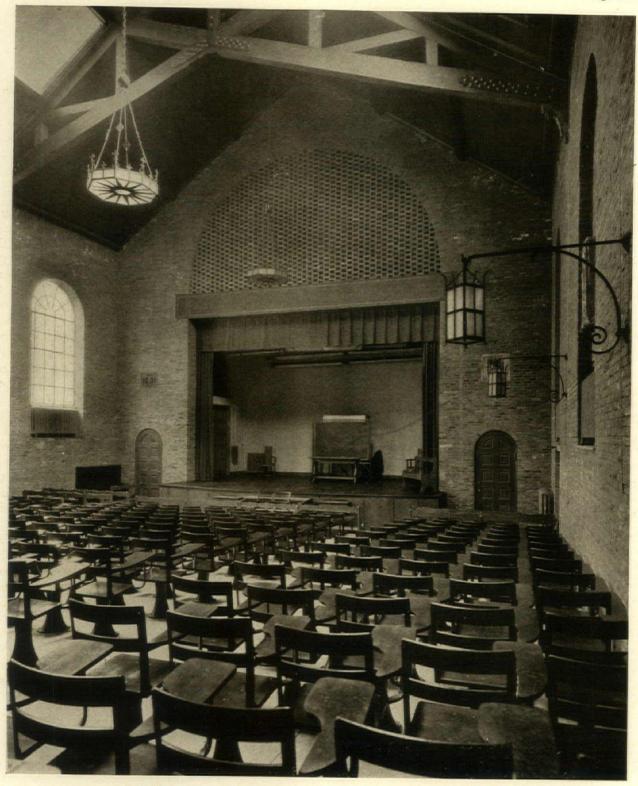
THIS building, while it is thoroughly modern in construction and equipment, has in its atmosphere something of the character and charm of the Old World. It is set on the edge of the Manhattanville Convent grounds, at 130th Street and Convent Avenue, New York City, so that it is, on one hand, directly accessible from the street by means of a solid oak door set in the high retaining wall. The building itself presents on this side an unbroken brick wall, effectually cutting off any noises from the street or from the neighbors. On the other side, the building opens on to the quiet Convent grounds with large arched windows, set with leaded sash.

Under the arch of the main entrance which is approached by steps on either side, is set an early Gothic relief of the Madonna and Child. Also from an old French Gothic church, is the capital representing angels bearing the instruments of the Passion on the octagonal column dividing the entrance doors. Through these doors, one passes directly into the vestibule, from which open the offices of the school, the stairs leading to the basement sitting rooms and lavatories, and those leading to the gallery. Three doorways lead directly into the main hall and between those on the vestibule side are antique twisted columns of stone and on the hall side old stone figures in relief.

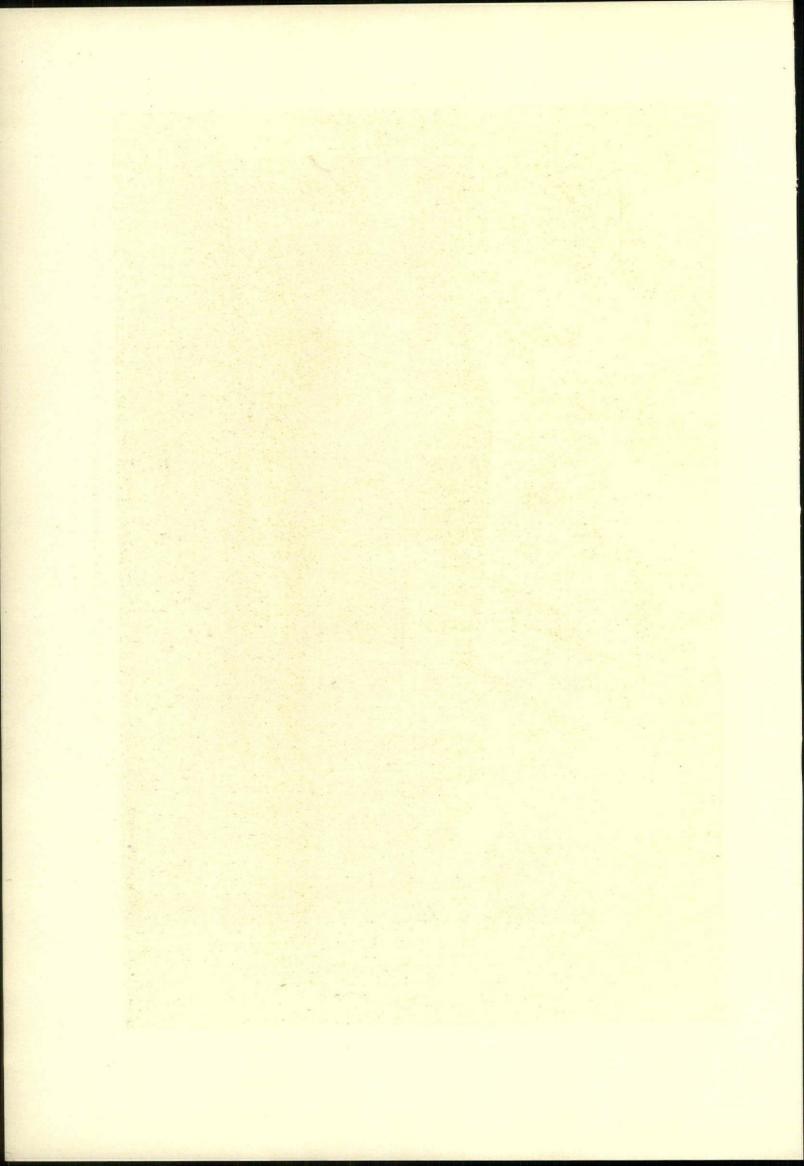
The hall itself, seating four hundred and fifty persons, is of a character at once simple and devotional, with its walls of a Dutch brick, mellow and varied in tone, and its wooden roof, borne by heavy open wooden trusses, set on carved corbels. On one

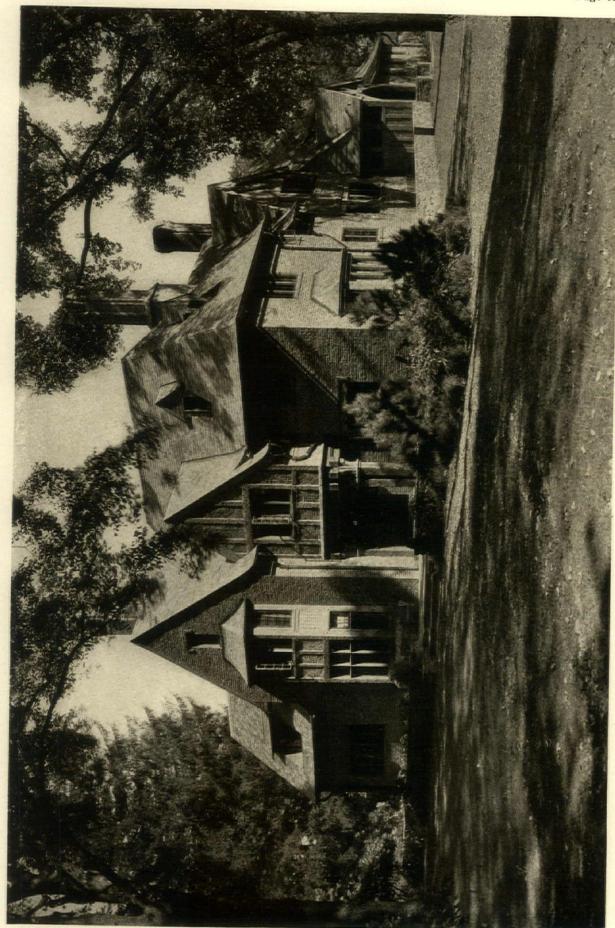
side is the solid wall cutting off the street with three large recessed arches, in the center one of which is set an old French Gothic Calvary in stone; on the other, the three arched windows opening into the garden. Opposite is the stage, flanked by two small arched doors, leading respectively to the small library of Gregorian music and to an anteroom. Over the stage is an arched opening of perforated brickwork which, with two perforated antique stone panels built in over the side arched doors, permits the sound of the organ to come out. The organ has thirty stops and electric action. The organ console is sunk in a pit in front of the stage. Against the arches, which form the back of the stage, are the charts and great books used in teaching, arranged so as to pull up out of sight when not in use. Across the top of the stage is a great lintel, on which is an inscription from the Psalms, which expresses the purpose and spirit of the Institute for the teaching of liturgical song: "Ex ore infantium perfectisti

The building is used for the teaching of Gregorian chant according to the method developed by Mrs. Justine B. Ward, which is based on the work of the Benedictine monks of the Abbey of Solesmes in France. Originally intended for use in Catholic schools, it has shown such results in the teaching of music generally that, with the approval of such authorities as Mme. Sembrich, Mme. Alma Gluck, Mr. Zimbalist and others, it is now being adopted in many secular schools as well as in some schools abroad.



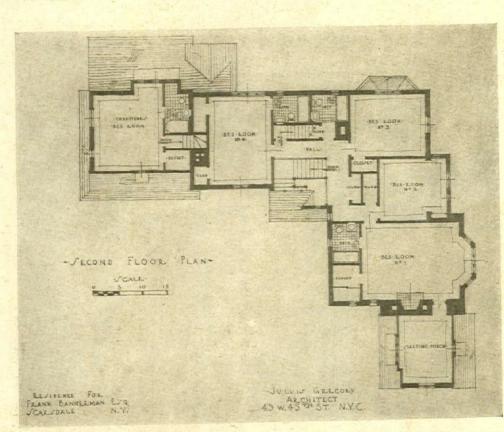
PIUS X SCHOOL OF MUSIC. MANHATTANVILLE, NEW YORK CITY
DELANO & ALDRICH, ARCHITECTS

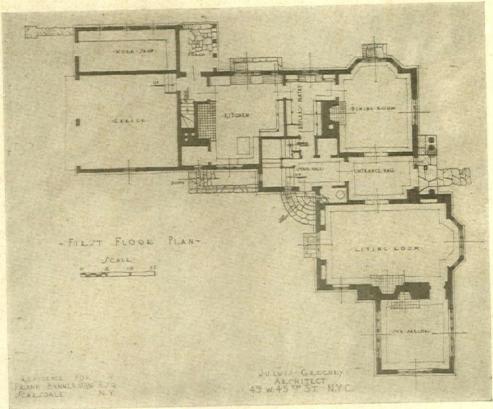




HOUSE OF FRANK BANNERMAN, SCARSDALE, N. Y.

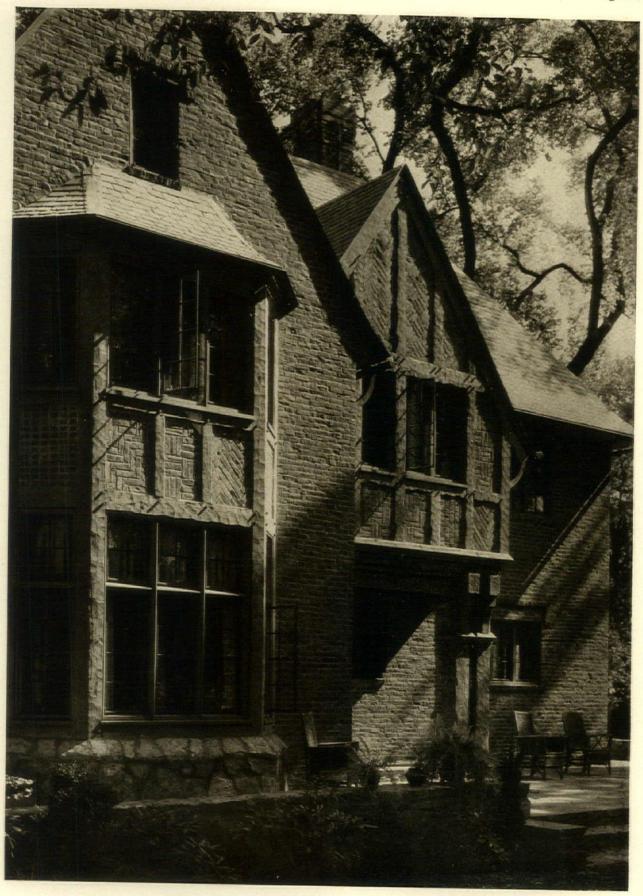
JULIUS GREGORY, ARCHITECT (See plans on back)



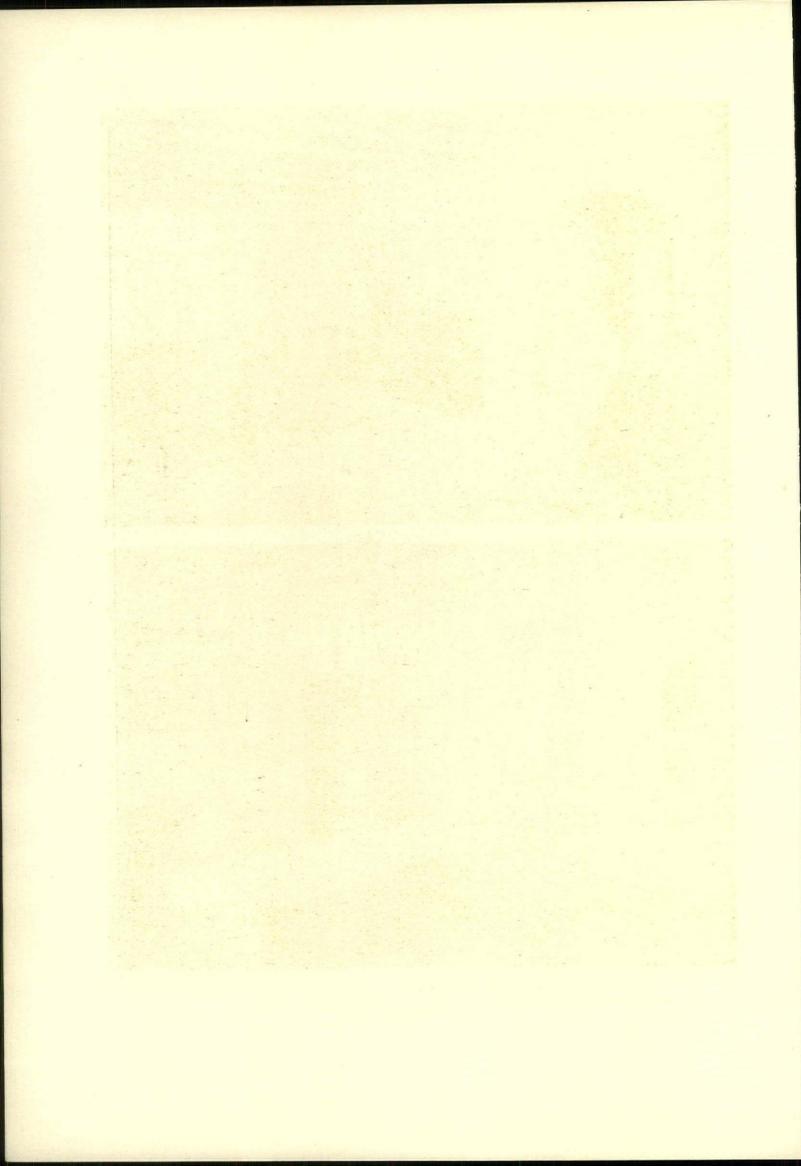


HOUSE OF FRANK BANNERMAN, SCARSDALE, N. Y.

JULIUS GREGORY, ARCHITECT



HOUSE OF FRANK BANNERMAN, SCARSDALE, N. Y.
JULIUS GREGORY, ARCHITECT

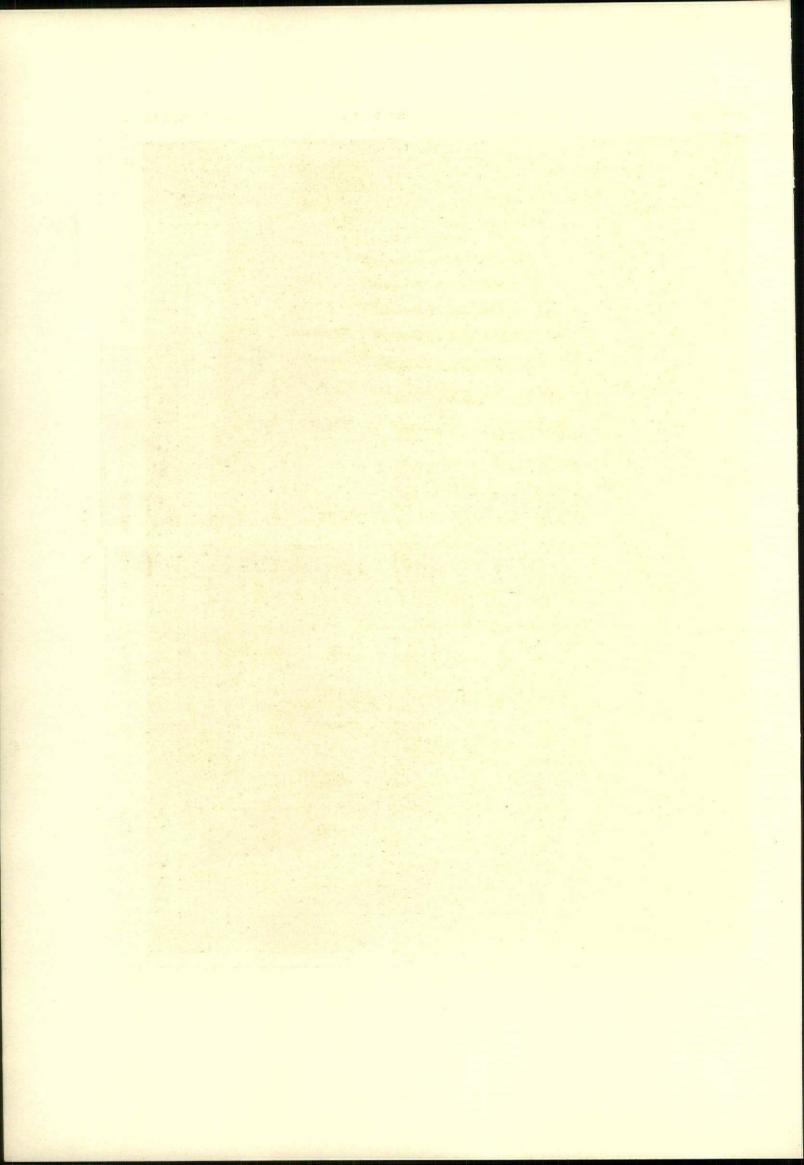


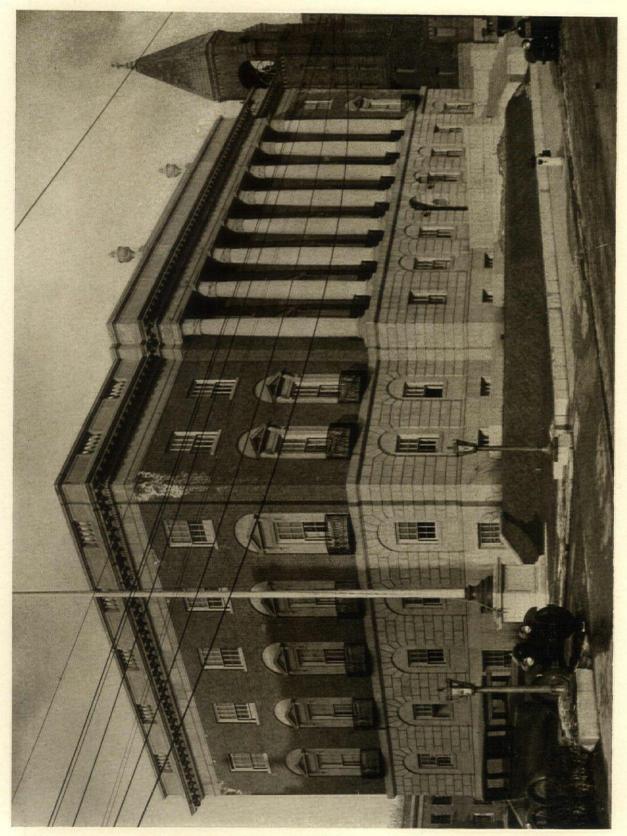




HOUSE OF FRANK BANNERMAN, SCARSDALE, N. Y.

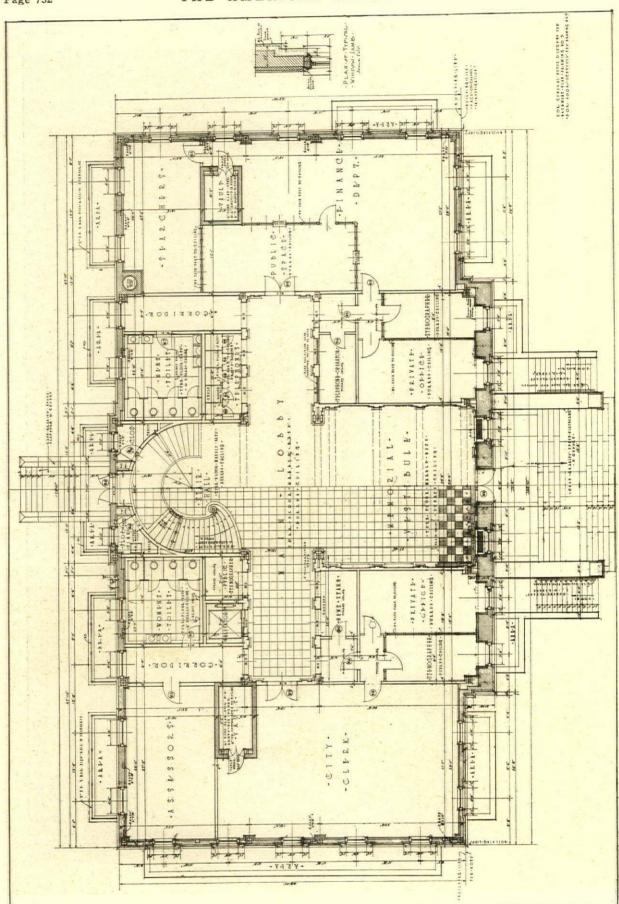
JULIUS GREGORY, ARCHITECT





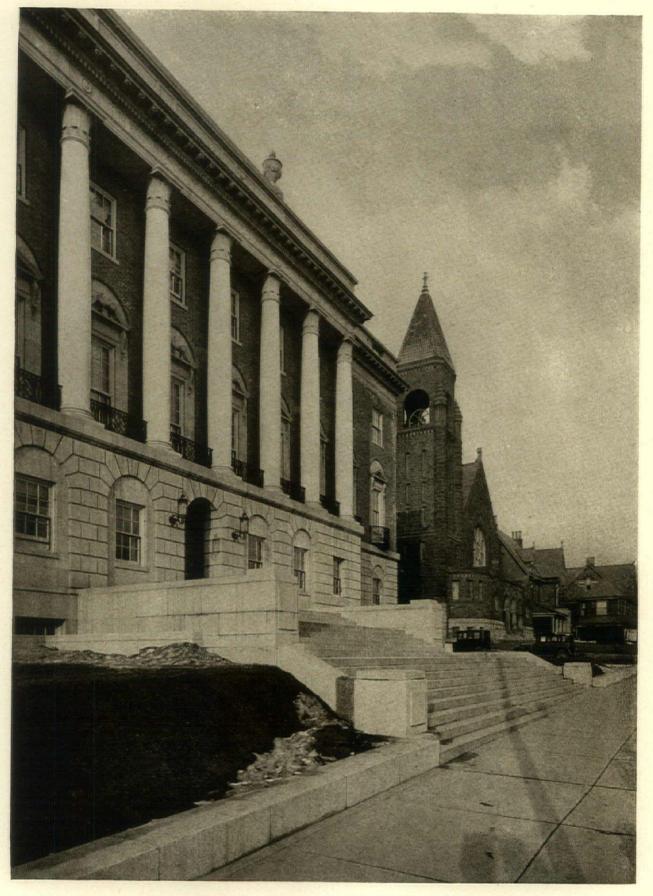
MUNICIPAL BUILDING, WHITE PLAINS, N. Y.

J. H. FREEDLANDER, ARCHITECT (See plan on back)

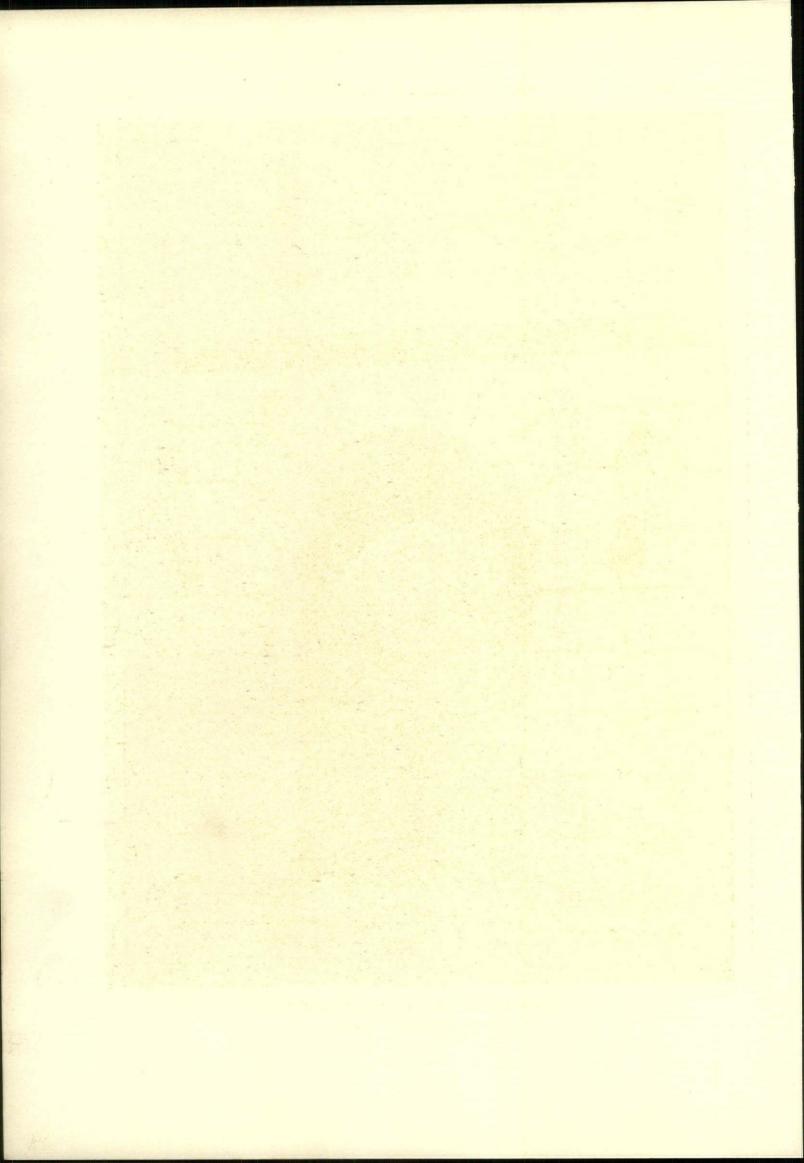


MUNICIPAL BUILDING, WHITE PLAINS, N. Y.

J. H. FREEDLANDER, ARCHITECT



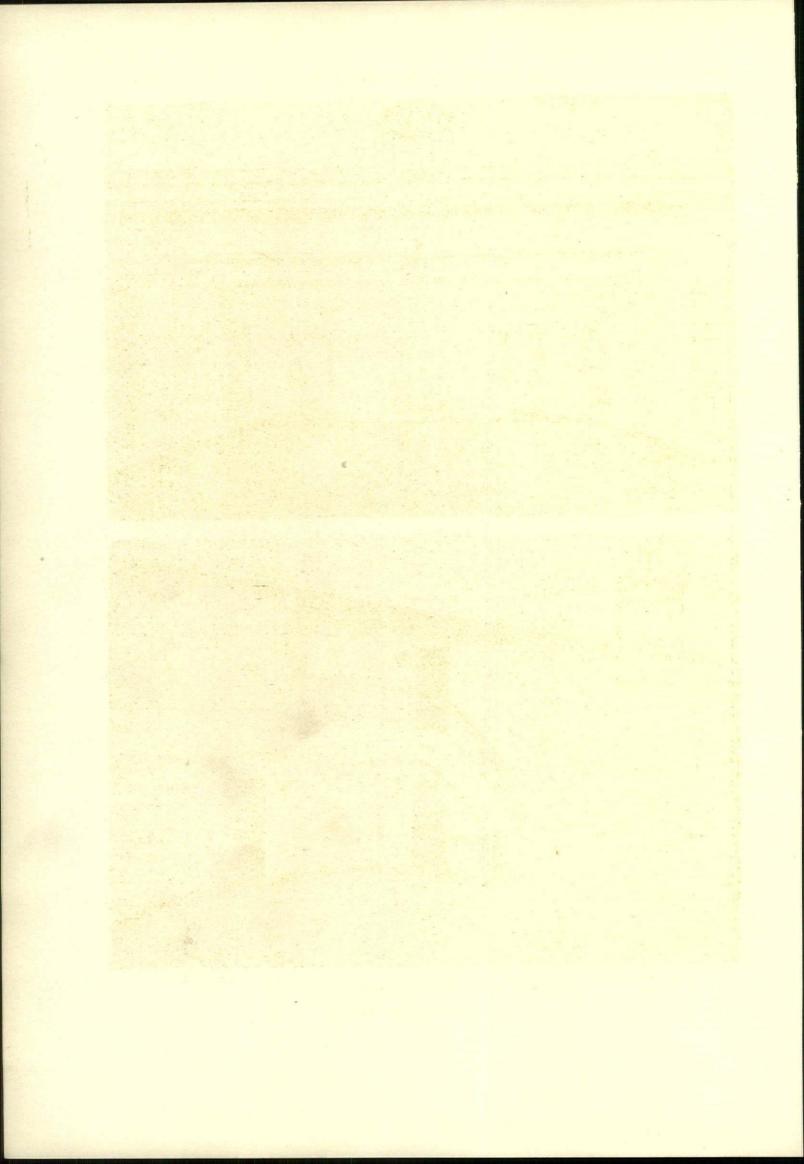
MUNICIPAL BUILDING, WHITE PLAINS, N. Y.
J. H. FREEDLANDER, ARCHITECT

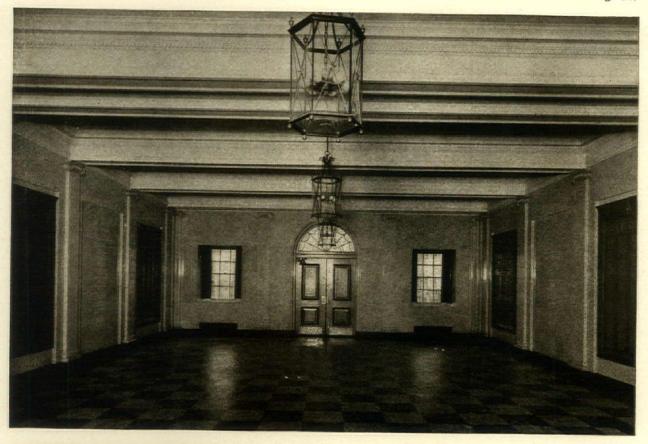




MUNICIPAL BUILDING, WHITE PLAINS, N. Y.

J. H. FREEDLANDER, ARCHITECT

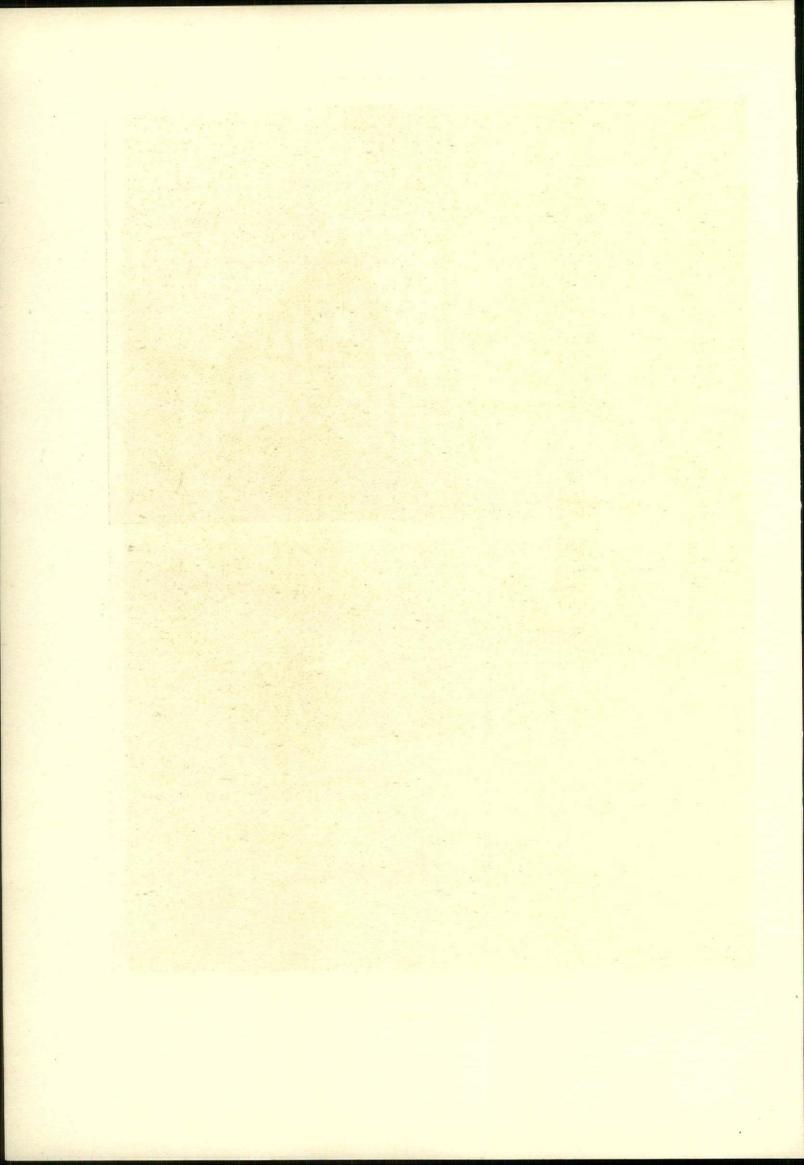


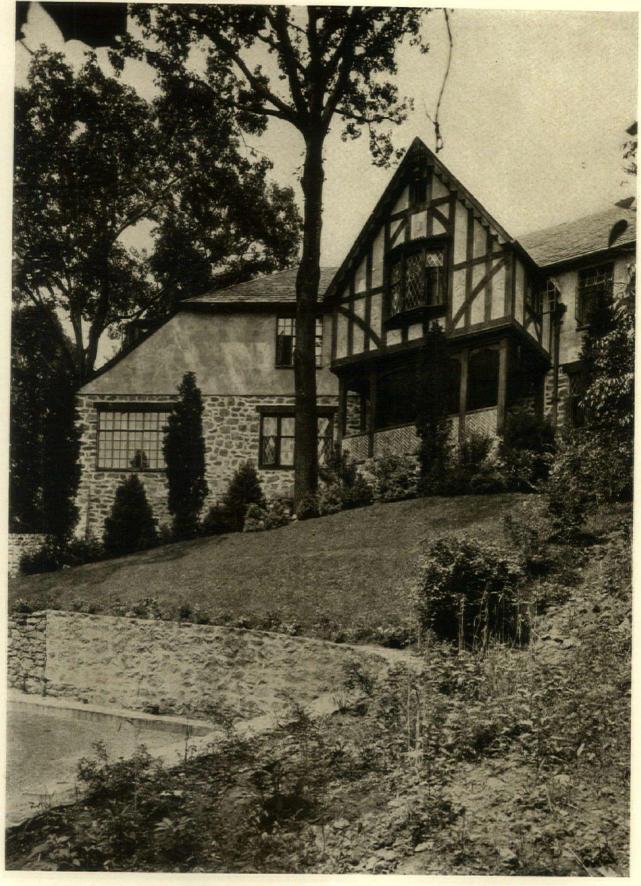




MUNICIPAL BUILDING, WHITE PLAINS, N. Y.

J. H. FREEDLANDER, ARCHITECT

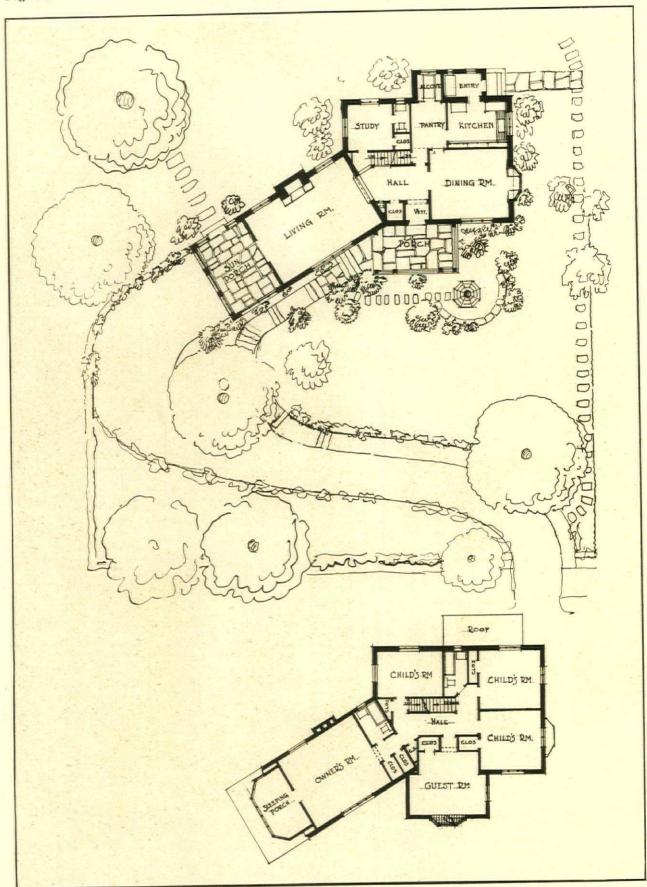




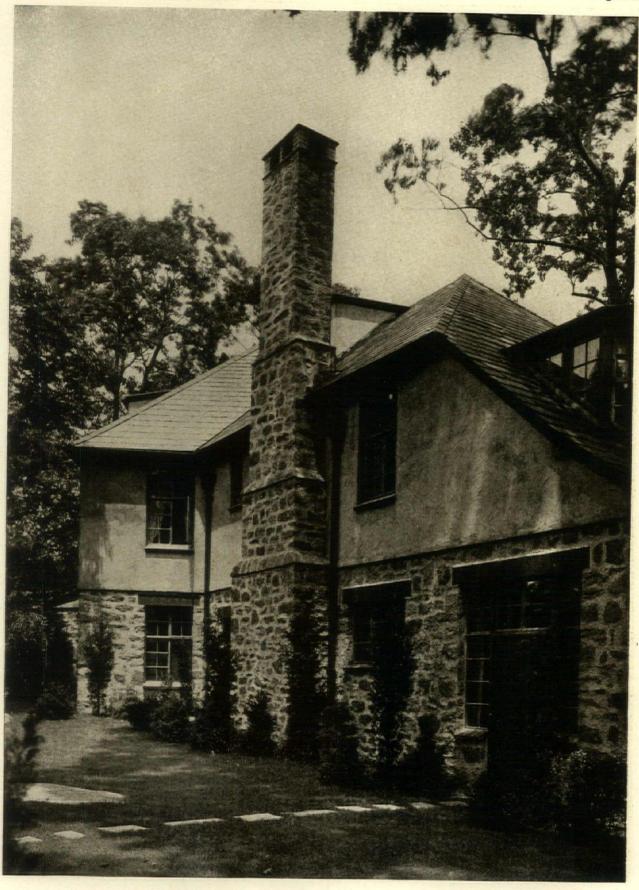
HOUSE OF A. D. KOPPEL, PELHAM HEIGHTS, N. Y.

WILLIAM GEHRON, ARCHITECT

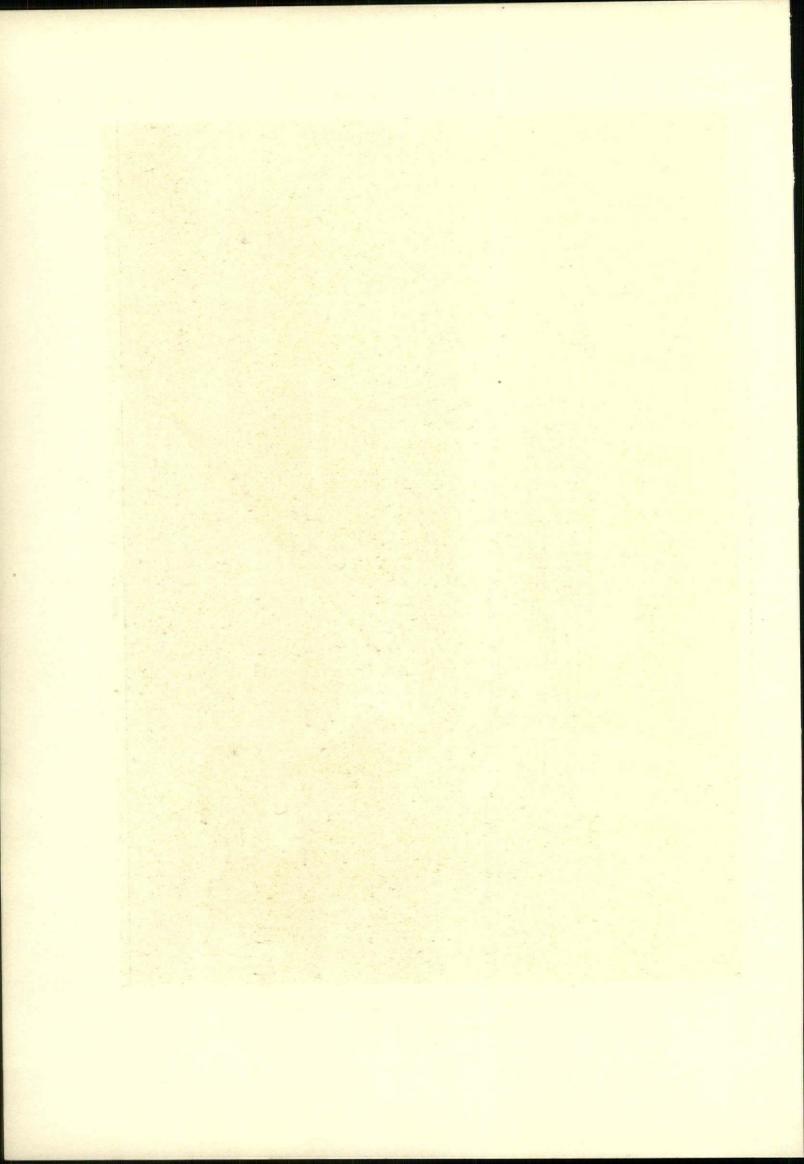
(See plans on back)

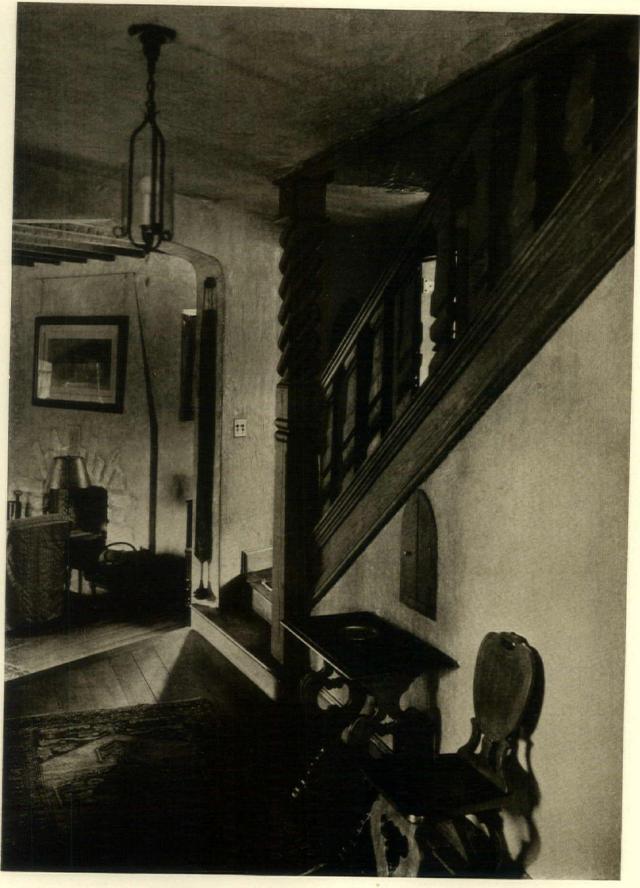


HOUSE OF A. D. KOPPEL, PELHAM HEIGHTS, N. Y. WILLIAM GEHRON, ARCHITECT

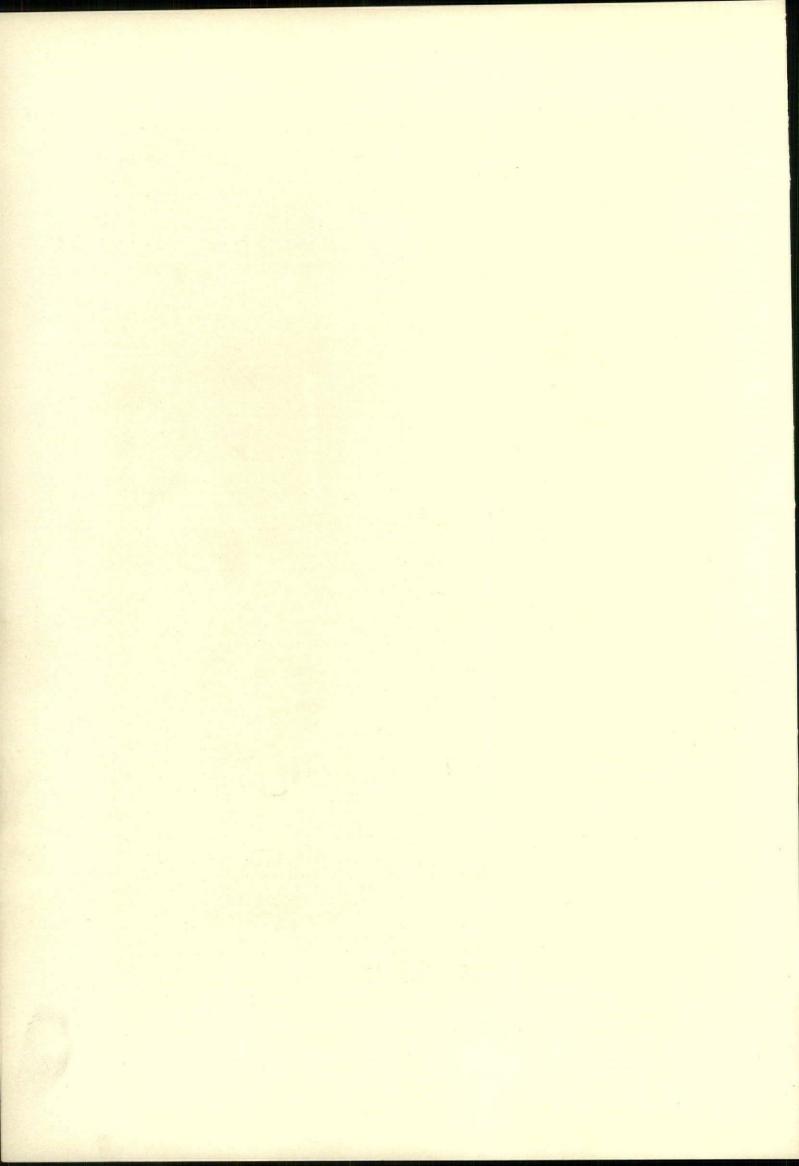


HOUSE OF A. D. KOPPEL, PELHAM HEIGHTS, N. Y. WILLIAM GEHRON, ARCHITECT





HOUSE OF A. D. KOPPEL, PELHAM HEIGHTS, N. Y. WILLIAM GEHRON, ARCHITECT



COLLABORATION IN THE ARTS OF DESIGN

An Address By C. Grant La Farge, Chairman of the Committee on Allied Arts, Delivered During the First Day's Proceedings of the Convention of The American Institute of Architects

THE complete report of the Committee on Allied Arts will, in due course, be presented to this convention in printed form. The recommendations therein advanced, their desirability, their practicability, will, we assume, be discussed, and the convention will declare its attitude toward a program which, if adopted, undoubtedly would commit the Institute to a continuing policy of long duration and which could be effective only if whole-heartedly supported.

