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THE ARCHITECTURAL REVIEW

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THE opening article of this issue is devoted to the residence of Charles M. MacNeill, Esq., New York, of which Mr. Frederick Sterner was the architect. This house is an interesting solution of the city house problem! Though it is not a corner house it is so planned that the entrance is in the center, allowing a desirable arrangement of the rooms. There is a long front overlooking a pleasant garden. This building marks another step in advance toward the planning of city houses in such a way that there may ultimately be no unsightly rear views. It has many other unusual and attractive features.

The house for Dr. W. S. Rainsford at Ridgefield, Conn., of which Mr. Grosvenor Atterbury was the architect, is illustrated and described. It is well designed to meet the requirements and the character of the building site and it has a garden of more than usual charm and interesting interiors.

Clafin Hall, the new dormitory for Wellesley College, together with other recent work, by Messrs. Coolidge and Carlson, in connection with the dormitories for Wellesley College of which they were the architects is shown and described, including the stone porte-cochere just added to Tower Court and the memorial tablet to Ellen Stebbins James in the living room of Tower Court, which will be the central building of a group of three dormitories facing the "Quadrangle" when the present plans are fully carried out.

The building at 1710 Broadway, New York, for The Ford Motor Co., comprising a show room and offices, is one of the most interesting of recent business buildings. Mr. Albert Kahn was the architect.

In the department edited by Mr. J. H. Phillips, "The Review of Interiors," the work of the early Eighteenth Century and of the latter part of the preceding century in France and England is reviewed.

Mr. C. Howard Walker gives helpful criticisms of architectural work and of articles in his "Review of Recent Architectural Magazines."

"Equipment," the department edited by Mr. J. H. Musselman, is given over this month to the consideration of a method for preserving hot water supply pipes.

The regular plates present photographic views in sepia duo-tone of the buildings described in the text. In addition to the regular plates this month there are supplementary plates of "Smaller French Churches," and of "Temples of Old Japan." The churches shown in this series of photographs are in general those in towns and villages that are off the beaten path, the delightful buildings, full of suggestions that are little known. The Japanese temples shown are some of the most famous ancient buildings that represent the characteristic development of Japanese architecture and that have a place in the world's history of architectural development.

The frontispiece of this issue is a reproduction of one of the finest of Hubert Robert's paintings. This artist recreated the architecture of the past in a remarkably sympathetic manner in his landscape painting and has been called "the poet of crumbling stone and fountain sprays."

A NEW DEPARTMENT.

Believing that our subscribers are interested in keeping in touch with the information contained in the printed matter of manufacturers of building materials we are starting in this issue a new department—"The Reference List of Business Literature"—in which will be listed the various catalogues, hand books, portfolios, etc., of reliable manufacturers. The title of each item will be given, together with a concise summary of contents, size and number of pages. Any architect or draftsman may secure copies by communicating either with the manufacturers who issue them or with the publishers of THE ARCHITECTURAL REVIEW. For convenience each item is given a serial number and it is suggested that, to avoid confusion, these numbers be used when ordering.

IN THE AUGUST ISSUE

The contents of the next issue of this magazine will be varied in character, including photographs and a description of a large country house of the picturesque English type, a large city house and other interesting matter. The regular plates will present fine photographic views of buildings described in the text, and the supplementary plates of Old French Churches and Temples of Japan will be continued as well as the regular departments.



Courtesy of the Metropolitan Museum of Art

THE CONCERT

BY HUBERT ROBERT (1733-1808)

The ARCHITECTURAL REVIEW

Volume
IX

Old Series Vol. XXVI
JULY · 1919

Number
I

THE RESIDENCE OF CHARLES M. MACNEILL, ESQ. NEW YORK CITY

FREDERICK STERNER, ARCHITECT

A CITY house that is unusual in general scheme and in innumerable details of plan and design is the residence of Charles M. MacNeill, Esq., 15 East 91st Street, New York City, of which Mr. Frederick Sterner was the architect. This house, recently completed, represents a new line of attack upon a difficult problem—the problem of making a city house really livable and pleasant despite the limitations imposed by urban conditions.

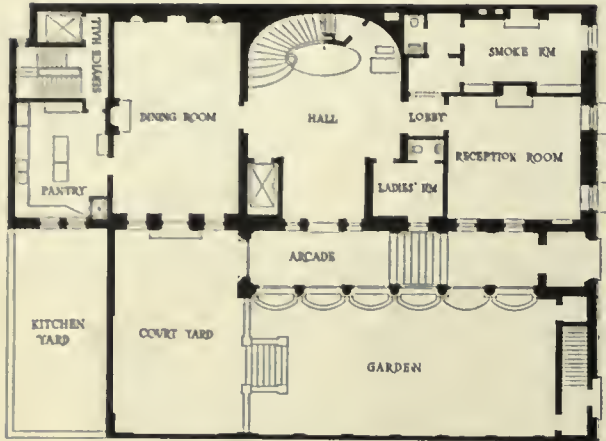
Though it is not on a street corner, this house has been given the desirable features of a corner house and other advantages besides. It has been placed at one side of the plot and the remaining land, from the street to the rear line of the property, has been effectively treated as a formal garden. This has permitted placing the entrance door in the center of the house which gives an opportunity for better planning than would have been possible otherwise.

The entrance door is reached from a gate in the wall at the street line by traversing a glass-enclosed arcade which extends along the garden front of the house. About half way between the street and the entrance to the house a short flight of steps in the arcade takes one up to the level of the first floor of the house. This arcade is treated architecturally with columns and is surmounted by a terrace at the level of the second story of the house, where a conservatory is built out on the terrace.

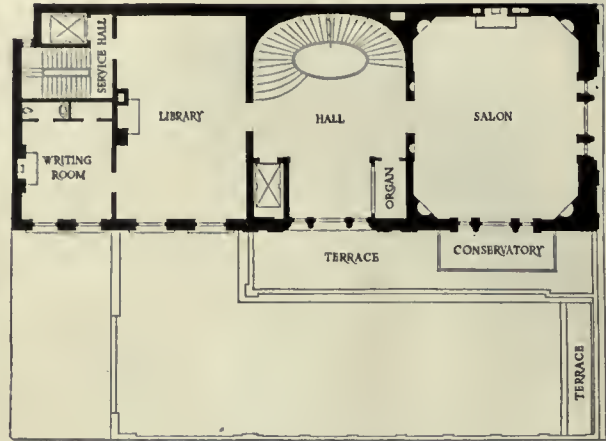
The central walk of the garden leads to a flight of stone steps by which one ascends to the raised terrace at the rear. Here, against the wall of the adjoining building, is placed an old baroque fountain from Rome. The body of the fountain is of violet marble and the crowning figure is of Carrara marble. Water pours from the urn in the hands of the figure into the upper basin from which it overflows into the lower basin.



The Garden.



First Floor Plan



Second Floor Plan

The wall of the adjoining building, back of the fountain and throughout the distance to the street has been architecturally treated to conform in character with the design of Mr. MacNeill's house.

The exterior of the house is of Roche Fine stone, from St. Quentin, a stone in which many small sea shells are found embedded. Where these shells have fallen out, depressions have been left, adding interest to the material and giving richness and variety of texture to the wall of the building.