For the moment let us consider the major principles which this Committee was directed to express. The President of the Institute has said it many times; we state it again: That we shall now turn our attention to architecture as an art, having long debated it as a science, a profession. That we shall view it as an art in which all the arts of design are so interwoven, so interdependent, so essential, that unless their intimate relationship shall be clearly recognized and brought to fullness of realization. American architecture will not express the entire potentiality of American genius. Hence, that we must foster collaboration in the arts of design, the arts that in their sum compose what we call architecture.

This being our goal, how shall we set out to reach it? There are two paths to follow. Inform ourselves upon what our resources are. Then open our minds and our hearts to the use of them; minds and hearts being opened, let our resolution be closed.

Our resources are so vast, so numerous, that even the mere glance at them is bewildering. An ever growing number of landscape architects trained as but lately was undreamed of. Mural painters, sculptors, whose performance is already notable, whose promise outstrips our present vision. An unaccounted host of craftsmen, equipping us, the country over, with accessories to our buildings that more than once we shall find may bear comparison with works of the periods we like to copy. Last, but not least, in importance, schools—but on education we shall touch later on.

One of the proposals that we make is the widespread collecting of data covering the executed works of these various producers; its systematic recording in such wise that it may be constantly and promptly available to all our members. Under this plan the record would show to all the experience of others; cost, absolute and relative to entire cost of building; some idea of the circumstances in which the work was done; how much there was of unison between the architect and his fellow artists -in short, of collaboration, such as B. W. Morris has inspiringly related concerning his Cunard Building and Seamen's Bank; also how much of his own design the craftsman contributed, as so often is the case. These would be some of the data. We believe they would be valuable as a dependable basis for estimating some percentage of total cost to be allowed beforehand for providing proper adornment of certain buildings. a proposal that has been before the Institute but about which we do not yet really know enough to determine intelligently. We believe further that they would be profoundly helpful to many of our brethren who practice in other than the crowded metropolitan centers.

We speak of collaboration. What do we mean by that term? Perhaps, to clear our minds, we should first say what we mean by architecture. Surely no clever catch phrase will suffice, however poetic. It is all very well to say that architecture is frozen music, but it leads us nowhere, for our job is to conduct the orchestra. So we want to play our music, composing it at the same time, with no instrument so humble that its little note shall not be right in the completed symphony. If after that it

freezes, very well. But we know architectural compositions which, because of faulty collaboration—may the gods forgive the mixed metaphor—do not jell. Pray don't tell us it was a case of too many cooks.

If we observe a beautiful building, wisely placed in a beautiful setting, complete in all its details and appointments, ready to serve its human purpose, who amongst us dare have the hardihood to draw the rigid boundary line demarking its architecture, separating that art from its sisters? None, let us trust, among the enlightened body now being addressed. They know, none better, whence flows the quality that radiates from the monuments of a day long gone, that stirs us to our fingertips and excites our baffled envy. They do not imagine that some harried ambitious architect, after anxiously reviewing his photographs, has announced to the august building committee, "Gentlemen, in view of all the circumstances, I think it had better be Romanesque"-or Gothic, or Byzantine, or Renaissance, or what you like. Or even that he has said, "For God's sake, let's be modern and show 'em!" They do not think that he made in his elaborate office all the details of every feature of the building and then ordered a modeller-shop to follow his drawings in clay, cast the models in plaster so that a stone carver, or a wood carver, should cut from them and so perpetuate the mud. They know that he did not summon a sculptor and say, "Here are the places for some statues. Make them, and make them to fit." Or a painter and go through an equivalent formula. And so on, through the list. No, they

Then why should we adhere to an attitude of assuming these sad, mad, bad ways to be good? In extenuation, be it said, that we are inheritors. Men now living can recall the time when knowledge burst upon our predecessors. They remember an arid period when the crafts were at a forlorn ebb, the allied arts lost amongst the easels or the deplorable public park embellishments, architectural design just emerging from the Cimmerian gloom. But those times have changed, changed out of all recognition, and if we persist in behaving as though we still were in them, we deliberately close our eyes to the light.

Suppose, then, that we shift our point of view; contemplate another method of approach. As we take our stance it will surely not be amiss to ponder the words of an architect whose untimely death lost to us not merely one whom we loved, but who quite surely had his feet upon the threshold of a glorious future. For Bertram Goodhue, great as was the contribution that his eager spirit made, was beyond a doubt opening the doors of wonder. And Goodhue said "I should like to be merely one of three people to produce a building, i. e., architect, painter, sculptor. You see what I mean; I should like to do the plan and massing of the building; then I should like to turn the ornament (whether sculpture or not makes no difference) over to a perfectly qualified sculptor, and the color and the surface direction (mural pictures or not as the case may be) to an equally qualified painter."

These are the words of a man of genius, a man who in his own person embodied more, far more of ability in the allied arts, than most of us possess. Indeed, out of that ability, out of that knowledge spring the modesty, the respect, that his wish reveals.

Once more we shall invoke our imagination to show us how we should proceed were we to take up the challenge Goodhue bequeathed to us. For that is what it is: a challenge. We cannot turn back the wheels of time; cannot call the dead centuries from their graves to walk our clamorous modern streets:

cannot live as they lived who saw the supreme collaboration of Chartres and Amiens and Rheims. But we can learn from them, from those who went before them and came after them. We can learn from them what collaboration is; comprehend the simple significance of the word that means working together. Working together in that happy unison; that mutual helpfulness; that joyous fellowship, out of which beauty is born.

We are about to design a building, no matter just what kind, to stand in extensive grounds. We have, let us say, a pretty fair idea of the type of solution we shall adopt. Forthwith, we shall summon the landscape architect into conference. For we are satisfied that his advice upon placing is valuable, and that according to position, our plan and our mass may be

The more of both that an architect can himself be, the more will sympathetic comprehension reside in him; the more nearly will he be a duly qualified architect, fit to collaborate with other artists. And the more he knows, the less arrogant will he be; the less stubbornly insistent upon his all-persuasive grandeur; for modesty and humility are the children of wisdom, and much knowledge teaches us appreciation of the other fellow's difficulties and achievements. We are now, for the purposes of our present argument, projecting ourselves into a by no means unattainable Utopia. So we shall ask the painter and the sculptor not to work for us, but with us. Let us instantly disabuse our minds of the notion that we are about to abdicate, to shuffle off one iota of our responsibility. We need not stretch our imaginations unduly to think of, say, some great room.



THE CHICAGO DELEGATION

affected. We further know that his method of approach is different from ours: he works from the outside in; we from the inside outward. That is, his design must lead to our building; our building will look out upon his design. These two functions must not be divorced; they must be united. We know something else: That just as our task is a highly technical skilled one, so is his. Our common sense tells us to obey the familiar injunction to "keep off the grass." That grass, for us, is paper stretched upon a drawing board, to be covered with some sort of plan that looks pretty enough on the paper and delivers us over to the tender mercies of the nurseryman with his catalog. Surely a mournful fate. Our landscape collaborator knows enough of architecture; its problems and how we attack them, and we in turn know enough of his art, for us to be able to give each other intelligent criticism, as our designs develop, step by step and always in step. At least this should be the case. If it is not, we are not, either of us, proper-

The same thing holds true of the painter and the sculptor.

But can we not see ourselves pausing in our determination of that feature, with its main policy clear in our minds, its bones, so to speak, settled upon, but pausing while our collaborators discuss with us the details of its expression? Shall we not rejoice as their suggestions, following upon each other's heels, show us where and how details may be left to them; how spaces may be treated in ways we had not thought of; effects obtained; accents placed; harmony and rhythm found; the very solidity and structural significance of our design enhanced? A distinguished architect has drawn a picture in his paper read at the last Regional Conference in New York. Mr. Morris, describing how the Great Hall of the Cunard Building was worked out with Barry Faulkner, Ezra Winter and others, says: "Together we worked, composing the subdivisions of space, the enrichment of the dividing members and the general distribution and key to color. Throughout, Winter showed his mastery of the problem and never for a moment forgot his architecture; himself he forgot completely . . . it really was a great happy family." He speaks of Faulkner's lovely wall maps, and tells how

the color of the composition had to be brought down upon the walls, "and the whole arranged in a single composition. lying in peace and quiet upon the surfaces:"—how John Gregory had the floor as a virgin field, on which to make his wonderful seal, and of the good fellowship and harmony in which appear the works of Jennewein and Nobel and Yellin. Most movingly, in a few words, he refers to the Sunday visits of the mechanics, and laborers of all trades come with their families to admire. And he says that "here were the works of painter, sculptor, modeller and ironworker living in harmony and not intentionally, at any rate, shouting at one another. What an age! What glorious fun!"

In these words, as in the practice he narrates, Benjamin Morris exhibits to us the very spirit of architecture; the spirit

Yet without these shall not a city be inhabited, Nor shall men sojourn or walk up and down therein.

For these maintain the fabric of the world, And in the handiwork of their craft is their prayer.

The house is not complete until its master may live in it, and to make it so requires the work of many crafts. The architect, if he shall speak with perfect honesty, cannot say of it all, "I did it." Over and over again his dependence has been upon the skill of the craftsman. Perhaps he designed such and such a fine example of iron and bronze work, of tile, of relief in whatever substance, making but a curt gesture of gratitude to the memory of the dead and forgotten master who afforded



THE NEW JERSEY DELEGATION

that alone informs it with vitality; the spirit that we are called together in convention to reflect upon today and, please God, to declare our allegiance to, for ourselves while we remain upon the scene, and to instil into the generation that shall occupy the stage when our hands have ceased from their labors.

Consider now the craftsman. Thus to separate him: to set him apart, is but a clumsy device of convenience. For we know very well how much of him is artist and how much the artist must ever be a craftsman. Indeed, it is only in this restless, discontented day that we know of clamorous incompetence masquerading as art, under the shallow excuse of self-expression, claiming what the primitive savage would deny. Never can foul ignorance and clumsy posturing be source or evidence of originality. The skilled handiwork of the artificer is forever the sober convincing proof that puts to shame the flimsy pretense of the untrained. In solemn verse Scripture gives the craftsman his due:

Let us now praise famous men, Even the artificer and workmaster. him inspiration, and trusting to cunning hands for the execution of his conception. Perhaps he leaned entirely upon the artificer. We have all done both these things. There is no hard and fast rule to lay down, but at least we should acknowledge our indebtedness, and rest assured that our most felicitous performance will be given with the craftsman recognized as part, an essential part, of the orchestra.

We have indulged ourselves in the vision of a perfect state, when the arts shall abound with people all capable of giving to one another, in harmonious fellowship, perfect collaboration. There is no reason for halting at the vision, but we must in all candor admit that we have not yet reached the perfect state. Those of us who have faith may do what we can during our lifetime, and that may be much. In practice, though, the actual fact is that so few have been trained to sufficient knowledge of anything but their own art of design, or to the habit of collaborative study: of familiarity with modes of thought and ways of procedure of their fellows in the sister arts. Let us bear in mind that it is a human problem as well as a technical one. Our wish, then, to have the vision come true, if not for ourselves at least for those who follow in our footsteps,



EDWIN H. BROWN, MINNESOTA, AND HARRY BARTON AND WM. H. LORD OF NORTH CAROLINA

will lead us to the conclusion that the task before us is one of education. In the youngsters lies our greatest hope and to the manner of their training we should address ourselves.

We have established a great institution, founded specifically apon the idea of collaboration: The American Academy in Rome. To the Academy go the winners of Fellowship in architecture, painting, sculpture and landscape architecture. They have passed through the school stage before they go, and are qualified for their three years of research, of close contact with all that Italy and the Classic lands offer of stimulus to their riper development. There they live together, work together, talk together, travel together, learn to know each other and their several ways. Beyond the shadow of a doubt they come back here with a perception of the meaning to them all of architecture such as they had little glimmering of before they went. But why should they go unprepared in this respect? Why should not our schools here at home lead them from the very start along the paths of collaboration? We have Fine Arts courses in our universities. We have schools side by side. To what extent are they co-ordinated; do they interpenetrate, teach and practice the community of endeavor, the identity of interest, establish the vital personal contact of artist with artist, without which their teaching can never, never be of full effect? Not much, we think; somewhat sometimes, in a few cases increasingly, mostly not at all. Of this vast educational field we do not really yet know enough to say with accuracy just what exists or what promise is offered. We content ourselves for the moment with noting the deep importance of its adequate survey, with a view to enormously increasing its usefulness.

Mr. President, members of The American Institute of Architects, we come before you here in convention assembled, we of your Committee on Allied Arts, we representatives of architecture, mural painting, sculpture, landscape architecture and the crafts. We come hand in hand, as brothers in a common cause, in perfect equality, without jealousy of prerogative, each of us humble before the skill of all the others. That we shall help in finding ways to increase the splendor of our stern and glorious mistress, architecture, is our hope. That you shall aid us is our prayer.



LANDSCAPE ARCHITECTURAL TREATMENT OF GROUNDS SURROUNDING A HOUSE AT ORANGE, N. J. CLARENCE FOWLER, LANDSCAPE ARCHITECT—CHARLES C. MAY, ARCHITECT



INTERIOR ARCHITECTURE



THE PROBLEM OF LIGHT IN FIXTURE DESIGN

By HAROLD W. RAMBUSCH

THE science of illumination as it pertains to commercial buildings and public works has been developed to a high degree. Exclusively in the hands of engineers, it has been studied and solved solely on scientific lines. It leaves, however, much to be desired from an aesthetic and psychological angle. Illumination in hotels, theatres, churches, and other semipublic institutions. shows a surprising lack of study and thought from the scientific side. In fact, the scientific principles developed in commercial lighting are frequently conspicuous by their absence wherever an attempt has been made to design or make artistic lighting fixtures. That these two kinds of lighting - commercial and artistic - should have been developed side by side, and still have remained entirely uninfluenced by each other, seems surprising. The greatest weakness seems to be on the side of the

artistic, or supposedly artistic fixtures. Here we find beautiful and magnificent fixtures which are extremely effective unlighted, judged from the standards of craftsmanship and design; but when these same fixtures are lighted their artistic effect is often completely shattered by the method in which the light has been applied.

As all our lighting is now done by bulbs, it is obvious that the seat of the trouble must lie in the method of using these bulbs. We need, therefore, to go deeper into this subject and discover why it is



REPRODUCTION OF A PHOTOGRAPH OF AN INTERESTING LANTERN WITH BULB LIGHTED. THE SOURCE OF LIGHT IS PLACED AT THE LINE OF BUOYANCY, THEREBY INCREASING ITS EFFECTIVENESS BOTH AS A DECORATIVE FIXTURE AND AS A UNIT OF THE SYSTEM OF ARTIFICIAL LIGHTING

that bulbs are so generally misused. One of the superficial reasons is that fixture manufacturers in many cases have decided that they will not supply bulbs with their fixtures. When they are asked what bulbs should be used, they usually answer in an indefinite and non-committal manner. This may be due to fear of committing themselves to the commercial obligation of supplying bulbs. The second reason for the misuse of bulbs is a more weighty one. It is on account of the fact that manufacturers and designers of lighting fixtures have perhaps not made as intensive a study of the science of illumination as have the illuminating engineers. These designers may be capable students in historic ornament and of the metal crafts, but they often fail to take into consideration the fact that the fixtures they design are units of illumination as well as features of deco-

ration. It is obvious that the crux of the situation lies in the lack of co-operation between lighting engineers and designers of ornamental lighting units. The engineers stand ready with advice and assistance, but naturally they are not as interested in the decorative quality of a fixture as they are in its illuminating value; and similarly the designer is logically more concerned with artistic results. Then, too, decorative fixtures defy standardization and mass production, which appeals to the illuminating engineer. It is true, also, that the suggestions of the

engineer often impress the designer as unbeautiful and against the rules of design. It requires considerable patience and co-operation to harmonize the two points of view, but it can be done if there is a disposition on both sides to get together and talkand listen. The usual procedure, however, is more apt to be for each to lay down his own laws and let it go at that.

In construction work, architects and engineers have found it to their advantage to co-operate, for, if they did not, both their buildings and their bridges would soon fall down. But the great trouble with light is that a poorly lighted fixture can be used and will even give light. Light, unfortunately, perhaps, enables one to see, even though it is atro-

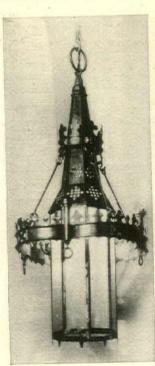
ciously poor light.

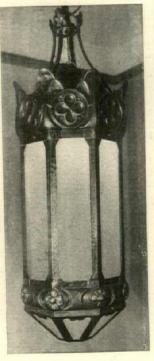
Discussing the problem more specifically, engineers have found that our modern bulbs, in order to give the most satisfactory results, should be encased in diffusing units. The result is that we require either a lantern, a bowl or some other sort of spherical fixture. It is granted that we have not much historical precedent for the use of such forms, but it also must be borne in mind that the source from which light is derived is radically different from what it was fifty and even twenty-five years ago. We have been able to develop skyscrapers to meet our modern needs and it is now the responsibility of designers of lighting fixtures to create types of lighting fixtures that are in keeping with our present-day methods of lighting. The day of the exposed bulb is quickly passing. Certain designers, however, still tenaciously defend the exposed bulb because it sim-

plifies their problems in design and gives them additional latitude for effect, but this type of fixture is ruining our eyes and spending the owner's money wantonly.

Even in lantern types of fixtures there are further problems, for we cannot successfully use glass that diffuses the light uniformly. There is, in every case, always a point of greatest brightness in a lantern. This is desirable even from the lighting point of view, for sharp contrast is undesirable. If we have in a lantern a point of greatest brightness, a surface of secondary light, and, finally, the lighted wall or ceiling surfaces, we have a wholesome transition. The moment, however, we grant a point of greatest brightness, we have immediately to find its logical location in the lantern or diffusing unit. This brings us on to a further problem. In architecture, we must have apparent strength and optical support. In a ship we must have a center of buoyancy. So in a lighting fixture we have a center of buoyancy. The placing of the bulb so that the point of greatest brightness in the fixture, when lighted, shall coincide with its center of buoyancy, allows the fixture to serve its purpose best, both as a decorative feature and as a unit of the lighting system. Many lanterns are actually ruined by a weird, spotted, uneven distribution of bulbs. In most cases, there should be only one bulb and it should always suggest a center of buoyancy. For purposes of diffusion, it should be placed at the maximum distance from the surface of the glass.

The work of lighting engineers and designers of lighting fixtures should complement each other. The







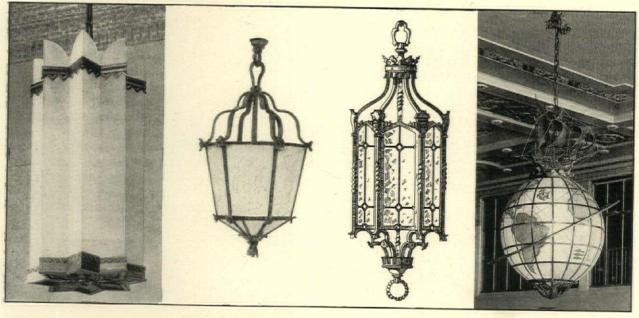


ORIGINAL PHOTOGRAPHS OF THE FOUR LANTERNS REPRODUCED HEREWITH WERE MADE WITH BULBS LIGHTED. THEY ARE OF VARIOUS TYPES OF DESIGN. THE BULBS ARE LOCATED BY THE DESIGNER AT THE POINT WHICH HE CONSIDERED TO BE THE LINE OF BUOYANCY, WHICH IS CLEARLY MARKED IN EACH CASE BY THE GREATEST INTENSITY OF ILLUMINATION

success of artistic lighting of the future depends on their co-operation. Only then may we have efficient luminaries that are wholesome to the eye and beautiful, both lighted and unlighted.

Editor's note: As is suggested in the preceding article, a parallel may be drawn between the center of buoyancy in a ship and in a lighting fixture of the lantern type. In the one case, the line is determined by rule, however, while in the other, it is largely a matter of lighting consciousness. Due consideration to the line of buoyancy keeps the ship afloat, while in the lighting fixture it allows it better to serve its twofold purpose—as an element of the decorative scheme and as a unit of the system of artificial lighting. The illustrations of fixtures on the two preceding pages are reproduced from photo-

graphs made with bulbs lighted. The line of buoyancy is indicated by the point of greatest brightness of light. These fixtures were designed by the firm of which Mr. Rambusch is a member and the location of the source of light was determined by the principles set forth by him in his article. On this page there are reproduced photographs and sketches of four well designed fixtures of the lantern type in which the location of the bulb is not indicated. The editor suggests that the reader apply the principle which Mr. Rambusch has explained in determining just where the center of buoyancy is in each case, where the source of light should be placed. Here is a chance to test your intelligence. Perhaps everyone may not think alike. What is your opinion? Send your answers to the editor of the department of interior architecture. What is your average?



THE LOCATION OF THE BULBS IN THESE LANTERNS IS NOT INDICATED. THEY ARE ALL WELL DESIGNED FROM AN AESTHETIC STANDPOINT. IT MAY INTEREST THE READER TO APPLY THE PRINCIPLE DESCRIBED IN THE FOREGOING ARTICLE BY MR. RAMBUSCH AND DETERMINE WHERE THE LINE OF BUOYANCY IS IN EACH CASE. THE FIXTURE AT EXTREME LEFT IS IN THE LOBBY OF A COMMERCIAL BUILDING IN NEW YORK, BUCHMAN & KAHN, ARCHITECTS; THE LANTERN AT ITS RIGHT HANGS IN THE ENTRANCE HALL OF A HOUSE IN BRONXVILLE, N. Y., LELAND LYON, ARCHITECT; NEXT IS REPRODUCED A SKETCH OF A FIXTURE INSTALLED IN THE FOYER OF AN APARTMENT HOUSE IN BROOKLYN, N. Y., C. D. MEYER, ARCHITECT, AND AT THE EXTREME RIGHT IS SHOWN THE CEILING FIXTURE WHICH HANGS IN THE BANKING ROOM OF THE FEDERAL TRUST COMPANY, NEWARK, N. J., DENNISON & HIRONS, ARCHITECTS. THESE FIXTURES WERE DESIGNED RESPECTIVELY BY KANTACK & CO., KANNE & BESSANT, SHAPIRO & ARONSON, AND COX, NOSTRAND & GUNNISON

A NATIONAL SOCIETY OF DECORATORS

A MAGAZINE devoted to the arts and crafts as applied to interior decorating has revived the discussion on the advisability of forming a national society of decorators. In replying to a letter published in the magazine which reopened the discussion, a Southern decorator makes the statement that the interior decorating business is infested with quacks and that if those decorators who are endeavoring to maintain a high standard of ethics in their work and in their business dealings do not do something soon to purge the trade of these unde-

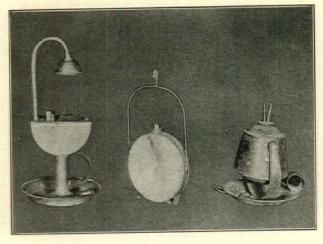
sirables, or compel them to elevate their standards to a level with good practice, they shall see the entire decorating profession looked down upon and ridiculed. By all means, he says, let us organize nationally. It will be a great step forward. In these days when one has only to have business cards printed to enable him to take advantage of all the privileges of the trade, a national society that would regulate the practice of the profession, as well as control its membership, would undoubtedly rid the country of these quacks and put the profession on a higher and more dignified plane.

FROM CANDLELIGHT TO KLIEGS

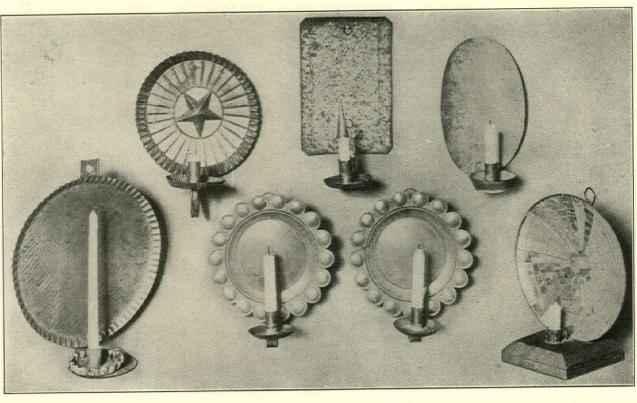
Accustomed as we are to the brilliancy of electric lights, we seldom stop to consider the difficulties with which our forebears were confronted in creating means of artificial lighting before electricity was harnessed. Arthur H. Hayward has written a highly interesting and instructive volume on the subject of "Colonial Lighting," the second edition of which has just been published. Mr. Hayward states in the introduction that the book consists of observations, random notes and studies on the subject gathered together and arranged to show a connected record of the progress which artificial illuminary and the subject of the progress which artificial illuminary and the subject of the progress which artificial illuminary are supported to the progress which are supported to

nation has made in this country up to the time when the advent of gas and kerosene relegated the old lamps and candlesticks to the closet shelf and the attic. Further than that, he has shown that there was a parallel in the purely material development which kept pace with, and was closely linked with, the changing and expanding intellectual, social and moral growth of the Colonists who gave us birth. While the contents of the book is thoroughly authentic, the material has been presented in such a way that one of its greatest assets is its human interest. This is well demonstrated in the very first chapter. Stating that the origin of the first means of artificial light is hidden in the dark and mysterious recesses of time, the author visualizes its beginnings in the following paragraph: "I can see a picture of some vigorous and powerful specimen of a cave man, returning from a successful hunt, his stone weapons in his hand and his quarry flung across his shoulders. He

comes to the entrance of his cave house and flings down his burden while he seeks rest and warmth by the open fire which is carefully guarded and kept alive from the smouldering embers of the last great thunder storm when jagged bolts of lightning started a devastating forest fire. His female companion takes the slaughtered animal, crudely dresses it and props it up in front of



EARLY TIN LAMPS IN TYPICAL DESIGNS



GROUP OF UNUSUAL WALL SCONCES FOR BURNING CANDLES

the fire for roasting. Idly watching, the cave man sees that some of the fat from the roasting meat has dripped down on the rock and has formed a tiny pool, and into this as he looks, from one of the logs just placed on the fire, drops a tiny bit of dry moss, all ablaze. It floats about on the surface of the oily pool, sending up a spiral of smoke from its tiny flame. His attention is called away by some sounds in the forest yonder and he forgets it for the time. After a bit his eyes idly light on it again to observe that it still floats and burns with increased energy. The meat is now ready and he tears

off a portion for himself and then the rest is distributed among the others of his family. When he has finished and he goes to renew the fire which has burned down to a bed of embers, he notices the floating moss still burning with a small, hot, steady flame and then and there is formed the idea of the first lamp. He goes out and picks up from the refuse heap the skull of some small animal, into which he puts some of the hot, melted fat and lighting a piece



CRYSTAL CHANDELIER WITH CUT DROPS

of dry moss drops it in, and the first lamp made by the hand of man has come into being."

When one considers how much of the world's business and pleasure has been done after the sun has disappeared, it seems strange that the ingenuity of man, so abundantly exercised in other directions, should not have been turned sooner to the subject of artificial lighting, and that the absurdly inadequate and crude methods of those very ancient days should have been accepted, apparently without serious protest, almost up to the present. The early lamps bore marked influence to old Grecian vases. In

New England and the South, the so-called "grease lamps" were occasionally found, either in pottery or iron, similar in shape to an open saucer. The first Pilgrim lamp, known today as the iron "Betty," was based on similar lines, suggestive of old Greek, Roman and Assyrian ones and precisely the same in principle. Due to an open wick, the early lamps gave little light and much smoke and smell. Changes were soon made in the fluids used for fuel, as well as in



FOUR OLD PIERCED TIN LANTERNS

the shape of the lamp itself. A tin reflector was introduced after a few years to increase the light; and a chimney was added later on to protect the tiny flame from drafts. It is stated that Benjamin Franklin invented the two-wick lamp, realizing that two wicks would give greater light than one, as they would create a stronger current of air and thus more oxygen would come in contact with the wick. The author interestingly traces the development of the "Ipswich Betty," of tin, and the "Phoebe" or double "Betty."

The "squat" lamp, a hand lamp with inverted bell-shaped base and double whale-oil burner, was identical in shape and size to the "tavern" lamp of pewter, block tin or glass. "These little lamps were generally known as 'sparking' lamps, for when the young woman of the household heard the footsteps of her favored swain approaching on his courting or 'sparking' night, she would light one of these little lamps. The flame from it was not embarrassingly brilliant and when it flickered and went out for lack of oil, that was a gentle but well understood hint that it was time for the young man to find his hat, say good-night on the door stoop and start for home."

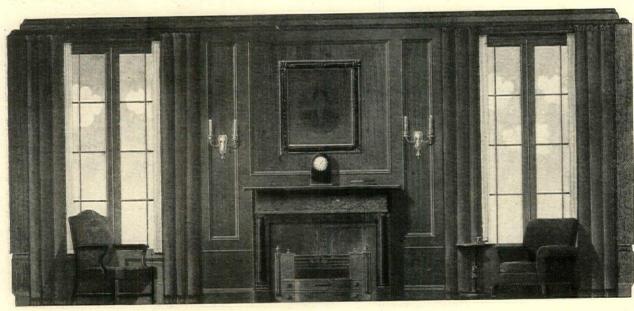
Chapters follow on the later tin and brass lamps, with the statement that in conformity with the tendency to use pewter for general table use this alloy was considered also appropriate for lamps. By this time the open spout such as that of the "Betty" had been generally abandoned and the wicks were now encased in snugly fitting tubes. The pewter was of a great variety of shapes and sizes. There follows an interesting chapter on lanterns, some using

candles and others oil lamps. Lanterns, or lanthornes as they were called in the olden days in England, were used on railroad trains, in the big chimney of old kitchens, on stage coaches and as street lamps. Mr. Hayward includes a comprehensive chapter on candle making. Due to the limited number of cattle in the country in the early seventeenth century, there was a scarcity of fat and tallow for candle making. A cheap form of candle was made from the pith of the common reed known as cat-o'nine-tails when dipped in tallow or similar fats. Other substitutes were found in the wax from the honeycombs of the swarms of wild bees, and even as late as 1730 a few of the streets of Boston were lighted by little square tin lanterns enclosing candles made from a fatty substance found in the head of the sperm whale, known as spermaceti. Glass lamps, and astral and luster lamps are described in later chapters, and the book concludes with an interesting discourse on randon notes on collecting.

This book is recommended for careful reading by the profession and laity alike. It makes enjoyable reading from cover to cover. The illustrations are peculiarly interesting, being reproductions of photographs of unusual authentic specimens in every case. The story of the development of artificial lighting in this country is well told by the illustrations alone.

The illustrations accompanying this article are reproduced from the book "Colonial Lighting."

"Colonial Lighting," by Arthur H. Hayward. One hundred and sixty odd pages, one hundred and fourteen full page plates in addition to pencil sketches in the text by the author. Board covers, $6\frac{1}{2} \times 9\frac{1}{2}$. Published by Little, Brown and Company, Boston, Mass. Price, \$7.50.



DECORATIVE SCHEME FOR A PRIVATE OFFICE

FROM THE ORIGINAL DRAWING IN COLOR BY FRANCIS H. BACON COMPANY

A BLACK AND GOLD MARBLE MANTEL SILHOUETTED AGAINST WALL PANELING OF PINE. WINDOW HANGINGS AND THE COVERING OF THE CHAIR AT RIGHT ARE GREEN, WHILE THE CHAIR AT LEFT IS COVERED IN TAPESTRY. LIGHTING FIXTURES ARE SILVERED

BUILDINGS OF MODERATE COST

IMPRESSIONS OF AN ARCHITECT'S VISIT TO NORMANDY

By Frank J. Forster, Winner 1927 Medal for Intimate Architecture, of The Architectural League of New York

Illustrated by a Series of Photographs by the Author

To me, the written word as a means of conveying an impression of an architectural subject, falls short of its hoped for objective. A good photographic illustration is more satisfactory. Much has been written, but the usual attempt avails but little in conveying the true impression and spirit of the theme.

Photographic reference probably has been the most important medium in the development of our architecture. It might be criticized as being a handicap to originality of expression, but if this defect exists, the error lies in the artist. To plagiarize and to absorb the spirit of the subject matter are entirely different. It is rarely possible for an architect to plagiarize and still bring his problem to a happy solution in a spirit of unity. The better method of approach would be to make manifest the substance and inspiration to be found in his reference. Hence there lies no great danger to the spontaneity of the architect in the study of photographs of good archi-

tectural subjects. Such study should rather increase his scope.

But the photograph, helpful as it is, conveys little of that most important factor, the craftsmanship of the builders, and the resulting effects in texture and color. Moreover, the photographic reference falls short as a means of inspiration as compared with the personal intimate impressions to be gained only through travel.

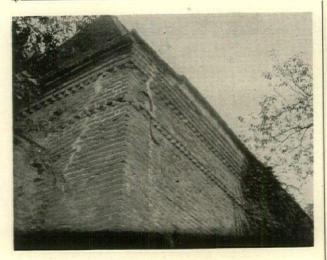
For some years I have been interested in the French peasant architecture, particularly that of Normandy, not only because of its intense aesthetic appeal but because it is an architecture which adapts itself in a practical way to the requirements of our domestic buildings. It accommodates itself to practically every condition of climate and background in this country. The type is most flexible, and expresses itself in a wide range of building materials. Being a romantic and informal architecture, it is in accord with our temperament.



DETAIL OF A CHURCH AT ST. DENIS LE FERMENT

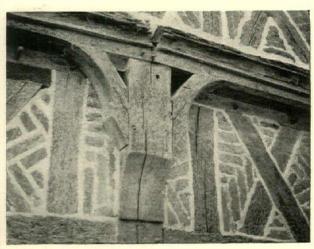


DETAIL OF A FARMHOUSE AT COURMEMIN



DETAIL OF CHATEAU AT ST. DENIS LE FERMENT

These impressions have come to me slowly during the past several years, and more particularly last Summer and Fall when I covered some 3500 miles of rural France. I visited the little hamlets off the beaten trails, selecting and photographing material which I considered especially adaptable to our domestic architecture. A great part of the subjects selected were close-up details showing the method and character of the craftsmanship,—the manner in which stone and brick masonry was built; the character of structural and half timber; the nature of tile and slate as a roofing material. To me the material or substance of the building was of greater importance than the composition of the picture. For this reason in the making of these photographs I gave particular thought to the photographing of details



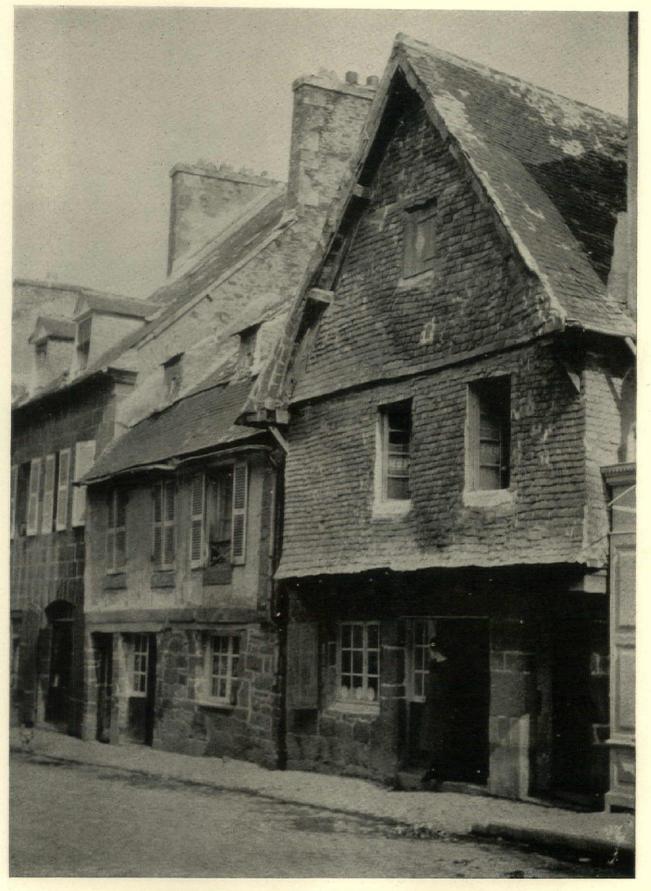
DETAIL OF SUPPORTING BRACKET, HOUSE AT COURMEMIN

rather than to excellence of pictorial composition.

It is regrettable that the peasant farm buildings, the small churches and chateaux, which show so much of the history and life of the people, are slowly passing. The decaying buildings are being replaced with modern structures, usually of atrocious design. In repairing old buildings, modern machinemade materials are being used,-galvanized iron on exterior walls, asbestos shingles in place of old hand made tiles. Other cheap and quick methods are being substituted for the lost art and craftsmanship of These changes are progressing former times. rapidly. In a few more years the comeliness of this old world architecture will have passed. Unlike England, France manifests little interest in the preservation of her old buildings.



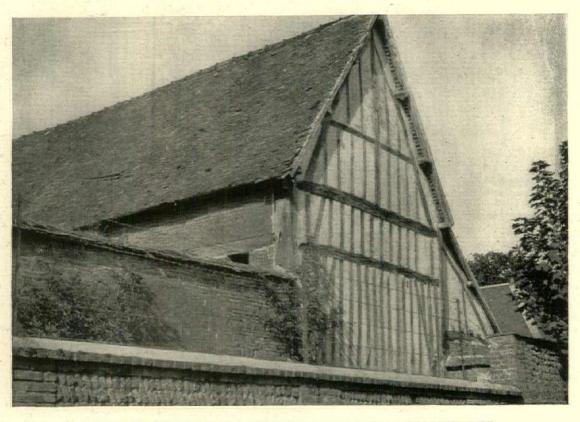
PEASANT COTTAGES, LA SUZE, SARTHE



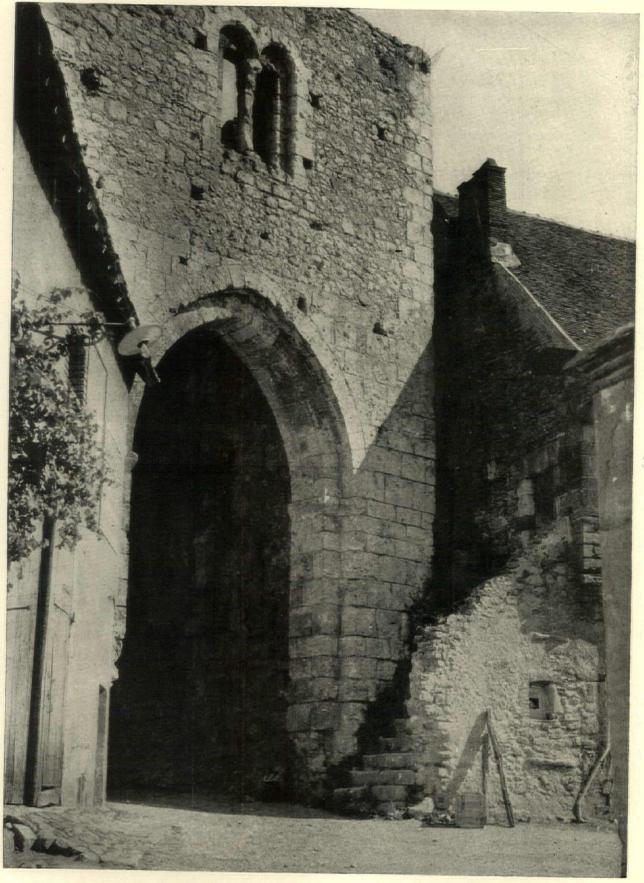
STREET SCENE, QUIMPER, FINISTERRE, NORMANDY
FROM A COLLECTION OF PHOTOGRAPHS MADE IN NORMANDY BY FRANK J. FORSTER, ARCHITECT



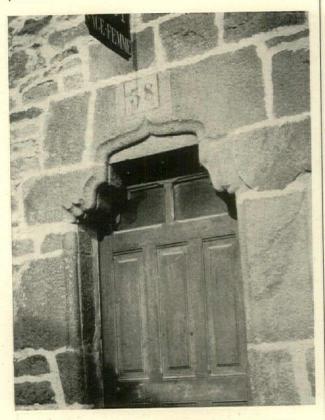
SMALL FARM BUILDING, ROMORANTIN



GABLE AND HIGH WALL OF A FARM BUILDING AT BULLY, SEINE-INFERIEURE FROM A COLLECTION OF PHOTOGRAPHS MADE IN NORMANDY BY FRANK J. FORSTER, ARCHITECT



REMAINS OF AN OLD TOWER AT THE CITY GATE, MENNETON
FROM A COLLECTION OF PHOTOGRAPHS MADE IN NORMANDY BY FRANK J. FORSTER, ARCHITECT



DOORWAY DETAIL AT LANDERNEAU, FINISTERRE



DETAIL OF CHURCH, LIERVILLE-EURE



DETAIL OF FARMHOUSE AT COURMEMIN



TURRET BASE OVERLOOKING THE RIVER, FINISTERRE

FROM A COLLECTION OF PHOTOGRAPHS MADE IN NORMANDY BY FRANK J. FORSTER, ARCHITECT



ENGINEERING AND CONSTRUCTION



THE CAPITAL GARAGE, WASHINGTON, D. C.

ARTHUR B. HEATON, Architect

THREE important considerations are involved in the design of modern commercial garage buildings. First, provision for the storage of a maximum number of cars at reasonable cost upon a given ground area; second, a circulation system that will permit cars to be brought in or taken out with least confusion and as rapidly as possible; and third, a design possessing architectural merit, one that expresses its purpose, avoids the outward appearance of a factory and adds to, rather than detracts from, the architectural character of its immediate vicinity.

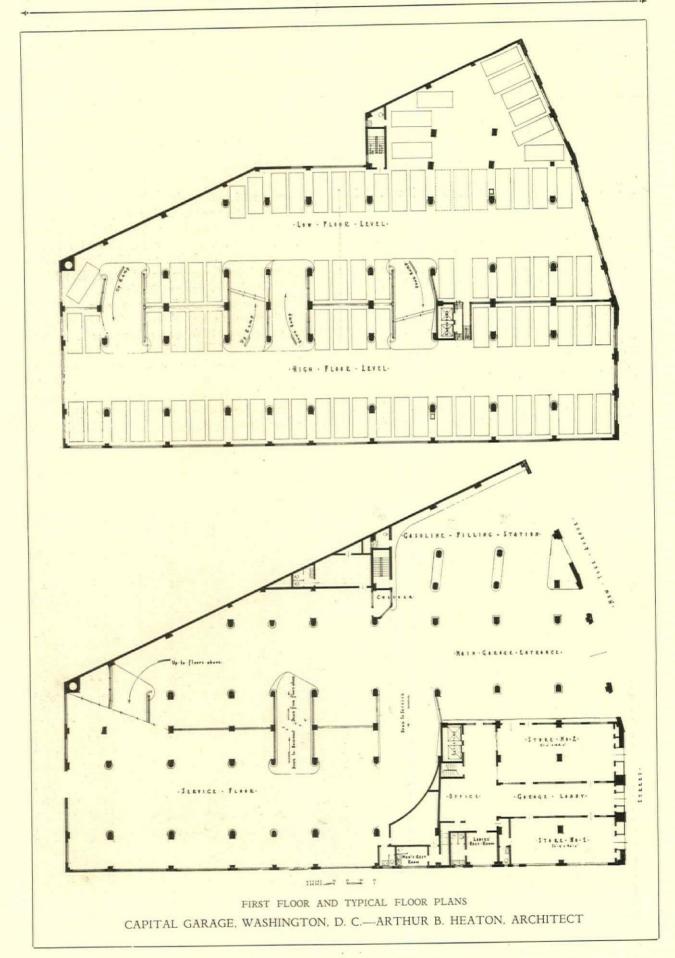
The Capital Garage at Washington, D. C., may be cited as an example of a modern building that has solved these three problems to a marked degree. Located on New York Avenue at the intersection of H Street and near 13th Street, the site has a favorable advantage in its relation to Washington's busi-

ness district and a strategic position with respect to traffic entering this section. The site, providing for 23,000 square feet area per floor, is irregular in shape. The rear has an alley frontage of 70 feet. The two sides are 213 feet and 193 feet 6 inches respectively. The frontage on H Street is 54 feet and on New York Avenue 102 feet.

This garage provides for the storage of 1,200 cars. Berth storage on each floor will accommodate 85 cars and allows 250 square feet per car. Including the storage of 15 cars in aisles, 100 cars can be stored on each floor with an average allowance of 212 square feet per car. Exclusive of the ground, the cost of the building was about \$800,000.00, or approximately \$670 per car storage or \$3.16 per square foot. This is equivalent to a cubic foot cost of approximately twenty-nine cents.



CAPITAL GARAGE, WASHINGTON, D. C .- ARTHUR B. HEATON, ARCHITECT



The building is ten stories in height with floors on either side of the center division wall staggered. Floor to floor travel for cars is by means of ramps having a grade of approximately 15 per cent. Two ramps of one-half story each are used between each two stories. To avoid conflict two systems of ramps are used for up and for down traffic respectively. The ramps are about 14 feet wide and in design are based upon the turning radius of a large car. Patrons are provided access to the upper floors by means of two passenger elevators.

All floors except the high basement and first floors are used for the storage of automobiles. The high basement floor is used as a service department where cars may be washed, greased and repaired. This floor provides an exit to the rear alley and connects with the first floor level by means of a ramp. The first floor provides several excellent features. A drive-in filling station is readily accessible from the street or garage. The long aisle leading from the street to the ramps allows for a large number of cars to be rapidly run into the garage and temporarily parked if necessary before being taken to the upper floors. The width of this aisle and the ramp connections make cross traffic unnecessary. The garage operating facilities are arranged on the outgoing side and also avoid the necessity of cross traffic. A patron may enter the garage office and, if desired, have his car delivered to the exit without being required to cross incoming traffic. The first floor also includes two stores, an accessory sales store, garage office and toilets for men and women.

The structure is of reinforced concrete construc-

tion. The story heights are approximately 11 feet, allowing a clear story height of about 8 feet six inches. The computed load on each column at the ground floor is 500 tons. Columns are spaced approximately 14 feet and 23 feet with aisles about 24 feet wide in the clear. To secure maximum storage area, columns are made rectangular in shape rather than square or round.

The exterior, evidently inspired by the Gothic. is bold and simple, with ornament sparingly used. The few ornamental motifs used are symbolic of the motor car. The exterior walls are faced with manufactured stone that resembles granite in color and texture without imitating it. Variations in color and in surface texture are entirely pleasing to the eye. To give the appearance of added height to the building and conceal the difference in floor level required by the ramp system, the steel windows of the facade have been run continuous through all floors. While in certain instances the staggered floor system can be arranged so that the different levels are not apparent on the facade, in this particular case the shape of the site required the division between floors at right angles to the street front. A division parallel with the street could, in this instance, have been made only at a sacrifice in storage space or rentable area.

Steam is used for heating the entire building. The general illumination of each floor is controlled on the individual floors. The illumination of the aisles and ramps is controlled at the first floor to facilitate administration and effect economy in lighting through placing it under the control of the superintendent.



MAIN GARAGE ENTRANCE

CAPITAL GARAGE, WASHINGTON, D. C .- ARTHUR B. HEATON, ARCHITECT

GIVE AND TAKE*

By A. K. BAYLOR, of the General Electric Company

BUILDING activity is always a leading factor in the economic index, rising and falling with the scale of general prosperity. We are still in the high levels of profitable trade volume, and recent returns of building activity (true to the index function) reflect a rate approximating the record figure of between six and seven billions for 1926.

Much has been said and written about our industrial progress, which is responsible for unprecedented prosperity and financial leadership among the nations; but more thought might well be devoted to analysis of the causes underlying this condition.

There have been periods of prosperity in other times, but none during which so high a degree of general welfare has been so long sustained. Those earlier peaks were followed invariably by abrupt declines, resulting from inherent weaknesses developed by the peak conditions—such as overproduction, spurred by pyramiding of buying orders; excessive inventories in the reservoirs of distribution, as an offset to sluggish deliveries from over-taxed sources of supply; and strained credits through over-trading, due to adventuresome inexperience or disregard of precedent. The acceleration was gradual but usually without cohesion, and when the limit of internal strains was reached the structure fell sharply, like a crested wave.

So there has been established a School of Economics that regards the business cycle, with its ups and downs, as a law, so to speak, of the "Medes and Persians"—even fixing the time span, or periodicity from low to high, at about 7 years. Our present cycle is approaching the end of a seven-year period and for this reason, apparently, there has developed, in many quarters, expectancy of a downward trend in trade conditions. On the other hand, while we are not immune from the effects of foreign political or economic disturbances, there are, as far as domestic affairs are concerned good grounds for hope of continued prosperity.

First, the public buying capacity was never higher. Wage scales are at a record maximum. While the cost of living index has risen about 70 per cent, the wage scale is nearly 140 per cent above the immediate pre-war period. This margin represents purchasing power beyond strict necessities; and bank deposits have nearly doubled in ten years. Here is an unprecedented element of prosperity.

Judge Gary, in a recent interview, entitled "Cycles Versus Common Sense," advanced the opinion that through the application of logical economic practices, the cycles may be prolonged in terms of

fact that booms and panics are developed largely through widespread public optimism or pessimism respectively. The problem is to segregate the constructive as against the destructive factors, codify them in practices and then find a way to hold the mass, rank and file of the community, to these practices.

* * *

The commonest trait in human nature is to fight adversity; the rarest is to withstand prosperity. It

years and reduced in extremes from high to low.

Undoubtedly this is sound opinion, in view of the

The commonest trait in human nature is to fight adversity; the rarest is to withstand prosperity. It must be admitted that we are flying high; a state that insidiously breeds complacency—the nemesis of sustained success. While no treacherous winds immediately threaten, perhaps we may well throw out grappling hooks to touch the earth—or put in, we might say, a stop order to safeguard and conserve our position. This may take the form of such an analysis as has been suggested, so that recognized economic error may be marked and outlawed—and all that is good—especially any unique constructive elements—may be isolated, guarded and cultivated.

Many factors have contributed to our progress, but considering, for the moment, only those that have not been paralleled in anything like the same degree in other industrial communities, we find that scientific research and the utilization of power stand out as the main stimulants.

* * *

A recent article in The London Times (summarizing the report of a commission from England that visited the United States, to study and report on labor conditions) embodies some significant comments and conclusions to the effect that prosperity and progress in America are not due to fortuitous chance but to the active, energetic character of the people, working in a sound direction: that the attitude of Government is noteworthy as it has abstained from seeking to control, dominate or direct industry, while inviting all to approach it for help and information; that the population is the most effective in the world—all being actively engaged in fruitful production, intensified by the use of efficient machinery; and that the American people are enjoying the highest real wages in the world.

These are comforting words especially as coming from outside and competitive observers. We should weigh them carefully and see that they continue to hold true.

In addition to research and power, the two main supports of industrial prosperity, there is another contributing factor that is of increasing importance

^{*}Extracts from an address delivered before The American Institute of Architects, Washington, D. C., May 12, 1927.

as a stimulant; and it is destined, perhaps, to be the principal factor in perpetuating the favorable condition in which we now find ourselves. This third element may be expressed in the hackneyed term "co-operation," which is only another form of the expression "Give and Take."

Late in the last century, following the lead of the mediaeval guilds, those engaged in given lines of business began to organize associations for mutual benefit. This movement has developed until practically every business, trade or profession has its association; local, state, territorial or national. As an outstanding example, the electrical industry may be cited. There are today over a thousand such distinct electrical bodies ranging from the largest national groups to the smallest local leagues or clubs.

It appears that in the great building industry there is a close parallel to the condition that exists in the electrical industry.

Here again there is a clearly defined nucleus;the architect—the artist—the designer of each structural project. Until his conception is reduced to definite form there can be no beginning of a tangible creation; and yet contributing to a large modern building there are a score of major industrial groups, separate and distinct; followed by a long list of minor trades; involving altogether, six or seven thousand individual items that must be comprehended in plans and specifications. Such structures are veritable marvels of fabrication and engineering in great variety, and the contributing agencies-at least the principal ones-must understand the architect's designs and purposes as well as the possibilities and limitations of associated contributors. None of the tributary factors may fully serve or prosper unless the architect's vision is clearly understood and interpreted. But, as in the case of the power companies and allied electrical branches, there is imposed upon the architect, in self-interest, a duty of sympathetic consideration and understanding of the problems of those whose support must be enlisted for accomplishment of the final result. Their efforts to maintain quality should be encouraged and rewarded. In economics prices and quality are indi-

Six years ago, responding to a growing sense of the need of closer contact and the avoidance of waste, leaders of the Institute conceived the possibility of mutual benefits that might accrue from co-operation between the various building material manufacturers and the architectural profession. From this conception sprang The Producers' Council and its acceptance, as an affiliated body, by the Institute.

This affiliation is making practicable, throughout the ranks of the manufacturers, fuller appreciation and support of the standards of the Institute.

Here is a comprehensive mutual Forum—a school, not only of ethics but of practice. It rests largely

with the Institute that ethics shall be practical; it rests largely with the Council that practice shall be ethical.

It is a simple matter, in point of effort and of time, for the architect to sketch the crude outline of a building; and no less time or effort is required to indicate a structure of the old eight or ten-story type, than to carry this to the thirty, forty and fifty stories of the present day, or to the prospective and, in the minds of some, appalling one hundred stories of tomorrow; but what of the contributing factors that must be drawn upon to insure stability, convenience and general habitability?

Such an embryonic sketch may be the invocation of invention and development not only as to materials but methods of construction. Yet stress and strain limits of steel are not subject to variation by a stroke of the pencil. There is much to be done in fundamental engineering before the lift, speed and control of elevators may be, perhaps, doubled in scope. Problems of ventilation and water supply increase in technical difficulty with increasing dimensions. Pumping, formerly a comparatively simple problem, becomes vital in the highest degree as towering elevations introduce unique hazards. Recently the flaming torch of the Netherland Hotel tower in New York, was a spectacular demonstration that carried its own lesson. Fortunately, little serious damage resulted in that case, but the warning signal stands; for precautions during construction as well as occupation.

The item of floodlighting is in itself a subject of special interest. It has become the finishing touch to monumental buildings. What a thrill must come to the architect whenever he sees the realization of his once nebulous vision limned in subdued fire—a radiant glow—against the sky.

So we might continue throughout the range of functions entering into the complete equipment of a building that must be conveniently and safely habitable, as well as presentable in appearance: and, from a practical point of view, the first is the greater consideration.

How often, in the experience of most of us, have we found upon occupying new premises—whether for dwelling or business purposes—that conveniences and even necessities were lacking? These elements may be added but, if so, usually at much greater expense than if originally provided, and oftentimes structural difficulties preclude the enjoyment of betterments.

Surely the architect in the moment of creation should not forget opportunity and responsibility that are his, as he stands before the tressel—susceptible to any elaboration of design that inspiration may suggest—where living or working conditions, not only of countless tenants but, perhaps, whole neighborhoods, are at stake. Here is, in effect, a sensitive plate on which every record is to be perpet-

uated for the benefit or annoyance of posterity. The artistic touch of the soft crayon may not with impunity outrun the stolid "H.B." of the engineer.

Considering the prominence of an architectural structure, it is strange that the designer's name is so little known to the public. It is perhaps a safe assumption that if we should choose even a limited number (say a score) of outstanding monumental buildings in this country, and canvass the average man-on-the-street, asking the names of the architects, our questionnaire would draw a blank. In other branches of art this is not the case. The artist's name is always identified in the public mind with his work; particularly with his masterpieces; although his name (or that of the owner) may not be blazoned across the canvas. There must be some reason for this condition. If there are barriers of practice that screen the light, may they not be rendered less opaque?

In that profoundly practical but little read best-

seller "The Bible" is the admonition—
"Let your light so shine before men that they may see your good works."

The modern slogan "It pays to advertise" sounds more sordid, but the meaning is, in effect, the same.

It appears, therefore, that there is no more fertile field than within this vast industry of yours for application of the spirit of inter-communication, cooperation "Give and Take"; radiating from the architectural nucleus to every contributory element in the allied ranks; inducing reciprocal response

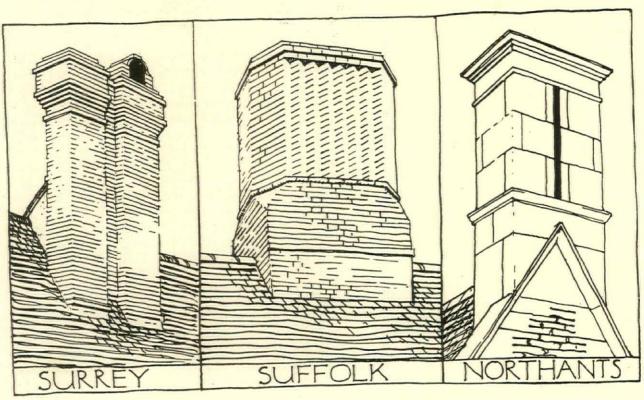
from each of these elements. If self-preservation is Nature's first law, self-betterment is the second law—at least of human nature. Self-preservation suggests only static defense and while we will fight for it to the last breath, it is not, in itself, enough—even when assured. Instinctively we take existence as a matter of course, in whatever sphere we find ourselves, and struggle for self-betterment; which involves forward and upward progress.

But such progress, to endure, must possess the cohesion of mutuality. Such cohesion exists today in great measure in our industrial ranks. Hence our national strength.

Confucius, Buddha, and in our era, Christ preached the gospel of reciprocation—"Give and Take"—conquest by service.

The "Golden Rule" underlies all moral philosophy but it is no mere counsel of perfection. It is the essence of practical, social science—mutual, constructive support as opposed to mutual, destructive friction. I want the best that may come to me; therefore will I compel it, by induction.

So let us analyze, mark and conserve underlying influences. If we recognize the amalgamating agencies that cement our economic structure, fostering and cultivating them, while suppressing sinister and disruptive elements—political, industrial or social—(against which precedent provides ample warning), then we may hope not only to prolong but further accentuate our cycle of prosperity.



ENGLISH CHIMNEY TOPS

ANNUAL MEETING OF THE PRODUCERS' COUNCIL AT WASHINGTON, D. C.

THE fourth annual meeting of the Producers' Council, affiliated with The American Institute of Architects, was held at the Washington Hotel, Washington, D. C., on May 10th and 11th, 1927.

Milton B. Medary, Jr., President of the Institute, welcomed the members on behalf of the Institute and presented their greetings and best wishes for close and better mutual understanding of the work of each. He stated that the producers, in co-operation with the Institute, are creating an impartial group that will grow to large proportions, and whose work will be as valuable to the building industry as the work of the Bureau of Standards is to the entire country. Through this agency architects can then supply disinterested service that they could not pos-

sibly give to individual manufacturers.

N. Max Dunning, Chairman of the Structural Service Department, A. I. A., gave one of his usually inspiring talks. He expressed his great interest in this plan of co-operation; a meeting of professional and business minds which is leading the way where others will follow, and stated that this movement will greatly aid in solving many economic problems of this day and age. He said, "There are many differences between professional and business minds; the producers, who manufacture, and the architects, who specify and so sell the material to the public. Yet they have a common problem: that is, service to their common client, the public. There is therefore every reason why they should have a common understanding." He mentioned that while he has always been most enthusiastic about the work, yet he can realize that many others may ask what is being accomplished. It is hard for an outsider to see the results at once, but he, as an insider, is amazed at the great progress that has already been made in such a short time between two groups of men with such apparently different points of view. This working organization has shown the professional man how to co-operate with the business man, where heretofore there did not seem to be any opportunity for such a point of contact.

The complexities of present building conditions and problems make it increasingly difficult for an architect to know all that he should know. This makes it necessary that he have some source of reliable, authentic and dependable information, which is provided by this movement. He stressed the value of holding the Producers' Council annual meeting at the same time as the Institute's convention, thus affording a means of the two groups meeting and discussing their common problems. He noted the improvement in the value of advertising to architects, that was proving of great assistance to them. "This and the service supplied by the Council," Mr.

Dunning stated, "should enable the architect to enlarge his service to his client."

In concluding his remarks, Mr. Dunning said, "The producer members can congratulate themselves on the great progress made in a revolutionary idea which is now generally accepted, that unless business recognizes the element of service, business cannot live."

The annual election of officers resulted as follows:

Chairman, F. P. Byington, Johns-Manville, Inc. Vice-Chairman, J. S. Coulton, W. S. Tyler Company

Secretary, J. C. Bebb, Otis Elevator Company Treasurer, Scott Button, General Electric Com-

pany

Committee reports on the bulletin service to members of the Institute; the educational work of motion pictures and lectures; and the booklet setting forth the aims and purposes of the Producers' Council movement which is about to be issued, were read, discussed and approved. The growing practice of the publication of booklets featuring the work of various individual architects, and the solicitation of advertising therein by the publishing companies was discussed at length. In this connection it may be noted the report of the Committee on Ethics approved by the Institute, condemns the practice of architects taking part or assisting in the obtaining of advertising to meet the expense of any publication illustrating their work.

D. Knickerbacker Boyd, F.A.I.A., of Philadelphia, expressed interest in the work of the Council from its inception, and suggested that a valuable future activity could be directed toward aiding the architectural draftsman (the coming architect) to obtain data and information on building materials with which he is too often not as familiar as he

should be.

Edwin H. Brown, F.A.I.A., President of the Small House Service Bureau, spoke briefly of the work being done by that organization and expressed the feasibility of co-operation between that Bureau and the Council. He stated that the organization of the Producers' Council is one of the greatest steps ever taken in the building field, as it enables the architect to understand what the manufacturer is trying to do, and makes it possible for each to help and understand the other.

R. L. Lockwood, of the Department of Commerce, attended the sessions and gave a very interesting talk on elimination of waste in the building industry through simplified practice. He mentioned the work which has already been accomplished in this direction by manufacturers and expressed the

opinion that the building industry has many opportunities for similar action.

Wm. B. Ittner, F.A.I.A., of St. Louis, referred to the increasing and noticeable influence of the producers organization. He said that a beneficial service is evident not only to architects, but to producers in general. He mentioned the trend toward substitutes for all kinds of material, as contrasted with conditions many years ago when an architect had fewer materials from which to make a selection. This fact makes it difficult at the present time for an architect always to know whether some of these substitutes are of any value.

The report of the Board of Directors of the Institute, as approved by resolution at the convention, reaffirmed its endorsement of the work of the Council and authorized a working agreement for a period of five years. The Board has also approved the brochure to be issued by the Council, outlining the aims, purposes and results of the movement.

WOVEN WOODEN FENCE

PRACTICAL applications of the woven wooden fence of France to modern American domestic work are shown in an unusually well arranged and illustrated volume compiled by Louis H. Frohman. The woven wooden fence made of split, young, chestnut saplings, pointed at the top and woven together with wire to horizontal braces, is a cherished tradition used to fence in the estates and small country houses of France. Recent American domestic work has shown a marked tendency toward picturesque old world types with which the woven wooden fence is particularly harmonious and appropriate as evidenced by the carefully selected illustrations shown in this volume, entitled Dubois Woven Wooden Fence, which contains thirty-one plates, size 11 x 133/4 inches, and will be sent free to practicing architects. 20

TWO MORE PARTS OF REVISED NATIONAL ELECTRICAL SAFETY CODE NOW READY

Two new handbooks, Nos. 8 and 9, of the Bureau of Standards, have recently been issued. They form part of the latest revision of the National Electrical Safety Code, which is being issued in separate parts and will later be printed in combined form.

Handbook No. 8 is made up of safety rules for the operation of electrical equipment and lines. Copies of this handbook may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 15 cents each.

Handbook No. 9 contains safety rules governing radio installations and many valuable rules for the installation of receiving equipment. Copies of Handbook No. 9 may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 10 cents each.

TABLES OF HEAT TRANSMISSION COEFFICIENTS

Coefficients of heat transmission through various materials and usual types of wall, partition, ceiling and roof construction are valuable as a comparison between the insulating value of these materials singly or in combination, and also as a means of arriving at the amount of radiation required to offset the heat transmitted through these materials. The Celotex Company has issued three booklets containing heat transmission coefficients arranged in tables and charts for the convenient use of architects and heating engineers. These booklets are entitled "Tentative Coefficients of Transmission of Walls, Roofs, Ceilings and Floors", "Fuel Saving with Roof Insulation", and "Correction of Roof Condensation with Celotex Industrial Board".

RECOMMENDED BUILDING CODE REQUIREMENTS FOR WORKING STRESSES IN BUILDING MATERIALS

20

An examination of many building codes by the Building Code Committee of the Department of Commerce has disclosed wide variations in working stress requirements. Much of this apparently proceeds from failure to take into account improvements in materials, design, and methods of construction. With these improvements in mind and with the accumulated test data available from recent extensive investigations of the strength of materials, the Committee has drawn up recommendations that are believed to combine the utmost in economy consistent with adequate safety.

The materials covered in the Committee's report are reinforced concrete, cast iron, steel, and timber. The results of numerous tests on these materials have been analyzed and the summarized experience of those skilled in various branches of the construction industry has been obtained.

Outstanding features are the adoption of the water-cement ratio as a means of controlling the ultimate strength of concrete; an allowable L of 90

for cast iron columns, with an increase to 120 when the allowable stress obtained by the given formula is reduced one-third; a basic stress of 18,000 pounds per square inch for steel when the material conforms to A. S. T. M. specifications; and a revised table of timber stresses conforming to the basic grading rules of the American Lumber Standards and derived by methods recently developed by the Forest Products Laboratory.

Copies of the report, which contains 59 pages, can be purchased from the Superintendent of Documents, Washington, D. C., for 10 cents, currency or money order.

THE PUBLISHERS' PAGE

BELIEVING that inspection and supervision in building construction should be as thorough as complete knowledge can make it, we are going to present, during the next few months, articles, by experts, on the inspection of heating systems and the supervision of brickwork and frame construc-

Oil burning equipment and its correct installation are now of considerable interest to architects. There are many and widely varied opinions on this subject as to the desirability of the introduction of fuel oil in different types of buildings. Two, and perhaps more, articles are now in preparation for early presentation. One will treat of fuel oil burners as applied to domestic use; the other, oil burning equipment as used in commercial structures. These articles will present the last word as ap-

plied to what is a comparatively new utility.

Ranging from heat to cold, from fuel oil burning to electrical refrigeration, is to go from one extreme to another. The rapid development of methods of electrical refrigeration is the transition from what at the outset was an interesting scientific experiment to a practical utility. Architects will find a further problem in planning for these comparatively new things. The articles that have

been prepared on the subject of electrical refrigeration and that will in due course be presented in THE AMERICAN ARCHITECT, will be practical as a rule and guide to this important matter.

200

Craftsmanship in this country is passing through a period of its highest development. The proposed action of The American Institute of Architects will, it is believed, serve to elevate craftsmanship to a higher plane than ever before. Important developments are taking place and this progress is largely due to effort on the part of craftsmen to meet the demands of architects. Architectural ornament in bronze has been largely confined to the casting process. A new method has now been brought to a high state of perfection and the details of the work and examples of finished results will be described and illustrated in future issues.

Another novelty in craftsmanship is known as relief glass. This, in reality, is cast glass moulded in a way that is capable of producing desirable artistic effects of color and texture, light and shade. This glass will be found to have unusual decorative possibilities and is extremely valuable in many phases of interior decoration. An article descriptive of this material will shortly appear.

An informative article soon to appear will be presented under the title "A Vacation from City Architecture." It will deal with log houses, "summer camps" and all those varied and hap-hazard structures that are built at recreational localities to serve a temporary purpose. There's a growing tendency to create a better type of building both as to exterior and interior. Some interesting examples

> will provide the illustrations for an article that will be of considerable practical value.

With the next issue we start on our 132nd volume. These records of architectural growth in the United States cover approximately fifty-two years of service, and as relating to building construction. are encyclopædic in character. In beginning a new volume we shall make no special announcement. As the oldest publication in its

field, we have a duty to perform. That duty lies mainly in carrying forward to the best conclusion the policies that have always marked the conduct of this magazine.

The outstanding feature is our duty to the profession we serve. And in realizing that duty and in the endeavor to live up to all it imposes, we shall not lose sight of the fact that in the profession of architecture, more perhaps than in any other, there has been steady progression to the highest ideals.

The record of this achievement is no better shown than in this volume just concluded.

We must be chary of promises as in this very matter-of-fact age it is performance that counts most. As evidence of that performance we refer to the 131 volumes that have been issued. The 132nd will now be our present work. We need not assure the reader that we shall endeavor, with all we have, to live up to past performance and exceed it if we can.

find these two inserts, we should be notified at once that we may rectify the omis-

SPECIAL NOTICE

TOPICAL Architecture is now a regular

feature of each issue of THE AMERICAN

There will also be found inserted in this

particular issue, the complete index for vol-

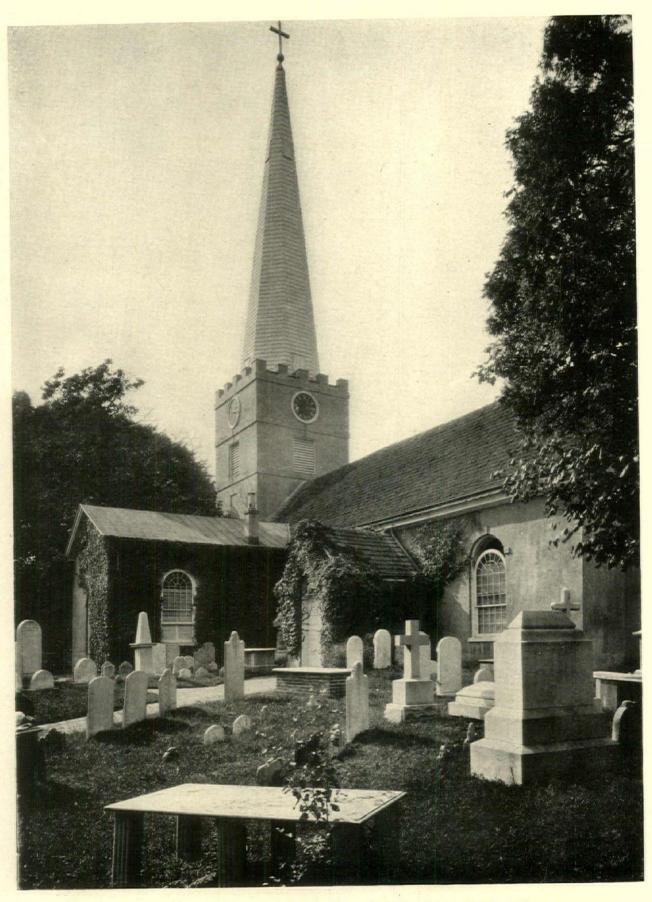
ume 131, of which this is the concluding

If subscribers on receipt of this copy fail to

ARCHITECT.

number.

sion.



IMMANUEL PROTESTANT EPISCOPAL CHURCH, NEW CASTLE, DEL.
BUILT ABOUT 1704—STEEPLE ADDED 1822

JUNE 20, 1927

NUMBER 2523



AMERICAN ARCHITECT

M

FOUNDED 1876

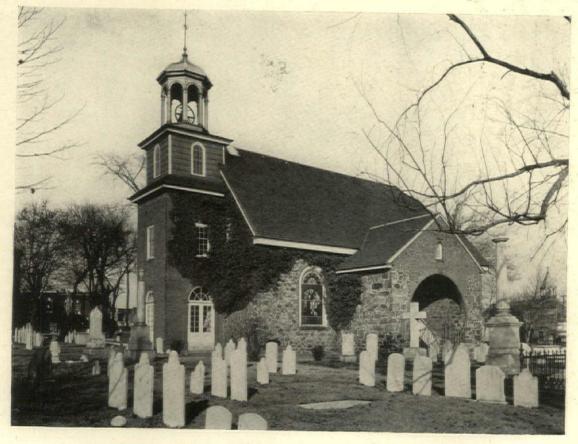
AN ARCHITECTURAL RAMBLE IN DELAWARE

By Carl A. Ziegler, A. I. A.

SEVERAL years ago, the writer at suggestion of the editor of THE AMERICAN ARCHITECT wandered through Virginia, Maryland and Delaware for the purpose of making a brief survey of the architectural remains of our Colonial period. Two articles were published on Virginia and one on the work in Maryland, and as the writer has now progressed as far as New England in his peregrinations, the editor has suggested that although sauntering through the original states in search of architectural

inspiration is undoubtedly very pleasant and wholesome to the saunterer, the editor gets no particular exhilaration out of it without the "copy" for which all editors seem to have an insatiable appetite. The following notes of impressions gained in Delaware are, therefore, proffered as a peace offering.

To the student of architecture there is nothing more intriguing than the transition from one style of architecture to another, unless it be that still more subtle change that takes place through the varying



HOLY TRINITY, A SWEDISH CHURCH AT WILMINGTON, DEL.—BUILT 1697-1699

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

phases of the same style and one must be very expert, indeed, to state with authority where one phase ends and another begins.

A famous American painter once stated to the writer, in a discussion on this subject, that the transitional stage in an architectural style was to him its most interesting period, and I think one will agree with this viewpoint when following Gothic work in its development from the Norman type through the Early English to the perpendicular style as illustrated in the great cathedrals of England. These

work of the thirteen original states. The development of the style covered a period of about one hundred and fifty years and the varying shades of expression were the result of the influence of heredity and environment which, of course, are never the same in the case of any two people, however closely allied.

In travelling from Virginia through Maryland and Delaware for the purpose of sensing this transition in architectural style, one would, of course, not expect to find a decided change upon crossing a state



AMSTEL HOUSE, NEW CASTLE, DEL.—BUILT ABOUT 1732

changes in Gothic architecture required several centuries in which to develop, and it is almost as difficult to dissect one period from another as it would be to analyze one of the late Burbank's developments in the vegetable kingdom, or the very illusive changes from one theme to another, as accomplished by the great masters in music.

It is no less difficult to classify the development of the various phases of Colonial architecture in America and especially is this true of any attempt to describe the differences which occur in the Colonial line; in fact, one wanders through Maryland for some time before becoming conscious of any change from the architectural expression of the Old Dominion, but when New Castle, Delaware, is reached the change in style is so marked as to be almost startling. No longer is the spirit of the gay cavalier, with his joyousness of life, felt in the buildings which we study, but instead we feel the industrious urge of the early Swedish and Dutch settlers.

Just as the sociologist finds a marked difference in the mentality of people in the various sections of the country, so the architectural student finds different expressions in the buildings which they erected, and the lines of demarkation are quite as vague as are geographical boundaries, which are so pronounced upon maps and so indefinite when travelling.

Very decidedly do the houses of Maryland and Virginia convey the Georgian spirit of Old Englarge wings and numerous outbuildings so common to the Virginia estates.

The first white settlement in this country was the English colony in Virginia in 1607, and in 1614 the Dutch came up the Hudson and settled on what has grown to be the most remarkable little island in the world, then known as New Amsterdam and



HOUSE ON DELAWARE STREET, NEW CASTLE, DEL.—BUILT 1799

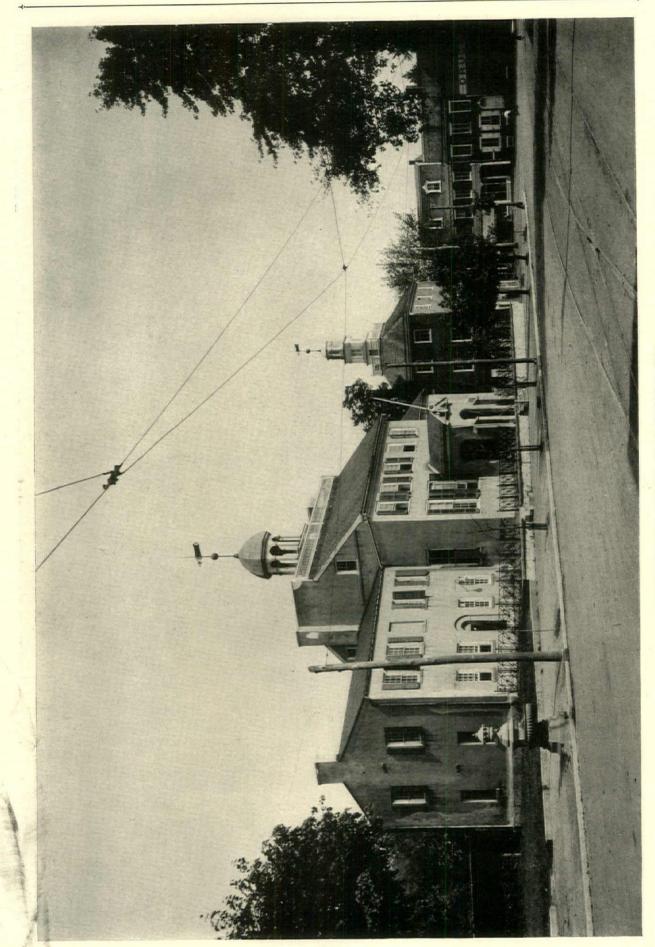
ORIGINALLY ONE HOUSE, NOW DIVIDED INTO TWO. THE ADDITIONAL DOORWAY NECESSARY WAS MADE BY CUTTING WINDOW, AS SHOWN. THE FRONT IS 45 FEET WIDE

land, the spirit that animated Sir Christopher Wren and Inigo Jones; while in Delaware the Dutch influence is quite as evident although the methods of construction are not dissimilar.

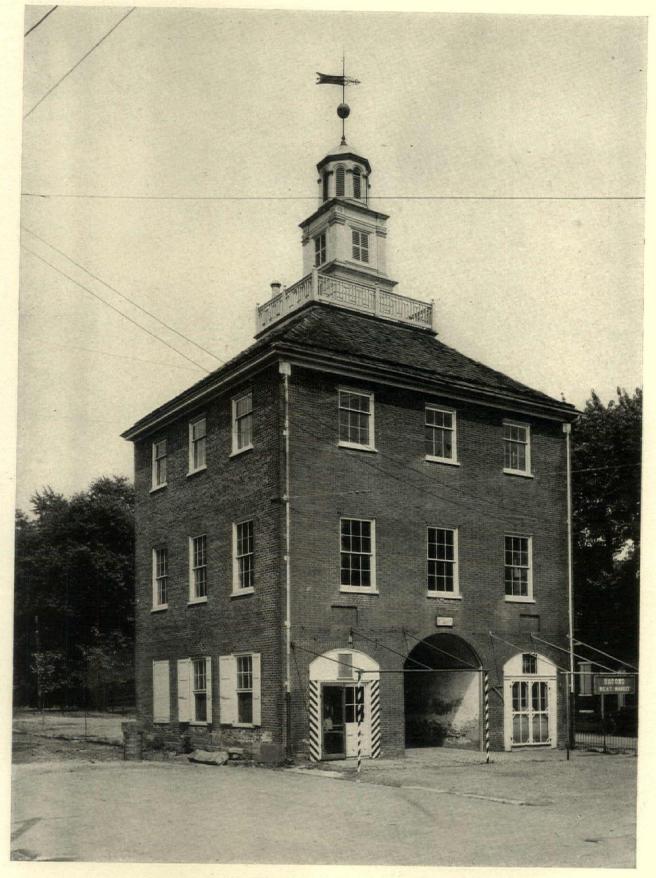
Far from tranquil was the early life in Delaware; intermittently held by the Dutch and the Swedes, the country was finally seized by the English, and because of this turmoil it was not an attractive colony for the wealthy class of settlers who found Virginia and Maryland more to their liking. As a consequence the houses of Delaware lack the size and grandeur of the mansions erected in the neighboring states; they are more compact and lack, as a rule, the

now as Manhattan, a part of New York City.

The landing of the English Pilgrims at Plymouth in 1620 has furnished American literature with a very dramatic theme, and the sturdy Swedish stock was added to the great experiment in 1638 when the good ship Kalmar Mychel under the command of Peter Minuit sailed up the Delaware River and established the first permanent Swedish settlement in this country, on the Minquas River, which he named Christina in honor of the young queen of Sweden and gave the same name to the fort which he built on land purchased from the Indians near the present site of Wilmington.



COURT HOUSE GROUP, NEW CASTLE, DEL. EAST WING BUILT 1707—WEST WING ABOUT 1749



PART OF COURT HOUSE GROUP, NEW CASTLE, DEL.

THIS BUILDING WAS THE "HEAD HOUSE" OF A LONG MARKET SHED. THE LOWER FLOORS HOUSED THE TOWN FIRE ENGINE, THE UPPER PORTION BEING USED AS A TOWN HALL



INTERIOR, HOLY TRINITY CHURCH, WILMINGTON, DEL.

There was constant conflict between the Swedes and the Dutch who settled the eastern shore of the Delaware, and in 1655 Governor Stuyvesant sailed from New Amsterdam with seven ships and took Fort Christina which ended Swedish dominion in America.

Dutch supremacy was short lived, however, for the English under Sir Richard Carr captured their strongholds in 1664 and from that date until the present time English ideals have prevailed along the Delaware, but here and there along its shores, architecture has recorded truthfully, as it always does, the craftsmanship of the various peoples who pushed back the wilderness to form habitations in a new world.

The Swedes treated the Indians with great consideration and endeavored to instruct them in the Christian doctrine. The Rev. John Campanius translated the Lutheran Catechism into their tongue, which translation was printed in 1696. Very quaintly he translates the supplication, "Give us this day our daily bread," into "Give we this day a plentiful supply of venison and corn," which I suppose would greatly shock the fundamentalist of today, but would certainly be more comprehensible to the Indian of that time.

William Penn did not come to this country until 1682. He made his first landing at New Castle and

received title to New Castle and the surrounding country, which was administered by Pennsylvania Governors from 1682 to 1776, after which they reverted to the State of Delaware.

It was from the steps of the Court House at New Castle that the surveyors laid out the arc-shaped boundary line between the southeast corner of Pennsylvania and upper Delaware; one of the few boundary lines between states that all school children remember. In my many wanderings to study the source of American architecture, I think I have not seen any other town that conveyed better the atmosphere of Colonial days. One almost expects to see



WOODBURN HOUSE, DOVER, DEL.



HOUSE ON THE DELAWARE RIVER

the house doors open and our quaintly garbed forefathers come down the steps. It requires no great tax of the imagination to see Caesar Rodney gallop over the cobble stones on his memorable ride from Dover to Philadelphia to sign the Declaration of Independence in 1776.

Here still stands the old "Dutch House" dating back to 1658, a quarter of a century before William Penn made his first landing at New Castle.

The Court House, formerly the State House at the foot of Delaware Street, is the oldest court house in the United States. New Castle abounds in beautiful wooden doorways, cornices, and interior woodwork, and many equally interesting examples of Colonial architecture may be found in Odessa, Dover, Wilmington, etc.; some are well known, but many have never been published.

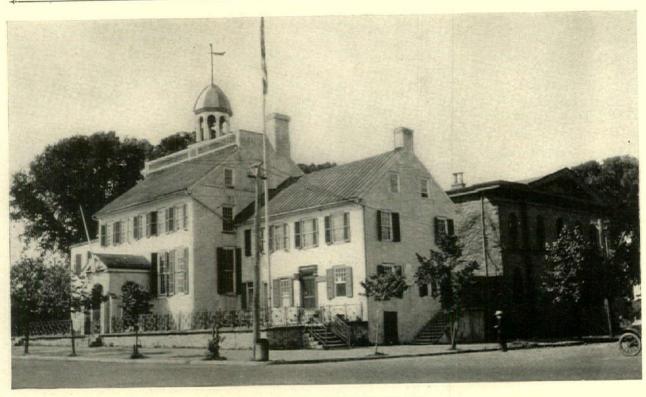
In the smaller towns the buildings have escaped the ravages of industrial progress and it is to be hoped that a proper record may be made of these before they are destroyed, in order to preserve the concrete evidence of the labors of a self-respecting, intelligent people.

In my saunterings through the byways of our early architectural beginnings I have gained the impression that the architectural profession is really not very well informed about the early work in this country. Many know the buildings in the section in which they happen to reside, but comparatively few architects have studied Early American architecture as they have studied the buildings abroad, and until one has visited Salem, Mass.; Annapolis. Maryland; Charleston, S. C.; New Castle, Delaware; Charlottesville, Virginia, etc., it is quite impossible to realize what a great difference there was in the Colonial architecture of this country and how vastly different is the atmosphere created by the va-



OLD HOUSES ON THE RIVER, NEW CASTLE, DEL.

WITH THE MODERN FRAME EXCRESCENCES REMOVED, THESE HOUSES WOULD NO DOUBT BE AS IMPRESSIVE AS THEY WERE IN EARLIER DAYS WHEN NEW CASTLE WAS A BUSY SHIPPING TOWN



OLD COURT HOUSE, NEW CASTLE, DEL.

rious types that settled on our Eastern seaboard.

The late Joseph Pennell once told me that he considered the early architecture of this country equal to anything that he had seen anywhere in the world, and surely no one could sketch it better than he.