The garden has been planted with evergreen shrubs and flowering plants, for the architect has recognized a fact which seems to be overlooked very often in the planting of gardens in the city, namely, that the owner does not see the garden in summer but always in the fall, winter and early spring months. Naturally, if the planting is not

done with evergreens, the city garden presents a dead, brown appearance at the time it is seen most and should be attractive.

The entrance gate upon the street is of wrought iron designed by the architect. It is flanked by wrought iron lanterns of suitable design. In the wall along the street, at a point removed from the house, is a smaller gate. This marks the service entrance from which a flight of steps leads down to a passage at the basement level. This passage is lighted by windows in areas along the garden front of the house, just outside of the colonnade. It gives direct access to the kitchen offices.

The kitchen is located outside of the main building under the raised terrace at the rear of the garden. As the ground has a very considerable downward slope from 91st Street toward 92nd Street, it



General View from the Street

has been possible to provide the kitchen and the rooms at rear of the house with windows of full height above grade.

Since the flight of stairs that leads down from the service entrance to the basement level lies just back of the wall that extends along the street and this stairway is enclosed on the side toward the garden by a wall, there is a space between these walls that has been roofed with a terrace of considerable extent upon which one can walk back of a parapet. The effect of the garden wall as seen from the street has been lightened over the arches of the gateways by the introduction of stone balustrades at the level of this terrace.

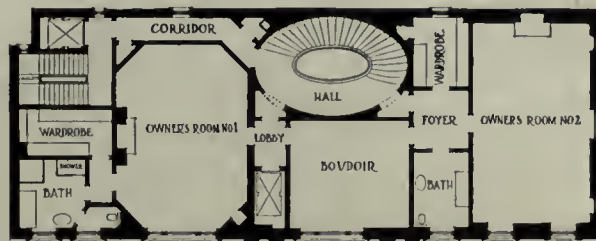
Contrasting with the rustications of the first story is the plain wall of the second and third stories, relieved by pilasters and given interest by a Palladian motif in the center of the street front. A wrought iron railing surmounts the cornice on the street front and in the center of the garden front.

The interior has been effectively treated in a manner which conforms to the style of the exterior and gives a sense of size and dignity to the rooms, as well as a sense of completeness and harmony in the decorations.

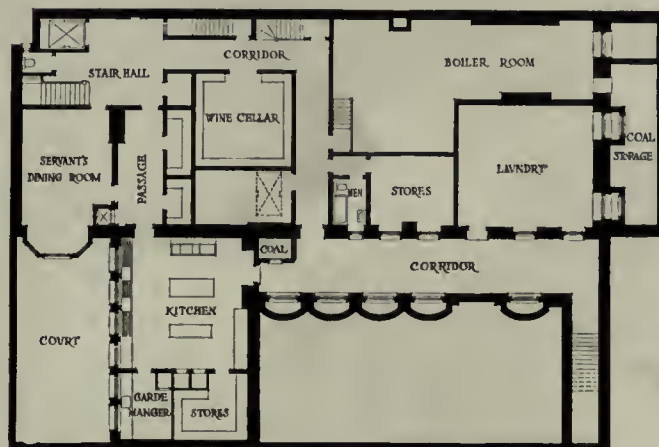
The hall extends entirely across the building, and the main staircase occupies the end of the



Service Door



Third Floor Plan



Basement Plan

room opposite the entrance door. The elevator is conveniently placed at one side of the entrance. The stairway is a spiral one, elliptical in plan, and is of Middleburg marble of a creamy white color. The stair rail is of bronze. The plaster ceiling is in sepia and dull antique gold.

Passing toward the front of the house through a small lobby, one enters the reception room, designed to meet the requirements for all but more or less formal occasions. The walls of this room are covered with a rare old Chinese hand-painted wallpaper, dating from the early Georgian times. The design, in polychrome, is a characteristic one, showing birds among the stalks of growing bamboo. Among the motifs introduced into the design are pottery vases containing flowering plants, a feature to be seen in some of the other fine examples of old Chinese hand-painted papers, and marking one of the most pleasing phases of the development of this

type of decoration, which had a great vogue both in France and England during the Eighteenth Century. The woodwork in this room is marbled after the manner of some of the old examples of Georgian work, and the detail of the door is reproduced from an old Georgian doorway in the possession of the architect.

The wooden panelling and other architectural interior woodwork of the dining room, including the over-mantel, is from an old house at 11 Portsmouth Street, London. This work which was executed in deal about 1710 is characteristic of the style of the carvers who produced such beautiful detail in soft wood at that period. The mantel and the painting in the over-mantel are also from the same old London house.

On the second floor, the library opens at one side of the hall and the salon at the other. Flanking the triple window that opens on the terrace at the end of the hall, opposite the staircase, are the elevator and the organ enclosure balancing each other.

The salon, which is at the front on the second floor, has been decorated in the Adam style. The wall treatment has been executed in wood with grisaille paintings, showing graceful figure subjects of the classic type characteristic of the Adam style. The mantel in this room is from an old house in London and its design is attributed to the brothers Adam. The Savonnerie carpet was made after a special design and it picks up the design of the ceiling, carrying out in this way one of the traditions of the Adam style.

The treatment of the library is in old English oak. The woodwork in this room was executed in this country. In design it is of the style of the Georgian period. Paintings are incorporated in the upper panels, ten in number, and as they are of the same general tonality as the oak, the unity of color effect has been preserved, while interest has been added to the room by the introduction of these pictures. A writing room adjoins the library, insuring the quiet so desirable at times



Detail of Street Front

facing upon the street, has windows opening upon the conservatory on the garden front.

The cellar plan has evidently been carefully studied to provide the requisite accommodations for a laundry, boiler room, etc., and for the kitchen and its dependencies and a servant's dining room.

The water tank and all other necessary but un-aesthetic things that are sometimes exposed on the tops of buildings, have in the case of this house been concealed from view. The architectural treatment of the garden front and of the garden—the whole

when one wishes to write or read undisturbed. Among the minor rooms that add to the convenience of the house are the ladies' room just off the hall, on the first floor and the smoke room which is reached through the lobby that gives access to the reception room.

On the third floor, the hall assumes the elliptical form of the staircase. Extending entirely across the front of the house is Mrs. MacNeill's room, connecting by means of a foyer with the wardrobe, the bath and the boudoir. Mr. MacNeill's room extends across the building, excepting for the space taken by the service corridor, and lies toward the rear of the house from the hall. It is reached from the hall through a lobby upon which the elevator opens. The wardrobe and bath connected with this room are at the rear.

This plan makes the rooms throughout the house light and airy and gives a view of the garden from practically every room in the house, something surely to be preferred to the view commanded by the average city house that faces directly upon the street. The salon, in addition to the large triple window

scheme of this residence, taken together with other recent developments in city house design—fore-shadows, it may be hoped, the coming of the day when the houses in our city will present an attractive appearance from every angle, when the unsightly rear view will be a thing of the past and houses no longer commonly built in unbroken city blocks.

There seems to be no good reason why a city house should be so built that its occupants are deprived of the pleasant outlook and the good arrangement of rooms considered indispensable in the country house, excepting where the area of the site and the cost are strictly limited. Certain traditions governing the planning of city houses seem to have fastened themselves so firmly upon us that it is only lately that anything approaching a sustained effort has been made to break away from the generally accepted type of house.