BOOTH TRAVELLING SCHOLARSHIP AWARD

THE College of Architecture of the University of Michigan, Ann Arbor, Mich., announces that as a result of the annual competition the George G. Booth Travelling Fellowship in Architecture has been awarded to John E. Dinwiddie by a jury made up of members of the architectural faculty and Messrs. Marcus R. Burrowes, Alex. Donaldson, and Talmage C. Hughes, all Detroit architects.

Mr. Dinwiddie is a native of California who graduated from the University of Michigan in 1925, since which time he has been employed in San Francisco and New York offices. He is at present with York and Sawyer, architects, of New York.

NEW JERSEY MANUFACTURING EXPOSITION

Just across the Hudson, in New Jersey, there has been concluded an exhibition that has been fruitful of many good results. The idea at root of this undertaking was to bring to the attention of the general public,—and that would include architects and builders,—the diversity and outstanding merit of "Made in New Jersey Products." During the two

weeks that this exhibition was in progress, the interest daily increased, and the attendance largely augmented.

The old saying about the prophet being without honor in his own country, has frequently been observed in the home community of important manufacturing organizations. Many times only those directly associated with the industry were familiar with the character of the product or the real importance of the company. There has, however, been a growing recognition of the desirability and value of having the home folk familiar with the things produced in their community and this exhibition in Newark is simply an extension to statewide recognition. Among the firms allied with the building industry that had exhibits, were the following:

J. H. Balmer Co., bathroom fixtures: Edison Lamp Works; T. R. Goodlatte & Sons, Inc., makers of "Walcloth"; Grant Mfg. Corp., oil burners: Jacobson Mfg. Co., oil burners: The Kompak Co., hot water heaters: Murphy Varnish Co.; Newark Varnish Works, Inc.; Richardson and Boynton Co.; The Thatcher Co.; Wallace & Tiernan Co., Inc., water purification units, and Zenitherm Co., Inc., wall and flooring material.

THE NARROWEST STREET

St. AUGUSTINE, FLA., oldest white settlement on the mainland of the United States, contains the narrowest street in the Union. It is called Treasury Street. From side to side the street measures about six feet

ROADSIDE JOTTINGS

Somewhat Hasty Observations on Motor Travel in Italy

By SAMUEL CHAMBERLAIN

Illustrated with Pencil Sketches by the Author

HAVING spruced up the vocabulary, (aided by a phrase book), with such invaluable expressions as Please put a touch of brilliantine on my moustaches" and "What! I have to pay duty on a few cigars!," and complied with numberless formalities, this gaping chronicler has at last penetrated into Italy, in quest of material for the indulgent AMERI-CAN ARCHITECT. Three years have elapsed since we left the land of chianti and rizzoto and black shirts, of marble spires and vine-clad hills and hurdy-gurdies. The interval has only served to intensify the beauty of the country and to bring forth the observation that it is a much more pleasant, (and expensive), place to visit than formerly. One may now visit museums and cathedrals without being heckled by guides and, (glory to Il Duce), hotels are forced to post the prices of their accommodations. The poor no longer beg for themselves; instead a uniformed collector marches about, jingling a non-reversible sack under your nose.

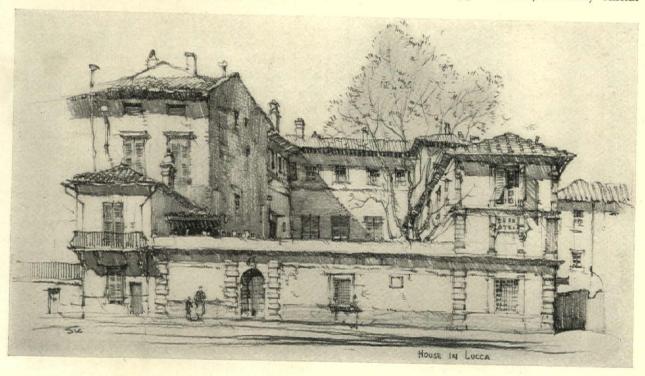
But much has remained unchanged. One notes with a sigh that they still paint pilasters and wisteria on their houses. Army officers continue to pose and preen on the street corners and watch out of one eye, from under the visor of their tremendous caps, to note the impression they are making upon the passing signorinas. If anything, their caps are be-

coming loftier with their manner, their waists more pinched and their sleeves more tightly fitted. A monacle seems to have become a positive necessity. Apparently it is not incongruous with shirt sleeves, if the shirt be black! The cigarette holders are getting longer and jauntier and the approved angle is approaching that of an American politician's cigar. Oxford bags make their belated appearance on the Italian collegians who, as always, stand on the sidewalks, sipping caffe expresso and ogling the ladies. There are many embryonic Gene Sarazens, cafe golf players in knickers and jazz-bow ties, although nothing is rarer in Italy, I suppose, than a golf course or a Socialist deputy. The human scene is as colorful as ever, and, bird-like enough, is spread largely by the male of the species. Half of the population must wear uniforms of one sort or another. And since the last visit, (at which time they had all of the rah-rah accoutrements save one), the Facisti have developed a new yell, given in the best high school manner. It runs in actual letter, according to the posters:

Eia, Eia, Eia, Alala!!

Try that one out on your track team.

So much for my little investigation of European conditions. More explicit notes can be given on motoring. One needs approximately as many official



HOUSE IN LUCCA

papers to enter the Kingdom of Italy with anything on four wheels as would be needed for a prospective Soviet ambassador to Washington. There are triptychs and passavants and a bulky pamphlet which proves to be an international driving license in seventeen languages. But once the labyrinth of red tape is untangled and both governments know what your grandmother's maiden name was, the matter of slipping over the bridge in the hills which marks the Franco-Italian frontier is simple enough. Motoring in Italy is not a complex matter. Enterprising manufacturers from Springfield, Mass., have dotted the entire Italian scene with monuments of

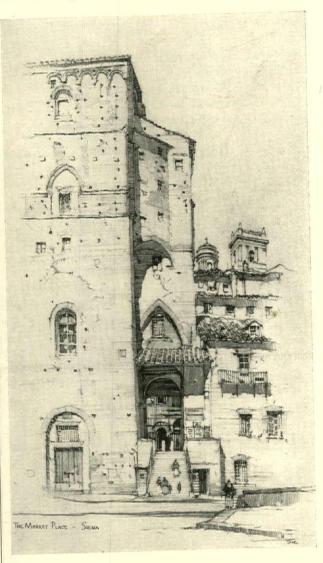
SORDICHERA

A STREET IN BORDIGHERA

BORDIGHERA HAS A FLASH OF BEAUTY IN ITS OLD TOWN

our civilization, red gasoline filling tanks. Garages are frequent and the roads are usually good. There is one new and not very beguiling road regulation. One should stop dead, then look and listen before traversing any railroad crossing, even though the

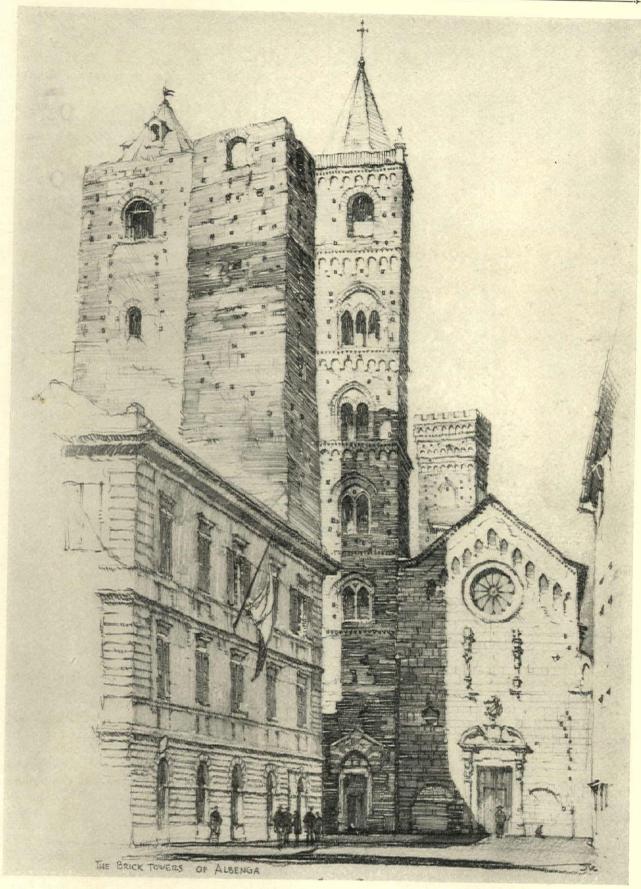
safety gates be open. This is perhaps well intentioned, but the joker lies in the fact that an observant Fascist is lurking alertly in the nearby bushes. If your car fails to make a definite halt, you are halted, and presented with a neatly printed receipt



THE MARKET PLACE, SIENA

ONE MAY NOT HOPE TO CONVEY ANY SORT OF IMPRESSION OF THE SPLENDORS OF SIENA

for 25 lire, which you obligingly pay. Since there are, by actual count, more than fifty crossings on the Genoa coast road, it is obvious that one must choose between speed and bankruptcy. This is a companion piece to that celebrated ruling which fines a passenger 20 lire for touching his feet on the opposite seat of a railway carriage. Stern faced gentlemen will frequently stop your car in the middle of a country road and scan your papers with great care, rub their fingers over your engine number, etc., but they are agreeable enough if your documents are scrupulously correct. For those who are not whole heartedly in sympathy with the Fascist regime, it might be well to state that one may, in conversa-



THE BRICK TOWERS OF ALBENGA
FROM THE ORIGINAL PENCIL SKETCH BY SAMUEL CHAMBERLAIN

tion, refer to Mussolini as "Mr. Johnson," that being the official code-word for loud-mouthed Americans since one of our compatriots was arrested when he was heard to speak disrespectfully of the Duke of Italy.

One has an unfortunate impression of the Italian roads at first, for the mountainous highway which leads from Menton to Genoa is a terror. One could obtain approximately the same effect if it were possible to ride on a roller coaster with hexagonal

ings and corbels. It is an astonishing jumble. If it could be magically set among the regiment of towers of San Gimignano. the result would be dramatic perfection itself. A dozen quaint seaports intervene before Genoa, but the architecture does not pick up appreciably until one approaches Carrara and the marble belt, when the little town of Pietrasanta rises out of the plain, glittering with white churches and noble old gateways, a forerunner of Lucca's splendor.



CHURCH OF SAN GIUSTO, LUCCA

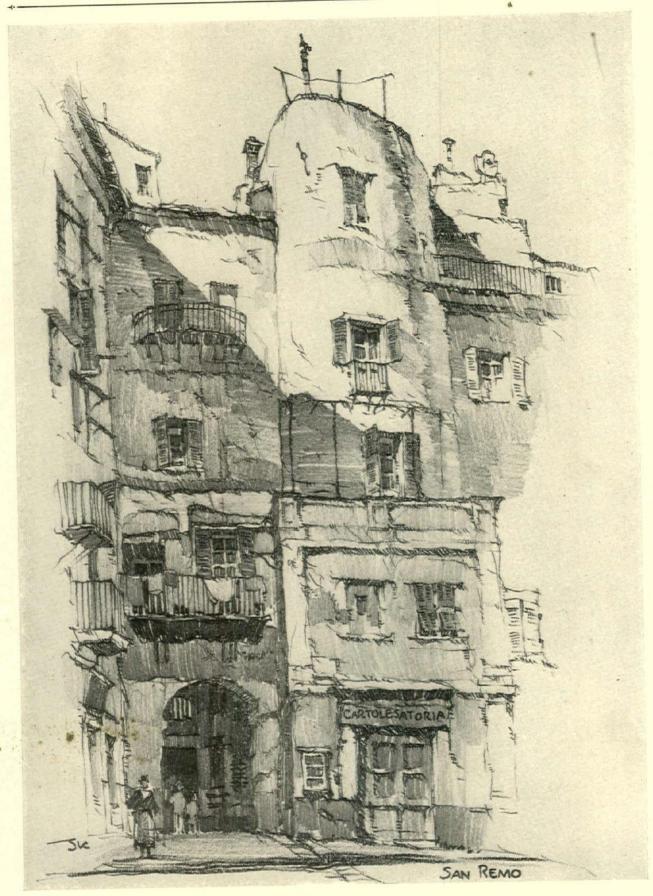
LUCCA, GRACEFUL, PATRICIAN AND CLEAN, IS A REVELATION TO THE UNSUSPECTING TRAVELER

wheels. This road leads through Ventimiglia, that frontier town whose name will linger long in the memory of travelers who have pined away in its international railway station while the Customs officials did their poking and prying. The neighboring Bordighera has a flash of beauty in its old town, enough to call for the sketch here shown. San Remo, one of the most pretentious of the towns on the Italian Riviera and one of the stupidest, has a glimpse of sunlit antiquity too, but Albenga, hovering flat and peaceful under the domination of its massive towers, is the first site of considerable interest. The cathedral of Albenga is unique in the quantity and grouping of its great towers, some of them quite barren, others varied with arched open-

Lucca, graceful, patrician and clean, is a revelation to the unsuspecting traveler. It is a miniature Florence within walls, fabulously rich in churches and palaces, glistening with striped campaniles and coppery domes. But why attempt to describe it in a sentence? In fact, how can one hope to convey any sort of an impression of the splendors of Pistoja, of San Gimignano, Siena, Orvieto, Viterbo, Arezzo and Perugia in a few poor paragraphs? To continue the travelogue, even in the condensed form of a syllabus would call for far more pages than are alloted me. The temptation to cite two unexpected treasures is, however, too strong, and I hereby implore all prospective visitors in Tuscany to include Certaldo, that utterly magnificent citadel of brick



PERUGIA
FROM THE ORIGINAL PENCIL SKETCH BY SAMUEL CHAMBERLAIN



SAN REMO
FROM THE ORIGINAL PENCIL SKETCH BY SAMUEL CHAMBERLAIN

where Boccaccio died, and Toscania, near Viterbo, on whose grassy outskirts linger two of the most perfect Romanesque churches one could hope to find, deserted and unrestored and serenely beautiful. I respectfully submit that nothing quite equals a



DOORWAY IN ORVIETO

sunny April day in the hills of Toscania, a fiasco of Frascati, a loaf of bread, some saucisson de Milan and a slab of Gorgonzola under an olive tree, with the budding map of half of Tuscany spread beneath you in a thousand rippling shades of brown and lavender and pale green.

RUINS OF ROMAN CITY UNEARTHED IN GREAT BRITAIN

RECENT excavations by English archaeologists at the site of the Roman town of Uriconium have revealed the largest Roman building yet uncovered in Great Britain, according to recent press despatches.

A shattered tablet found near the entrance when pieced together revealed it was the forum or market place erected by the Emperor Hadrian in A. D. 130. Numerous other buildings unearthed all show indications the city was destroyed by fire. The bricks of the walls are so blackened and charred they look as if the conflagration might have occurred recently.

Several skeletons have been found. One, that of a man, in a "hypocaust," or heating chamber for a bath. In his hand was a broken box which once

contained coins which were scattered around him. These coins bore the date A. D. 111.

Footmarks of Roman sandals can be seen in the soft cement, and well heads scored by the lowering of a rope. A steel covered spur of a fighting-cock, a surgeon's lancet and many other discoveries give indication life in Roman days had many aspects similar to that of today.

20

SCULPTURE ON BUILDINGS

T seems a pity it should be so often the case that large buildings recently erected represent such poverty in their carved ornamental details, states The Builder, London. Such buildings offer a field for sculptured ornament which the riches of applied craftsmanship might redeem. Yet the most paltry character attaches to such additions, as though more a concession to mere habit than to any inwardness or pleasure in the ornament itself. It appears to us that, as these large commercial undertakings are so sparing in architectural richness, more might be done to relieve this starkness than is the case. It is true that on Bush House we have the large group erected above the main entrance, but this is estimable for its sentiments rather than for its qualities as sculpture. It will be said by some that, as in Gothic or Renaissance ornament, this should be conceived with and grow through the structure itself, an integral part of the conception. But with the more wholly utilitarian character belonging to these large commercially conceived buildings there might be, for want of the better thing, some intimate sculptural work of really vital character added to relieve the weariness of mere size, so little related to con-

Nor must we be too much bound up by theories which, deduced from the best periods of building, apply more to them than to those buildings to which we refer. Theories of applied ornament belong to books rather than to buildings. In the latter case we do what we can in the circumstances. It is obvious that the nature of sculptural ornament is quite lost sight of in many of our new commercial buildings, such as are to be found in the new Regent Street or on the Devonshire House site. There is no advantage in such additions. While recognizing this, we might none the less have still the reality of sculptured ornament, even though an added thing. which, if beautiful, can hardly be exuberance. There are sculptors—many young ones of great ability leaving our schools, who, even though we must regard it as a second best, could in one way and another give the human touch, the sense of the impulse to beauty, which is the reality we seek, and could thus relieve the baldness, the commercial insensibility, that pervades such buildings as those to which we have referred.



EDITORIAL COMMENT



THE suggestion, made by C. Grant La Farge, chairman of the Institute's Committee on Allied Arts, in his presentation to the recent convention of that Committee's report, that we now turn our attention to architecture as an art, having long debated it as a science, while undoubtedly a good one, may not, we believe, be taken as an entirely workable premise. While architecture is undoubtedly an art, in its first analysis, its practice,—and we infer that is what Mr. La Farge is discussing,—is something very much more. At the same time it is quite possible,—for many men have successfully accomplished it,—to retain the true art attitude and include the various and more prosaic functions that make up the architect's daily work.

That a successful architect must be something more than an artist need not be argued here, as it is generally conceded. Architects must combine in their work as artists, other abilities, bordering on the prosaic, that artists in no other fields may have to consider. In the proposed knitting together of the various arts allied to architecture and the crafts that are equally closely connected, architects will find that their practical experience gained by work in architecture as a profession will serve them in

good stead.

Undoubtedly the scheme proposed by Mr. La Farge's Committee is one that, if successfully carried out, would advance the cause of architecture in this country very materially. The thing that would most retard a consummation so very desirable, would be an attitude of condescension on the part of the profession and the assumption that architecture was strictly an art, and that those who practice it did not regard themselves as either scientists or professional men while engaged in the proposed effort to secure a closer alliance.

20

In looking over the English architectural journals, we find that there is a widespread sentiment relating to the spoiling of the English country roadside. Writers in many instances wander from their topics to express the feeling that the matter has become of such great importance as to dominate the minds of the contributors and correspondents of these journals.

Men who were familiar with rural England twenty-five years ago, and who return today to renew impressions of quiet, picturesque beauty, are filled with regret when they see what has happened. There is unanimity of expression in the belief that the motor car and the various roadside utilities are largely responsible. But the more careful critics while believing that the motor car is a contributing cause, are also of the opinion that those in authority in suburban towns are largely responsible. It is pointed out, and with reason, that there is vested in these local governing bodies, all the necessary authority to control the situation and that they have only to exercise that power to arrest the further encroachment and despoliation of these fine country roads.

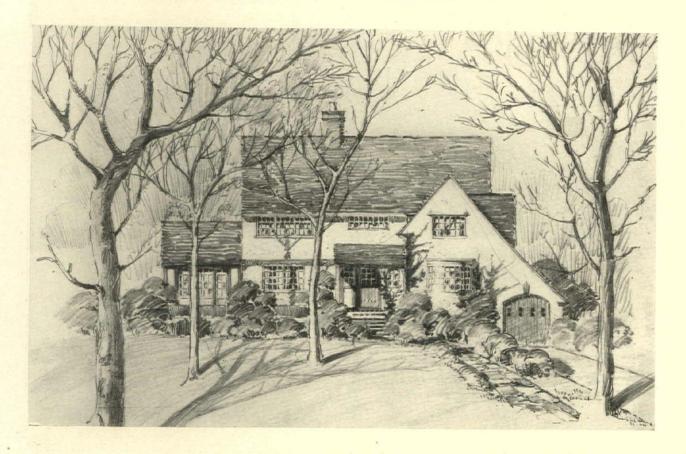
20

JOURNALS devoted to the interests of contractors for building construction frequently criticize architects' specifications, claiming that they are not sufficiently definite and too often contain such clauses as "as required," "as indicated," and "required by conditions." The point contended by contractors that architects should know what is required, is well taken. It is neither impossible to write a definite specification nor unreasonable for both client and contractor to expect it. A physician who did half a job because he was underpaid or too busy, would find his practice dwindling. Many architects prepare complete and very definite specifications; many do not. Those who do not would do well to study this phase of their work or allot sufficient time to this portion of their services to correct what is often a most unsatisfactory condition. Many of the difficulties encountered with work under construction would be removed by the simple procedure of furnishing a proper contract document in the form of a definite specification.

20

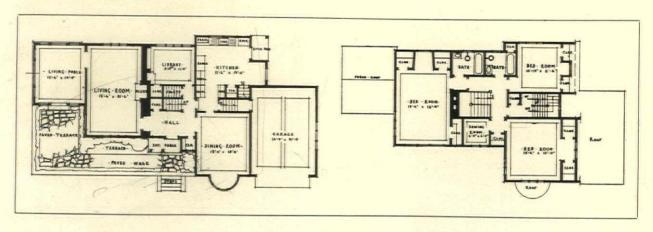
THE end of the scholastic year has brought with it the usual exhibitions of the work of students in our architectural schools. What impresses us most in such exhibitions as we have visited is the apparent effort on the part of teachers to give the student a practical and working idea as to the various problems he studies. We recall the days we spent in the classroom striving to obtain a better appreciation of art, and since then have many times realized how little knowledge that was really practical was imparted to us; or better stated, perhaps, how we failed utterly to grasp such knowledge. It is encouraging to observe that this phase of architectural education is so strongly emphasized, thus giving the student a better opportunity to give expression to his own artistic temperament.

A GROUP OF BUILDINGS OF MODERATE COST



SKETCH OF PROPOSED HOUSE—GEORGE ROGER THOMPSON, ARCHITECT

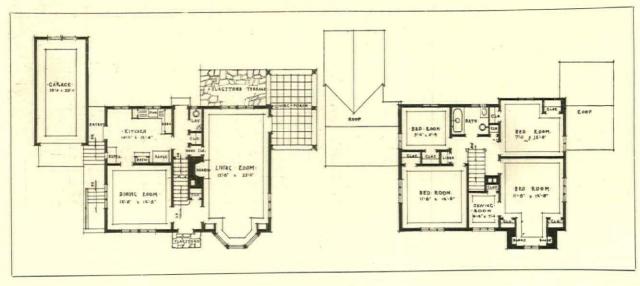
This house was designed as a frame construction with a slate roof. The garage is attached to the house, but there is no room above it. On the first floor there are a good sized living room with adjoining porch, a library and a dining room, and a large kitchen. On the second floor there are three good sized bedrooms, two baths and a sewing room, with plenty of closet space. The house is designed to harmonize with the natural setting, and there is suggested in the sketch certain planting which further carries out this idea

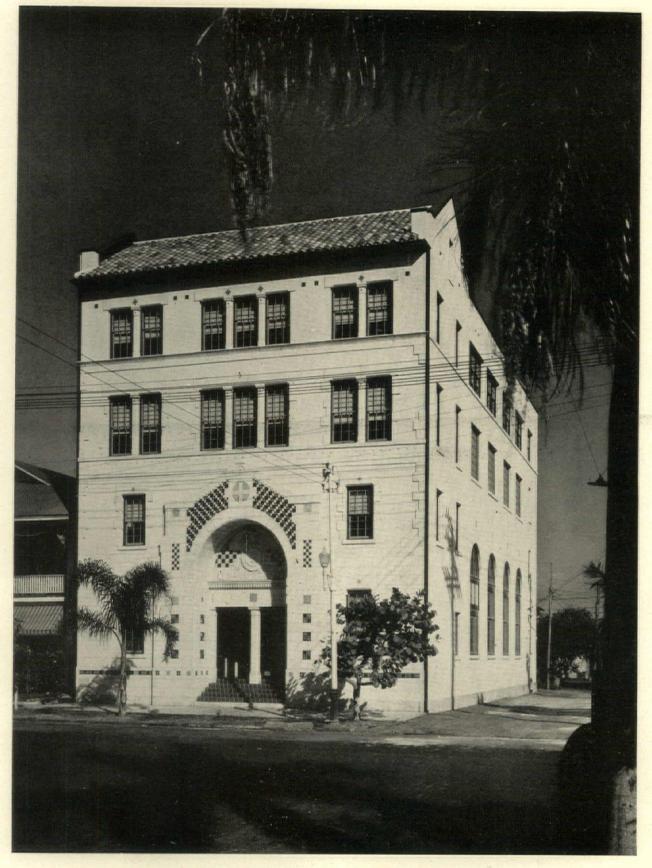




HOUSE ON A CORNER LOT IN HEMPSTEAD, L. I., N. Y.—GEORGE ROGER THOMPSON, ARCHITECT

The walls of this house are of hollow tile, metal lath and stucco. It is of frame construction, with wood shingles for the roof. It is heated by vapor, and drainage is supplied by a septic tank. A garage is attached to one side of the house balanced on the other side by a living porch





SALVATION ARMY BUILDING, ST. PETERSBURG, FLA.

HARRY F. CUNNINGHAM, ARCHITECT

(Plans not available)

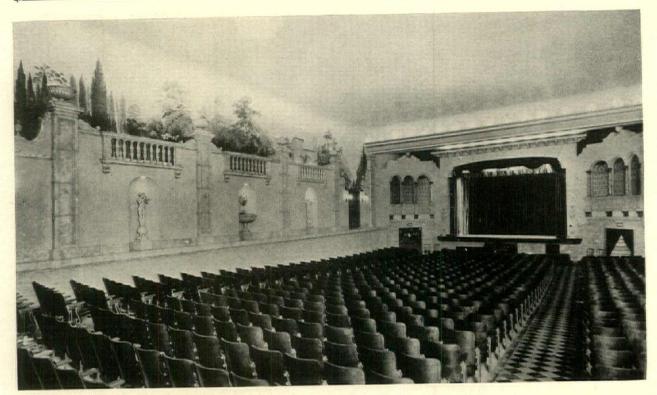


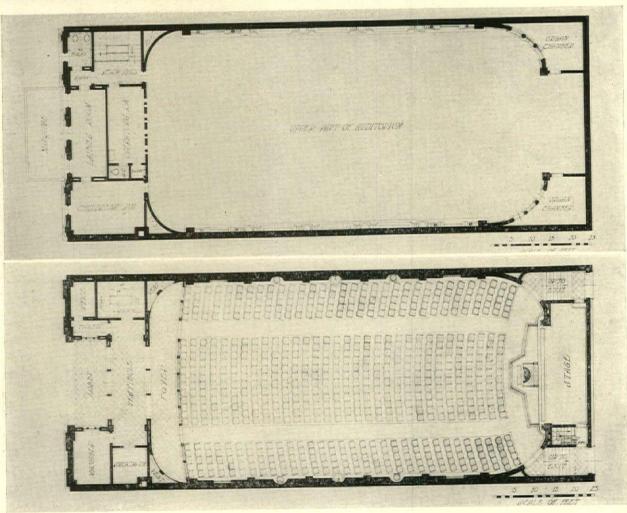
ENTRANCE DETAIL, SALVATION ARMY BUILDING, ST. PETERSBURG, FLA.
HARRY F. CUNNINGHAM, ARCHITECT



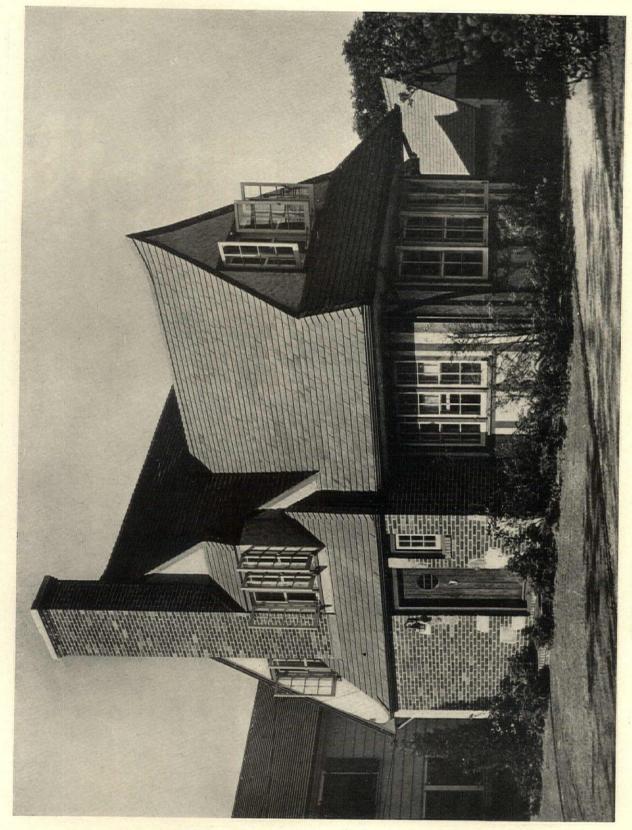
CAPITOL THEATRE, RICHMOND, VA.—CARNEAL & JOHNSTON, ARCHITECTS

The auditorium of this theatre is in the form of an amphitheatre surrounded by a garden wall and devoid of the conventional cornice and panel ceiling, with lighting so arranged that one has the feeling of outdoors with a moonlit sky as a ceiling. The size of the lot is 45 feet x 129 feet. A complete ventilating system supplies warmed fresh air through mushrooms in the floor in winter. Summer ventilation and cooling is obtained by a rapid change of air, the whole volume being displaced in 90 seconds. The seating capacity is approximately seven hundred

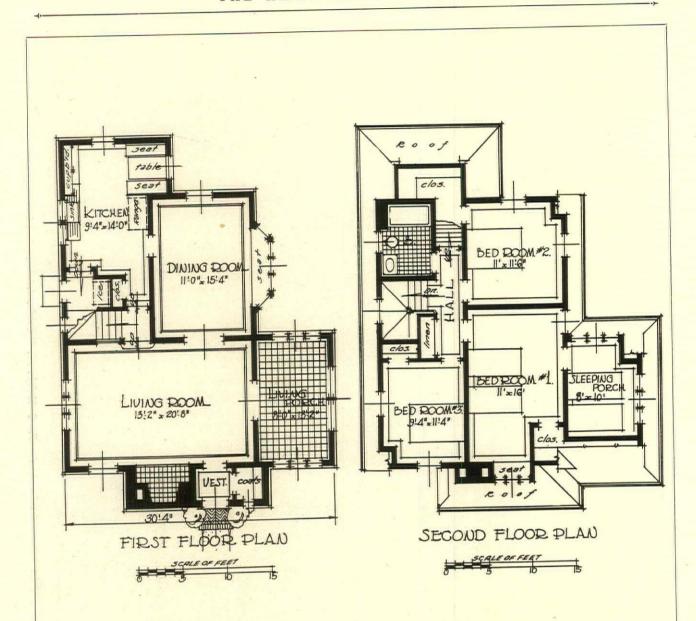




CAPITOL THEATRE, RICHMOND, VA.—CARNEAL & JOHNSTON, ARCHITECTS



HOUSE AT BAYSIDE, L. I., N. Y.—R. C. HUNTER & BRO., ARCHITECTS



HOUSE AT BAYSIDE, L. I., N. Y.—R. C. HUNTER & BRO., ARCHITECTS

The house is of brick and frame construction. The roof is of shingles. Floors are constructed of wood, and partitions are of wood studs and wood lath. Doors and windows are of wood, as is all trim. Certain surfaces of the exterior are treated in stucco. The wood trim and shingles are finished in weathered gray, with red brick and white stucco. The house is equipped with electricity. A steam heating system is installed. Drainage is supplied by a sewer system, and water from public supply. Piping is of cast iron and, in certain cases, brass. Plumbing fixtures are of vitreous ware



INTERIOR ARCHITECTURE



MODERNIZING AN OLD HOUSE

THE modernizing of an old house is a problem of much greater proportions than the mere restoration of a relic of bygone days. Perhaps the greatest difficulty which such a problem presents lies in the attempt to retain the peculiar charm and character of the original. In properly providing for the installation of certain modern equipment, too, many serious difficulties are necessarily met with, but these may often be satisfactorily overcome without making any radical changes to the general character of the design of either the exterior or interior of the old house. One of the most characteristic features of the old Colonial house, -and the old house, herewith illustrated, was typical of those times,-was the leanto which abutted the wall of the kitchen. In the process of modernizing the old house, however, it was necessary to dispense with this old-fashioned feature. A comparison of the photographs of the old house in its original state and of those showing

the house as remodelled will show how successfully the architect, Bradley Delehanty, has retained the old lines and conserved the old character of an old farmhouse on Long Island, New York, which was built in 1735, and made it function according to our present ideas of living. After removing the leanto, the architect added a new wing to this side of the house. While it was not possible to retain accurately the old lines in a two story extension, the character has been retained, and the new wing itself was built almost entirely of old materials salvaged from the tearing down of the leanto.

The first floor of this new wing is used for service. The second floor is divided between a nursery and sleeping porch. From the porch an outside staircase, which immediately suggests old Colonial architecture, leads to the children's pen, an enclosed yard for play, thus allowing direct access between the nursery and the play yard without necessitating



THE OLD HOUSE AS IT APPEARED BEFORE ALTERATIONS WERE MADE. NOTE THE CLAPBOARDS ON THE LEFT HAND SIDE OF THE HOUSE AND SHINGLES ON THE RIGHT

passage through the entire house. Adjoining the kitchen, and reached by a door from the kitchen, is an enclosed yard which is used as a cook's garden.

Examination of the photographs of the old house will show that the exterior walls of the living room portion of the house are of clapboards while those of the dining room are of shingles. The architect was convinced by this use of materials, and by their condition as well, that the living room wing had been added at a later date.

In order that a house built two hundred years ago, in materials and methods then at command, be made livable today, according to our modern standards of living, consideration should be given at the very outset to the installation of certain conveniences by which the remodelled house may better conform to prevailing ideas of comfort and sanitation. This will naturally necessitate certain changes in the plan, as well as certain alterations to the old fabric and the dismantling of certain portions of the interior architectural treatment. The successful remodelling of an old house will conserve its original character, in design and in workmanship, no matter how extensive these alterations may be. This is often brought about by salvaging the old materials and using them in the rebuilding.

Bradley Delehanty, the architect whose problem it was to modernize the old farmhouse, photographs of which are reproduced herewith, made a careful survey of the various materials, as well as of the design in which they took form, before attempting or even planning to make any changes to either the exterior or interior of the old building. The survey showed that the house had sunk eighteen inches in one corner of the dining room. This necessitated the jacking up of the entire house at this point, and resulted in certain underpinning and shoring. In order that the old chimneys might function properly, they were rebuilt around new terra cotta linings, using the old salvaged materials throughout in the rebuilding process.

Among other things that the architect discovered in his survey of the materials, was that the wood panelling in the living room appeared to be of a much later date than that of the dining room. Its design was more sophisticated and the woodwork itself was in excellent condition. The panelling in the dining room was much more crude in detail, suggesting greater age. This further bore out the inference, already referred to, that that living room wing had been added at a later date to the original house.

In the accompanying plans of the first and second floors, in which the alterations are indicated in hatched lines, it will be seen that only one partition was removed, to allow of a large guest room where before there had been two.



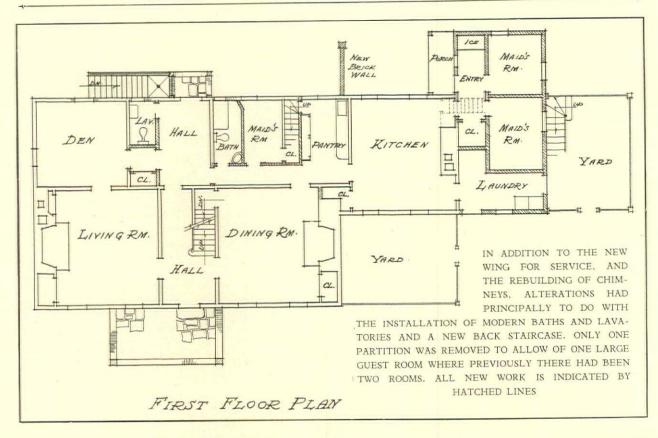
REAR OF OLD HOUSE. SHOWING OLD BARN WHICH WAS REMOVED AT THE TIME ALTERATIONS WERE MADE, AND THE KITCHEN LEANTO AS IT ORIGINALLY APPEARED



IN PHOTOGRAPHS REPRODUCED ABOVE, THE TWO TYPES OF EXTERIOR WALL TREATMENTS EMPLOYED—CLAPBOARDS AND SHINGLES—ARE SHOWN IN DETAIL. AT THE LEFT, THE FRONT PORCH, AND, AT THE RIGHT, THE KITCHEN ENTRANCE (Other photographs of the restored house are shown in the plate section)

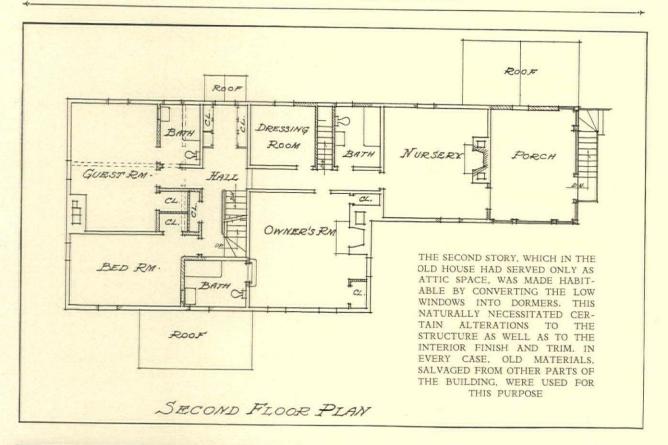


LIVING ROOM IN THE HOUSE OF CLETUS KEATING, GLEN HEAD, L. I., N. Y. RESTORED BY BRADLEY DELEHANTY, ARCHITECT



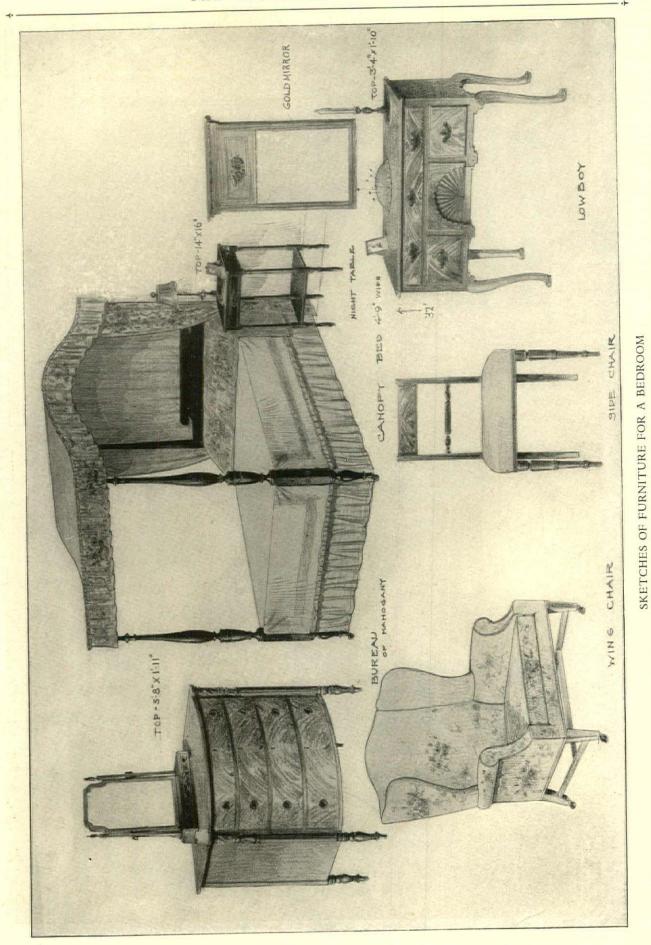


DINING ROOM IN THE HOUSE OF CLETUS KEATING, GLEN HEAD, L. I., N. Y. RESTORED BY BRADLEY DELEHANTY, ARCHITECT





OWNER'S BEDROOM, HOUSE OF CLETUS KEATING, GLEN HEAD, L. I., N. Y. RESTORED BY BRADLEY DELEHANTY, ARCHITECT

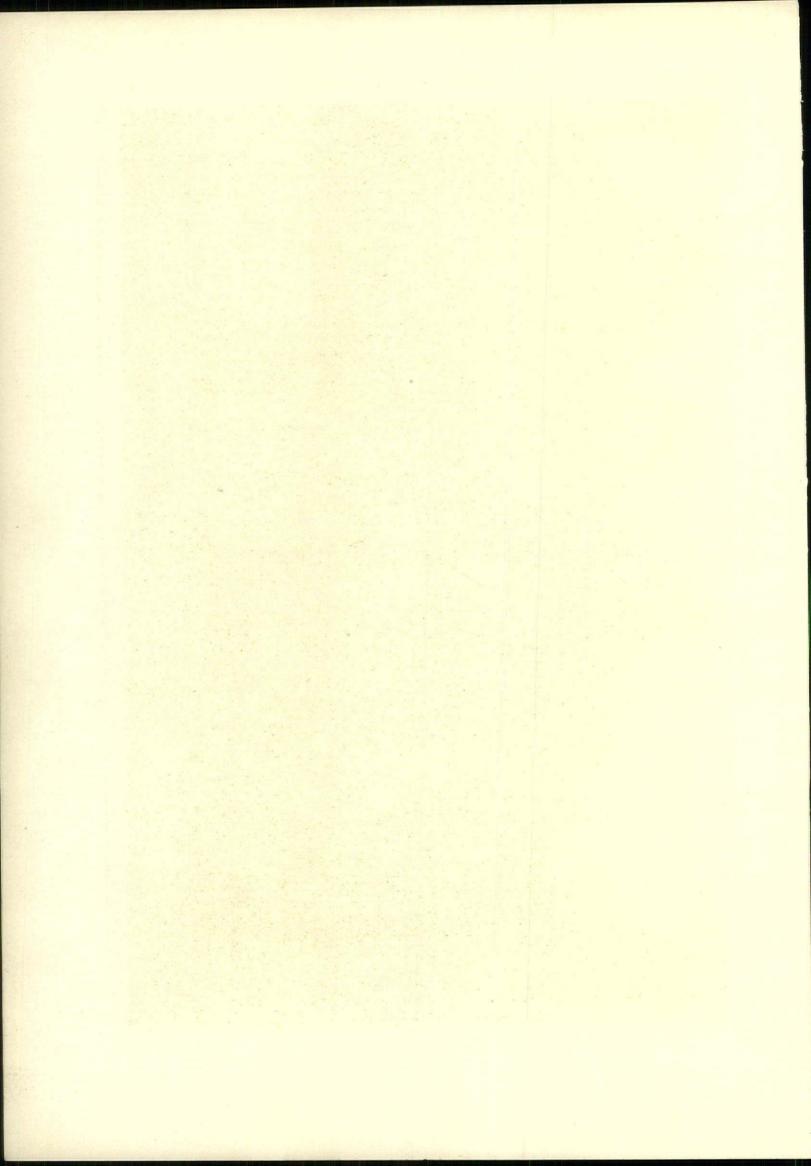


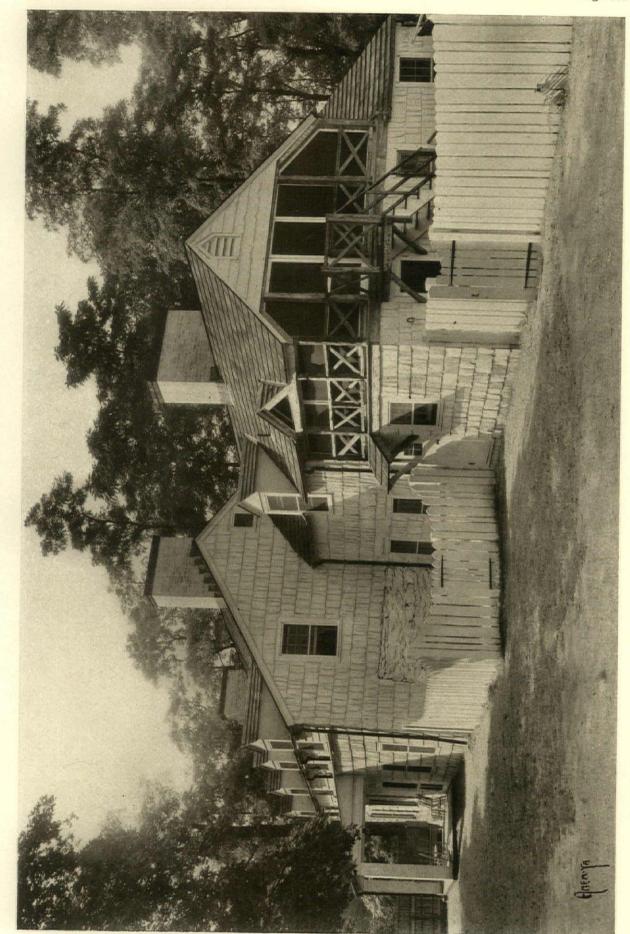
FROM THE ORIGINAL DRAWING BY FRANCIS H. BACON COMPANY