However, a number of city houses recently built show a tendency to abandon the time-honored type of city house plan and to proceed along new and logical lines in the development of schemes suited to the character and size of the building site and especially adapted to the conditions imposed by buildings on the adjoining property.

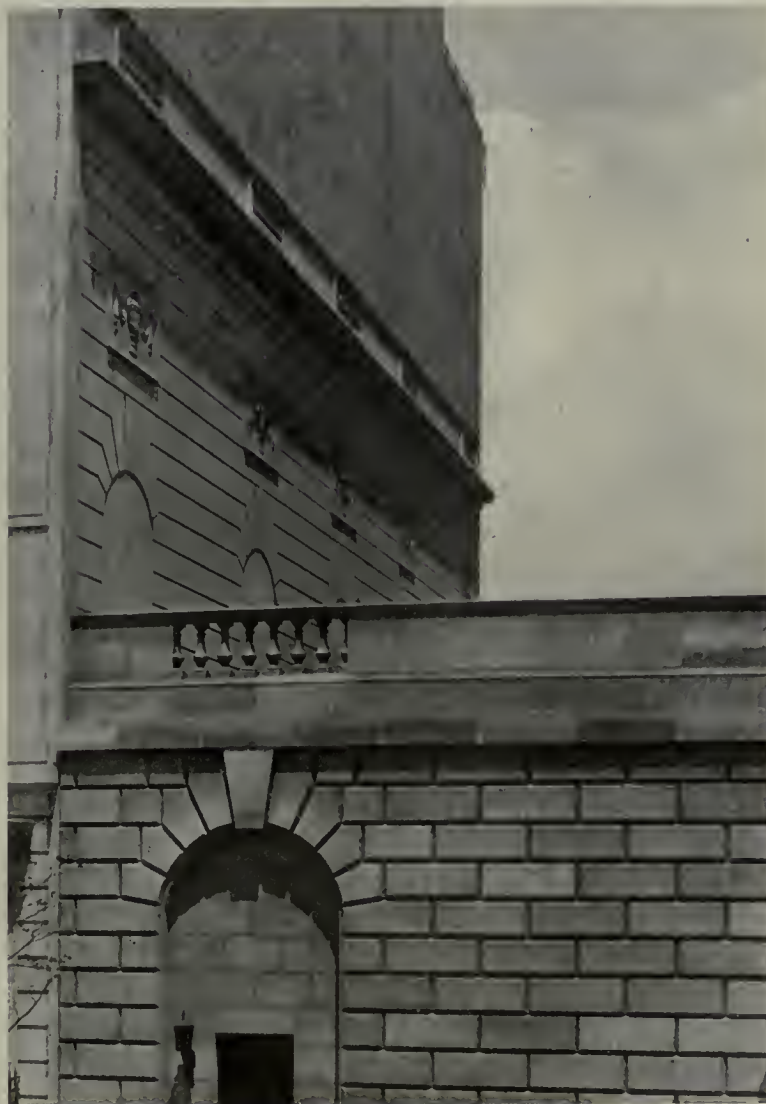
Gardens and terraces play an important part in these new schemes of city house planning, for the houses of the newer type are built on the assumption that the street does not provide the best or only possible outlook for

the principal rooms and that all of the rooms of a city house can be made light and airy.

During the period of transition from the accepted type of city house to the new type and until the new ideas come to govern the design of buildings generally in the better residential sections of our cities, it will be found necessary to adopt expedients such as the treatment of the wall adjoining the garden of the house described in this article. Though a measure such as this does not completely overcome the unfortunate effect of the unsightly and unfinished walls of houses which were built upon the assumption that only their fronts would ever be seen, it does afford practical relief. For instance, the architectural treatment of this particular wall has been carried to a point above the eye-level of a person standing at any window of Mr. MacNeill's house.

The scheme worked out here gives one a vision of the possible city block of the future, built up with houses separated by gardens and presenting a varied appearance in pleasant contrast to the monotony that now prevails, and with side and rear walls that have been given architectural treatment.

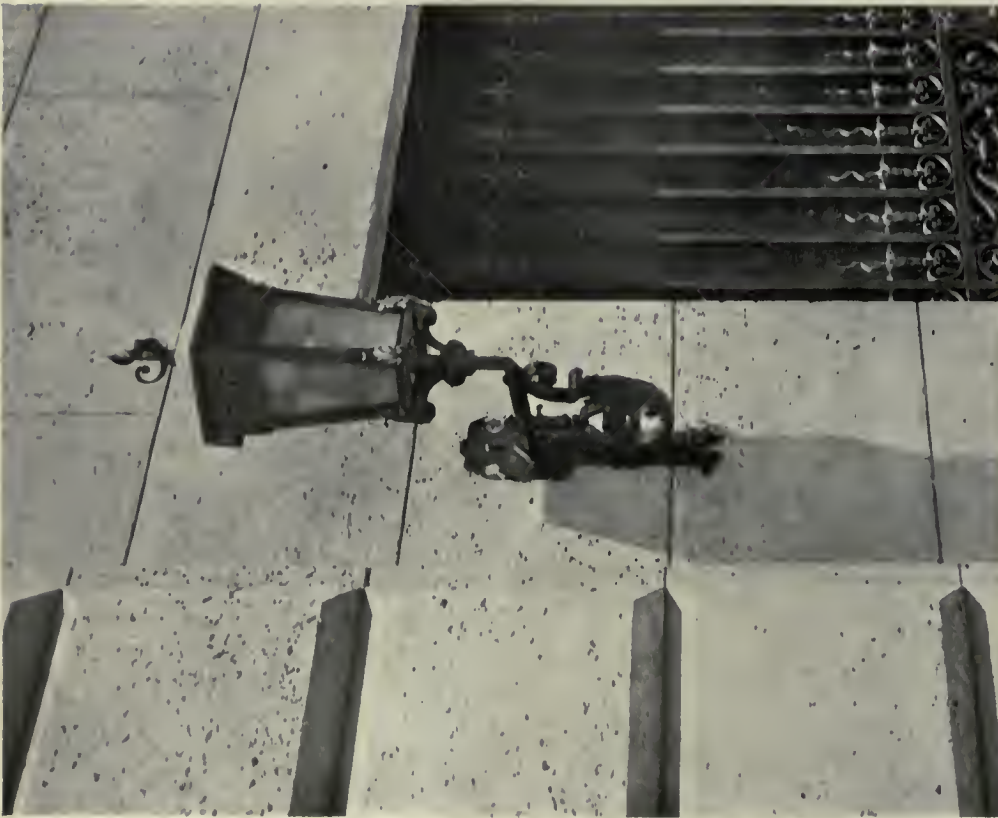
In addition to the increased attractiveness of a city block upon which the buildings follow the principles exemplified in this house, there would be the advantage of a free circulation of air among the buildings, an advantage that is not inconsiderable in our larger cities.



Garden Wall and Adjoining Building



DETAIL AT MAIN ENTRANCE



DETAIL AT SERVICE DOOR

THE RESIDENCE OF CHARLES M. MACNEILL, ESQ., 15 EAST 91ST STREET, NEW YORK

FREDERICK STERNER, ARCHITECT

DORMITORIES FOR WELLESLEY COLLEGE WELLESLEY, MASS.

COOLIDGE & CARLSON, ARCHITECTS

THE new dormitory, Claffin Hall, just completed for Wellesley College by Coolidge & Carlson, is connected with Tower Court, the large dormitory which this firm of architects built for the college a few years ago. It forms the second side of the quadrangle which is to be surrounded on three sides by dormitories when a projected building similar in plan to Claffin Hall is built, and will be open on the fourth side, opposite Tower Court, giving a view of the lake.

The exterior of Claffin Hall is similar in general treatment to that of Tower Court, with which the newer building is linked by a monumental gateway. The main entrance to Claffin Hall is also treated as an arched gateway enriched with architectural detail in harmony with the style of the building.

Claffin Hall, in addition to the bedrooms for students and the necessary toilets and bath rooms, contains a living room, a reception room, a dining room, also a living room for the head of the house with bedroom and bath room adjoining. There is a dining room under the living room and at the rear of the building is a covered service entrance. There is a covered passage under the terrace along the front of the building which faces the quadrangle. This is a part of the system of underground passages which takes care of much

of the service of the buildings and eliminates the necessity for trucks or wagons of supply dealers entering the quadrangle to make deliveries, these being taken care of at the service entrance in the rear.

In the living room the rafters are exposed and together with the other timber work give a character to the room in harmony with the dignified and massive style of the interior architecture. The room has been furnished with pieces that have carved linen-fold panels and other ornamental motifs characteristic of the style adopted.

While the living room in Claffin Hall provides a convenient gathering place for the students who live in this dormitory, the series of large rooms in Tower Court, including the living room and reception rooms, were designed to provide the principal place for the social activities of the students.

In the living room of Tower Court the architects have just completed a memorial tablet to Ellen Stebbins James (Mrs. D. Willis James). This tablet is made of gray Tennessee marble with the background of lettering sunk below the surface of the marble and the letters themselves slightly hollowed. The letters are in a dark blue—almost black—and the background an old gray-blue.



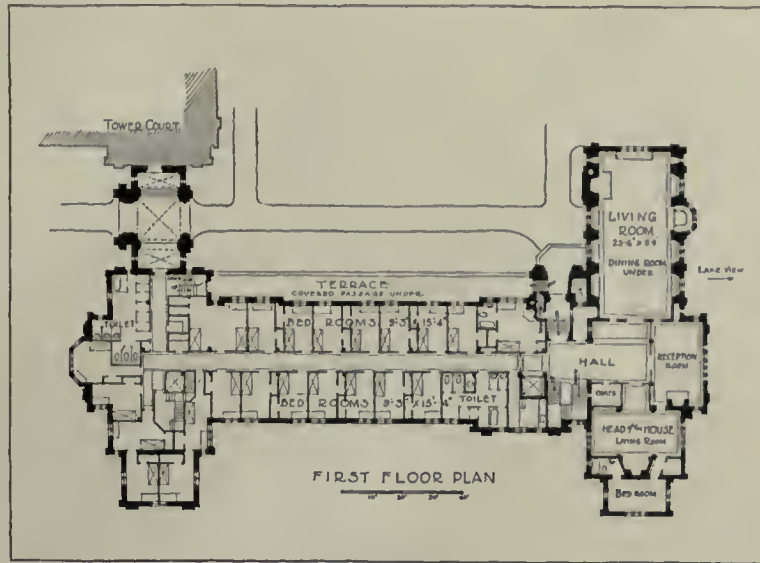
Front View of Claffin Hall



MAIN ENTRANCE TO CLAFLIN HALL
DORMITORIES FOR WELLESLEY COLLEGE, WELLESLEY, MASS.
COOLIDGE & CARLSON, ARCHITECTS

The name—Ellen Stebbins James—is in old gold with red initial letters. The separation dots between words are gold and the initials of the words “Greater,” “Glory,” “God,” at the end of the inscription, are in red and green with gold background.

The illuminated top and side are rich in gold, green, blue and some red, while two female figures (capped and gowned) within the large initial “W” are in dark violet.



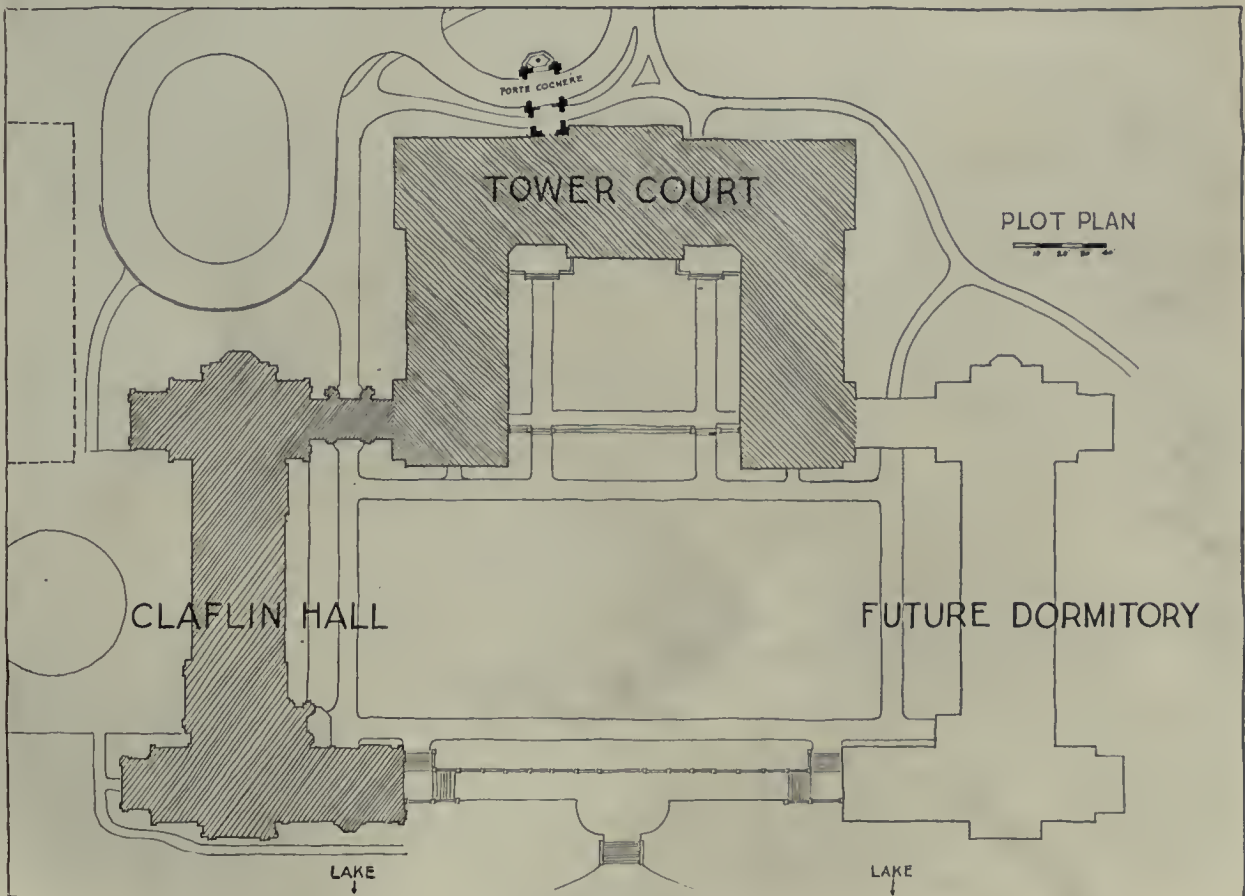
Claflin Hall

The stone mantel is of Caen stone color and the ornamental band framing the mantel has a background of green. The figures in the niches are old blue and red and gold with a light blue diaper patterned background.