798

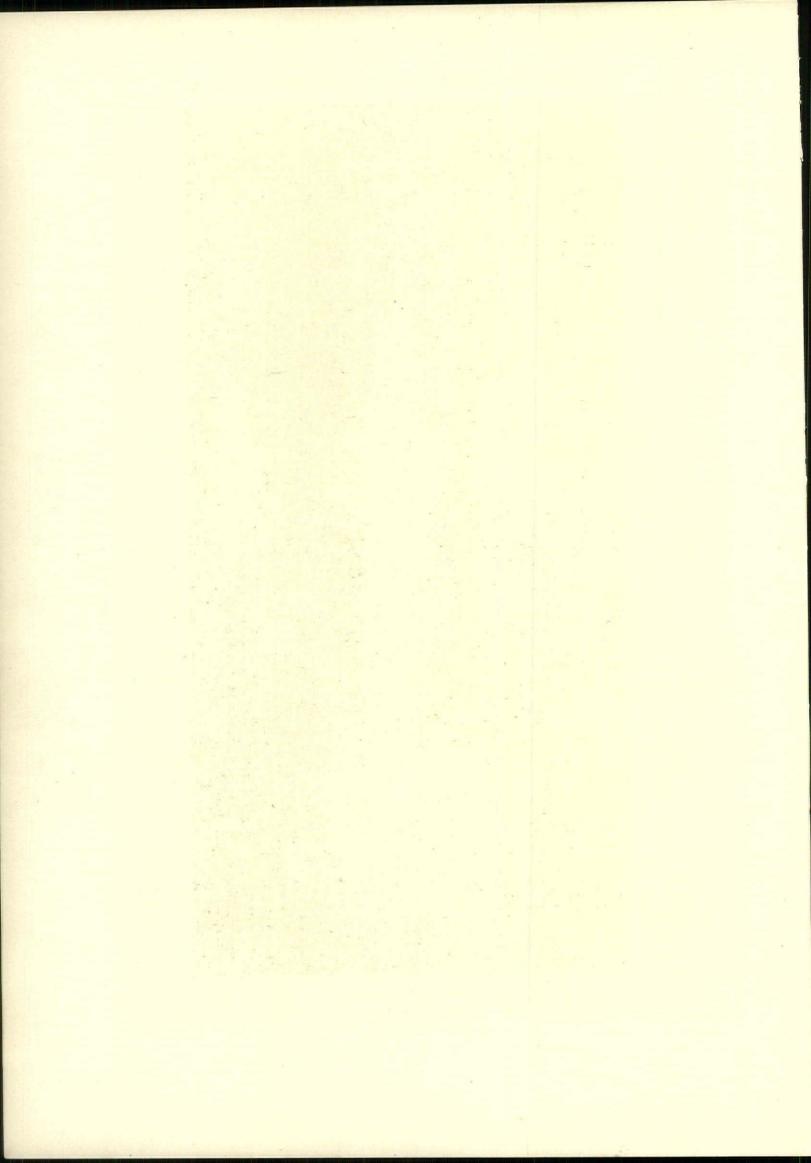


REMODELLED HOUSE OF CLETUS KEATING, GLEN HEAD. L. I., N. Y.—BRADLEY DELEHANTY, ARCHITECT (For plans, views of original building, interiors and description see Department of Interior Architecture)





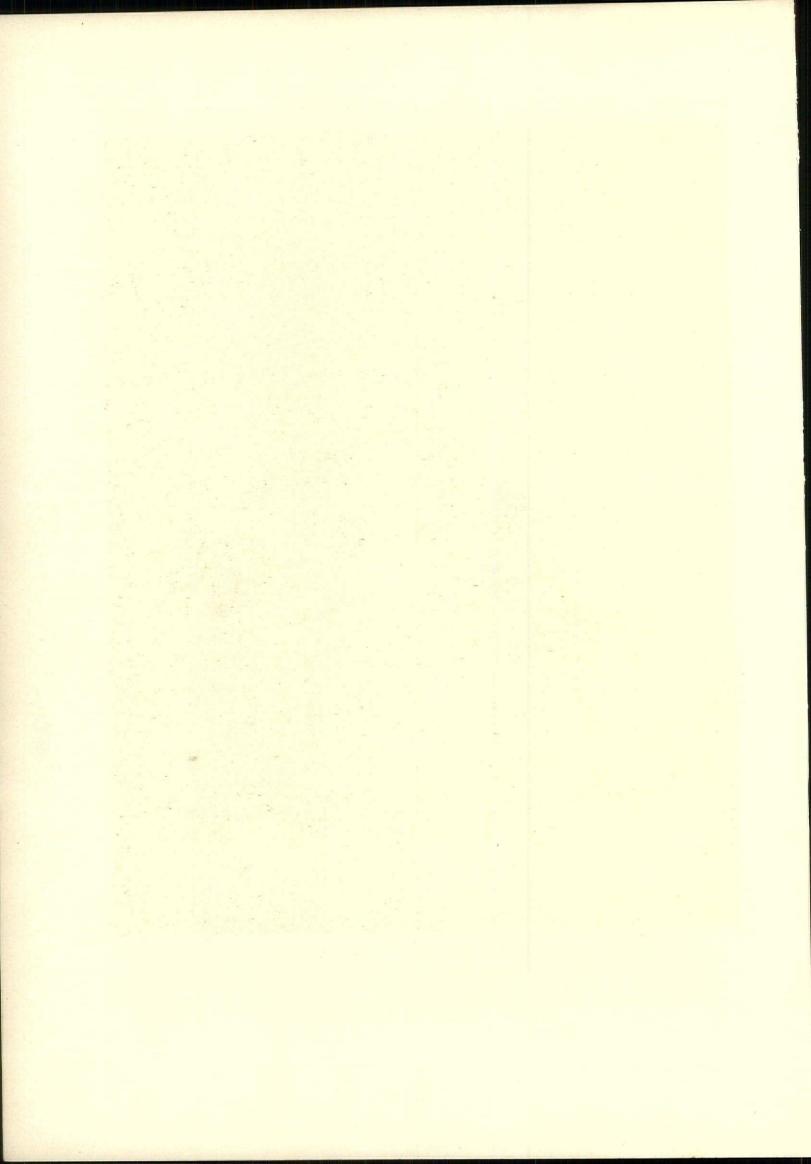
REMODELLED HOUSE OF CLETUS KEATING, GLEN HEAD, L. I., N. Y.—BRADLEY DELEHANTY, ARCHITECT

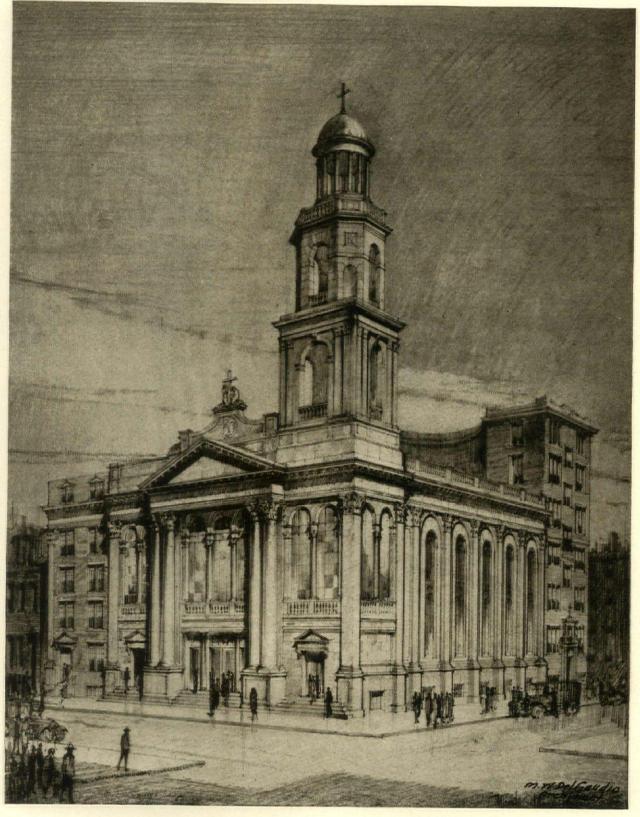




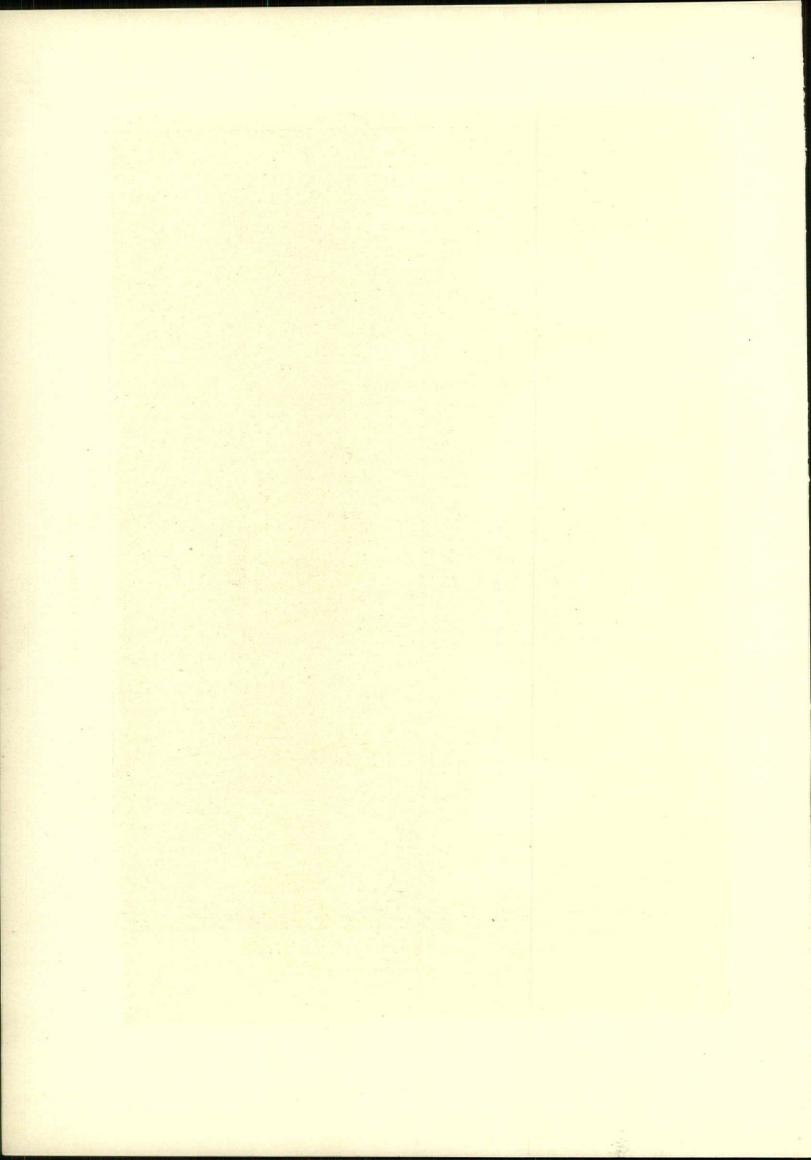
MICHIGAN BOULEVARD, CHICAGO, BRIDGE GROUP OF TALL BUILDINGS, SHOWING 333 NORTH MICHIGAN BUILDING IN CENTER

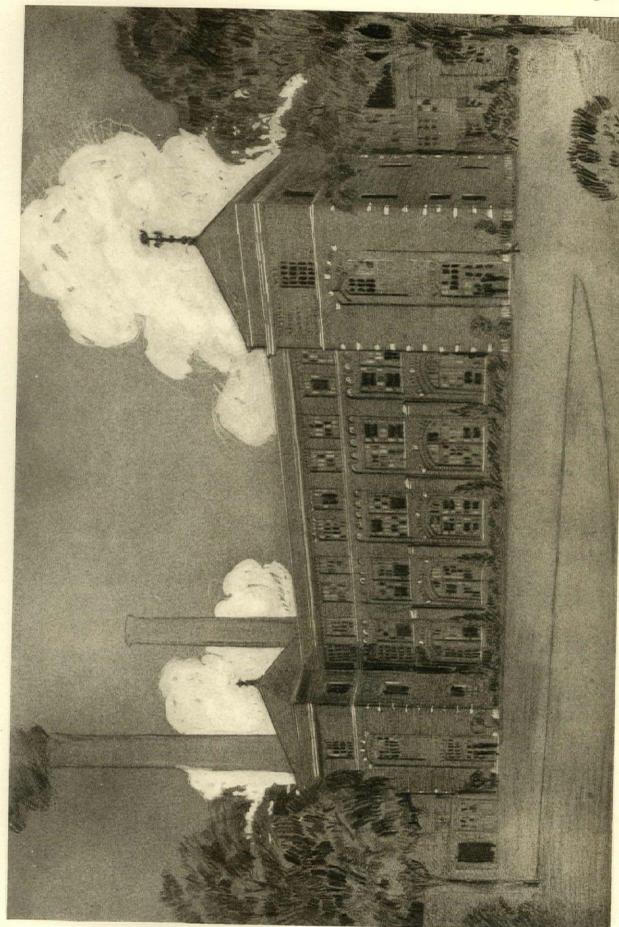
HOLABIRD & ROCHE, ARCHITECTS



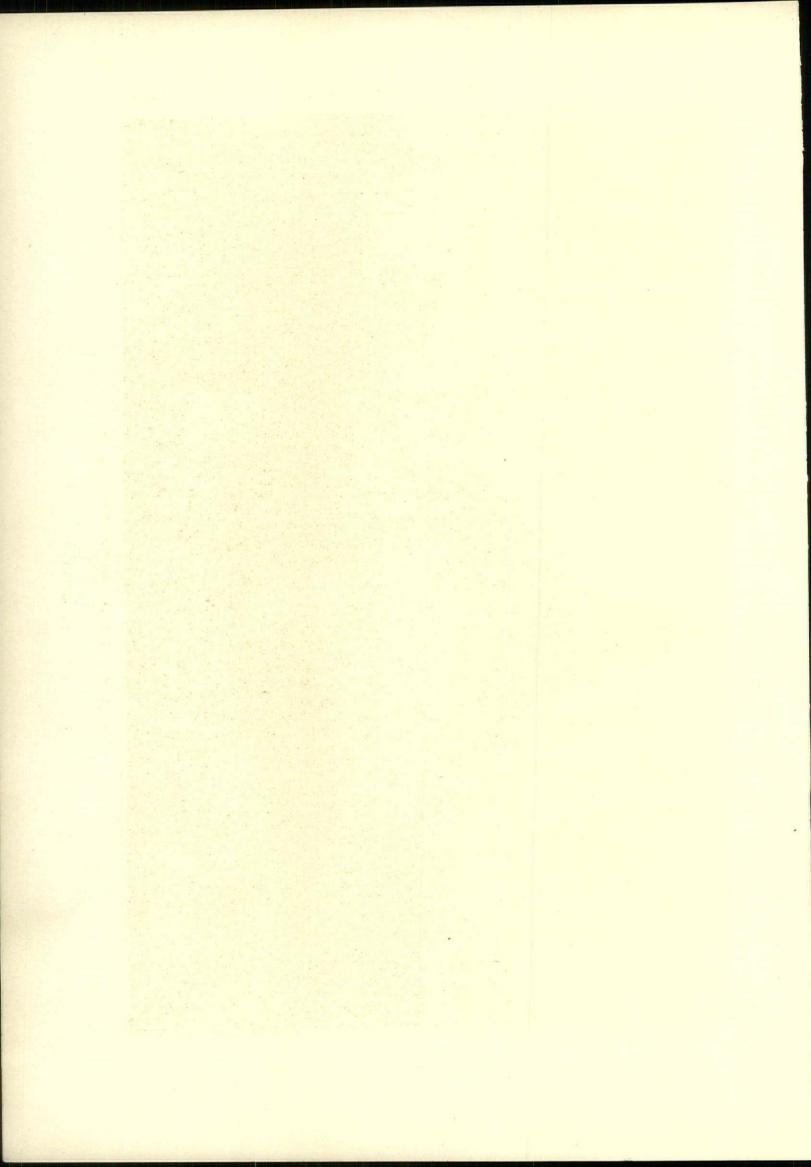


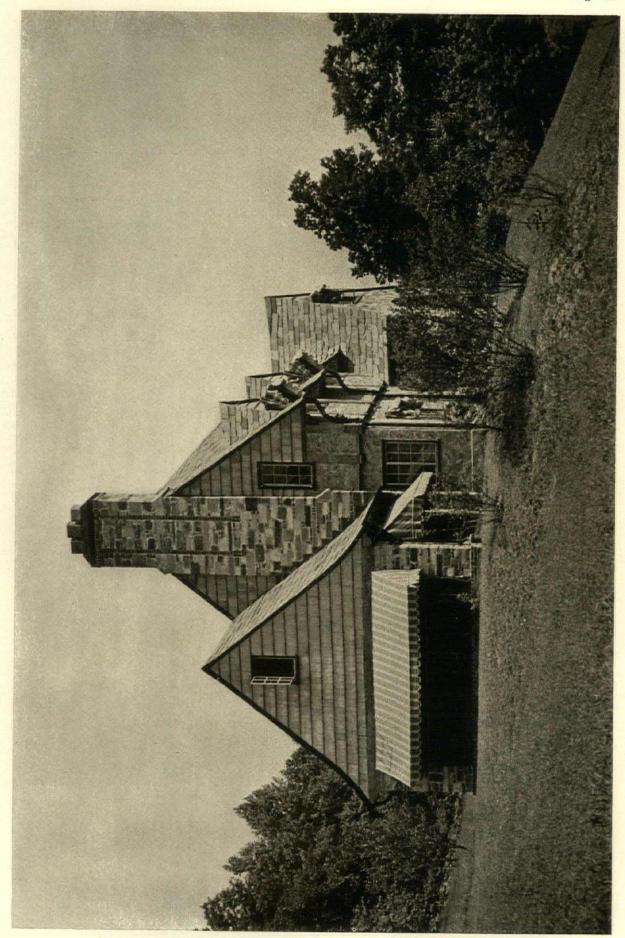
CHURCH OF OUR LADY OF POMPEI, NEW YORK CITY
MATTHEW W. DEL GAUDIO, ARCHITECT





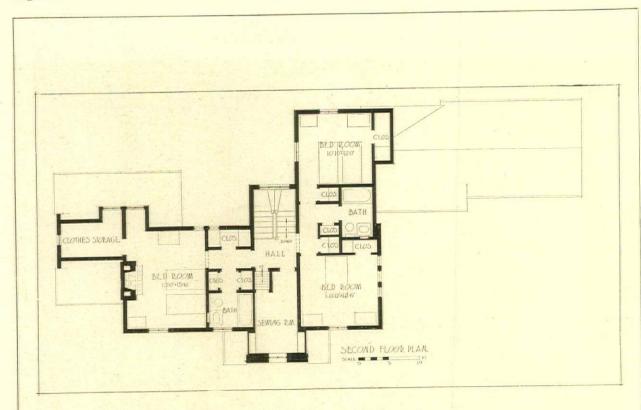
BUILDING FOR LITTLE FALLS WASHING COMPANY, LITTLE FALLS, N. J. GOODWILLE & MORAN, ARCHITECTS

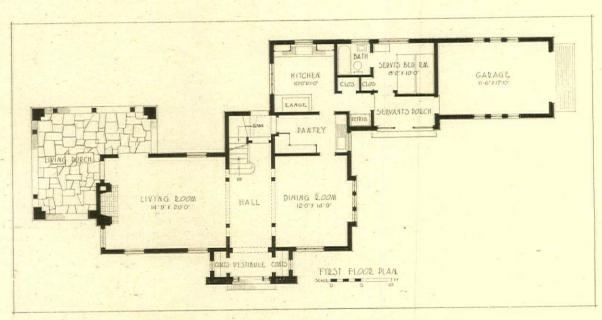




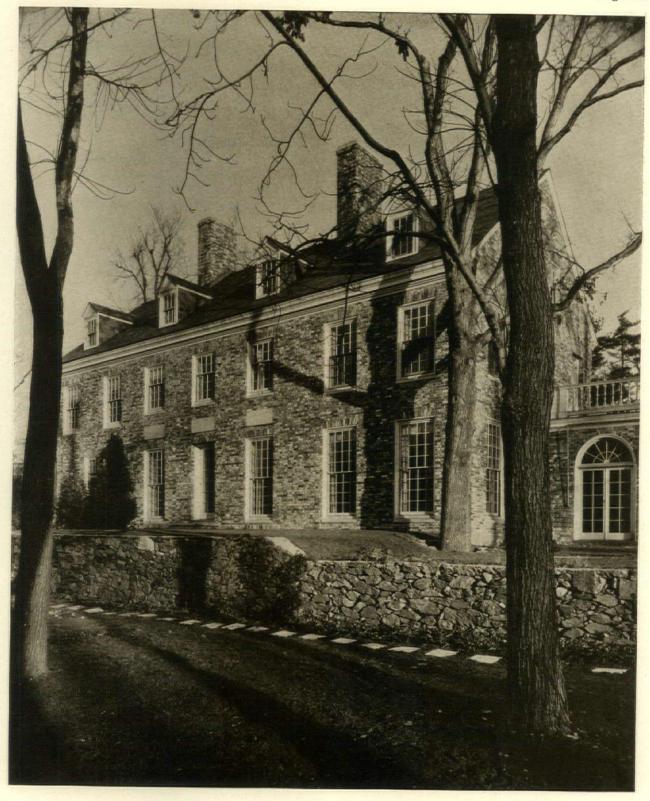
HOUSE OF MRS. JULIA D. HAWKINS, MONTCLAIR, N. J.

C. C. WENDEHACK, ARCHITECT (See plans on back)





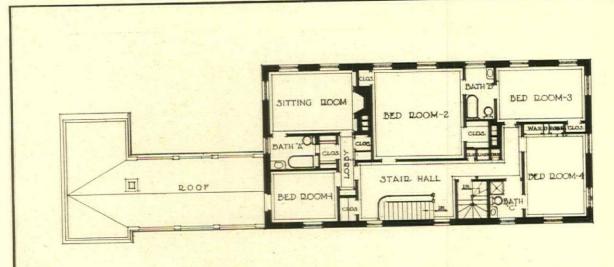
HOUSE OF MRS. JULIA D. HAWKINS, MONTCLAIR. N. J C. C. WENDEHACK, ARCHITECT



HOUSE AT CHESTNUT HILL, MASS.

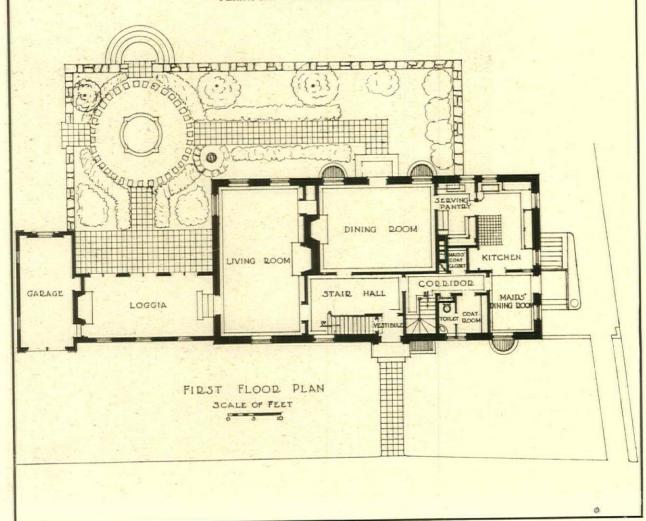
PERRY, SHAW & HEPBURN, ARCHITECTS

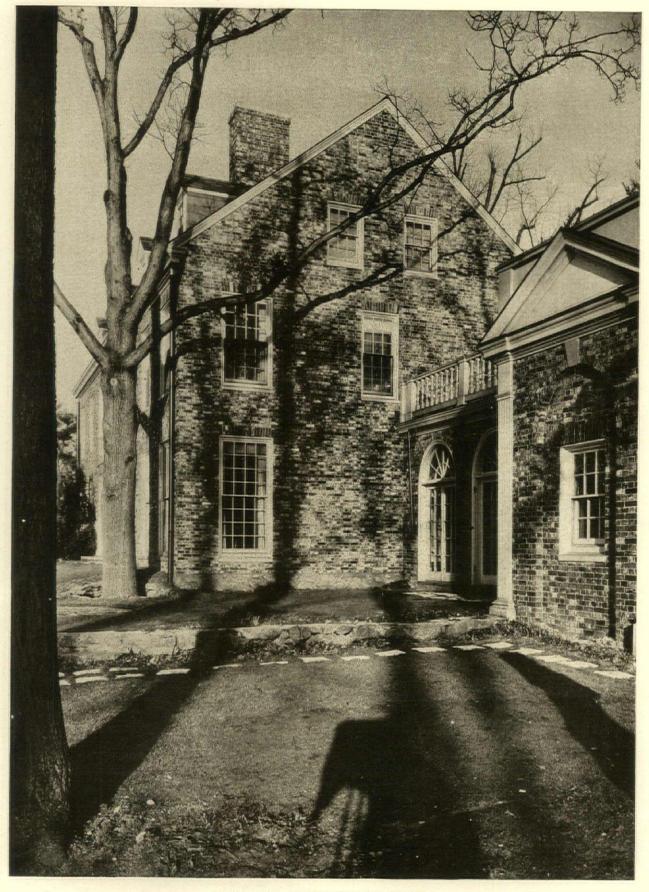
(See plans on back)



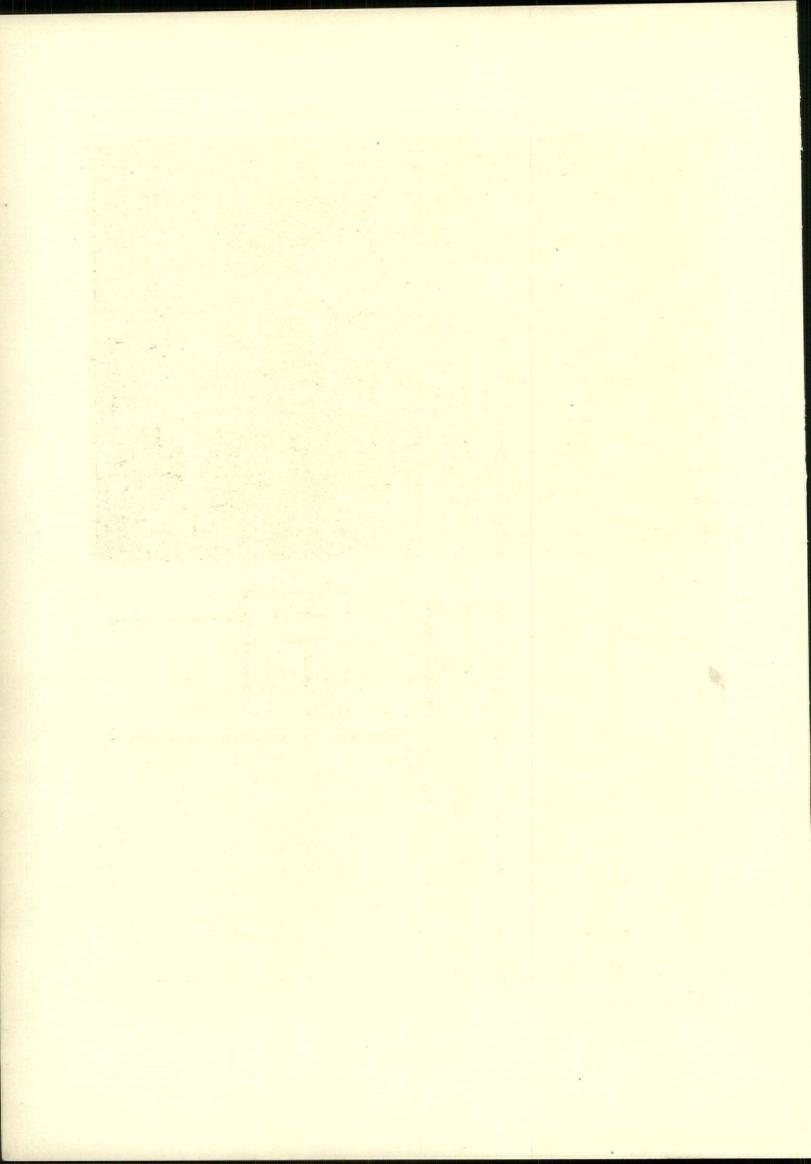
HOUSE AT CHESTNUT HILL, MASS.

PERRY, SHAW & HEPBURN, ARCHITECTS

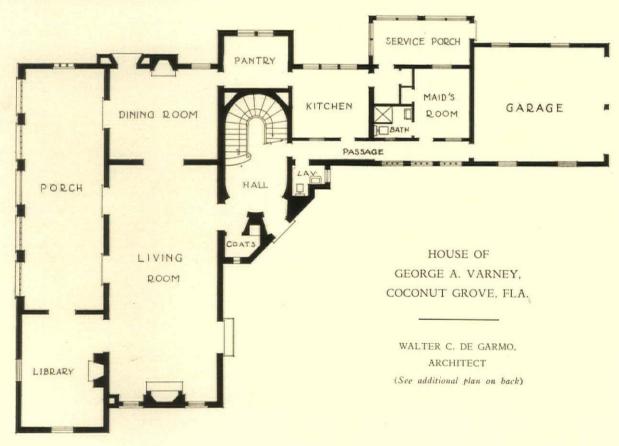


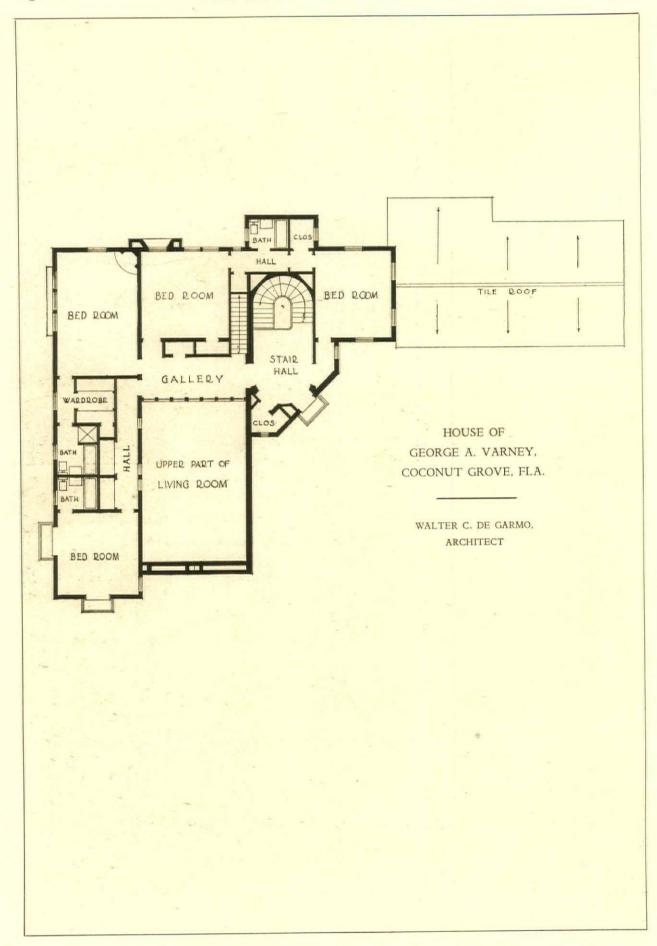


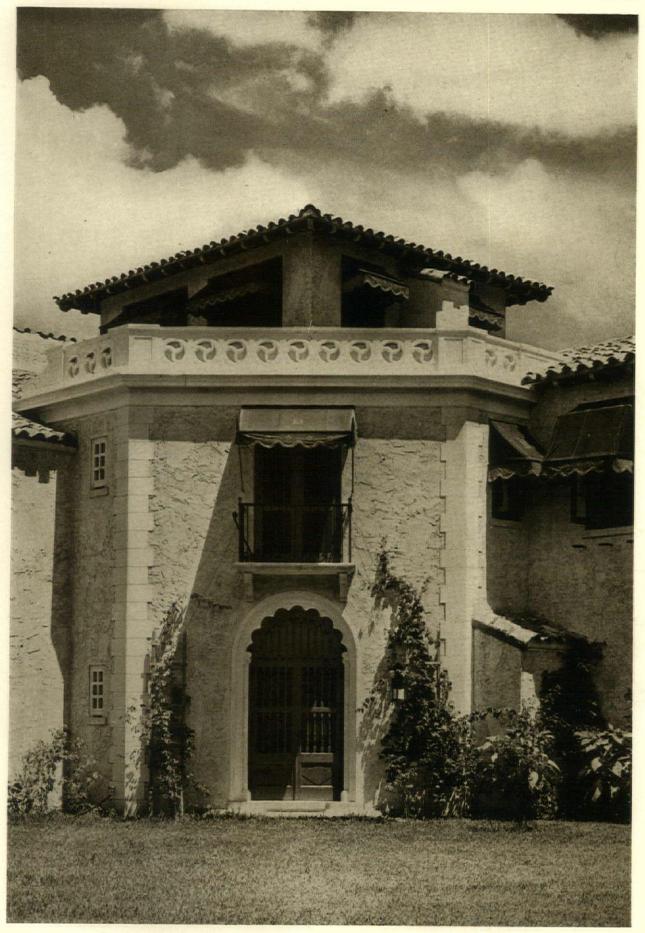
HOUSE AT CHESTNUT HILL, MASS.
PERRY, SHAW & HEPBURN, ARCHITECTS







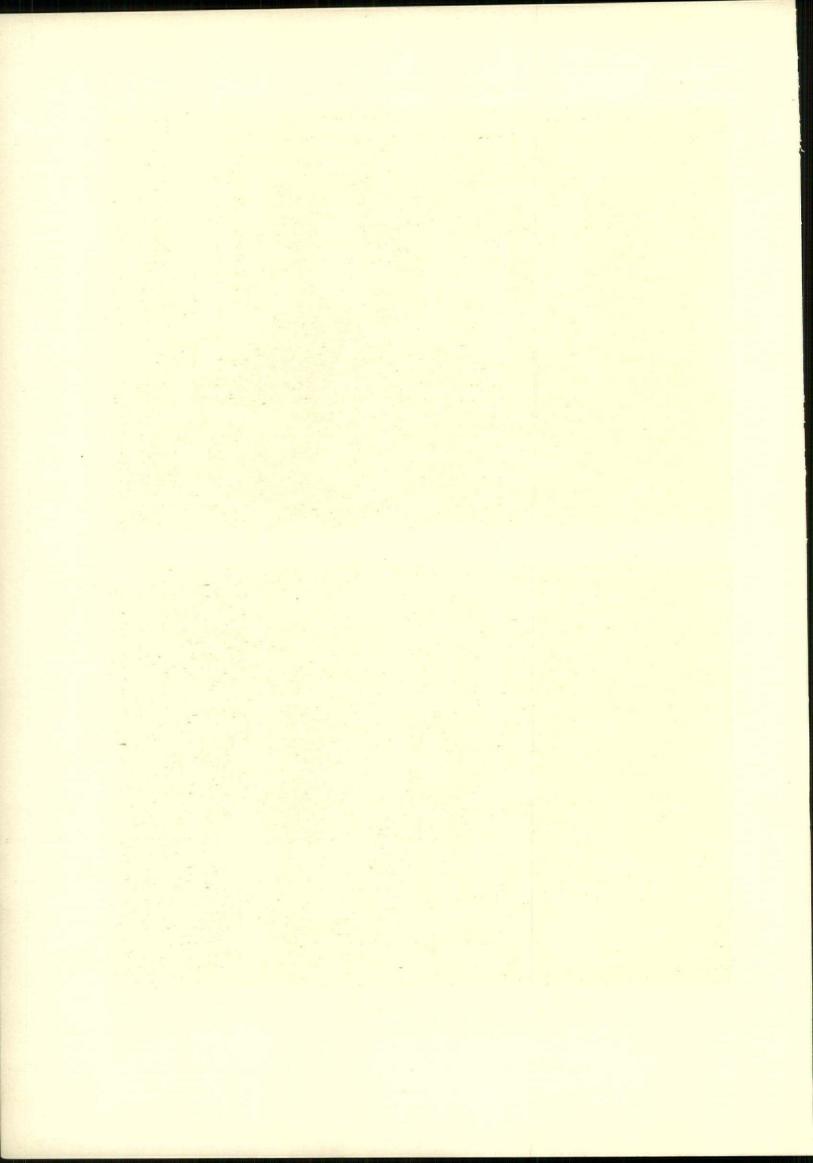




DETAIL OF PRINCIPAL ENTRANCE

HOUSE OF GEORGE A. VARNEY, COCONUT GROVE, FLA.

WALTER C. DE GARMO, ARCHITECT

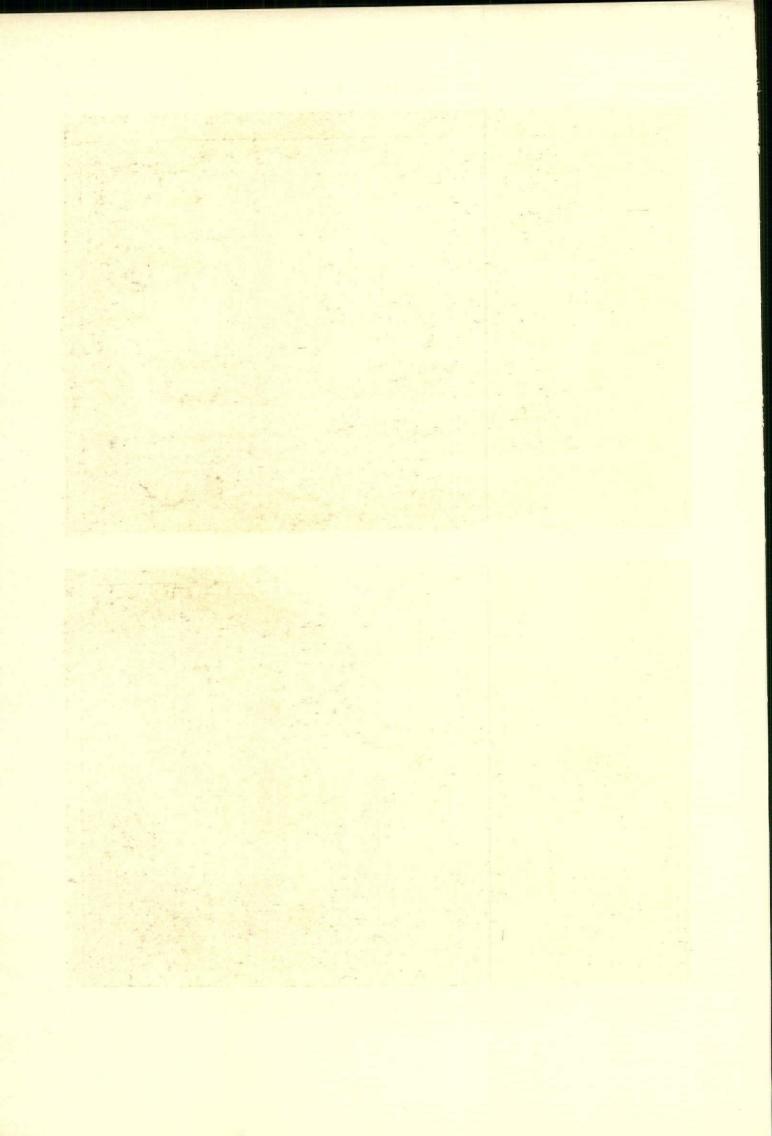






HOUSE OF GEORGE A. VARNEY, COCONUT GROVE, FLA.

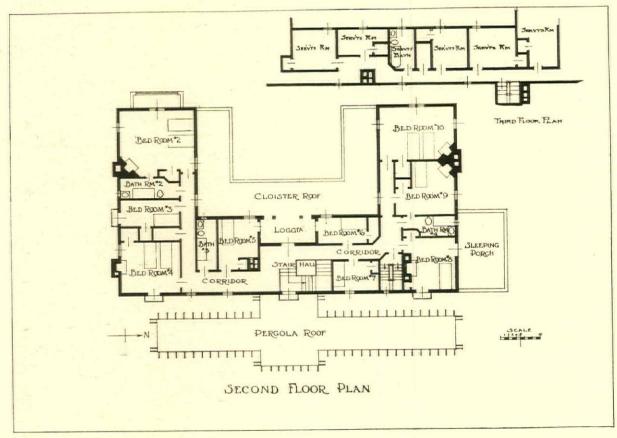
WALTER C. DE GARMO, ARCHITECT

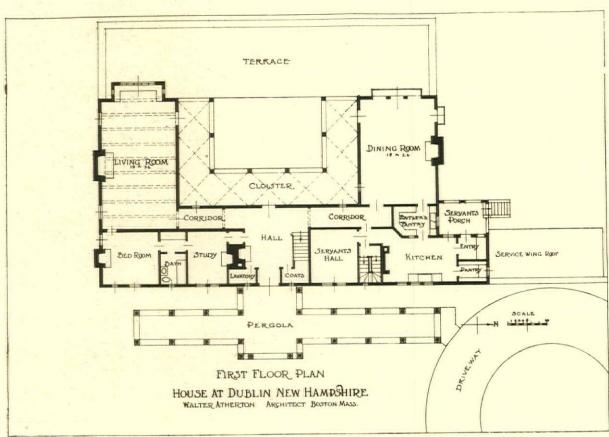






HOUSE AT DUBLIN, N. H.—WALTER ATHERTON, ARCHITECT
(See plans on back)







BUILDING FOR PACIFIC EDGEWATER CLUB, POINT LOBOS, SAN FRANCISCO, CALIFORNIA
J. R. MILLER AND T. L. PFLUEGER, ARCHITECTS

(From the original rendering by Hugh Ferriss)

823



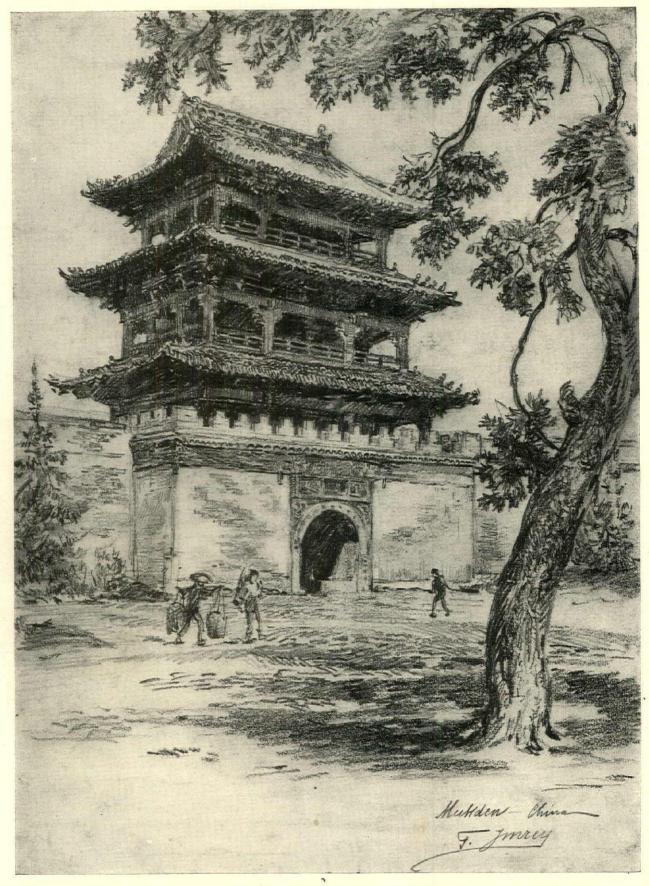
VIA MIZNER, PALM BEACH, FLA.

WORKING PHOTOGRAPHS—SERIES II

FROM THE ORIGINAL NEGATIVE BY DWIGHT JAMES BAUM, ARCHITECT



PROPOSED NEW TWIN OFFICE BUILDINGS FOR CITY AND COUNTY, CHICAGO, ILL. ERIC HALL, COUNTY ARCHITECT, OF THE FIRM OF HALL, LAWRENCE & RATCLIFFE, INC., ARCHITECTS



OLD TEMPLE GATE, MUKDEN, CHINA
FROM THE ORIGINAL SKETCH BY PROFESSOR FERENC IMREY



ENGINEERING AND CONSTRUCTION

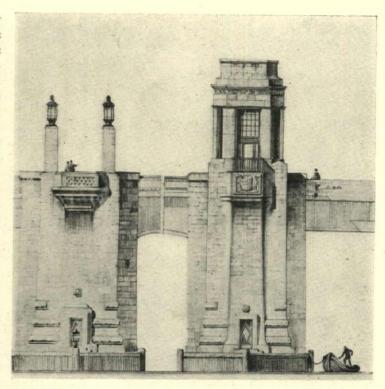


BRIDGE DESIGN AS INFLUENCED BY ARCHITECTURE

THE history of architecture frequently records the names of architects famous as designers and builders of bridges as well as cathedrals and palaces. History also re-cords the associations of "Frères Pontifes" or Brotherhood of Bridge Builders of the eleventh, twelfth and thirteenth centuries. Historical records indicate that the architects of early bridges of note were also the engineers. Separation of the two professions as we know them today was a gradual evolution hastened by the developments in structural materials, and probably most clearly marked by the advent of iron and steel for building construction. Previous to the nineteenth century the materials of construction consisted essentially of masonry and timber. Later steel and reinforced concrete became absorbing studies that emphasized the engineering aspect to the practical exclusion of the architectural and resulted in the definite division of the profession of architecture into the two professions of architecture and engineering. This professional division like a partnership, naturally meant

also the division of projects between the two that were formerly controlled by one. Bridge design was one of the projects that gravitated to the engineer. This was a logical course since bridge design, making use of new structural materials, became almost exclusively a matter of structural engineering with scant opportunity for architecture as usually expressed in building structures.

Modern bridges can, and many of them do, admirably combine good architecture and economy in the use of durable materials to obtain a stable structure capable of supporting the loads imposed upon them, and of resisting the external forces of nature. In recent years most bridges of successful architectural and structural design have been the result of close co-operation between architects and engineers, each profession supplementing and supplying the essential qualifications not provided by the other. Bridge design enjoys a unique position as an architectural problem. While lamp standards, balustrades and band courses may suggest features in common with the design of buildings, the similarity usually ends at that point. Bridges are used for purposes en-

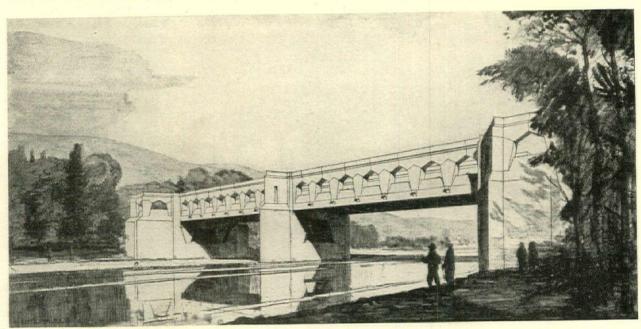


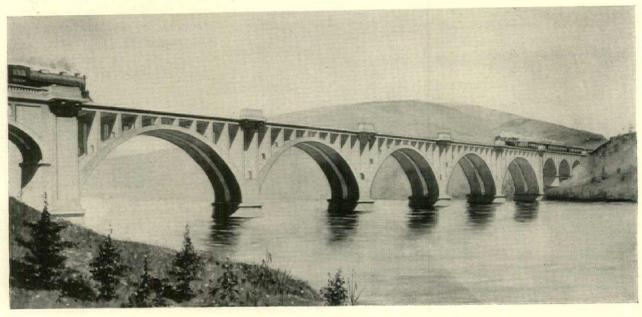
PIER DETAILS FOR PROPOSED UNIVERSITY BRIDGE OVER SCHUYLKILL RIVER, PHILADELPHIA, PA.—PAUL P. CRET, ARCHITECT

tirely different from those of buildings. New problems of composition, scale, detail and combinations of material are introduced. Economy and the necessity of using members of certain shape, size and location to resist induced stresses must be recognized. The utilitarian character of the bridge must never be forgotten, for to attempt to force architectural motives where they do not belong results in misplaced architectural details and wasted effort indicative of lack of thorough understanding of the project. Since the work of the architect and the engineer is closely allied from the inception of the operation, it is important that they collaborate from the beginning to avoid placing unnecessary restrictions and limitations upon the work of either.

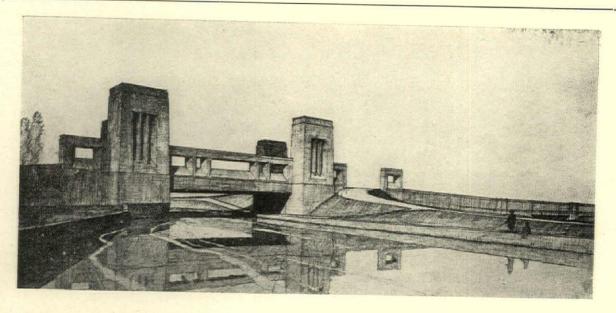
Bridge design has been greatly changed through engineering developments. Early masonry or masonry and timber bridges were limited as to span. Single spans of masonry bridges were largely limited by the permissible height of the arch rise. With the firm establishment of steel and reinforced concrete, bridge characteristics have materially changed. Long spans, previously undreamed of, are no longer unusual. Long masonry arches of relatively flat rise are readily built of reinforced concrete. Today the engineer makes use of enormous girders; cantilevers; arches; trusses; and numerous wires compacted into huge cables to suspend the traffic lane supporting members. Physical conditions and unusual requirements cannot daunt him. New materials and methods of spanning gaps in the earth's surface have opened the way to new possibilities in the architectural design of bridges. To architects the problem is not of frequent occurrence and they must proceed cautiously to avoid interjecting the precedents of building design in form and detail. Architects must think and see in terms of bridges and in terms of the materials of which bridges are built.

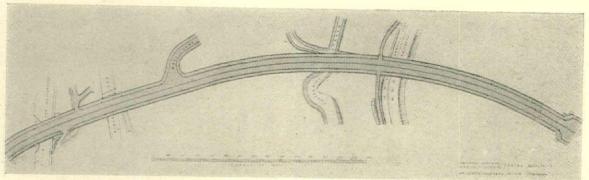
As Christian Barman has said, "A bridge must turn its face from its daily work and look out idly upon the stream." The beauty of a bridge is for those who do not use it. To make the bridge beautiful to those who do use it, usually requires the addition of features that are not strictly functions of the bridge structure. Sir Christopher Wren truly said, "You have only to take care of a handsome balustrade, upon the piers of which for ornament to the walks you may set urns, pyramids or statues, even what your hearts or benefactions will reach." The theory of "functional beauty," the result of truly adapting an object to its use, does not always hold good in the design of bridges.

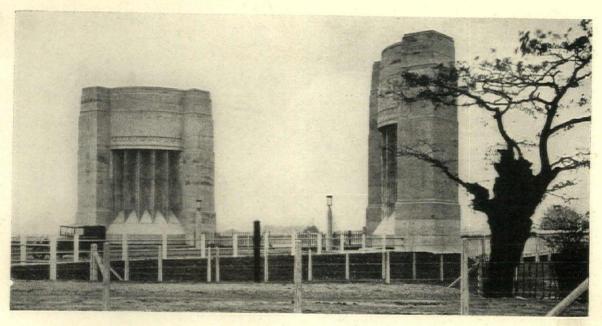




ABOVE: BRIDGE OVER THE RIVER FINDHORN. SIR JOHN SIMPSON AND MAXWELL AYRTON, ARCHITECTS. SIR E. OWEN WILLIAMS, ENGINEER (COURTESY THE ARCHITECTS' JOURNAL OF LONDON). BELOW: RICHMOND, FREDERICKSBURG & POTOMAC R.R. CO. RAPPAHANNOCK RIVER BRIDGE, FREDERICKSBURG, VA. J. F. GREINER & COMPANY, ENGINEERS







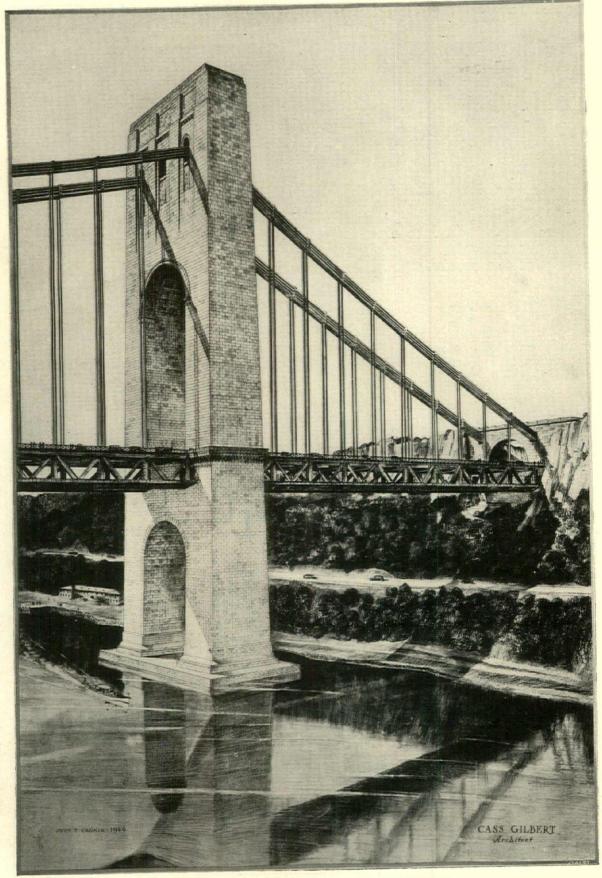
ABOVE: BRIDGE OVER RIVER LEA OCCURRING AT EXTREME LEFT OF VIADUCT PLAN SHOWN BELOW

CENTER: GENERAL PLAN OF VIADUCT SHOWING RELATION BETWEEN BRIDGE SHOWN ABOVE AND PYLONS SHOWN BELOW

BELOW: CONCRETE PYLONS OF APPROACH AT EXTREME RIGHT OF PLAN ABOVE

LEA VALLEY VIADUCT

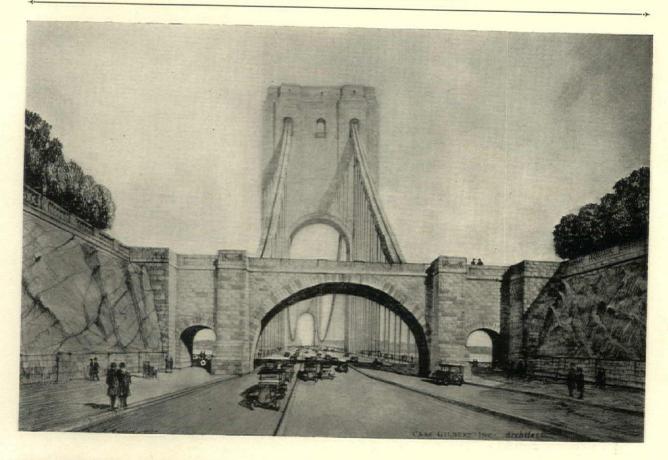
SIR JOHN SIMPSON AND MAXWELL AYRTON, ARCHITECTS—SIR E. OWEN WILLIAMS, ENGINEER (Courtesy of The Architects' Journal of London)



HUDSON RIVER BRIDGE, NEW JERSEY TOWER

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

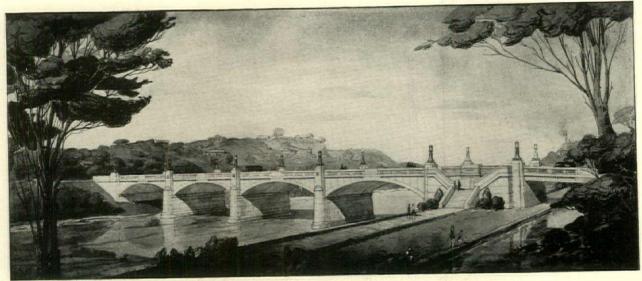
O. H. AMMANN, BRIDGE ENGINEER, PORT OF NEW YORK AUTHORITY

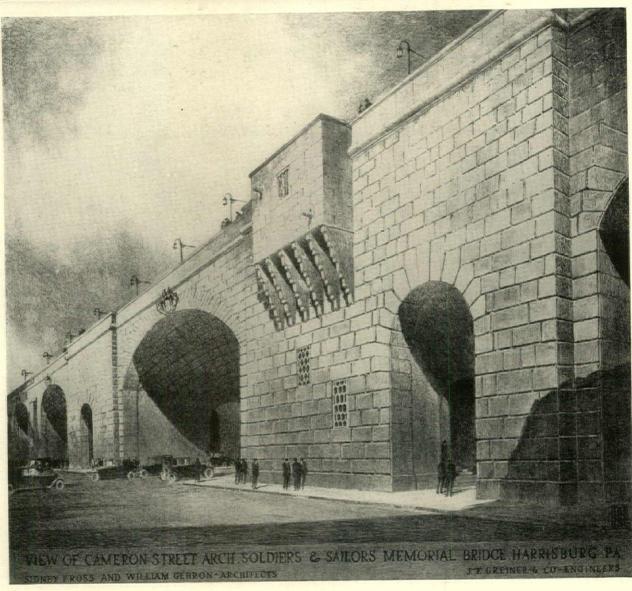




ABOVE: HUDSON RIVER BRIDGE NEW JERSEY ANCHORAGE WITH NEW JERSEY TOWER BEYOND BELOW: BAYONNE, N. J.—PORT RICHMOND, N. Y. BRIDGE

CASS GILBERT, F.A.I.A., P.N.A., ARCHITECT
O. H. AMMANN, BRIDGE ENGINEER, PORT OF NEW YORK AUTHORITY





ABOVE: PROPOSED GREEN LANE BRIDGE OVER SCHUYLKILL RIVER, PHILADELPHIA, PA. PAUL P. CRET, ARCHITECT BELOW: SOLDIERS & SAILORS MEMORIAL BRIDGE, CAMERON STREET ARCH, HARRISBURG, PA. SIDNEY F. ROSS AND WILLIAM GEHRON, ARCHITECTS—J. F. GREINER & COMPANY, ENGINEERS

EXTRACTS FROM REPORT OF NEW YORK BOARD OF FIRE UNDERWRITERS ON THE SCAFFOLDING FIRE AT SHERRY-NETHERLAND HOTEL, NEW YORK

THIS fire which burned for nearly nine hours and for which five alarms were sounded; the practical helplessness of the Fire Department in combating the fire; and the danger to the firemen, serve to bring again to the forefront reforms which the Under-

writers have advocated, as well as some entirely new problems.

The Sherry - Netherland apartment hotel is of the modern fire resistive type covering an area at its base of 12,-000 sq. ft. From the 17th to the 23rd floor setbacks reduce the floor area to 3000 sq. ft. and a tower of this area extends to a point 38 stories above the street level with a cupola extending approximately 3 stories higher. The floor arches are of cinder concrete construction. The exterior walls are of hollow tile with 4" brick facing and terra cotta trim. There are two stairways, enclosed in hollow tile, extending from the subbasement to the tower, one of which also extends to the 38th floor. Four elevators extend to the 38th floor with the machinery to operate them located directly above. There are no smoke-proof fire towers in the building.

The construction of the building had progressed to a point where the exterior was practically finished except for the top portion of the tower, where considerable frame scaffolding surrounded the building. Extending from this scaffolding down a U-shaped court to the 1st floor there were two temporary material hoists. These hoists with their enclosures were entirely of wood and were built close against the outside of two of the court building walls. Combined, they were approximately 25 feet long and 12 feet wide and were so constructed that they contained a large mass of inflammable material.

A nearly completed standpipe system was the only fire protective equipment within the building. This system consists of two eight inch standpipes extending from the sub-basement to the 23rd floor, with one also continuing as eight inch to tanks in

the top of the tower. Besides the tanks in the tower, intermediate tanks were installed on connections

SHERRY-NETHERLAND HOTEL SCAFFOLDING FIRE (Copyright, 1927, P. & A. Photos, Inc.)

the 23rd floor and on the 12th floor with cross connections between the two standpipes in the sub-basement, on the 9th and on the 22nd floors. When completed the system will be equipped with a fire pump in the sub-basement directly connected into the line and also four six inch siamese on streets for the Fire Department. The system was completed at the time of the fire to a point where all of the tanks had been installed and the eight inch standpipe reached to the tank in the tower. The standpipe, however, had not been connected to the tank and was uncapped. The eight inch cross connection on the 22nd floor was not completely made up and the Fire Department reported that until its men in-

serted a piece of pipe it was open at this point. Inspection of the standpipe system shortly after the fire, disclosed that all four of the six inch siamese connections were practically finished, but only one of these connections had been extended to the street and provided with the regulation siamese head; all of the other connections terminated in the building and were unplugged except for one in the basement.

The cause of the fire could not be determined. It was first noticed from the street at 7.45 P.M. April 13, 1927, that the scaffolding at about the 38th floor was ablaze. The Fire Department, not knowing of the existence of the standpipe siamese connection, made connections to the $2\frac{1}{2}$ inch hose outlets of the standpipes on the first, second and third floors, but was unable at that time to send water to the upper portion of the building where it was needed, because of the open 8" pipe on the 22nd floor. The fire spread quickly throughout all of the scaffolding surrounding the tower and to the readily inflammable material hoists on the building.

The tower of the building extends over 500 feet high and it was practically at the extreme of this height that water was needed. Theoretically under the conditions that existed, a pressure close to 300 pounds per sq. in. would be required to force water to this height and yet have sufficient additional pressure to provide an effective hose stream.

The Fire Department has expressed the opinion that they could have delivered water to the top of the building if the standpipe had been in proper working condition. They report that because of the uncapped connection on the 22nd floor it was impossible to obtain or maintain the pressures required. Operations were further hampered because of the lack of a suitable elevator or hoist to carry

firemen and hose to the upper floors.

The fire burned the material hoists, runways and scaffolding as far down as the 13th floor before it was extinguished. During the fire, firebrands and falling blazing timbers fell steadily upon the roofs of buildings within a radius of several blocks. The damage was confined chiefly to the exterior of the building except for the complete destruction of the elevator machinery at the top of the tower. The four inch brick facing in the court from the 13th floor to the top of the tower, as well as the terra cotta trim and window sills, were spalled and cracked by the heat or broken by falling timbers. Windows in this court had been glazed with heavy plain glass set in hollow metal frames and practically every pane of glass was broken by the heat or falling timbers. An ornamental terra cotta finished arch across the court at the 23rd floor level was damaged by a timber falling from above. At least three eight inch H-columns at the top of the tower, which had not yet been covered with fireproofing, buckled either because of heat or because of extra stress placed upon them when other diagonal members expanded. Estimates place the loss at about \$200,000.

CONCLUSION

The practice of erecting large combustible hoist-ways, scaffolding or similar structures either within or on the outside of a building of such height, as is generally employed, with little thought to fire preventative or fire extinguishing equipment, is deplorable. Such structures are an extreme hazard not only to the building for which they were erected but also to other buildings in the immediate vicinity. At least the supporting members and enclosure of such

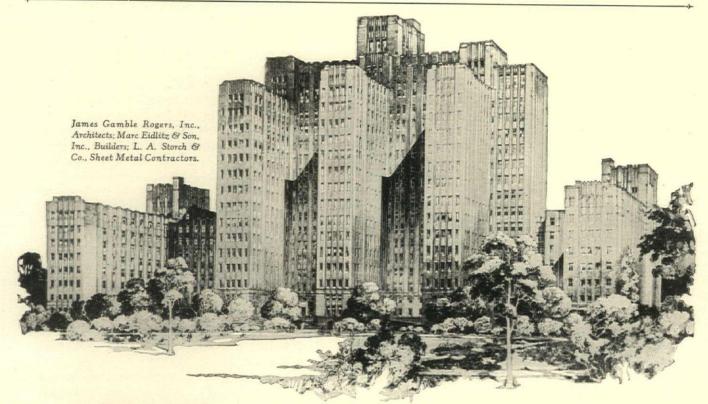
structures should be of incombustible material and be protected by fire extinguishing equipment.

Inflammable material piled upon the various floors, the more or less common use of open salamanders and other portable fire heated appliances, and smoking by the workmen should be sufficient reasons to require some practical portable fire fighting apparatus and the maintenance of a fully enclosed elevator or hoist so that apparatus could be quickly sent to any point. It is a recognized and undisputed fact that the first few minutes are the all important ones in fire fighting and while a forty gallon portable chemical may be all that is necessary to extinguish a fire in its incipiency, it may require the best efforts of the Fire Department and its equipment to extinguish it later. The effective operation of the Fire Department in tall buildings is dependent upon the standpipe system for extinguishing fires above the 7th or 8th floors, and the seriousness of neglect to install and maintain such systems in working operation is apparent.

Columns at the top of the tower which were not protected by fireproofing material were damaged. Those which were protected by concrete were not affected and demonstrate the already conceded need of fireproofing the steelwork. Often it is found that all the structural steel in a building in course of construction has been protected, except for the main columns on the first floor, which are frequently left unprotected, as they are to be provided with some special and ornamental covering. It would seem a matter of safety at least to cover these columns by a suitable temporary fireproofing material until such time as they are ready to be protected permanently.

The expense of the maintenance and operation of the Fire Department is borne by the tax payer and it would seem that the extra burden which would be caused by equipping the Fire Department with apparatus necessary to combat fires in the upper portions of tall buildings, is not just. A limit should be placed upon the height of buildings where the responsibility for successfully combating fires would rest with the Fire Department equipment. In all buildings extending beyond this limit, the responsibility for adequately protecting such extra heights should be placed on the owner and builder. Buildings in this class under construction should be protected by equipment the equivalent of that required for the permanent installation. This would mean that not only should the standpipes be installed as the building progresses but that the fire pump or pumps must also be installed and an enclosed elevator made accessible for Fire Department use.

The city authorities should also consider the requirement of smoke-proof fire towers in multiple esidence and hotel buildings. It is as important that the occupants of multi-story residence buildings be provided with safe exitways, and firemen afforded safety zones, as in the case of business buildings.



The Sheet Metal Work on the World's Greatest Medical Center Is ANACONDA COPPER

New York, the majestic buildings of the new \$18,000,000 Medical Center will take their place as one of the architectural achievements of the century.

To give permanent protection against the elements at the minimum upkeep expense, Anaconda Copper was selected for the sheet metal work including skylights, flashings, gutters and leaders.

OWERING above Washington Heights, Purity is the measure of long life in copper. Anaconda Sheet Copper is guaranteed 99.9% pure—yet it costs no more than good copper should.

> On all problems affecting the use of copper, brass and bronze, architects are invited to use the services of The American Brass Company's mill-trained representatives permanently located at the Company's offices in the cities listed below.

THE AMERICAN BRASS COMPANY

GENERAL OFFICES: WATERBURY, CONNECTICUT

New York . . . 25 Broadway Newark Military Park Bldg. Boston 201 Devonshire St. Providence . . . 131 Dorrance St.

Philadelphia... Widener Bldg.

Pittsburgh . . . Oliver Building Buffalo 446 Military Road Cincinnati . . . Dixie Term'l Bldg. Cleveland . . . Union Trust Bldg. Detroit Gen. Motors Bldg.

Chicago 111 West Washington St. Kenosha . . . 1420-63rd St. St. Louis Planters Building New Orleans . Hibernia Bank Bldg. San Francisco . 116 New Montgomery St.

Canadian Mill: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.

NACON

EVERYBODY'S BUSINESS

By FLOYD W. PARSONS

MANY industries now pursue practices that are destructive to health. Eventually those who follow this road will find themselves at odds with public opinion and will be forced to reform their ways. No factor affecting the course of business exerts such power and is so hard to oppose as the common desire on the part of the average citizen to preserve his

physical well-being.

A growing appreciation of the necessity for moistening as well as heating indoor air in the cold months may likely force us to go back to warm-air heating in our homes and working places. It is difficult to condition air properly at a reasonable cost in any other way. Likewise the illuminants of the next generation will be selected largely for hygienic reasons, and whether this is cold light produced by the electrically excited vapors of neon and nitrogen, or rays from a filament lamp in a special glass bulb which allows a desirable mixture of ultra-violet rays to pass through, the ultimate outcome will be a radical change in methods.

Race betterment is only just now commencing in real earnest. In no other field of activity are the possibilities so great. Our eyes are open to the folly of piling up dollars without storing health at the same time so as to perpetuate the ability to enjoy recreation. Out of the million people who die in the United States every year, more than 800,000 succumb to diseases that are preventable. It is in this thought where lies the threat to the architect who

does not comprehend the situation.

No matter what may be our vocation, it is essential that we commence to think in terms of conditions 10 or 20 years from now. Cities like New York and Chicago are already worrying about measures to safeguard health in 1950. Chicago's sewage and sanitation program calls for an expenditure of \$120,000,000. More than 225 sewage treatment projects are under way in our country.

On every side we are commencing to feel the restricting influence of health measures on freedom of action. The job of supplying adequate sewage a few years hence will be such an enormous task that every gallon of water will be metered so as to reduce the per capita consumption. That this will save tens of millions of dollars is clearly evident from the fact that the individual in many cities now consumes 275 gallons of water per day—at least twice as much as is necessary.

Then there are the problems of light and noise. Having had to come indoors to earn our daily wage has placed a serious strain upon human eyes. Seventy per cent of our people have defective vision. Just as water consumption will be cut in half, the

total wattage available per person for lighting will be doubled. convenience-outlets will be trebled and the filament lamp without a shade will be an oddity. Man is visual, and unlike many other animals, cannot depend on the sense of smell to guide him through life, and unfortunately, the misused eye does not protest in such forceful fashion as does the injured tooth.

And as for noise, it is but a natural outcome of our present machine age. Devices are now available to use in measuring not only the amount of noise at any one point, but the intensity of the noise blanket that lies over an entire city. Busy corners in some of our large cities produce 50 units of noise which is enough to destroy half of our normal hearing. On top of a 30 or 40 story building at this same corner, the noise intensity will measure only 10 or 15 units, and this means a loss of approximately 10 or 15 per cent of hearing. Generally speaking, 100 units of noise is so deafening that it precludes a person hearing any other sounds.

Noise not only affects health, but it causes a large loss to business through the distraction of attention. Riveting machines, sirens on fire engines, bells on ambulances and police patrols are all a source of expense to corporations. A noisy environment means the use of more energy in talking, while night noises cause a loss of sleep. Conversing on a railway train or in the subway requires an expenditure of more than 100 times as much energy as in a quiet

room.

It is for such reasons that present types of riveting machines and other noise producers will be banned completely. Architects in designing buildings will no more think of neglecting to consider soundabsorbing measures and devices than they will provisions for adequate supplies of heat and water. Street and subway cars will have noiseless wheels and coupling connections, and in office and factory, every machine from typewriter to drill will operate in comparative silence. Interior surfaces will be covered with materials having sound-absorption qualities. In the silent workshop the covering material will have not only a high absorption coefficient, but will be so designed with indentations or folds that there will be more than a normal absorbing area. Such rooms will be "flat" or "dead," while in auditoriums, churches and theatres, the aim will be to preserve rather than eliminate resonance. Noise will be attacked both from the point of origin and the point of absorption. As a result office routine will be accelerated, human energy conserved, costly mistakes reduced and the human body released from its present use as a sound shock absorber. GEO. C. Nimmons & Company were so well pleased with the bond on the Sears-Roebuck Building, Kansas City, that, when the matter of mortar cement for the Atlanta Sears-Roebuck Building came up, it was just a case of arranging to have Carney Cement on the job at the time the masons started work.

THE CARNEY COMPANY

Cement Makers Since 1883

DISTRICT SALES OFFICES: CLEVELAND, CHICAGO, DETROIT, ST. LOUIS, MINNEAPOLIS



SEARS-ROEBUCK & COMPANY BUILDING
Kansas City, Missouri

Architects—Geo. C. Nimmons & Co. Contractor—B-W Construction Co.

Carney Cement was used for all the brick and tile mortar in this project.

THE COURTESY OF GEO. C. NIMMONS & CO.

Specifications: 1 part Carney Cement to 3 or 4 parts sand depending upon quality of sand.



THE LAW AS TO ARCHITECTURE

By CLINTON H. BLAKE JR., of the New York Bar

AN architect recently wrote me the following letter:

"Some three years or so ago, a local board made a contract with an architect for additions to a building, part of which was erected at that time and the balance at some later time; the plans being prepared for the entire scheme. The time has now arrived for consideration of the work of the final unit, but due to changed conditions the work now contemplated is to be completely changed from the original plans and the plans as at that time made are entirely useless. There was a contract made at the time between the architect and the board specifying that the second part of the program would be delayed until a suitable time, but that a payment of two-fifths of his commission would be made for the plans of the uncompleted portion.

"The original portion of the scheme was built as planned, but the services of the architect were far from satisfactory and four out of the five members of the board are absolutely opposed to completing the work with the same architect. The attorney who has been advising this board says that because a payment of this two-fifths has been made the board are tied up with the architect for any work which may be done in connection with this second unit, notwithstanding that the proposed building is to be entirely different from the plans as made. His opinion is that the architect must give a waiver to the board before they can proceed on the new work with a new architect, and if such waiver cannot be obtained then they have to continue with his services.

"Another attorney, who is supposed to know something about such cases, gives his opinion that because this architect has already been paid for his plans according to his contract and that the proposed new unit is entirely different from his original scheme, so that such plans are not possible of use, it automatically cancels the contract; especially as the services of such architect were not satisfactory. If the original scheme had not been revised and the work now contemplated was to be as originally planned then there might be some point to the argument that the board were tied up under the original contract even although his former services were unsatisfactory."

The above letter raises an interesting question. The contract in the case referred to, as I understand it, provided, in effect, that the architect originally appointed was employed to carry through the work to the completion thereof. The only modification as to this was the proviso that, on the portion of the work which was not carried to completion at the time the plans were prepared but was left for future attention, he should receive at the time but two-fifths of his fee. This two-fifths was paid.

The contract did not provide, I understand, for the dismissal of the architect or give to the owner specifically any right to terminate the architect's employment, upon agreed terms at any point in the building operation.

Under these conditions, we have presented to us the problem of what the rights of the architect may be, where he is employed to carry through a job to completion and paid a portion of his fee, with the understanding, in effect, that the balance will be paid, when and if the final unit on the job is proceeded with. Can the architect in such a case be dismissed, if the owner desires to employ another? It is clear that, unless there are special circumstances,

an architect so employed is entitled to the rights given him under the contract of employment, and that the owner cannot dismiss him, before the completion of the work and have the work completed by another, unless he makes a proper adjustment of the claim of the first architect. The question here is largely whether this general rule should be modified, by reason of the fact that the owner has decided to change entirely the scheme for the final unit and will not therefore make use of the plans prepared for it by the architect whom he first employed. If he were to go ahead and use these plans, clearly, he would be under obligation to reimburse the architect. If he does not use the plans, however, and has an entirely new scheme developed by another architect, is he relieved from his obligation to make payment to the first architect for the unpaid balance on account of his fee?

The case is an unusual one, comparatively speaking. In my view of the matter and on my understanding of the facts, however, I believe that the owner is not justified in proceeding with another architect, without paying the first architect the final three-fifths of his fee on the new unit. This threefifths will not become payable, unless this new unit is proceeded with. When, however, it is proceeded with, the owner should, as I see it, do one of two things-either have the work carried out in accordance with the plans originally prepared and pay the original architect his three-fifths commission, or else. at the least, if he is going to proceed with the new architect, pay the first architect the three-fifths, less what it would have cost him to supervise the erection of the last unit.

The owner should not be allowed, and in my opinion, the court would not allow him, to disregard the rights which the first architect has acquired under his contract and refuse payment of any part of the three-fifths balance, on the ground that the plans, on account of which this three-fifths payment is due, are not to be used but are to be disregarded. The architect has, under a special arrangement, agreed to hold up the payment of three-fifths of his fee on account of them, until the work is proceeded with. He has not agreed, however, that the owner, by having other plans made, may be relieved of all obligation to pay the three-fifths balance due him after the job is completed. The only limitation to which he has agreed is the holding up of the payment, until the last unit is proceeded with. If this is proceeded with, whether it be under his plans or the plans of another, he is entitled to a payment for the work which he has done in connection with it.

The case does not differ in its fundamentals from the situation which would be presented if an archi-

provide and a second state of

SAFE, BEAUTIFUL ROOFS

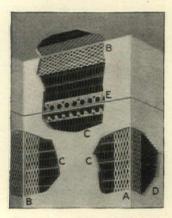


Milcor "Titelock" American Metal Tile

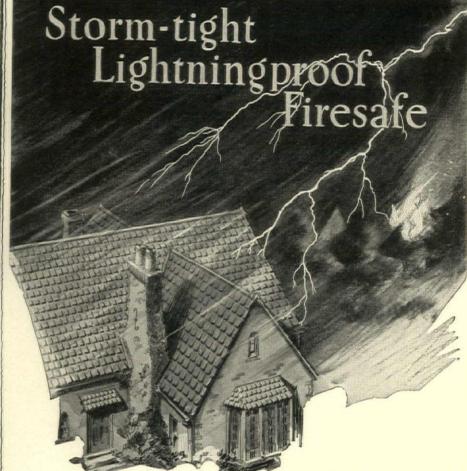


Milcor "Titelock" Spanish Metal Tile

SAFE, CHARMING **INTERIORS, TOO!**



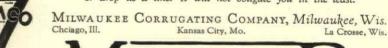
Plastering on Milcor Metal Lath insures firesafe walls and ceilings, unblemished by cracks or dust streaks, and safe from rust.



RIVING torrents of rain and sleet cannot penetrate a roof of Milcor Titelock Metal Tile. Even lightning is rendered powerless, as this staunch armor shunts lightning down the rain spouts harmlessly to the ground. Made of metal, Milcor Metal Tile offers no feeding place for sparks. Light in weight, it does not require heavy, expensive roof construction to support it.

The first cost of this better roofing material is reasonable. Upkeep cost is surprisingly low, because Milcor Metal Tile roofs give long, faultless service - they cannot crack, chip, break, curl, rot or burn.

For further details on Milcor Metal Tile and other firesafe metal building products, sign and mail the coupon below or drop us a line. It will not obligate you in the least.



ALL MILCOR

products, including Titelock Metal Tile are now available in Steel, "Coppered Metal", Zinc, Anaonda Copper or the famous rust-

the famous rust-





MILWAUKEE CORRUGATING CO., Milwaukee, Wis. Please send, without cost or obligation, your books entitled "Modern Modes in Better Plastering" and "Safe Roofs." Address City and State _____

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

tect prepared plans for a new building and agreed to withhold his charge for them until the work was proceeded with, and the owner told him he did not desire the plans and had the work done under plans prepared by another architect. There can be no question, I think, that under such conditions the architect who first prepared the plans would then be entitled to his compensation. The present case would seem to be even stronger in some particulars, in that the first architect should be the architect of the work, if and when it was proceeded with.

In a subsequent letter from my correspondent in this matter, the following statement is made:

"I am given to understand that no provision was made for additional payments in connection with possible changes, so that if he (the original architect) were actually given the work for the new scheme, he would be expected to prepare plans and give full service for the three-fifths commission still due."

It does not necessarily follow that, because the contract did not provide for extra payment for changes, the architect would be bound to make any changes called for, including an entirely new scheme, on payment to him of the balance of the original fee originally agreed upon. Such a construction would not, I believe, be given to the contract. He has done all that he is called upon to do, when he has prepared the complete plans for the final unit, except such services as he may be called upon to give in the way of supervision.

If the owner decides to adopt a new scheme and desires new plans, and the first architect were requested to prepare them, he would be entitled, I believe, to additional compensation for so doing, in the absence of a specific provision in his contract to the effect that his fee should include and cover all such changes and revisions as the client might request. If his contract is so worded as to make it incumbent upon him to make changes of this kind, without additional compensation, then and in that event, if a new architect be substituted, the first architect should be entitled to recover only the difference between the three-fifths balance of his fee and what it would cost him, not only to supervise the work, but to prepare changed plans therefor, in accordance with the newly adopted scheme.

I cannot believe, however, that the contract can be so worded as to call for this conclusion. While

there have been cases where architects have agreed that their fees shall cover all such changes as the owner may require, it is an exceptional case where an architect will be foolish enough to enter into such a contract. To do so is to deliberately put his head into a noose held by the client and to place himself at the latter's mercy and subject to any caprice on the part of the client. No architect can afford to do this and no client, as a business proposition, should expect him to do it.

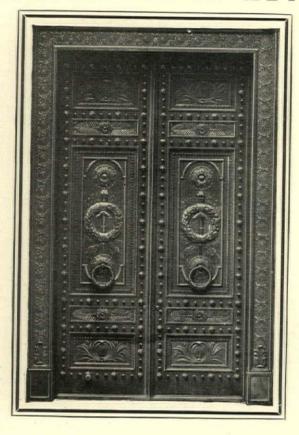
LEGAL DECISION

THE architects entered into an agreement with a Union Free School District in New York State, whereby the architects were to furnish plans and specifications for the construction of school buildings and the School District voted an appropriation of \$125,000 to cover the cost. The architects estimated the cost to be \$95,000. When bids were received, the lowest bid was 47 per cent higher than this cost estimate. The School District abandoned the project, and the architects sued to recover their fee. The court held that the School district might, under the provisions of Section 310 of the New York Education Law, contract with the architects for their services, but that the architects were bound and assumed to know that their right of recovery must be contingent upon the cost coming within the appropriation voted, pursuant to the provisions of Section 314 of the Education Law; that, in view of the fact that the lowest bid was nearly fifty per cent higher than the architects' estimate and in excess of the \$125,000 appropriated, the District was justified in abandoning the project without liability to the architects, except for the preliminary studies.

With respect to the preliminary studies, the court held that the architects were entitled to recover, that the preliminary studies were necessary to enable the Board to secure estimates of cost and that the architects might recover for the proportion of their fee due for preliminary studies, accordingly, notwithstanding the ruling of the court with respect to the balance of their fee and the liability of the District with respect to the project itself.

Pierce v. Board of Education, 125 Misc. 589

THE NEW RENAISSANCE IN METAL WORKING



These great bronze doors, of which Ghiberti himself might well have been proud, close the impressive entrance to the First National Bank of Kansas City. They were executed by Art Metal for Wight & Wight, Architects, who planned the building. The same motif has been carried out in the interior, which is entirely equipped with Art Metal.

RIVALING THE CRAFTSMANSHIP **GHIBERTI**

How Art Metal, in a few months, can rival a masterpiece that required a quarter-century

N 1403, Lorenzo Ghiberti was commissioned to make the doors for the famous Baptistery in Florence. Twenty-one years later, the doors were put in place.

Those doors were veritable poems in bronze. Into their making, the great Florentine metal worker had put the best of his skill and artistry. And they stand today, a monument to his craftsmanship.*

esses of manufacture now make it possible for Art Metal to produce fine bronze doors in a month or two. And these doors will rival those of Ghiberti,

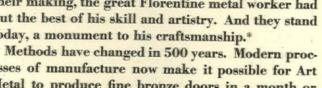
for into their making has gone the same love of fine work that inspired the Renaissance master.

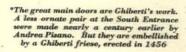
Every piece of Art Metal work is made with the same skill and care. In bronze work, especially, it is a company tradition to cast, polish and hand-chase each piece as if for a museum exhibit.

This high artistry and attention to detail-coupled with unusual produc-

tion facilities - is particularly valuable to architects. It means that they are assured of exactly the effect they wish to obtain from the metal work they specify; that they are assured of uniform high quality; and that they are assured of prompt delivery.

The Art Metal line covers every possible need in interior architectural metal equipment. Our experience and facilities are at your command.







~ NEW YORK

BRONZE AND STEEL INTERIOR EQUIPMENT FOR BANKS, LIBRARIES AND PUBLIC BUILDINGS... HOLLOW METAL DOORS AND TRIM

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

BOOK NOTES

MANHATTAN, THE MAGICAL ISLAND

GIVEN a good lens, an unusual ability as an artist photographer, and well trained knowledge of what constitutes good architecture, and even sordid Manhattan may be made to look like a magical island. Ben Judah Lubschez has achieved an important result. In fact, he has in his series of views of New York as it may be seen today, made an invaluable contribution to the artistic possibilities of photography, but best of all, created an historical record that is better than we have ever seen in one volume, and one that it will be difficult to surpass.

In every one of the magnificent pictures that Mr. Lubschez has included in this work, the keen observer will be impressed by the artistic skill displayed. The subtleties of good "values," the structural qualities of good composition, and the poetic sense of atmosphere are all shown in Mr. Lubschez's work with a camera. The word photograph takes on a new meaning when one examines the pictures in Mr. Lubschez's book. The only lacking quality that a painter would supply is color, as generally understood. But color as used in the proper sense, is but a relative term, and there may be as good suggestion of color in a monotone as in the most colorful canyas.

It is only an architect that could produce a book to equal this one. Every picture shows the quiet refinement of the point of view. And each one a patient waiting for that one moment in the round of daylight hours when the view could be successfully photographed. Many years spent as an amateur photographer have taught us many things about picture making with a camera. And we recall an incident, the recollection coming first to mind on looking over Manhattan, the Magical Island. We were out one day with the camera, when we chanced on a man whose camera was set all ready for the exposure. We hailed him as a brother photographer, commended his fine choice of subject and asked if he had made the exposure. "No," said he, looking at his watch, "it's not quite ready yet." He told me he had spent almost an entire day studying the subject and that there was but a few minutes when it was just right. He was waiting for that exact moment. That is the essence of picture making with a camera. And Mr. Lubschez has learned that fact and shows it in every one of his pictures.

The book is 9 x 12 inches, bound in full cloth with gilt title, and contains a well written prelude. There are 108 pictures. It is not alone a book to interest the picture lover and those who make photographs but it has an architectural value that is very large. In its present make-up it may grace the library table, become a textbook in photographic

work, but most important of all, an architectural expression of all that is best in the architecture of Manhattan, the Magical Island.

The price of the book is \$15.00 and it is published by the press of The American Institute of Architects.

200

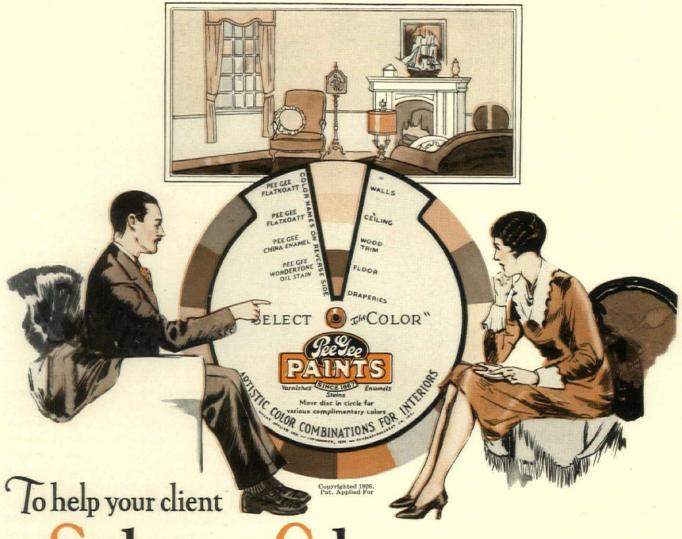
AN OUTLINE OF CAREERS

WE have received for review a book bearing the above title. It seeks to be a practical guide to achievement. The contents are a series of articles by thirty-eight men, eminent in as many walks in life, in which each has achieved distinction,—or success,—in the chosen fields. The entire series of articles, while not perhaps, as the editor claims, reliable as a means of vocational guidance, are extremely interesting reading. The young man who seeks to find a future course in life will find here a mass of suggestion that will, by reason of its diversity, leave him in an attitude of indecision.

The editor states in his introduction that it is evident that there are hundreds of thousands of young men and women who have no one to whom to go for any valuable disinterested information, or who have no near relations through whose acquaintance they may go for inside information. are many "misfits" in every walk in life. The truth of this is in no better way shown than in the profession of architecture. Many young men in architectural schools are striving to fit themselves as architects. If they would in many instances seek to perfect themselves in the arts and crafts allied to architecture, they could regard the future with more certainty of success. It is the "white collar" job that appeals today, and fitness for a selected profession often receives but scant investigation.