The general color effect of the tablet in gray-blue repeats the predominant color in the tapestry covering of

the furniture and rugs.

A stone porte-cochere of dignified architectural character has just been added to Tower Court



Wellesley College Dormitories

and it is of special interest because in addition to its Gothic lines and ornament it is decorated in color. The coat-of-arms of the college (designed by W. I. Aldrich) is in full color, on a gray linen-fold background relieved by gold. The carving in the arches is brought out by the addition of green in the background and a spot of red or blue in each arch. The side doorways (not shown) have inscriptions with old blue backgrounds, and red or gold initial letters. The screen separating the porte-cochere from the landing place repeats the coat-of-arms in color on a foliage field of green.

The small sculptured panel in the wall above and to the left of the fountain is taken from the old entrance and built into the new porte-cochere. The fountain figure (two-faced) was designed by Charles Grafly. The fountain below is in blue and green tile and color is introduced in the ornamental band of the fountain heads, and gold in the ball on the head of the figure by Mr. Grafly.

Above the main entrance is the old seal of the college, done in blue and gold, supported by kneeling figures. The vaulting in this archway is constructed of material from the foundation of the old building, which was destroyed by fire a few years ago. It was this fire which completely destroyed the old dormitory building and necessitated the construction of these new dormitories, the first of which was Tower Court, designed as the central member of a group of three dormitories. The fact that this building was destined to become the focus of the social life of the students, was given due architectural expression and though several years have elapsed between its construction and the building of the next member of the group, Claffin Hall, a consistent scheme is evident which will reach completion with the building, at some future time, of a dormitory facing Claffin Hall. The result will be a harmonious group of buildings, attractive in appearance, dignified and well suited to their purpose.



Living Room of Claffin Hall

HOUSE FOR DR. W. S. RAINSFORD AT RIDGEFIELD, CONN.

GROSVENOR ATTERBURY, ARCHITECT

THE location of the house and the character of the building material nearest at hand were among the important factors that influenced the design of Dr. W. S. Rainsford's house at Ridgefield, Conn., by Mr. Grosvenor Atterbury and it is to the consideration given these important factors that the harmony between the house and the surrounding landscape is due in a large measure.

The site selected for the house is on a high ridge commanding a view of wide extent. This view is uninterrupted toward the south and west. The possibilities of the site have been developed in many ways in the planning of the house and the garden connected with it.

The abundance of field stone in the locality suggested the use of this material in the construction of the house, and the walls of the house were built of field stone up to the second story. In order to give warmth and color to the house, brick panels set in timber were introduced in the second story. This also prevents any sense of heaviness and it emphasizes the division of the house by horizontal lines that correspond to the line of the ridge of ground upon which the building stands.

The wide overhang of the eaves gives another

strong horizontal line in addition to casting deep shadows that give a sense of coolness to the house and enhance the charm of the simple and dignified scheme of the exterior.

The roof is of shingles and has tile ridges. It is low and simple in lines. The easy curve of the roof at the eaves pleasantly effects the transition from the slope of the roof to the horizontal.

The finest of the views from the point where this house is located is toward the south and it is here that the living room has been well placed. This room has been provided with a wide bay window that commands the view and overlooks a terraced garden. This garden extends southward from the



View of the House Across the Grounds

end of the house, and directly outside of the large bay window of the living room is a terrace paved with brick. At one side of the terrace is a pergola, while at the other side is the glass-roofed plant-house. Stone steps in the form of concentric circles lead from the terrace to the garden, which lies at the next level below. Three of these steps are half circles cutting into the pavement of the terrace, while the three lower steps are half circles projecting into the garden. Brick paved paths at either side lead through this gar-

den to a slightly elevated terrace upon which is a semi-circular pergola, reached by stone steps. This terrace is paved with brick. At its north side a curved seat projects into the garden, while at the south a platform is raised for a fountain. The combination of stone and brick is effective.

Cedars and other evergreen trees together with vines and flowering plants against the stone walls soften the lines and add color and beauty to the garden. The central portion of the garden is in grass, but here and there is an outcropping ledge of stone, the natural surface of the ground having been left largely undisturbed at this point.

At the sides, the lines of the garden are broken by wide arcs that curve outward and provide broad beds for flowering plants. Near the semi-circular pergola, steps lead down to the grounds at the west of the garden. Along the west front of the house, which also commands an unusually good view, are arranged the reception room, smoking room and dining room. The living room has three large windows in this front of the house. A porch at the west end of the living room shades the room from the direct rays of the sun. The hall extends entirely through the house at the center of its length and the main entrance is at the east through a picturesque semi-circular arch built from field stone, and has a deeply recessed open vestibule.

A large window occupies practically the whole of the west end of the hall and overlooks the sunken garden and the countryside beyond. Flanking the hall on the west front of the house are the reception room and the smoking room. The dining room is at the northwest corner of the house with windows on two sides. The kitchen and kitchen offices, together with the servants' hall are at the northeast corner of the building.

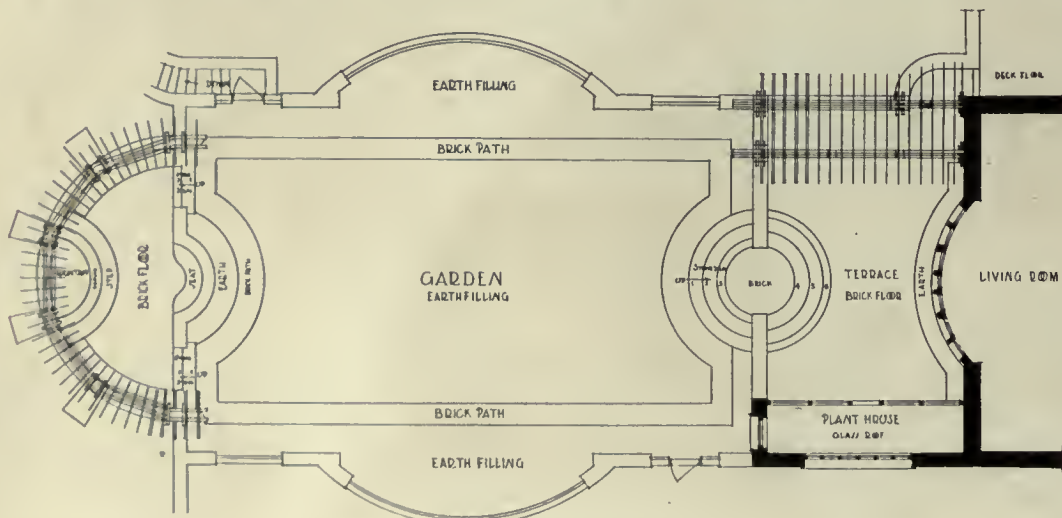
The kitchen is in a wing, two stories in height, the upper story of which is used for servants' rooms. There are also servants' rooms over the servants' hall and serving room.

The two principal bedrooms are at the south end of the second floor with bath rooms adjoining. The boudoir is connected with one of the bedrooms by a short passage, at one side of which is a clothes closet and at the other side a bath. A longitudinal corridor divides the greater part of the second floor into two divisions.

The interior treatment of the main hall on the first floor is interesting for the walls are covered with a wainscot formed of boards, set edge-to-edge with flush joints and joined with wooden dovetails after a quaint method sometimes seen in very old buildings. The ceiling is heavily beamed. All the woodwork in the hall has been given an interesting effect of texture characteristic of hand-hewn lumber upon which the marks of the broad-axe have been left. The floor is of tiles that are rich and warm in color. This style of treatment provides an excellent setting for the hunting trophies and the quaint and interesting arms which Dr. Rainsford has collected in various parts of the world.

The skins of lions and other big game animals killed by the owner adorn the walls and floors of some of the upstairs rooms.

An example of the logical development of a design from the conditions, this house is interesting. It shows a just appreciation of the chief natural advantages of the site on the part of the architect. As a result it is an unusually pleasant and livable house. The success with which the character of the landscape has been translated into stone, brick and timber, is only suggested by the photographs.



Plan of Garden, Terrace and Plant House

BUILDING FOR THE FORD MOTOR CO. NEW YORK CITY

ALBERT KAHN, ARCHITECT

THE building recently completed at 1710 Broadway, corner of 54th Street, New York City, to house the New York offices and the foreign department of The Ford Motor Co., is an interesting example of modern construction and design. Albert Kahn of Detroit, Michigan, was the architect.

The exterior is a simple straightforward expression of the method of construction and of the plan. The building has reinforced concrete frame throughout and the floor construction is of metal tiles. The exterior is faced with Indiana limestone.

A large show-room occupies the greater part of the first, or ground, floor. The two sides of this show-room facing on Broadway and 54th Street are practically all glass, providing an ample supply of daylight and making the room very attractive

from the street because of the clearness with which the interior can be seen from the sidewalk.

In the middle of the Broadway front is an entrance through a shallow vestibule directly to the floor of the show-room which is on a level with the sidewalk. The size of the room which has a large clear space and the height of the ceiling give the room an air of dignity. This effect has been increased by the manner in which the interior has been treated.

The walls of the show-room have a high paneled wainscoting of walnut, and above this to the ceiling line the walls are faced with imitation Travertine stone. This material is in pre-cast blocks. The floor is of vitreous tile mosaic in vary-

ing shades of buff. Large Persian rugs add richness to the effect. A geometrical design of a simple character in low relief decorates the plaster ceiling. It was run in place. It is one of the most successful features of the building because of its suitability to the rest of the scheme and because it gives sufficient interest to the surface without being in any sense ornate or heavy in effect.

At the center of the rear wall of the show-room, directly opposite the entrance door, is the principal feature of the interior treatment, the main

staircase of Istrian marble with a wrought iron rail. It rises in a broad straight flight to a platform from which flights of steps turn to right and left.

Above this platform is a group of tall windows that give a sense of height and a feeling of openness. They break the solid wall which would be unpleasant in effect if left unbroken. The window openings are perfectly plain with severely simple piers between them. In the sills of the

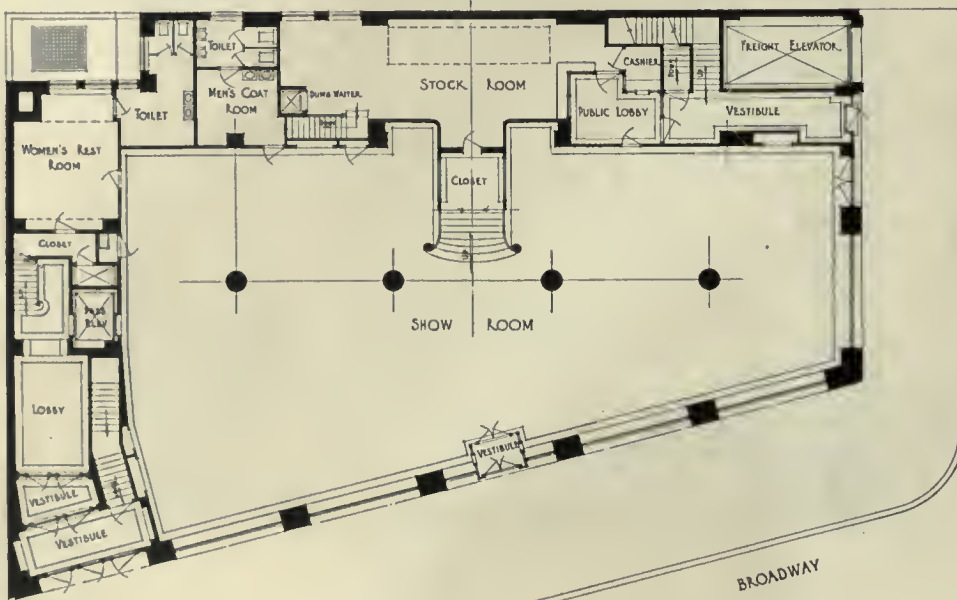


General View

·THE·ARCHITECTURAL·REVIEW·



SECOND FLOOR PLAN
SCALE 1/8" = 1'



FIRST FLOOR PLAN
SCALE 1/8" = 1'

BUILDING FOR THE FORD MOTOR CO., NEW YORK
ALBERT KAHN, ARCHITECT

WEST 54TH STREET

BROADWAY

windows are window boxes from which vines of a rich lustrous green hang down over the light stone of the wall, affording a pleasantly sharp note of color. These windows are not purely decorative, however, for they open upon a court and serve to ventilate the show-room. They are provided with Italian blinds of shirred silk of a creamy white color.

The flights of steps that rise to the right and left from this platform turn once more at square platforms and come forward at either side of the stair well. As a result one obtains a view across the reception room as one nears the top of the stairs and enters directly opposite the windows that overlook Broadway at the front of the room.

The reception room is panelled in walnut to the ceiling. The pillars in this room are faced with polished marble. Furnished handsomely and provided with comfortable leather covered chairs this room is inviting and pleasant. Rich Chinese rugs cover the greater part of the floor, which is of cork tiles in alternating squares of two tones of brown. Electric light fixtures of the indirect type are suspended from the ceiling by chains. The chains and the metal rings of these fixtures are of ornamental design and are finished in an antique effect relieved by touches of dull gold. A simple geometrical design in low relief ornaments the plaster ceiling.

Adjoining the reception room at the side toward 54th Street are the private offices, including the office of the manager and the executive office, with the office of the assistant manager



Executive Office

and the office of the secretary to the manager.

These offices are panelled in walnut to the ceiling. The floors are of cork tiles in two tones of brown and the rugs are plain brown. Conventional ornament in low relief decorates the ceilings. The furniture is of walnut and is upholstered with leather.