The thirty-eight men, successful in as many different walks of life, setting forth as they do in this work an account of their progress, are of course men who have, at the very start, entered the field to which they were best fitted. Elbert Hubbard wrote, "Blessed is that man who has found his work." That is exactly true. The thing is to find it. It may help to know how so many men have found theirs, but the young man or woman, who seriously seeks guidance in the selection of a life's work, is more often the poorest judge of the proper course. Perhaps this book will help them. In a sense perhaps, it will, but the real test of fitness is the common sense attitude that leads to a right conclusion.

An Outline of Careers. A practical guide to achievement by hirty-eight eminent Americans. Edited by Edward L. Bernays. Full cloth, 430 pp. Size 6 x 9 inches. New York. George H. Doran Company. Price \$5.00.



Select the Color

The first thought to impress upon your client's mind is that a home worth painting deserves good paint. The thrifty Dutch have a proverb which reads, "Good Paint Costs Nothing"—the protection which it affords is greater than its cost; quite true.

Now you are faced with the problem of deciding upon a color scheme which will reflect good taste and credit upon you.

The Pee Gee Color Selectors will do in a few moments for you and your client what ordinarily might require hours. Fifteen groups of complementary colors—each a complete color scheme—are available on both selectors by simply turning the dial. Selectors are pocket size and may be had for the asking.

Good paint—Pee Gee; they are synonymous, and have been since 1867. No better quality is made.





Pee Gee Mastic Paint

For home exteriors. Retains its luster long after inferior paints have gone dead. Economical because of its great covering capacity and unusual durability.

Pee Gee China Enamel

With charming effect Pee Gee China Enamel Gloss White is used on doors, stairways, pillars, wainscoting, and all interior or exterior woodwork. It gives a smooth hard, brilliant finish that does not yellow with age. Also made in various tints and eggshell finish.

Pee Gee Flatkoatt

Beautifies the walls and ceilings of the home. Made in a rich range of shades to match any decorative scheme. Durable and sanitary, this oil paint dries with a flat, smooth, velvety finish. Various decorative effects are easily produced. Easily and quickly cleaned.

Peaslee-Gaulbert Co., Incorporated

LOUISVILLE · ATLANTA · DALLAS · HOUSTON -

JAMES R. MARSHALL DEAD

AMES R. MARSHALL, F.A.I.A., of the architectural firm of Hornblower & Marshall, died at his home at Washington, D. C., on June 2nd. He was sev-

enty-six years old.

Mr. Marshall was born in Carlisle, Pa., and educated at Rutgers College. He was in the office of the Treasury Department's supervising architect from 1871 to 1883, and then formed the firm of Hornblower & Marshall with the late Joseph C. Horn-The partnership continued until Mr. Hornblower's death. In recent years he had made his home in Washington with his brother, Dr. Collins Marshall. He was a bachelor.

Besides the National Museum, Mr. Marshall also designed the Army and Navy Club in Washington, and the United States Customs House in Baltimore. He specialized, however, in residences. He was a member of the Cosmos, Chevy Chase and Army and Navy Clubs, a Fellow of The American Institute of Architects and a member of the Chi Phi

Fraternity.

20 MARTIN ROCHE, F.A.I.A., DEAD

MARTIN ROCHE, last original member of the architectural firm of Holabird & Roche, famous as the originators of the skeleton skyscraper type of office building, died of pneumonia at his home in Chi-

Mr. Roche would have been 74 years old next August. He was born in Ohio and was brought to Chicago as a boy. He was educated in the public schools there and when a young man entered the offices of W. L. B. Jenney. It was there chiefly that

he learned his profession.

Mr. Roche was a Fellow of The American Institute of Architects. In 1917 he was appointed a member of the Board of Art Advisers of Illinois by Governor Lowden. He was a bachelor and a member of the leading local clubs.

JAMES HARRISON STEEDMAN TRAVELING FELLOWSHIP IN ARCHITECTURE

THE award of the Steedman Fellowship in Architecture has been made for the first time since its foundation March 29, 1927.

This Fellowship was established in memory of the late James Harrison Steedman, a distinguished engineer, who lost his life in the Great War. Its foundation is due to the generosity of his widow, of Mexico City, Mexico, and of his brother, George F. Steedman, of St. Louis, Mo.

The judgment of the submitted drawings was held recently in the Washington University School of Architecture, St. Louis, Mo. The jury was composed of three architects chosen among members of Company, 19 West Forty-fourth Street, New York.

the profession in St. Louis and elsewhere, and consisted of Leon Arnal, Professor of Design in the Department of Architecture, University of Minnesota, Minneapolis, Minn.; Samuel H. Allen, of the firm of Ewald & Allen, St. Louis, Mo., and Angelo B. M. Corrubia, architect, also of St. Louis.

Arthur B. Gallion, a graduate of the University of Illinois, was awarded the 1927 Fellowship, and the second Fellowship, withheld last year but now available, was given to Paul J. Saunders, a graduate

of Washington University.

PRIX DE ROME AWARD

THE Prix de Rome Fellowship in Architecture for 1927 has been awarded to Homer Fay Pfeiffer, a graduate of the Yale School of Fine Arts, class of 26, now employed in the office of Walker & Gillette, architects. His design for a Museum of Fine Arts in a Small City was selected by a jury of six.

The Prix de Rome Fellowship entitles the winner to three years' study abroad at the American Academy in Rome and to living and traveling expenses. The total estimated value of the award is \$7,000. This includes \$1,300 in cash each year,

together with residence and studio.

Mr. Pfeiffer is 29 years old. His home is in Kansas City, although he presently is employed in New York City. He is the third Yale man this year to win a Prix de Rome Fellowship. The other two were Dunbar Beck and George Snowden, who took the fellowships in painting and sculpture respectively.

APARTMENT HOUSE DESIGN

WE shall have to radically revise our ideas as to just how a typical apartment house looks. Unless we are careful we shall overlook the modest six story structure shown in Atlantic Terra Cotta for May, the excellent house organ of the Atlantic Terra Cotta Company, in our amazement at the towering height of the Ritz Tower, also shown in the May issue.

In New York, commercialism seems determined to crowd the domestic structures out of certain sections. And, as if defying this policy, owners are erecting the towering apartment house hotels as bulwarks of defense. Now that architects are compelled, when they build their apartment houses to unusual heights, to heed the mandates of codes and building restrictions, the visitor to New York will find it difficult to differentiate the apartment house from the equally high office building or "tower."

Atlantic Terra Cotta for May presents a number of the recent tall types of apartment houses and a few of the earlier—and comparatively recent types. This interesting publication may be had for the asking, by addressing The Atlantic Terra Cotta

THE AMERICAN ARCHITECT

The issue numbers and their respective dates are, throughout this index, as

2512—JANUARY 5 2513—JANUARY 20 2514—FEBRUARY 5 2515—FEBRUARY 20 2515—FEBRUARY 2516—MARCH 5 2517—MARCH 20 2518—APRIL 5 2519—APRIL 20 2520—MAY 5 2521—MAY 20 2522—JUNE 5 2523—JUNE 20

239 West 39th Street, New York

In Three Parts * June 20, 1927 * Part Three

Index-Volume CXXXI

January to June 1927

Published Semi-Monthly in New York by

The Architectural and Building Press, Inc.

Six Dollars Yearly

TEXT ACCORDING TO SUBJECT

Light-faced figures refer to text-pages; bold-faced to serial number



-A-

American Architecture, The Sameness of. By
Harry F. Cunningham, 13, 2512.
American Institute of Architects, Washington,
D. C., Sixtieth Annual Convention, 699,
2522.
Architect's Happy Hunting Ground, An. By
Lansing C. Holden, Jr., 401, 2517.
Architect's Visit to Normandy, Impressions of an.
By Frank J. Forster, 755, 2522.
Architectural League of New York, Forty-second
Annual Exhibition of the, 269, 2516.
Architectural League of New York Takes Important Action as to Method of Awarding
Medals, 12 (adv. sec.), 2513.
Architectural Ramble in Delaware, An. By Carl
A. Ziegler, 769, 2523.
Architecture as a Problem in Form and Color.
Papers Presented by H. Van Buren Magonigle
and Herbert Adams at the Architectural
League Conference, 315, 2516.
Architecture as a Record of Civilization. By
Prof. F. M. Mann, 431, 2518.

-B-

Book Notes:—

American Architecture of the Twentieth Century, Part I, 14 (adv. sec.), 2522.

Architectural Design, The Study of. A Review by C. H. Blackall, 16 (adv. sec.), 2517.

Arc Welding—The New Age in Iron and Steel, 12 (adv. sec.), 2514.

Baum, The Work of Dwight James, 563, 2520.

Brickwork in Italy. A Review by C. H. Blackall, 14 (adv. sec.), 2522.

Brunner, Arnold W., and His Work. A Review by C. H. Blackall, 16 (adv. sec.), 2513.

Building Mechanics, 18 (adv. sec.), 2517.

Careers, An Outline of, 18 (adv. sec.), 2523.

Cathedral of Santiago de Compostela, The Early Architectural History of the. A Review by C. H. Blackall, 16 (adv. sec.), 2513.

Cement, Concrete and Bricks, 14 (adv. sec.), 2516.

Early Architectural History of the. A Review by C. H. Blackall, 16 (adv. sec.), 2513.

Cement, Concrete and Bricks, 14 (adv. sec.), 2516.

Colonial Lighting, 752, 2522.
Concrete Structures, Design of, 18 (adv. sec.), 2517.

Cottages—Their Planning, Design and Materials, 12 (adv. sec.), 2512.

Decoration and Furniture, The Practical Book of Learning, 12 (adv. sec.), 2512.

Domestic Architecture of the Early American Republic—The Greek Revival. A Review by C. H. Blackall, 12 (adv. sec.), 2514.

Graphs, The Lightning, 14 (adv. sec.), 2514.

Heating and Ventilating Engineers Guide for 1926-1927, The American Society of, 12 (adv. sec.), 2514.

Homes of Character, 12 (adv. sec.), 2514.

Houses, Cottages and Bungalows, 14 (adv. sec.), 2522.

London As It Is, By Thomas Shotter Boys, 142, Original Views of. A Review by C. H. Blackall, 16 (adv. sec.), 2517.

Manhattan, The Magical Island, 18 (adv. sec.), 2523.

Manor Houses and Farmsteads in France, Small, 14 (adv. sec.), 2516.

Maya Architecture, 7, 2512.

Religious Education, Building for, 12 (adv. sec.), 2516.

Shrines of Spain, Forgotten, 12 (adv. sec.), 2516.

Shrines of Spain, Forgotten, 12 (adv. sec.), 2516.

Smaller Houses and Gardens of Versailles, The, 14 (adv. sec.), 2522. Structural Design in Timber, Steel and Concrete, Practical, 18 (adv. sec.), 2517. Worship in Wood, 16 (adv. sec.), 2522.

Cathedral of St. John the Divine, New York, Final and Accepted Design for the Central Tower of the. Cram & Ferguson, Architects, 209, 2515.
Church, A Bridge and a Farmhouse, A. By Samuel Chamberlain, 379, 2517.
Church of Villemomble, The Steeple of the, 371, 2517.
City Hall, Los Angeles, Cal. John C. Austin, Albert C. Martin, John Parkinson, Associated Architects, 497, 2519.
Collaboration in the Arts of Design. Address Delivered by C. Grant La Farge at the Sixtieth Convention of the A. I. A., 745, 2522.
Communication from James M. Macqueen, A, 12 (adv. sec.), 2518.
Concrete, On the External Effect of, 235, 2515.

-E-

Editorial Comment:

American Building Methods Reviewed by an English Architect. 179, 2514.

American Style of Architecture, 27, 2512.

Architectural League of New York, Fortysecond Annual Exhibition, 281, 2516.

Architectural League of New York Recognizes Designers, 76, 2513.

Architectural Student, Advice to the, 75, 2513.

Architecture and Allied Arts, Affiliation

nizes Designers, 76, 2513.

Architectural Student, Advice to the, 75, 2513.

Architecture and Allied Arts, Affiliation between, 711, 2522.
Architecture and Art, 712, 2522.
Architecture as An Art, 784, 2523.
Building Code Requirements for Working Stresses in Building Materials, 536, 2519.
Carnegie Steel Company's New Series of Structural Shapes, 281, 2516.
Color in Architecture, 536, 2519.
Color in Design, Tendency of Architects to Introduce More, 373, 2517.
Committee on Allied Arts of the A. I. A., Reorganization of, 571, 2520.
Committee on Public Information, A. I. A., Good Work of, 535, 2519.
Congress and the Federal Building Bill, 535, 2519.
Construction Work Done During 1926, Volume of, 28, 2512.
Country Roadsides, Despoliation of England's, 784, 2523.
Draftsmen, Practical Education of, 657, 2521.
Fifth Avenue Association of New York and Its Method of Conducting Annual Competition, 535, 2519.
Living Room Furniture Design, Competition for, 76, 2513.
Marine Architecture, 657, 2521.
Private House, The Passing of the, 27, 2512.
Reclaimed Materials, The Utilization of, 419, 2518.
Short-length Lumber, The Marketing of, 229, 2516.
Skyscrapers, Harvey Wiley Corbett and Henry H. Curran Debate on, 535, 2519.
Standard Construction Classification of the A. I. A., 373, 2517.
Swedish Contemporary Decorative Arts, Exhibition of, 229, 2515.
Everybody's Business: By Floyd W. Parsons, 572, 25262 658, 2521; 12 (adv/sec.), 2522; 12 (adv/sec.), 2523.

2909

-F-

Form and Color as Applied in Furnishings. By Huger Elliott, 413, 2517.

-G-

e and Take. Address Delivered by A. K. Baylor at the Sixtieth Convention of the A. I. A., 764, 2522.

-H-

Harvard Housing Trust, Shaler Lane Houses for the. Kilham, Hopkins & Greeley, Architects, 1, 2512. Hill Towns of Provence, Some. By Samuel Chamberlain, 203, 2515.

-I-

Interior Architecture:

American Indian, Traditional Art of the, 537, 2519.

Apartment Hotel, The Modern, 37, 2512.

Apartment, The Decoration of an, 97, 2513.

Architectural League of New York, Tendencies in Interior Architectural Design as Suggested by Exhibition of the, 341, 2516.

Architectural League of New York, Tendencies in Interior Architectural Design as Suggested by Exhibition of the, 341, 2516.

Banking Room of the Society for Savings, Hartford, Conn., 615, 2520.

Bedroom Furniture, Sketches of, 798, 2523.

Candlelight to Kliegs, From, 752, 2522.

Door Furniture, 249, 2515.

Form and Color as Applied in Furnishings, 413, 2517.

Interior Designers at the Architectural League, 416, 2517.

Light in Fixture Design, The Problem of, 749, 2522.

Modernizing an Old House, 793, 2523.

Practical Aspects of Interior Architectural Design, Some, 93, 2513.

Rooms Designed by and Furnished Under the Direction of William F. Dominick, Architect, 540, 2519.

St. Michael's Church, Jersey City, N. J., Alterations and Additions to, 189, 2514.

Structural Plan and Purpose of a Room Are the Basis of Interior Architectural Design, 475, 2518.

Swedish Contemporary Decorative Arts, 254, 2515.

Theatre Design, Modern Tendencies in, 681, 2521.

-L-

Landscape Architecture as Seen from the Air, 565, 2520.

Law as to Architecture, The. By Clinton H. Blake, Jr., 131, 2513; 267, 2515; 12 (adv. sec.), 2521; 12 (adv. sec.), 2522; Light in Fixture Design, The Problem of. By Harold W. Rambusch, 749, 2522.

Lowell, Guy, 1870-1927, 230, 2515.

-M-

Menton. What Happened to. By Samuel Chamberlain, 629, 2521.

Modernism, In Search of. By Samuel Chamberlain, 71, 2513.

TEXT ACCORDING TO SUBJECT (Cont.)

Light-faced figures refer to text pages; bold-faced to serial number

-P-

Pen, Traveling with a Fountain, III. By Irving K. Pond, 29, 2512; 143, 2514; 423, 2518.

Portraits:—
Dunning, N. Max. 702, 2522.
Garfield, Abram, 702, 2522.
Lowell, Guy, 230, 2515.
Medary, Milton B., Jr., 699, 2522.

Producers' Council at Washington, D. C., Annual Meeting of the, 767, 2522.

-R-

Reclaimed Materials, The Utilization of. By Alfred C. Bossom, 419, 2518. Roadside Jottings. By Samuel Chamberlain, 777, 2523.

Setback, The Origin of the, 605, 2520.
Shakespeare Memorial Theatre at Stratford-on-Avon, England, The New, 375, 2517.
Skyscrapers and Traffic Congestion—Synopsis of a Debate by Harvey Wiley Corbett, Stephen F. Voorhees and Henry H. Curran, 386, 2517.
Small House, The Architect and the. By Carl A. Ziegler, 133, 2514.
Stained Glass Treasures of Rheims Cathedral, Restoring the. By Orin E. Skinner, 559, 2520.

2520.

-T-

Theatre for Yale University, New Haven, Conn. Blackall, Clapp & Whittemore, Architects, 347, 2517.

Theatre for Yale University, New Haven, Conn. By Prof. George Pierce Baker, 351, 2517.

Theatre for Yale University, New Haven, Conn. Electrical Layout of. By S. R. McCandless, 365, 2517.

-V-

Verticality in Design as Expressed in the Work of German Architects. By Alfred C. Bossom, 63, 2513. Villefranche. By Samuel Chamberlain, 489, 2519.

-Y-

Y. M. C. A., Prospect Park Branch, Brooklyn, N. Y. John F. Jackson, Architect. By W. H. Dewar, 651, 2521.

TEXT ACCORDING TO AUTHORS

Light-faced figures refer to text pages; bold-faced to serial number

-A-

Adams Herhert ns, Heroertz-Architecture as a Problem in Form and Color. Paper Presented at the Architectural League Conference, 319, **2516**. in, John C.—Albert C. Martin—John

City Hall, Los Angeles, Cal., 497, 2519.

-B-

Baker, George Pierce:—
Theatre for Yale University, New Haven, Conn., 351, 2517.

Baylor, A. K.:—
Give and Take. Address Delivered at the Sixtieth Convention of the A. I. A., 764, 2522.

Blackall, C. H.:—
Books Reviewed by:
Architectural Design, The Study of, 16 (adv. sec.), 2517.

Brickwork in Italy, 14 (adv. sec.), 2522.

Brunner, Arnold W., and His Work, 16 (adv. sec.), 2513.

Cathedral of Santiago de Compostela, The Early Architectural History of the, 16 (adv. sec.), 2513.

Domestic Architectural History of the, 16 (adv. sec.), 2516.

Republic—The Greek Revival, 12 (adv. sec.), 2516.
London As It Is, by Thomas Shotter Boys, 1842, Original Views of, 16 (adv. sec.), 2517.
Blackall, Clapp & Whittemore:—
Theatre for Yale University, New Haven, Conn., 347, 2517.
Blake, Clinton H., Jr.:—
Law as to Architecture, The, 131, 2513; 267, 2515; 12 (adv. sec.), 2521; 14 (adv. sec.), 2523.
Bossom, Alfred C.:—
Reclaimed Materials, The Utilization of, 419, 2518.
Verticality in Design as Expressed in the

Verticality in Design as Expressed in the Work of German Architects, 63, 2513.

-C-

Chamberlain, Samuel:—
Church, A Bridge and A Farmhouse, A, 379, 2517.

Hill Towns of Provence, Some, 203, 2515.
Menton, What Happened to, 629, 2521.
Modernism, In Search of, 71, 2513.
Roadside Jottings, 777, 2523.
Villefranche, 489, 2519.
Chase, Clement E.:—
Delaware River Bridge. Paul P. Cret, Architect; Ralph Modjeski, Engineer, 329, 2516.

Corbett, Harvey Wiley—Stephen F. Voorhees and Henry H. Curran:—
Skyscrapers and Traffic Congestion—Synopsis of a Debate by, 386, 2517.

Cram & Ferguson:—
Cathedral of St. John the Divine, New York, Final and Accepted Design for the Central Tower of the, 209, 2515.

Cret, Paul P.—Ralph Modjeski:—
Delaware River Bridge. By Clement E. Chase, 329, 2516.

Cunningham, Harry F.:—
American Architecture, The Sameness of, 13, 2512.

Curran, Henry H.—Harvey Wiley Corbett and Stephen F. Voorhees:— Skyscrapers and Traffic Congestion—Synop-sis of a Debate by, 386, 2517.

-D-

Dewar, W. H.:—
Y. M. C. A., Prospect Park Branch, Brooklyn, N. Y., John F. Jackson, Architect, 651, 2521.

Dutton, H. H.:—
Limestone Column, Test of a Full Sized, 59, 2512.

-E-

Elliott, Huger:—
Form and Color as Applied in Furnishings,
413, 2517.

-F-

Fellheimer, Alfred:—
Passenger Station at Buffalo, N. Y., for the
New York Central Railroad, 481, 2518.
Forster, Frank J.:—
Architect's Visit to Normandy, Impressions
of an, 755, 2522.

-H-

Hardenbergh, W. A.:—
Septic Tanks for Unsewered Houses, 487, 2518.

Heaton, Arthur B.:—
Capital Garage, Washington, D. C., 761, 2522.

Holden, Lansing C., Jr.:—
Architect's Happy Hunting Ground, An, 401, 2517.

—J-

Jackson, John F.:— Y. M. C. A., Prospect Park Branch, Brook-lyn, N. Y. By W. H. Dewar, 651, 2521.

Kilham, Hopkins & Greeley:—
Harvard Housing Trust, Shaler Lane Houses
for the, 1, 2512.

Kraemer, Wm.:—
Terra Cotta and Its Inspection by Architects, The Setting of, 551, 2519.

-L-

La Farge, C. Grant:—
Collaboration in the Arts of Design. Address
Delivered at the Sixtieth Convention of
the A. I. A., 745, 2522.

Larkin, John A. and Edward L.:—
Larkin Tower Building, New York, 336,
2516.

-M-

Macqueen, James M.:—
Communication from, A, 12 (adv. sec.), 2518.
Magonigle, H. Van Buren:—
Architecture as a Problem in Form and Color.
Paper Presented at the Architectural
League Conference, 315, 2516.

Mann, F. M.:—
Architecture as a Record of Civilization, 431, 2518.

March, Walter F.:—
German Sportforum, Berlin, The New, 259, 2515.

Martin, Albert C.—John C. Austin—John Parkinson:—
City Hall, Los Angeles, Cal., 497, 2519.

McCandless, S. R.:—
Theatre for Yale University, New Haven, Conn., Electrical Layout of, 365, 2517.

Modjeski, Ralph—Paul P. Cret:—
Delaware River Bridge. By Clement E. Chase, 329, 2516.

-P-Parkinson, John-John C. Austin-Albert C.

Parkinson, John—John C. Austin—Albert C. Martin:

City Hall. Los Angeles, Cal., 497, 2519.

Parsons, Floyd W.:—
Everybody's Business, 572, 2520; 658, 2521;
12 (adv. sec.), 2522; 12 (adv. sec.), 2523.

Pond. Irving K.:—
Pen, Traveling with a Fountain, III, 29, 2512; 143, 2514; 423, 2518.

Prideaux, D. W.:—
Illumination of Drafting Rooms, The, 101, 2513.

-R-

Rambusch, Harold W.:— Light in Fixture Design, The Problem of, 749, 2522.

-S-

Seelye, Elwyn E.:—
Reinforced Concrete Construction, The Supervision of, 55, 2512.
Steel Inspection, What Architects Should Know About, 405, 2517.
Shaw, Frederic and Stanley T.:—
Chimney Problem, The Solution of an Unusual, 106, 2513.
Skinner, Frank W.:—
Structural Steel in Buildings, Report of Investigation to Determine the Permanence of, 691, 2521.
Skinner, Orin E.:—
Stained Glass Treasures of Rheims Cathedral, Restoring the, 559, 2526.

-T-

Tilden, R. S.:— Fire-Resisting Materials, A Small House Built of, 181, 2514.

-V-

Voorhees, Stephen F.—Harvey Wiley Corbett and Henry H. Curran:— Skyscrapers and Traffic Congestion—Synopsis of a Debate by, 386, 2517.

-Z-

Ziegler, Carl A.:—
Architectural Ramble in Delaware, An, 769, 2523.
Small House, The Architect and The, 133. 2514.

ENGINEERING AND CONSTRUCTION

Light-faced figures refer to text pages; bold-faced to serial number

—B-

Bridge Design as Influenced by Architecture, 827, 2523.

Capital Garage, Washington, D. C. Arthur B. Heaton, Architect, 761, 2522.
Carnegie Rolled Steel Beam and Column Sections, A New Series of, 337, 2516.
Chimney Problem, The Solution of an Unusual. Frederic and Stanley T. Shaw, Architects, 106, 2513.

Delaware River Bridge. Paul P. Cret, Architect; Ralph Modjeski, Engineer. By Clement E. Chase, 329, 2516.

-F-

Fire-Resisting Materials, A Small House Built of. By R. S. Tilden, 181, 2514.

German Sportforum, Berlin, The New. By Walter F. March, 259, 2515.

-I-

Illumination of Drafting Rooms, The. By D. W. Prideaux, 101, 2513.

Joist Hangers, New Types of, 558, 2519.

Larkin Tower Building, New York. John A. and Edward L. Larkin, Architects, 336, 2516. Limestone Column, Test of a Full Sized. By H. H. Dutton, 59, 2512.

_P-

Passenger Station at Buffalo, N. Y., for the New York Central Railroad. By Alfred Fell-heimer, 481, 2518.

Reinforced Concrete Construction, The Supervision of. By Elwyn E. Seelye, 55, 2512.

Scale of New Design, An Architect's, 558, 2519.
Septic Tanks for Unsewered Houses. By W. A. Hardenbergh, 487, 2518.
Sherry-Netherland Hotel, New York, Scaffolding Fire, Extracts from Report of New York Board of Fire Underwriters on the, 833, 2523.
Steel Inspection, What Architects Should Know About. By Elwyn E. Seelye, 405, 2517.
Structural Steel in Buildings, Report of Investigation to Determine the Permanence of, By Frank W. Skinner, 691, 2521.
Swimming Pool Construction, 621, 2520.

Terra Cotta and Its Inspection by Architects, The Setting of. By Wm. Kraemer, 551, **2519.**

-V-

Vault Construction, A Practical Test of Modern, 697, 2521.

-W-

Welding and Riveting as Applied to Structural Steel Members, 557, 2519.

ILLUSTRATIONS ACCORDING TO SUBJECT

Light-faced figures refer to text pages; bold-faced to serial number

Administrative and Governmental

Administrative and Governmental
City and County Building, Denver, Colo. Allied Architects Association of Denver, Architects, 324, 2516.
City Hall, Los Angeles, Cal. John C. Austin. Albert C. Martin, John Parkinson, Associated Architects, 497, 2519.
County Court House, Providence, R. I., Proposed. Jackson, Robertson & Adams, Architects, 219, 2515; 276, 2516.
Hartford County Building Competition, Hartford, Conn. Design Placed First—Paul P. Cret and Smith & Bassette, Associated Architects, 23, 2512.
Municipal Building, White Plains, N. Y. J. H. Freedlander, Architect, 731, 2522.
Office Buildings for City and County, Chicago, Ill., Proposed New Twin. Eric Hall, County Architect, of the firm of Hall, Lawrence & Ratcliffe, Inc., Architects, 325, 2523.
State Capitol Building, Lincoln, Nebr. Bertram Grosvenor Goodhue, Architect, 323, 2516.
Town House for Chatham, Mass., Proposed School and. Kilham, Hopkins & Greeley, Architects, 545, 2519.

Athens National Bank, Athens, N. Y. Galen H.
Nichols, Architect, 473, 2518.

Building for Deutsch Südamerikanische Bank,
Berlin, Germany, Remodelled. Mr. Schuette,
Architect, 591, 2520.

Kanawha Banking & Trust Co., Charleston,
W. Va. Dennison & Hirons, Architects, 87,
2513.

W. Va. Dennison & Hirons, Architects, 87, 2513.
Seamen's Bank for Savings, New York, Benjamin Wistar Morris, Architect. Awarded 1926 First Prize by Downtown League, 531, 2519.
Society for Savings, Hartford, Conn. Banking Room. Dennison & Hirons, Architects, 615, 2520.

Clubs

Clubs

Country Club, Tuxedo, N. Y. John Russell Pope, Architect, 278, 2516.

Elks National Memorial Headquarters Building, Chicago, Ill. Egerton Swartwout, Architect, 272, 2516.

Lodge for Seal and Serpent Society, Ithaca, N. Y. Gibb & Waltz, Architects, 154, 2514.

Masonic Temple, St. Louis, Mo. Eames & Young, Architects; Albert B. Groves, Associate, 433, 2518.

Masonic Temple and Scottish Rite Cathedral, Scranton, Pa., Model of. Raymond M. Hood, Architect, 278, 2516.

Pacific Edgewater Club, Point Lobos, San Francisco, Cal., Building for. Miller & Pflueger, Architects, 823, 2523.

Y. M. C. A. Building, Orlando, Fla. Dwight James Baum, Architect, 237, 2515.

Y. M. C. A. Buildings at Jerusalem, Palestine, Model for Group of. Arthur Loomis Harmon, Architect, 269, 2516.

Y. M. C. A. Prospect Park Branch, Brooklyn, N. Y. John F. Jackson, Architect 635, 2521.

Ecclesiastical

Ecclesiastical

Boulevard Congregational Church, Detroit, Mich. Lancelot Sukert, Architect 599, 2520.

Cathedral of St. John the Divine, New York, Building the Nave of. From the Original Line and Aquatint Etching by Frederick K. Detwiller, 132, 2513.

Cathedral of St. John the Divine New York, Final and Accepted Design for the Central Tower of the. Cram & Ferguson, Architects, 209, 2515.

Church at Greensboro, N. C. Hobart Upjohn, Architect, 291, 2516.

Church of Our Lady of Pompei, New York, Matthew W. Del Gaudio, Architect, 805, 2523.

Matthew W. Del Gaudio, Architect, 805, 2523.
Church of the Heavenly Rest, Fifth Avenue, New York. Mayers, Murray & Phillip (Bertram Grosvenor Goodhue Associates) Architects, 283, 2516.
First Church of Christ, Scientist, Flushing, N. Y. Bernhardt E. Müller, Architect; Alexander B. Trowbridge, Consulting Architect, 603, 2520.
First Church of Christ, Scientist, Maplewood, N. J. Bernhardt E. Müller, Architect, 155, 2514.
First Church of Christ, Scientist, University City.

2514.

First Church of Christ, Scientist, University City,
Mo. T P. Barnett Co., Architects, 667, 2521

Mo. T P. Barnett Co., Architects, 667, 2521.

First Presbyterian Church, Tacoma, Wash. Cram & Perguson, Architects, 15, 2512.

Ira Allen Chapel, University of Vermont, Burlington, Vt. Designed by Wm. Mitchell Kendall, of McKim, Mead & White, Architects, 217, 2515.

Kings Highway Christian Church, Shreveport, La. Jones, Roessle, Olschner & Wiener, Architects, 317, 2519.

St. Andrew's Church, La Junta, Colo. T. MacLaren, Architect, 471, 2518.

St. Dominic's Church, Proctor, Vt. Maginnis & Walsh, Architects, 397, 2517.

St. James M. E. Church, Chicago, Ill. Tallmadge & Watson, Architects, 389, 2517.

St. Joseph's Cathedral, Wheeling, W. Va. Edward J. Weber, Architect, 195, 2514.

St. Michael's Church, Jersey City, N. J., Alterations and Additions to. Wilfrid E. Anthony, Architect, 189, 2514.

United Church, Bridgeport, Conn. Allen & Collens, Architects, 287, 2516.

Wadsworth Avenue Baptist Church, New York. Ludlow & Peabody, Architects, 713, 2522.

Woodside Baptist Church, Woodside, L. I., N. Y. Albert Humble, Architect, 609, 2520.

Educational

Baltimore Art Museum, Baltimore, Md. John Russell Pope, Architect, 313, 2516.

Beaumont Grammar School, Beaumont, Cal. Witmer & Watson, Architects, 543, 2519.

Brescia Hall, College of New Rochelle, New Rochelle, N. Y. McGill & Hamlin, Architects, 239, 2515.

Children's Library, Westbury, L. I., N. Y. Peabody, Wilson & Brown, Architects, 225, 2515.

Engineering Group, Cornell University, Ithaca, N. Y., Airplane View of Proposed. York & Sawyer, Architects, 243, 2515.

Pius X School of Music, Manhattanville, New York. Delano & Aldrich, Architects, 719, 2522.

Public Library, Los Angeles, Cal. Bertram Grosvenor Goodhue, Architect; Carleton M. Winslow, Associate Architect, 279, 2516.

School and Town House for Chatham, Mass., Proposed. Kilham, Hopkins & Greeley, Architects, 545, 2519.

Frontispieces

Frontispieces
Temple of Nike Apteros, Athens, 2512.
Erechtheum, Athens, The, 2513.
Campanile, Venice, At the Base of the, 2514.
Eze, 2515.
West Street, New York, Old and New, 2516.
Harkness Quadrangle, Yale University, on a
Rainy Day, 2517.
Historical Museum, Hamburg, Courtyard in,
2518.

2518.
Street Scene, Villefranche, 2519.
Campanile of Giotto, Florence, 2520.
Market Scene, Nice, 2521.
Priest House in Siam, 2522.
Immanuel Protestant Episcopal Church, New Castle, Del., 2523.

Alden Apartment Hotel, New York. Emery Roth, Architect, 37, 2512. Breakers Hotel, Palm Beach, Fla., Schultze & Weaver, Architects, 453, 2518. Hotel Orndorff, El Paso, Tex. Trost & Trost, Architects & Engineers, 117, 2513.

Miscellaneous

Miscellaneous

Aeolian Building, Fifth Avenue, New York.
Warren & Wetmore, Architects. Awarded
1926 First Prize by Fifth Avenue Association, 153, 2514.

American Legion Memorial Building, Kingston,
N. Y. Charles S. Keefe, Architect, 611, 2520.

American Society of Landscape Architects,
Illustrations of Exhibition of New York
Chapter of, 585, and 16 (adv. sec.), 2520.

Apartment House at Berkeley, Cal. Leonard H.
Ford, Architect, 675, 2521.

Architectural League of New York, Illustrations
of Forty-second Annual Exhibition, 217-227
and 237-247, 2515; 283-313, 2516.

Barnes Foundation, Merion, Pa. Paul P. Cret,
Architect, 271, 2516.

Bathing Pavilion and Casino on Gulf of Mexico,
Venice-Nokomis, Fla. Seymour Williams,
Architect, 167, 2514.

Bridge at Tuckahoe, Bronx River Parkway, N. Y.
Gilmore D. Clarke, Landscape Architect,
585, 2520.

Building at No. 1 Fifth Avenue, New York,
Proposed. Helmle & Corbett, Architects,
223, 2515.

Building at No. 41-43 Maiden Lane, New York,
Louis Allen Abramson, Architect. Awarded

Building at No. 41-43 Maiden Lane, New York. Louis Allen Abramson, Architect. Awarded 1926 Second Prize by Downtown League

ILLUSTRATIONS ACCORDING TO SUBJECT (Cont.)

Light-faced figures refer to text pages; bold-faced to serial number

Building at No. 2 Park Avenue, New York, Model of. Buchman & Kahn, Architects, 328, 2516.
Building for Little Falls Washing Co., Little Falls, N. J. Goodwillie & Moran, Architects, 807, 2523.
Building for Massachusetts Mutual Life Insurance Co., Springfield, Mass. Kirkham & Parlette, Architects, 565, 2520.
Building for New York Life Insurance Co., New York. Cass Gilbert, Architect, 564, 2520.
Camden County Tuberculosis Hospital, Lakeland, N. J. Arnold H. Moses, Architect, 177, 2514. N. J. 2514.

N. J. Arnold H. Moses, Architect, 177, 2514.

Capital Garage, Washington, D. C. Arthur B. Heaton, Architect, 761, 2522.

Competition for Hartford County Building, Hartford, Conn. Design Placed First—Paul P. Cret and Smith & Bassette, Associated Architects, 23, 2512.

Delaware River Bridge. Paul P. Cret. Architect; Ralph Modjeski, Engineer, 329, 2516.

Downtown League of New York, 1926 Awards of, 531, 2519.

Fifth Avenue Association 1926 First Prize Awarded to Aeolian Building, Fifth Avenue, New York, Warren & Wetmore, Architects, 153, 2514.

Fountain in the Piazza Mastai, Rome. Arthur F. Deam, Designer, 299, 2516.

French Chateaux as Seen from the Air, 374, 2517.

Garage, Blind Brook Lodge Apartments, Rye, N. Y., Private. Van Wart & Wein, Architects, 14 (adv. sec.), 2520.

Garden of S. Z. Mitchell, Locust Valley, L. I., N. Y. Olmsted Bros., Landscape Architects, 247, 2515.

Garden of Mrs. Robert C. Swayze, Litchfield, Conn. Olmsted Bros., Landscape Architects; Richard H. Dana, Jr., Architect, 245, 2515.

Garden Gate, A. Dwight James Baum, Archi-

tects; Richard H. Dana, Jr., Architect, 245, 2515.

Garden Gate, A. Dwight James Baum, Architect, 227, 2515.

Garden Pool, Estate of Col. A. R. Kuser, Bernardsville, N. J. Brinley & Holbrook, Landscape Architects, 587, 2520.

Gates at Entrance to a House at Montclair, N. J. C. C. Wendehack, Architect, 474, 2518.

German Sportforum, Berlin, Germany, Walter & Werner March, Architects, 259, 2515.

Harvard Housing Trust, Cambridge, Mass., Shaler Lane Houses for the Kilham, Hopkins & Greeley, Architects, 1, 2512.

Hedges, The, Scarsdale, N. Y. Charles Wellford Leavitt & Son, Landscape Architects, 311, 2516; 589, 2520.

Hudson River Bridge, Cass Gilbert, Architect, 169, 2514.

Landscape Architecture as Seen from the Architect.

Hudson River Bridge, Cass Gilbert, Architect, 169, 2514.

Landscape Architecture as Seen from the Air—Series of Long Island Estates, John Russell Pope, Architect, Showing Landscape Development, 565, 2520.

Larkin Tower Building, New York. John A. and Edward L. Larkin, Architects, 336, 2516.

Measured Drawings, 61, 2512; 107, 2513; 265, 2515; 411, 2517.

Michigan Boulevard, Chicago, Bridge Group of Tall Buildings, Showing 333 North Michigan Building in Center. Holabird & Roche, Architects, 803, 2523.

New Jersey Chapter, A. I. A., and New Jersey Society of Architects, Illustrations of Architectural Exhibition held at Newark, N. J., by the, 155-177, 2514.

Office Building for Pancoe Bros., Chicago, Ill. Hall, Lawrence & Ratcliffe, Inc., Architects, 466, 2518.

Office Sketch by O. R. Freeman of the Office of Kilham, Hopkins & Greeley, Architects, 712, 2522.

2522.

2522.
Old Ladies' Home, Paterson, N. J. Harry T Stephens, Architect, 177, 2514.
Ovington's Shop, Tobey Building, Chicago, Ill. Holabird & Roche, Architects, 309, 2516.
Passenger Station at Buffalo, N. Y., for the New York Central Railroad. Fellheimer & Wagner, Architects, 481, 2518.
Photographs by Walter F. Bogner, Reproductions of Original, Frontispiece, 2512; Frontispiece, 99 and 100, 2513; Frontispiece, 2514; 255, 256, 257 and 258, 2515.
Photographs made in Normandy by Frank J. Forster, Architect, Reproductions of, 755, 2522.

Plant for Bell & Howell Co., Chicago, Ill. Pond & Pond, Martin & Lloyd, Architects, 463.

2518.
Preacher, The,—A Study in Drapery. A. Stirling Calder, Sculptor, 6, 2512.
Rooms Designed by and Furnished Under the Direction of William F. Dominick, Architect, Illustrating A Series of, 540, 2519.
Russ Building, San Francisco, Cal. George W. Kelham, Architect, 328, 2516.
Salvation Army Building, St. Petersburg, Fla. Harry F. Cunningham, Architect, 787, 2523.
Shops at East Orange, N. J. D. Wentworth Wright, Architect, 159, 2514.

Sketch by Walter F. Bogner, Reproduction of Original Water Color, 152, 2514.

Sketches by Walter F. Bogner, Reproduction of Original Pencil, 180, 2514; 370, 2517; 465, 2518.

Sketches by Walter F. Bogner, Reproduction of Original, 11, 2512; 151, 2514; 369, 2517.

Sketches by Paul Gmelin, Reproductions of Original, 11, 2512; 151, 2514; 369, 2517.

Sketches by Ferenc Imrey, Reproductions of Original Pen and Ink and Wash Color, 12, 2512; 202, 2514.

St. George of Princeton. A. Stirling Calder, Sculptor, 5, 2514.

St. George of Princeton. A. Stirling Calder, Sculptor, 5, 2512.

Studio of Benjamin H. Marshall, Wilmette, Ill, Benjamin H. Marshall, Architect, 307, 2516.

Syracuse, N. Y. Memorial Hospital. John Russell Pope and Dwight James Baum, Associated Architects, 43, 2512.

Theological Seminary, Hartford, Conn., Men's Dormitory. Allen & Collens, Architects, 270, 2516.

Theological Seminary, Hartford, Conn., Women's Dormitory. Allen & Collens, Architects, 271, 2516.

Walter Camp Memorial, New Haven, Conn. Cross & Cross, Architects, 275, 2516.

Working Photographs, Series II. Illustrations Reproduced from Negatives by Dwight James Baum, Architect, 213, 2515; Frontispiece and 404, 2517; 422, 2518; 824, 2523.

Residences

Residences
Farm Group at Greenwich, Conn., Henry W. Rowe, Architect, 115, 2513.
Gate Lodge on Estate of N. F. Brady, Roslyn, L. I., N. Y. J. Y. Rippin, Designer, 301, 2516.
House at Abington, Pa. Carl A. Ziegler, Architect, 138, 2514.
House at Bayside, L. I., N. Y. R. C. Hunter & Bro., Architects, 791, 2523.
House at Chestnut Hill, Mass. Perry, Shaw & Hepburn, Architects, 811, 2523.
House at Drexel Park. Pa. Carl A. Ziegler, Architect, 136, 2514.
House at Dublin, N. H. Walter Atherton, Architect, 813, 2523.
House at Gremantown, Pa. Carl A. Ziegler, Architect, 136, 2514.
House at Great Neck, L. I., N. Y. John T. Briggs, Architect, 181, 2514.
House at Greenwich, Conn. Henry W. Rowe, Architect, 192, 2513.
House at Greenwich, Conn. Henry W. Rowe, Architect, 199, 2513.
House at Greenwich, Conn. Henry W. Rowe, Architect, 199, 2513.
House at Greenwood, Va. Delano & Aldrich, Architects, 289, 2516.
House at Gresse Pointe, Mich. Herman & Simons, Architects, 327, 2519.
House at Sunny Ridge, Harrison, N. Y. Julius Gregory, Architect, 327, 2519.
House at Hempstead, L. I., N. Y. George Roger Thompson, Architect, 786, 2523.
House at Ida Grove, Iowa, Entrance Detail, 399, 2517.
House at Massion Hills, Kansas City, Mo. Clarence E. Shepard, Architect, 677, 2521.
House at Madison, Wis. James R. & Edward J. Law, Architects, 467, 2519.
House at Manaroneck, N. Y. Henry J Bertram, Architects, 467, 2519.
House at Mamaroneck, N. Y. Henry J Bertram, Architect, 59, 2521.
House at Mamaroneck, N. Y. Henry J Bertram, Architect, 49, 2519.
House at Mamaroneck, N. Y. Henry J Bertram, Architect, 49, 2519.
House at Mamaroneck, N. Y. Henry J Bertram, Architect, 49, 2519.
House at Mamaroneck, N. Y. Henry J Bertram, Architect, 49, 2519.
House at Mamaroneck, N. Y. Henry J Bertram, Architect, 49, 2519.
House at Manaroneck, N. Y. Henry J Bertram, Architect, 49, 2519.
House at Manaroneck, N. Y. Henry J Bertram, Architect, 49, 2519.
House at Manaroneck, N. Y. William Cehron, Architect, 49, 2518.
House at Rydal, Pa. Carl A. Ziegler, Architect, 469, 2518.

House of Walter J. Collet, Scarsdale, N. Y.
 Bernard W. Close, Architect, 127, 2513.
 House of Frederick C. Ford, Lenox Road, Summit, N. J. Arthur N. Starin, Architect, 171, 2514.