Extending north from the reception room is a corridor from which doors open on the one hand into the traffic room and on the other hand into the ante-room of the foreign department and into a general office. There is a door directly in-

to the office of the foreign department from the reception room on the north side of which it is located. At the end of the corridor is the passenger elevator.

The third floor is devoted to general offices. It is arranged as a large open room with desks along the side that adjoins Broadway and there are rooms lined with filing cabinets at the side opposite.

The fourth, fifth and sixth floors are similar in plan, having been designed for the same general office purposes as the third floor.

On the first floor is a women's rest room that is decorated and furnished very much like the boudoir of a private house. Under the main staircase on the ground floor is a stock room for motor parts. This room is reached from the show-room through a lobby and from 54th Street through an entrance on the south side of the building. Adjoining this entrance is the freight elevator which is of sufficient size and capacity to take an automobile. The shaft of the freight elevator has doors on each floor all the way to the top of

the building, making it possible to place cars on every floor if desired.

The main entrance to the building is on Broadway at the extremo northerly end of the front. Here is placed a lobby with a passenger elevator that reaches all floors, also a staircase.

There are men's coat rooms of ample size with toilet rooms adjoining, on different floors.

A court extends from the top of the building to the roof of the stock-room. It is into this court that the windows on the landing of the main staircase open.

The plans not only provide the necessary accommodations for the various departments of the business but make communication between related departments rapid and easy, while a desirable degree of separation has been maintained. For instance, though the office of the manager and the executive office and the foreign office are not directly connected with the salesroom, they are easily reached by means of the main stairs on occasion. The same is true of the reception room.

The business buildings that line the principal streets of our cities determine so largely the general appearance of the city and the impression it

makes, a thing that is of importance to residents and visitors alike, that the designing of this class of buildings deserves careful attention and more intelligent and thoughtful handling than it has received in the great majority of cases.

The conditions in this class of work are not easy, that is admitted. The uses for which the buildings are intended and the methods of construction which are employed are so essentially modern that the designer is thrown largely upon his own resources—more, perhaps, than in designing any other common type of building to which it is customary to give architectural character. There is little precedent for the design of such a building to be found in the historic examples of architecture. A sense of appropriateness, as well as the practical limitations, prevents the close following of old models.

It seems then that the line of procedure that promises the best results is in the direction of simple, straight-forward design in which carefully considered proportions, good texture and good composition are depended upon to give the necessary æsthetic quality.



Reception Room, Looking Toward Head of Stairs

THE REVIEW OF INTERIORS

Department Edited by J. H. Phillips.



EARLY EIGHTEENTH CENTURY INTERIORS

THE English interiors of the late Seventeenth Century and the early Eighteenth Century have had a wide influence on the interior decoration of all countries and we, more than any other people, probably, are indebted to the great English architects of that time. Inigo

Jones, Sir Christopher Wren, Isaac Ware, James Gibbs and others brought about a renaissance of classic beauty in interior decoration in England and set the fashion for an English style that was developed under the patronage of the King and Queen, and the great nobles of the day.



Old Parlor, Laymore Hall, England. From "English Furniture and Decoration, 1680-1800," by G. M. Ellwood

A notable characteristic of the early Eighteenth Century house was that its walls were nearly always panelled. In the early type, the frame of the panel projected beyond the face of the panel itself and usually light mouldings were employed. Later a different system was introduced, the panels being made to project beyond the frame and heavy mouldings were added. Pilasters are also formed of the same material as the wainscoting. This was the usual kind of detail employed by Wren and his contemporaries.

Later in the Eighteenth Century another system came into fashion, the panel was kept behind the frame, which was moulded in the solid. In the more elaborate work the frame was enriched, frequently with an egg-and-dart design, in the first part of the century and later with various conventional ornaments so familiar in the Adam period.

As to the woods that were used, oak, the popular wood of the Elizabethan and Tudor days, gave way to mahogany. It is true that little mahogany was used before 1720, but in the middle of the Eighteenth Century it superseded other woods in

the decoration of the larger houses. Again we find many of the finest examples of wood panelled rooms to be of pine, painted, at about the end of the first quarter of the Eighteenth Century, which later gave way to plaster, in which at first the lines of the old wood panelling were followed.

The rooms in Dr. Johnson's house in Gough Square, London, a house built in 1700 and occupied by Dr. Johnson, 1748-1758, were recently restored. The work of restoration was put into the hands of Mr. Alfred Burr, F. R. I. B. A., by Mr. Cecil Harmsworth, M. P., who bought the house in 1911. The wood of the panelling and stairs has been left bare, with the application of only so much stain as was necessary to tone the various parts to a uniform effect. The wood is pine, not oak, and it is the use of this wood that gives much of the beauty to the interiors of this house. Though the wood is now without paint or other finish, there is no doubt that it was painted throughout the house in Dr. Johnson's time.

How simple these historic panelled rooms are! How apparent is the source of inspiration for



The Grey Room, Dr. Johnson's House in Gough Square, London. From "The Architectural Review," London



Dictionary Attic, Dr. Johnson's House in Gough Square, London. From "The Architectural Review," London

many of the best examples of interior decoration in America!

A wonderful imagination on the part of the designer is evident in a beautiful panelled room attributed to Inigo Jones. There seems no doubt that the designer was inspired by a woodland scene, and that to him the tall Corinthian pilasters represented the trees of the forest, and the birds modelled in the plaster ceiling suggested the sky. This room though a little earlier than the Eighteenth Cen-

ture is a forerunner of the wood panelling of that period.

Interiors such as the room from Felling Hall, Northumberland, which has carved mouldings, and

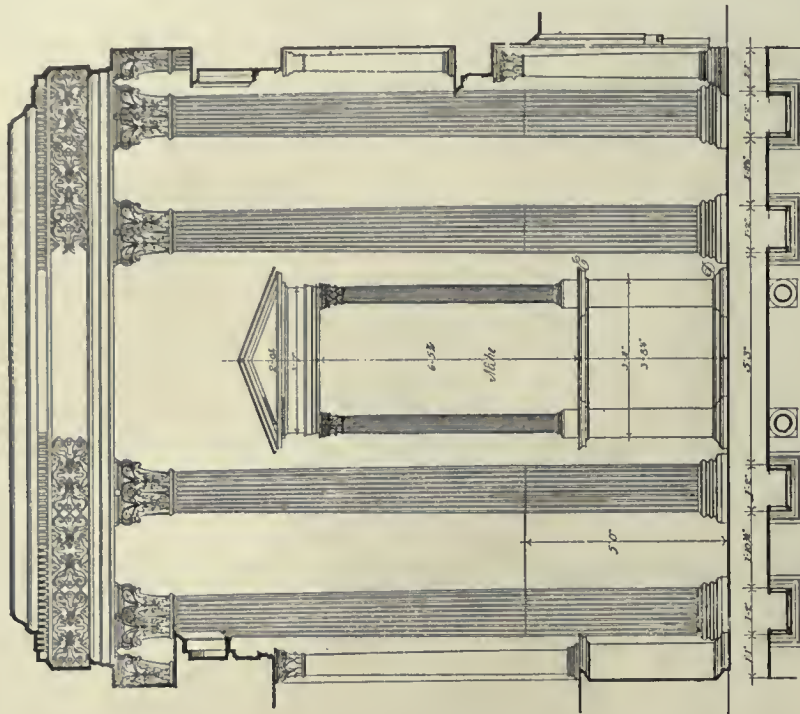
the room which is also illustrated from 26 Hatton Garden, London, represent the type of wall treatment in which richness of effect was combined with simple dignity. This is due to the keen sense of proportion which is evident in the panelling and to the refinement that characterizes the ornament and the pilasters.