House of Thomas H. Frothingham, Far Hills, N. J. John Russell Pope, Architect, 171, 2514.

House of James Gordon, Short Hills, N. J. Kenneth W. Dalzell, Architect, 163, 2514.

Kenneth W. Dalzell, Architect, 163, 2514.

House of James Gordon, Short Hills, N. J. Kenneth W. Dalzell, Architect, 163, 2514.

House of Stanley Hagerman, Maplewood, N. J., Entrance Detail, Kenneth W. Dalzell, Architect, 163, 2514.

House of Mrs. Julia D. Hawkins, Montclair, N. J. C. C. Wendehack, Architect, 809, 2522.

House of Mrs. Julia D. Hawkins, Montclair, N. J. C. C. Wendehack, Architect, 809, 2523.

House of Cletus Keating, Glen Head, L. I., N. Y., Remodelled, Bradley Delehanty, Architect, 793 and 799, 2523.

House of K. E. Knobloch, Stamford, Conn. Butler & Provost, Architects, 297, 2516.

House of A. D. Koppel, Pelham Heights, N. Y. William Gehron, Architect, 739, 2522.

House of Mrs. Laura B. Levering, Greenwich, Conn. Phelps Barnum and Bernard W. Close, Associated Architects, 525, 2519.

House of Warren MacEvoy, South Orange, N. J., Garden Front. Kenneth W. Dalzell, Architect, 175, 2514.

House of Richard C. Noel, Scarsdale, N. Y. Bernard W. Close, Architect, 128, 2513.

House of Charles Pratt, Glen Cove, L. I., N. Y. Peabody, Wilson & Brown, Architects, 221, 2515.

2515.

House of Charles D. Rafferty, Fishers Island,
N. Y. C. W. Fairweather, Architect, 167.

N. Y. C. W. Fairweather, Assembly 2514.

2514.

House of Louis Raquet, St. Petersburg, Fla.
Harry F. Cunningham, Architect, 509, 2519.
House of Alfred F. Robertshaw, Edge Hill
Gardens, Pa. Wm. W. Slack & Son, Architects, 165, 2514.

House of B. W. Seaman, Hempstead, L. I., N. Y.
George Roger Thompson, Architect, 327,
2516.

2516.
House of Charles Shick, Seagirt, N. J. Wm. W. Slack & Son, Architects, 157, 2514.
House of W. W. Siebert, Great Neck, L. I., N. Y. Frank J. Forster, Architect, 293, 2516; 399, 2517.
House of Mrs. Joshua Smith, East Washington Lane, Germantown, Pa. Carl A. Ziegler, Architect, 137, 2514.
House of George Stevens, Jr., Tokeneke, Darien, Conn. Charles S. Keefe, Architect, 193, 2514.

Conn. Charles S. Reefe, Architect, 193, 2514.

House of M. J. Swetland, Pasadena, Cal. McNeal Swasey, Architect, 573, 2520.

House of Allen Tobey, Scarsdale, N. Y. Julius Gregory, Architect, 305, 2546.

House of George A. Varney, Coconut Grove, Fla. Walter C. De Garmo, Architect, 815, 2523.

House of Mrs. A. T. Von Schmid, Montclair, N. J. Holmes & Von Schmid, Architects, 173, 2514.

House of Theodore Widmayer, Short Hills, N. J. Kenneth W. Dalzell, Architect, 175, 2514.

House of George Young, Jr., and Helen Binkerd Young, Ithaca, N. Y. George Young, Jr., and Helen Binkerd Young, Architects, 443, 2518. and Helen Binkerd Young, Architects, 443, 2518.

House of Efrem Zimbalist, New York, Alteration

to. Grosvenor Atterbury, Architect; Stowe Phelps & John Tompkins, Associated, 325.

Phelps & John Tompkins, Associated, 325.

2516.

Manse, Westminster Presbyterian Church, Bloomfield, N. J. F. Capen, Architect, 159, 2514.

Students' Residence, Bloomingdale Hospital, White Plains, N. Y. Grosvenor Atterbury, Architect; Stowe Phelps & John Tompkins, Associated, 388, 2517.

Winter Cottage, Estate of Marshall Field, Huntington, L. I., N. Y. John Russell Pope, Architect, 77, 2513.

Theatres
Capitol Theatre, Richmond, Va. Carneal & Johnston, Architects, 789, 2523.
Paramount Theatre, New York. C. W. & Geo. L. Rapp, Architects, 681, 2521.
Roxy Theatre, New York. Walter W. Ahlschlager, Architect, 682, 2521.
Theatre for Yale University, New Haven, Conn. Blackall, Clapp & Whittemore, Architects, 347, 2517.
Ziegfeld Theatre, New York. Joseph Urban and Thomas W. Lamb, Associated Architects, 295, 2516; 689, 2521.

Topical Architecture

Exterior Doorways, 213, 2515. Stairways, Insert, 2518. Casement Windows, Insert, 2519. Interior Doorways, Insert, 2520. Mantels, Insert, 2521. Capitals, Insert, 2522. Cornices, Insert, 2523.

ILLUSTRATIONS ACCORDING TO AUTHORS

Light-faced figures refer to text pages; bold-faced to serial number

-A-

Abramson, Louis Allen:—
Building at No. 41-43 Maiden Lane, New York. Awarded 1926 Second Prize by Downtown League, 533, 2519.

Ahlschlager, Walter W.:—
Roxy Theatre, New York, 682, 2521.

Allen & Collens:—
Theological Seminary, Hartford, Conn., Men's Dormitory, 270, 2516.

Theological Seminary, Hartford, Conn., Women's Dormitory, 271, 2516.

United Church, Bridgeport, Conn., 287, 2516.

Allied Architects Association of Denver:—
City and County Building, Denver, Col., 324, 2516.

Anthony, Wilfrid E.:—
St. Michael's Church, Jersey City, N. J., Alterations and Additions to, 189, 2514.

Atherton, Walter:—
House at Dublin, N. H., 821, 2523.

Atterbury, Grosvenor—Stowe Phelps and John Tompkins:—
House of Efrem Zimbalist, New York, Alteration to 325, 2516.

Students' Residence, Bloomingdale Hospital, White Plains, N. Y., 388, 2517.

Austin, John C.—Albert C. Martin—John Parkinson:—
City Hall, Los Angeles, Cal., 497, 2519.

Austin, John C.—Albert C. Martin—J Parkinson:— City Hall, Los Angeles, Cal., 497, 2519.

-B-

Barnett Co., T. P.:—
First Church of Christ, Scientist, University
City, Mo., 667, 2521.

Barnum, Phelps, and Bernard W. Close:—
House of Mrs. Laura B. Levering, Greenwich,
Conn., 525, 2519.

Baum, Dwight James:—
Garden Gate, A, 227, 2515.

Working Photographs, Series II. Illustrations Reproduced from Negatives by,
213, 2515; Frontispiece and 404, 2517;
422, 2518; 824, 2523.

Y. M. C. A. Building, Orlando, Fla., 237,
2515.

Baum, Dwight James, and John Russell Pope:—
Syracuse, N. Y., Memorial Hospital, 43,
2512.

2515.

Baum, Dwight James, and John Russell Pope:—
Syracuse. N. Y., Memorial Hospital, 43.

2512.

Bertram, Henry J.:—
House at Mamaroneck, N. Y., 659, 2521.

Blackall, Clapp & Whittemore:—
Theatre for Yale University, New Haven, Conn., 347, 2517.

Bogner, Walter F.:—
Reproductions of Original Pencil Sketches by, 180, 2514; 370, 2517; 465, 2518.

Reproductions of Original Photographs by, Frontispiece, 2512, Frontispiece, 99 and 100, 2513, Frontispiece, 2514, 255, 256, 257 and 258, 2515.

Reproduction of Original Water Color by, 152, 2514.

Briggs, John T.:—
House at Great Neck, L. I., N. Y., 181, 2514.

Brinley & Holbrook:—
Garden Pool, Estate of Col. A. R. Kuser, Bernardsville, N. J., 587, 2520.

Buchman & Kahn:—
Building at No. 2 Park Avenue, New York, Model of, 328, 2516.

Butler & Provost:—
House of K. E. Knobloch, Stamford, Conn., 297, 2516.

C

Calder, A. Sterling:

St. George of Princeton, 5, 2512.
The Preacher—A Study in Drapery, 6, 2512.
Capen, J. F.:—
Manse, Westminster Presbyterian Church,
Bloomfield, N. J., 159, 2514.
Carneal & Johnston:—
Capitol Theatre, Richmond, Va., 789, 2523.
Chamberlain, Samuel:—Reproductions of Original Sketches by, Frontispiece, 2515;
Frontispiece, 2515;
Frontispiece, 2521.
Clarke, Gilmore D.:—Bridge at Tuckahoe, Bronx River Parkway,
N. Y., 585, 2520.
Close, Bernard W.:—House at Scarsdale, N. Y., 127, 2513.
House of Walter J. Collet, Scarsdale, N. Y., 128, 2513.
Close, Bernard W.:—House of Richard C. Noel, Scarsdale, N. Y., 128, 2513.
Close, Bernard W., and Phelps Barnum:—House of Mrs. Laura B. Levering, Greenwich, Conn., 525, 2519.

Cram & Ferguson:—
Cathedral of St. John the Divine, New York,
Final and Accepted Design for the Central Tower of the, 209, 2515.
First Presbyterian Church, Tacoma, Wash., 15, 2512.
Cret, Paul P.:—
Barnes Foundation, Merion, Pa., 271, 2516.
Cret, Paul P.—Ralph Modjeski:—
Delaware River Bridge, 329, 2516.
Cret, Paul P., and Smith & Bassette:—
Hartford County Building Competition,
Hartford, Conn. Design Placed First, 23, 2512.
Cross & Cross:—
Walter Camp Memorial, New Haven, Conn., 275, 2516.
Cunningham, Harry F.:—
House of Louis Raquet, St. Petersburg, Fla., 509, 2519.
Salvation Army Building, St. Petersburg, Fla., 787, 2523.

—D-

Dahlstrom, Arthur:—
House at Minneapolis, Minn., 472, 2518.
Dalzell, Kenneth W.:—
House of James Gordon, Short Hills, N. J.,
163, 2514. Dalzell, Kenneth W.:—
House of James Gordon, Short Hills, N. J.,
163, 2514.
House of Stanley Hagerman, Maplewood,
N. J., Entrance Detail, 163, 2514.
House of Warren MacEvoy, South Orange,
N. J., Garden Front, 175, 2514.
House of Theodore Widmayer, Short Hills,
N. J., 175, 2514.
Dana, Richard H., Jr.—Olmsted Bros.:—
Garden of Mrs. Robert C. Swayze, Litchfield, Conn., 245, 2515.
Deam, Arthur F.:—
Fountain in the Piazza Mastai, Rome, 299,
2516.
De Garmo, Walter C.:—
House of George A. Varney, Coconut Grove,
Fla., 815, 2523.
Delano & Aldrich:—
House at Greenwood, Va., 289, 2516.
Pius X School of Music, Manhattanville,
New York, 719, 2522.
Delehanty, Bradley:—
House of Cletus Keating, Glen Head, L. I.,
N.Y., Remodelled, 793 and 799, 2523.
Del Gaudio, Matthew W::—
Church of Our Lady of Pompei, New York,
805, 2523.
Dennison & Hirons:—
Kanawha Banking & Trust Co., Charleston,
W. Va., 87, 2513.
Society for Savings, Hartford, Conn., BankRoom, 615, 2520.
Detwiller, Frederick K.:—
Cathedral of St. John the Divine, New York,
Building the Nave of, From the Original
Line and Aquatint Etching by, 132,
2513.
Dominick, William F.:—
Rooms Designed by and Furnished Under the

Dominick, William F.:— Rooms Designed by and Furnished Under the Direction of, 540, **2519**.

E

Eames & Young—Albert B. Groves:— Masonic Temple, St. Louis, Mo., 433, 2518.

-F-

Fairweather, C. W.:—
House of Arthur R. Clapham, Metuchen,
N. J., 173, 2514.
House of Charles D. Rafferty, Fishers Island,
N. Y., 167, 2514.

Fellheimer & Wagner:

Passenger Station at Buffalo, N. Y., for the
New York Central Railroad, 481, 2518.

Foltz, Herbert:

House of Dr. A. M. Cole, Indianapolis, Ind., 671, 2521.

Ford, Leonard H.:—
Apartment House at Berkeley, Cal., 675,
2521.

Forster, Frank J.:—
House of W. W. Siebert, Great Neck, L. I.,
N. Y., 293, 2516; 399, 2517.
Reproductions of Photographs made in Normandy by, 755, 2522.

Freedlander, J. H.:— Municipal Building, White Plains, N. Y., 731, 2522.

Freeman, O. R.:—
Office Sketch by O. R. Freeman of the Office of Kilham, Hopkins & Greeley, Architects, 712, 2522.

—G—

Gehron, William:—
House at Pelham Manor, N. Y., 468, 2518.
House of A. D. Koppel, Pelham Heights,
N. Y., 739, 2522.
Gibb & Waltz:—
Lodge for Seal and Serpent Society, Ithaca,
N. Y., 154, 2514.
Gilbert Cass:—

N. Y., 154, 2514.

Gilbert, Cass:—
Building for New York Life Insurance Co.,
New York, 564, 2520.

Hudson River Bridge, 169, 2514.

Gmelin, Paul:—
Reproductions of Original Sketches by, 11,
2512; 151, 2514; 369, 2517.

2512; 151, 2514; 369, 2517.

Goodhue, Bertram Grosvenor:—
State Capitol Building, Lincoln, Nebr., 323, 2516.

Goodhue, Bertram Grosvenor, Associates (Mayers, Murray & Phillip):—
Church of the Heavenly Rest, New York, 283, 2516.

Goodhue, Bertram Grosvenor—Carleton M. Winslow:—
Public Library, Los Angeles, Cal., 279, 2516.

Goodwillie & Moran:

Building for Little Falls Washing Co., Little
Falls, N. J., 807, 2523.

House of A. K. Bourne, Greens Farms, Conn.,
161, 2514.

Gregory, Julius:—

House at Sunny Ridge, Harrison, N. Y., 327.

2516.

House of Frank Bannerman, Scarsdale,
N. Y., 725, 2522.

House of Allen Tobey, Scarsdale, N. Y., 305.

2546.

Groves, Albert B.—Eames & Young:— Masonic Temple, St. Louis, Mo., 433, 2518.

-H-

Halbert, William C., Jr.:— House at Mamaroneck, N. Y., 549, 2519.

Holic et Manaroneck, N. 1., 349, 2919.

Hall, Eric:—

Office Buildings for City and County, Chicago, III., Proposed New Twin.

Bric Hall, County Architect, of the firm of Hall, Lawrence & Ratcliffe, Inc., Architects, 825, 2523.

Hall, Lawrence & Ratcliffe, Inc.:

Office Buildings for City and County, Chicago, III., Proposed New Twin. Eric Hall, County Architect, of the firm of, 825, 2523.

Office Building for Pancoe Bros., Chicago, III., 466, 2518.

Harmon, Arthur Loomis:—

Y. M. C. A. Buildings at Jerusalem, Palestine, Model for Group of, 269, 2316.

Heaton, Arthur B.:—

Capital Garage, Washington, D. C., 761, Hall. Eric:-

tine, Model for Group of, 269, 2516.

Heaton, Arthur B.:—
Capital Garage, Washington, D. C., 761, 2522.

Helmle & Corbett:—
Building at No. 1 Fifth Avenue, New York, Proposed, 223, 2515.

Herman & Simons:—
House at Grosse Pointe, Mich., 547, 2519.

Holabird & Roche:—
Michigan Boulevard, Chicago, Bridge Group of Tall Buildings, Showing 333 North Michigan Building, Chicago, Ill., 309, 2516.

Holmes & Von Schmid:—
House of Mrs. A. T. Von Schmid, Montclair, N. J., 173, 2514.

Hood, Raymond M.:
Masonic Temple and Scottish Rite Cathedral, Scranton, Pa., Model of, 278, 2516.

Humble, Albert:—
Woodside Baptist Church, Woodside, L. I., N. Y., 609, 2520.

Hunter, R. C., & Bro.:—
House at Bayside, L. I., N. Y., 791, 2521.
House at Rockville Center, L. I., N. Y., 129, 2513.

-I-

Imrey, Ferenc:— Reproductions of Original Sketches by, 231, 2515, Frontispiece, 2522; 826, 2523.

ILLUSTRATIONS ACCORDING TO AUTHORS (Cont.)

Light-faced figures refer to text pages; bold-faced to serial number

—J—

Jackson, John F.:—
Y. M. C. A., Prospect Park Branch, Brooklyn, N. Y., 635, 2521.

Jackson, Robertson & Adams:—
County Court House, Providence, R. I., Proposed, 219, 2515; 276, 2516.

Jones, Roessle, Olschner & Wiener:—
Kings Highway Christian Church, Shreveport, La., 517, 2519.

-K-

Keefe, Charles S.:—

American Legion Memorial Building, Kingston, N. Y., 611, 2520.

House at Madison, N. J., 613, 2520.

House of George Stevens, Jr., Tokeneke, Darien, Conn., 193, 2514.

Kelham, George W.:—
Russ Building, San Francisco, Cal., 328 2516.

Kelham, George W:—
Russ Building, San Francisco, Cal., 328
2516.
Kendall, Wm. Mitchell:—
Ira Allen Chapel, University of Vermont.
Burlington, Vt. Designed by Wm.
Mitchell Kendall, of McKim, Mead &
White, Architects, 217, 2515.
Kilham, Hopkins & Greeley:—
Harvard Housing Trust, Cambridge, Mass.,
Shaler Lane Houses for the, 1, 2512.
House at Mountain Lake, Fla., 125, 2513.
Office Sketch by O. R. Freeman of the Office
of, 712, 2522.
School and Town House for Chatham, Mass.,
Proposed, 545, 2519.
Kirkham & Parlett:—
Building for Massachusetts Mutual Life Insurance Co., Springfield, Mass., 565,
2520.

-L-

Lamb. Thomas W.—Joseph Urban:—
Ziegfeld Theatre, New York, 295, 2516;
689, 2521.
Larkin, John A. and Edward L.:—
Larkin Tower Building, New York, 336,
2516.
Law, James R. & Edward J.:—
House at Madison, Wis., 548, 2519.
Leavitt, Charles Wellford, & Son:—
"The Hedges," Scarsdale, N. Y., 311, 2516;
589, 2520.
Lowenstein, Emil:—
West Street, New York, Old and New.
From the Original Etching by, Frontispiece, 2516.
Ludlow & Peabody:—
Wadsworth Avenue Baptist Church, New York, 713, 2522.

-M-

—M—

MacLaren, T.:—
St. Andrew's Church, La Junta, Col., 471, 2518.

Maginnis & Walsh:—
St. Dominic's Church, Proctor, Vt., 397, 2517.

March, Walter & Werner:
German Sportforum, Berlin, Germany, 259, 2515.

Marshall, Benjamin H.:—
Studio of Benjamin H. Marshall, Wilmette, Ill., 307, 2516.

Martin, Albert C.—John C. Austin—John Parkinson:—
City Hall, Los Angeles, Cal., 497, 2519.

Mayers, Murray & Phillip (Bertram Grosvenor Goodhue Associates):—
Church of the Heavenly Rest, New York, 283, 2516.

McGill & Hamlin:—
Brescia Hall, College of New Rochelle, New Rochelle, N. Y., 239, 2515.

McKim, Mead & White:—
Ira Allen Chapel, University of Vermont, Burlington, Vt. Designed by Wm. Mitchell Kendall, of, 217, 2515.

Miller & Pflueger:—
Pacific Edgewater Club, Point Lobos, San Francisco, Cal., Building for, 823, 2523

Modjeski, Ralph—Paul P. Cret:—
Delaware River Bridge, 329, 2516.

Morris, Benjamin Wistar:—
Seamen's Bank for Savings, New York, Awarded 1926 First Prize by Downtown League, 531, 2519.

Moses, Arnold H.:—
Camden County Tuberculosis Hospital, Lakeland, N. J., 177, 2514.

Müller, Bernhardt E.:—
First Church of Christ, Scientist, Maplewood, N. J., 155, 2514.

Müller, Bernhardt E.—Alexander B. Trowbridge:— First Church of Christ, Scientist, Flushing, N. Y., 603, 2520.

-N-

Nichols, Galen H.:— Athens National Bank, Athens, N. Y., 473, 2518.

-0-

Olmsted Bros.:—
Garden of S. Z. Mitchell, Locust Valley, L. I.,
N. Y., 247, 2515.
Olmsted Bros.—Richard H. Dana, Jr.:—
Garden of Mrs. Robert C. Swayze, Litchfield, Conn., 245, 2515.

-P-

Parkinson, John—John C. Austin—Albert C. Martin:—
City Hall, Los Angeles, Cal., 497, 2519.
Peabody, Wilson & Brown:—
Children's Library, Westbury, L. I., N. Y., 225, 2515.
House of Charles Pratt, Glen Cove, L. I., N. Y., 221, 2515.
Perry, Shaw & Hepburn:—
House at Chestnut Hill, Mass., 811, 2523.
Phelps, Stowe—Grosvenor Atterbury and John Tompkins:—

Phelps, Stowe—Grosvenor Atterbury and John Tompkins:—
House of Efrem Zimbalist, New York, Alteration to, 325, 2516.
Students' Residence, Bloomingdale Hospital, White Plains, N. Y., 388, 2517.
Pond & Pond, Martin & Lloyd:—
Plant for Bell & Howell Co., Chicago, Ill., 463, 2518.
Pope, John Russell:—
Baltimore Art Museum, Baltimore, Md., 313, 2516.
Country Club, Tuxedo, N. Y., 278, 2516.
House of Thomas H. Frothingham, Far Hills, N. J., 171, 2514.
Landscape Architecture as Seen from the Air—Series of Long Island Estates Showing Landscape Development, 565, 2520.

Showing Landscape Development, 565, 2520.
Winter Cottage, Estate of Marshall Field, Huntington, L. I., N. Y., 77, 2513.
Pope, John Russell, and Dwight James Baum:—Syracuse, N. Y., Memorial Hospital, 43, 2512.

-R-

Rapp, C. W. & Geo. L.:—
Paramount Theatre, New York, 681, 2521.
Rippin, J. Y.:—
Gate Lodge on Estate of N. F. Brady, Roslyn, L. I., N. Y., 301, 2516.

lyn, L. I., N. I., Son, A.

Roth, Emery:—
Alden Apartment Hotel, New York, 37, 2512.

Rowe, Henry W.:—
Farm Group, Greenwich, Conn., 115, 2513.

House at Greenwich, Conn., 109, 2513.

-S-

Schuette, Mr.—

Building for Deutsch Südamerikanische
Bank, Berlin, Germany, Remodelled,
591, 2520.

Schultze & Weaver:—

Breakers Hotel, Palm Beach, Fla., 453, 2518.

Shepard, Clarence E.:—

House in Mission Hills, Kansas City, Mo.,
677, 2521.

Slack, Wm. W., & Son:—

House of Alfred F. Robertshaw, Edge Hill
Gardens, Pa., 165, 2514.

House of Charles Shick, Seagirt, N. J., 157,
2514.

Smith & Bassette and Paul P. Cret:—

Hartford County Building Competition,
Hartford, Conn. Design Placed First,
23, 2512.

Starin, Arthur N.:—

23, 2512.
Starin, Arthur N.:—
House of George A. Allsopp, Jr., South
Orange, N. J., 157, 2514.
House of Frederick C. Ford, Lenox Road,
Summit, N. J., 171, 2514.
Stephens, Harry T.:—
Old Ladies' Home, Paterson, N. J., 177, 2514.

Sukert, Lancelot:—
Boulevard Congregational Church, Detroit,
Mich., 599, 2529.
Swartwout. Egerton:—
Elks National Memorial Headquarters Building, Chicago, Ill., 272, 2516.
Swasey, McNeal:—
House of M. J. Swetland, Pasadena, Cal., 573, 2520.

T

Tallmadge & Watson:—
St. James M. E. Church, Chicago, Ill., 389, 2517.

Thompson, George Roger:—
House, Sketch of Proposed, 785, 2523.
House on a Corner Lot in Hempstead, L. I., N. Y., 786, 2523.
House of B. W. Seaman, Hempstead, L. I., N. Y., 327, 2516.

Tompkins, John—Grosvenor Atterbury and Stowe Phelps:—
House of Efrem Zimbalist, New York, Alteration to, 325, 2516.
Students' Residence, Bloomingdale Hospital, White Plains, N. Y., 388, 2517.

Trost & Trost:—
Hotel Orndorff, El Paso, Tex., 117, 2513.

Trowbridge, Alexander B.—Bernhardt E. Müller: Pirst Church of Christ, Scientist, Flushing, N. Y., 603, 2520.

U

Upjohn, Hobart:— Church at Greensboro, N. C., 291, 2516. Urban, Joseph—Thomas W. Lamb:— Ziegfeld Theatre, New York, 295, 2516; 689, 2521.

Van Wart & Wein:—
Garage, Blind Brook Lodge Apartments,
Rye, N. Y., Private, 14 (adv. sec.), 2520.
Vassilieff, N.:—
Reproductions of Original Pen and Ink and
Wash Color Sketches by, 12, 2512; 202,
2514.

W

Warhurst, George:—
House in Tarrytown, N. Y., for a Doctor's
Office and Residence, 469, 2518.
Warren & Wetmore:—

Office and Residence, 469, 2518.

Warren & Wetmore:—
Aeolian Building, Fifth Avenue, New York.
Awarded 1926 First Prize by Fifth Avenue Association, 153, 2514.

Weber, Edward J.:—
St. Joseph's Cathedral, Wheeling, W. Va., 195, 2514.

Wendehack, C. C.:—
Gates at Entrance to a House at Montclair, N. J., 474, 2518.
House at Montclair, N. J., 49, 2512.
House of Edgar S. Bamberger, West Orange, N. J., 165, 2514.

House of Mrs. Julia D. Hawkins, Montclair, N. J., 89, 2528.

Williams, Seymour:—
Bathing Pavilion and Casino on Gulf of Mexico, Venice-Nokomis, Fla., 167, 2514.

Winslow, Carleton M.—Bertram Grosvenor Goodhue:—
Public Library, Los Angeles, Cal., 279, 2516.

Witmer & Watson:—
Beaumont Grammar School, Beaumont, Cal., 543, 2518.

House at Los Angeles, Cal., 467, 2518.

Wright, D. Wentworth:—
Shops at East Orange, N. J., 159, 2514.

-Y-

York & Sawyer:—
Engineering Group, Cornell University,
Ithaca, N. Y., Airplane View of Proposed, 243, 2515.

Young, George, Jr., and Helen Binkerd Young:—
House of George Young, Jr., and Helen
Binkerd Young, Ithaca, N. Y., 443,
2518.

-z-

Ziegler, Carl A.:—
House at Abington, Pa., 138, 2514.
House at Drexel Park, Pa., 136, 2514.
House at Germantown, Pa., 134, 2514.
House at Rydal, Pa., 135, 2514.
House of Mrs. Joshua Smith, East Washington Lane, Germantown, Pa., 137, 2514.

ILLUSTRATIONS ACCORDING TO LOCATION

Light-faced figures refer to text pages; bold-faced to serial number

California -

Beaumont:-

Beaumont Grammar School. W Watson, Architects, 543, 2519. Witmer &

Apartment House at. Leonard H. Ford, Architect, 675, 2521.

Los Angeles:-

Angeles:—
City Hall. John C. Austin, Albert C.
Martin, John Parkinson, Associated
Architects, 497, 2519.

House at. Witmer & Watson, Architects,
467, 2518.

Public Library. Bertram Grosvenor Goodhue, Architect; Carleton M. Winslow,
Associate Architect, 279, 2516.

Pasadena:

House of M. J. Swetland. McNeal Swasey, Architect, 573, 2520.

San Francisco:-

Pacific Edgewater Club, Point Lobos, Building for. Miller & Pflueger, Architects, 823, 2523.
Russ Building, George W. Kelham, Architect, 328, 2516.

Colorado -

City and County Building. Allied Architects Association of Denver, Architects, 324, 2516.

La Junta:-

St. Andrew's Church. T. MacLaren, Architect, 471, 2518.

Connecticut-

Bridgeport:

United Church. Allen & Collens, Architects, 287 2516.

Darien:-

House of George Stevens, Jr., Tokeneke. Charles S. Keefe, Architect, 193, 2514.

Greens Farms:-

House of A. K. Bourne. Goodwillie & Moran, Architects, 161, 2514.

Greenwich:-

Farm Group at. Henry W. Rowe, Architect, 115, 2513.

House at. Henry W. Rowe, Architect, 109, 2513.

House of Mrs. Laura B. Levering. Phelps Barnum and Bernard W. Close, Associated Architects, 525, 2519.

Hartford County Building Competition.

Design Placed First—Paul P. Cret and
Smith & Bassette, Associated Architects,

Smith & Bassette, Associated Architects, 23, 2512.
Society for Savings, Banking Room. Dennison & Hirons, Architects, 615, 2520.
Theological Seminary, Men's Dormitory, Allen & Collens, Architects, 270, 2516.
Theological Seminary, Women's Dormitory, Allen & Collens, Architects, 271, 2516.

Litchfield:-

Garden of Mrs. Robert C. Swayze. Olmsted Bros., Landscape Architects; Richard H. Dana, Jr., Architect, 245, 2515.

New Haven:-

Theatre for Yale University. Blackall, Clapp & Whittemore, Architects, 347, 2517. Walter Camp Memorial. Cross & Cross, Architects, 275, 2516.

House of K. E. Knobloch. Butler & Provost, Architects, 297, 2516.

District of Columbia -

Washington:—Capital Garage. Arthur B. Heaton, Architect, 761, 2522.

Coconut Grove:

House of George A. Varney. Wa
De Garmo, Architect, 815, 2523. Walter C.

Mountain Lake:-

House at. Kilham, Hopkins & Greeley, Architects, 125, 2513.

Y. M. C. A. Building. Dwight James Baum, Architect, 237, 2515.

Palm Beach :-

Breakers Hotel. Schultze & Weaver, Architects, 453, 2518.

St. Petersburg:

House of Louis Raquet. Harry F. Cunning-ham, Architect, 509, 2519. Salvation Army Building. Harry F. Cunning-ham, Architect, 787, 2523.

Venice-Nokomis:-

Bathing Pavilion and Casino on Gulf of Mexico, Seymour Williams, Architect, 167, 2514.

Illinois -

icago:—

Elks National Memorial Headquarters Building. Egerton Swartwout, Architect, 272, 2516.

Michigan Boulevard Bridge Group of Tall Buildings, Showing 333 North Michigan Building in Center. Holabird & Roche, Architects, 803, 2523.

Office Building for Pancoe Bros. Hall, Lawrence & Ratcliffe, Inc., Architects, 466, 2518.

Office Buildings for City and County, Proposed New Twin. Eric Hall, County Architect, of the firm of Hall, Lawrence & Ratcliffe, Inc., Architects, 825, 2523.

Ovington's Shop, Tobey Building. Holabird & Roche, Architects, 309, 2516.

Plant for Bell & Howell Co. Pond & Pond, Martin & Lloyd, Architects, 463, 2518.

St. James M. E. Church. Tallmadge & Watson, Architects, 389, 2517.

Studio of Benjamin H. Marshall. Benjamin H. Marshall, Architect, 307, 2516.

Indiana -

Indianapolis:-

House of Dr. A. M. Cole. Herbert Foltz, Architect, 671, 2521.

Iowa -

Ida Grove:-

House at, Entrance Detail, 399, 2517.

Louisiana -

Shreveport:-

Kings Highway Christian Church. Jones, Roessle, Olschner & Wiener, Architects, 517, **2519**.

Maryland -

Baltimore:-

Baltimore Art Museum. John Russell Pope, Architect, 313, 2516.

Massachusetts-

Cambridge:

Harvard Housing Trust, Shaler Lane Houses for the. Kilham, Hopkins & Greeley, Architects, 1, 2512.

Chatham:-

School and Town House for, Proposed. Kilham, Hopkins & Greeley, Architects, 545, **2519**.

Chestnut Hill:-

House at. Perry, Shaw & Hepburn, Architects, 811, 2523.

Springfield:-

Building for Massachusetts Mutual Life Insurance Co. Kirkham & Parlett, Architects, 565, **2520**.

Michigan -

Detroit:-

Boulevard Congregational Church. Lancelot Sukert, Architect, 599, 2520.

Grosse Pointe:

House at. Herman & Simons, Architects.

Minnesota -

Minneapolis:—
House at. Arthur Dahlstrom, Architect,
472, 2518.

Missouri -

Kansas City:—
House in Mission Hills. Cla
Shepard, Architect, 677, 2521. Clarence E.

Masonic Temple. Eames & Young, Architects; Albert B. Groves, Associate, 433, 2518.

University City:—
First Church of Christ, Scientist.
Barnett Co., Architects, 667, 2521.

Nebraska -

Lincoln:

State Capitol Building. Bertram Grosvenor Goodhue, Architect, 323, 2516.

New Hampshire-

House at. Walter Atherton, Architect, 821,

New Jersey-

Bernardsville:-

Garden Pool, Estate of Col. A. R. Kuser. Brinley & Holbrook, Landscape Architects, 587, 2520.

Bloomfield:-

Manse, Westminster Presbyterian Church. J. F. Capen, Architect, 159, 2514.

East Orange:-

Shops at. D. Wentworth Wright, Architect. 159, 2514.

Far Hills:-

House of Thomas H. Frothingham. John Russell Pope, Architect, 171, 2514.

St. Michael's Church, Alterations and, Additions to. Wilfrid E. Anthony, Architect, 189, 2514.

Lakeland:-

Camden nden County Tuberculosis Hospital. Arnold H. Moses, Architect, 177, 2514.

Little Falls:-

Building for Little Falls Washing Co. Goodwillie & Moran, Architects, 807, 2523.

Madison:-

House at. Charles S. Keefe, Architect, 613, 2520.

Maplewood:-

First Church of Christ, Scientist. Bernhardt E. Müller, Architect, 155, **2514.** House of Stanley Hagerman, Entrance Detail. Kenneth W. Dalzell, Architect, 163, **2514.**

Metuchen:-

House of Arthur R. Clapham. C. W. Fairweather, Architect, 173, 2514.

Gates at Entrance to a House at. C. C. Wendehack, Architect, 474, 2518.

House at. C. C. Wendehack, Architect, 49, 2512.

House of Mrs. Julia D. Hawkins, C. C. Wendehack, Architect, 809, 2523. House of Mrs. A. T. Von Schmid. Holmes & Von Schmid, Architects, 173, 2514.

Paterson:

Old Ladies' Home. Harry T. Stephens, Architect, 177, 2514.

House of Charles Shick. Wm. W. Slack & Son, Architects, 157, 2514.

Short Hills:-

House of James Gordon, Kenneth W. Dalzell, Architect, 163, 2514.
 House of Theodore Widmayer. Kenneth W. Dalzell, Architect, 175, 2514.

South Orange:-

House of George A. Allsopp, Jr. Arthur N. Starin, Architect, 157, 2514.

House of Warren MacEvoy, Garden Front. Kenneth W. Dalzell, Architect, 175, 2514.

ILLUSTRATIONS ACCORDING TO LOCATION (Cont.)

Light-faced figures refer to text pages; bold-faced to serial number

Summit:-

House of Frederick C. Ford, Lenox Road. Arthur N. Starin, Architect, 171, 2514.

West Orange:

House of Edgar S. Bamberger. C. C. Wende-hack, Architect, 165, 2514.

New York-

Athens National Bank. Galen H. Nichols, Architect, 473, 2518.

Bayside, L. I .:-

House at. R. C. Hunter & Bro., Architects, 791, 2523.

Y. M. C. A., Prospect Park Branch. John F. Jackson, Architect, 635, 2521.

Passenger Station for the New York Central Railroad. Fellheimer & Wagner, Archi-tects, 481, 2518.

Fishers Island:-

House of Charles D. Rafferty. C. W. Fairweather, Architect, 167, 2514.

First Church of Christ, Scientist. Bernhardt E. Müller, Architect; Alexander B. Trowbridge, Consulting Architect, 603, 2520.

Glen Cove, L. I .:-

House of Charles Pratt. Peabody, Wilson & Brown, Architects, 221, 2515.

Glen Head, L. I .:-

House of Cletus Keating, Remodelled. Bradley Delehanty, Architect, 793 and 799, 2523.

Great Neck, L. I .:-

House at. John T. Briggs, Architect, 181, 2514.

House of W. W. Siebert, Frank J. Forster, Architect, 293, 2516; 399, 2517.

Harrison:-

House at Sunny Ridge. Julius Gregory, Architect, 327, 2516.

Hempstead, L. I .:-

House of B. W. Seaman. George Roger Thompson, Architect, 327, 2516. House on a Corner lot. George Roger Thompson, Architect, 786, 2523.

Huntington, L. I .:-

Winter Cottage, Estate of Marshall Field. John Russell Pope, Architect, 77, 2513.

Engineering Group, Cornell University,
Airplane View of Proposed. York &
Sawyer, Architects, 243, 2515.
House of George Young, Jr., and Helen
Binkerd Young. George Young, Jr.,
and Helen Binkerd Young, Architects,
443, 2518.
Lodge for Seal and Serpent Society. Gibb
& Waltz, Architects, 154, 2514.

Kingston:-

American Legion Memorial Building. Charles S. Keefe, Architect, 611, 2520.

Locust Valley, L. I .:-

Garden of S. Z. Mitchell. Olmsted Bros., Landscape Architects, 247, 2515.

Landscape Architecture as Seen from the Air—Series of Estates, John Russell Pope, Architect, Showing Landscape Development, 565, 2520.

Mamaroneck:-

House at. Henry J. Bertram, Architect, 659, 2521.

House at. William C. Halbert, Jr., Architect, 549, 2519.

New Rochelle:-

Brescia Hall, College of New Rochelle. McGill & Hamlin, Architects, 239, 2515.

Aeolian Building, Fifth Avenue. Warren & Wetmore, Architects. Awarded 1926 First Prize by Fifth Avenue Association, 153, **2514.**

Alden Apartment Hotel. Emery Roth,
Architect, 37, 2512.

Building at No. 1 Fifth Avenue, Proposed.
Helmle & Corbett, Architects, 223, 2515.
Building at No. 41-43 Maiden Lane. Louis
Allen Abramson, Architect. Awarded
1926 Second Prize by Downtown
League, 533, 2519.
Building at No. 2 Park Avenue, Model of.
Buchman & Kahn, Architects, 328, 2516.
Building for New York Life Insurance Co.
Cass Gilbert, Architect, 564, 2520.
Cathedral of St. John the Divine, Final and
Accepted Design for the Central Tower
of the. Cram & Ferguson, Architects,
209, 2515.
Church of Our Lady of Pompei. Matthew
W. Del Gaudio, Architect, 805, 2523.
Church of Our Lady of Pompei. Matthew
W. Del Gaudio, Architect, 805, 2523.
Church of the Heavenly Rest, Fifth Avenue.
Mayers, Murray & Phillip (Bertram
Grosvenor Goodhue Associates), Architects, 283, 2516.
House of Efrem Zimbalist, Alteration to.
Grosvenor Atterbury, Architect; Stowe
Phelps & John Tompkins, Associated,
325, 2516.
Larkin Tower Building. John A. and
Edward L. Larkin, Architects, 336, 2516.
Paramount Theatre. C. W. & Geo. L. Rapp,
Architects, 681, 2521.
Pius X School of Music, Manhattanville.
Delano & Aldrich, Architects, 719, 2522.
Roxy Theatre. Walter W. Ahlschlager,
Architect, 682, 2521.
Seamen's Bank for Savings. Benjamin
Wistar Morris, Architect.
Awarded
1926 First Prize by Downtown League,
531, 2519.
Wadsworth Avenue Baptist Church. Ludlow
& Peabody, Architects, 713, 2522.

Wadsworth Avenue Baptist Church, Ludlow & Peabody, Architects, 713, 2522.
Ziegfeld Theatre, Joseph Urban and Thomas W. Lamb, Associated Architects, 295, 2516; 689, 2521.

Pelham Heights:-

House of A. D. Koppel. William Gehron, Architect, 739, 2522.

Pelham Manor:-

House at. William Gehron, Architect, 468, 2518.

Rockville Center, L. I .:-

House at. R. C. Hunter & Bro., Architects, 129, 2513. Roslyn, L. I .:-

Gate Lodge on Estate of N. F. Brady. J. Y. Rippin, Designer, 301, 2516.

Garage, Blind Brook Lodge Apartments, Private. Van Wart & Wein, Architects, 14 (adv. sec.), 2520.

Hedges, The. Charles Wellford Leavitt & Son, Landscape Architects, 311, 2516; 589, 2520.

House at. Bernard W. Close, Architect,

589, 2520.

House at. Bernard W. Close, Architect, 126, 2513.

House of Frank Bannerman. Julius Gregory, Architect, 725, 2522.

House of Walter J. Collet. Bernard W. Close, Architect, 127, 2513.

House of Richard C. Noel. Bernard W. Close, Architect, 128, 2513.

House of Allen Tobey. Julius Gregory, Architect, 305, 2516.

Syracuse:-

Syracuse Memorial Hospital. John Russell Pope and Dwight James Baum, Associ-ated Architects, 43, 2512.

Tarrytown:-

House at, for a Doctor's Office and Residence. George Warhurst, Architect, 469, 2518.

Tuckahoe:-

Bridge at, Bronx River Parkway, N. Y. Gilmore D. Clarke, Landscape Archi-tect, 585, **2520.**

Country Club. John Russell Pope, Architect, 278, 2516.

Westbury, L. I.:—
Children's Library. Peabody, Wilson & Brown, Architects, 225, 2515.

White Plains:

Municipal Building, J. H. Freedlander,
Architect, 731, 2522.

Students' Residence, Bloomingdale Hospital.
Grosvenor Atterbury, Architect; Stowe
Phelps & John Tompkins, Associated,
388, 2517.

Woodside, L. I .:-

Woodside Baptist Church. Albert Humble, Architect, 609, 2520.

North Carolina -

Greensboro:-

Church at. Hobart Upjohn, Architect, 291, 2516.

Pennsylvania –

House at. Carl A. Ziegler, Architect, 138, 2514.

Drexel Park:-

House at. Carl A. Ziegler, Architect, 136, 2514.

Edge Hill Gardens:-

House of Alfred F. Robertshaw. Wm. W. Slack & Son, Architects, 165, 2514.

Germantown:-

House at. Carl A. Ziegler, Architect, 134, 2514.

House of Mrs. Joshua Smith, East Washington Lane. Carl A. Ziegler, Architect. ton Lane.

Merion:-

Barnes Foundation. Paul P. Cret, Architect, 271, 2516.

House on Cloverly Lane. Carl A. Ziegler, Architect, 135, 2514.

Masonic Temple and Scottish Rite Cathedral, Model of. Raymond M. Hood, Archi-tect, 278, 2516.

Rhode Island -

Providence:

County Court House, Proposed. Jackson. Robertson & Adams, Architects, 219, 2515; 276, 2516.

Texas-

El Paso:-

Hotel Orndorff. Trost & Trost, Architects & Engineers, 117, 2513.

Vermont-

Burlington:-

Ira Allen Chapel, University of Vermont. Designed by Wm. Mitchell Kendall, of McKim. Mead & White, Architects, 217, 2515.

St. Dominic's Church. Maginnis & Walsh, Architects, 397, 2517.

Virginia -

Greenwood:-

Delano & Aldrich, Architects, House at. De 289, 2516.

Richmond:-

Capitol Theatre. Carneal & Johnston, Architects, 789, 2523.

Washington -

Tacoma:— First Presbyterian Church. Cram & Ferguson, Architects, 15, 2512.

West Virginia -

Charleston:—
Kanawha Banking & Trust Co. Dennison
& Hirons, Architects, 87, 2513.

Wheeling:— St. Joseph's Cathedral. Edward J. Weber, Architect, 195, **2514.**

Wisconsin -

House at. James R. & Edward J. Law, Architects, 548, 2519.

Foreign -

Germany-

erlin:—
Building for Deutsch Südamerikanische
Bank, Remodelled. Mr. Schuette,
Architect, 591, 2520.
German Sportforum. Walter & Werner
March, Architects, 259, 2515.

Palestine-Jerusalem:

Y. M. C. A. Buildings at, Model for Group of. Arthur Loomis Harmon, Architect, 269, 2516.