Drawing Room, Dr. Johnson's House, Gough Square, London



Panelled Room attributed to Inigo Jones



End of Panelled Room attributed to Inigo Jones. Dating from the Seventeenth Century, it is a forerunner of the panelling of the Early Eighteenth Century



Drawing Room from House at 26 Hatton Garden, London. From "The Practical Exemplar of Architecture"



At 26 Hatton Garden, London, first half of Eighteenth Century. From "English Furniture and Decoration, 1680-1800," by G. M. Ellwood



A Portion of a Paneled Room originally in Felling Hall, Northumberland,
England, Built by Charles Branding, about 1720



French Interior Woodwork Showing Characteristic Panelling. In a
Gallery of the Metropolitan Museum of Art

THE REVIEW OF RECENT ARCHITECTURAL MAGAZINES

By C. HOWARD WALKER

IN THE issue of *Architecture* for April, Mr. Elmer Gray's entrance to the residence of Mr. George C. Rew, Coronado, Cal., is an elaborate and interesting piece of Spanish Rococo. "Tamaracks," the residence of Mr. Franklin G. Colby at Andover, N. J., is excellent. The country house at Far Hills, N. J., by Emilio Levy, is simple and attractive.

Architecture for May opens with an article upon Phillip Hooker's churches in Albany, N. Y., built in the first part of the 19th Century, with measured drawings of the Second Reformed Church. They are scholarly, of the type of the contemporary formal classic revival in England, the interior of the Second Reformed Church resembling that of Kings Chapel in Boston. The use of a super-cap over the actual Corinthian capital, formed of a portion of a full entablature is the motive used by Rossellino in Pienza in the last half of the 15th Century and then considered to be an improvement over the arch brought down directly upon

the abacus of the Corinthian capital, as used by Brunelleschi and others earlier. It is, however, no improvement, but is purposeless and heavy. Lynch Luquer's house for Henry C. Perkins at

Hamilton, Mass., is a simple Colonial design of brick with gambrels. It has the entrance porch in a re-entering angle, which always seems compressed. Mr. Walsh's article comparing the relative values of brick, concrete, wood, etc., as to durability, strength and cost is valuable. His deductions, based on facts, are sane without bias, and should assist a client to determine his procedure. We consider this a very excellent article. Barber & Murry's Whittle Springs Hotel and Club House, Knoxville, Tenn., of stucco and half-timber is picturesque, and with attractive interiors. The residence of Mr. A. Clayton Woodman, Merion, Pa., by Frank Seeburger and Charles F.

Rabenold has, with its garden, much charm. The large dormer on the roof is not pleasing. Walker & Gillette's residence for Henry P. Davison,

(From "Architecture")



Entrance, Residence of George C. Rew, Esq.
Coronado, Cal.
Elmer Grey, Architect

(From "Architecture")



"Tamaracks," Residence of Franklin G. Colby
Andover, N. J.

(From "Architecture")



Residence of A. Clayton Woodman, Merion, Pa.
Frank Seeburger, Charles F. Rabenold, Architects

690 Park Avenue, New York, is well proportioned and well detailed. The curved pediment over the entrance is necessarily squeezed in its height, and it might have been better to have an entablature over this entrance. The interiors are well proportioned and finely detailed. Mr. E. C. Bartholomew has an article upon Porto Rico building illustrated by the work of Antonio Nichodema. The intention of this work is distinctly good, as is the general

effect, but it smacks a little of the T square, lacks the contrast of an occasional curve. Also while overhanging eaves are undoubtedly desirable in Porto Rico, these are exaggerated in one of the houses of which a photograph is shown, until there is a slight suggestion of the planes of an aeroplane. This type of exaggeration is not unusual

(From "Architecture")

(From "Architecture")



Residence of Henry P. Davison, Esq., New York
Walker & Gillette, Architects

in modern design especially in some parts of the Middle West. It may be excusable in Porto Rico.

The Architectural Forum for May. The account of the 52nd Annual Convention of the A. I. A. can be read with pleasure especially in respect to Mr. Keeble's address and Mr. Kimball's opening address. "The shouting and the tumult" began to die. That is as it should be. It is somewhat ignominious for the profession that the quotation from Kipling

"and only the Master shall praise us" and "each for the joy of the working" should have come from outside the profession, but as "Mr. Keeble's address evoked the greatest enthusiasm" undoubtedly the architects' hearts were in accord. It is of very great value that in the matter of education the academic and the practical should

(From "Architecture")



Library, Residence of Henry P. Davison, Esq., New York
Walker & Gillette, Architects



Reception Room, Residence of Henry P. Davison, Esq., New York
Walker & Gillette, Architects

(From "The Architectural Forum")



House at Whitewood, Lloyd Neck, N. Y.,
Murphy & Dana, Architects

(From "Architecture")



Country House, Far Hills, N. J.
Emilio Levy, Architect

be associated, but Mr. Akerman's citations of problems in a course of decoration which were a perfumery bottle, and an astronomer's library, as hypothetical, and the inference that they were of little value, is open to objection. The very fact that they were ultra, hypothetical constituted

their value, and drove the student to a decision for which he had no precedent. However, that is a small matter. Mr. Carpenter's apartment houses in New York have already received their meed of praise in the award of the gold medal of the New York Chapter. The article gives much valuable information and the various plans repay study. Mr. Trumbauer's Beneficial Saving Fund Society's Building, Philadelphia, Pa., is in fine broad and simple masses, well proportioned, and with columns in antis used as they should be, that is, sufficiently far away from the antæ. Murphy and Dana's house

at Waterbury, Conn., has been previously praised. The doorways are especially good. Their house at Whitewood, Long Island Sound, has similar merits as have also the houses for Prof. F. W. Williams, New Haven, Conn., and Mrs. W. M. Ritter, Manchester, Vt. All of these houses are especially well designed for and associated with their sites

as to placing, grades and trees. Mr. G. Stanley Taylor in his fourth article upon "The Architect of the Future," takes up the advertising policy for the architect interestingly. There is only one axiom in regard to it, i. e., the architect, apart from what advertising naturally comes from his finished

work, is unwise if he ever advertises directly. Mr. Magonigle's "Victory Way" upon Park Avenue is very effective.

The Western Architect, March. Mr. Beverley Robinson writes upon "The Passing of the Renaissance." Before we accept this passing as occurring, let us define the Renaissance. It was a study of classic remains which expressed an architecture of inertia detailed with refinement, which acknowledged the value of studied proportions rather than letting proportions occur in relation to obvious structure, which was not contented with partial developments of vertical or of horizontal

motives but insisted upon such motives being logical. That classic architectural properties were used and adopted was incidental as were also the facts that these properties had been carefully studied and were the only ones at hand when the study had been consistently carried out throughout the building, but these properties do not represent the spirit

(From "The Architectural Forum")



Beneficial Saving Fund Building, Philadelphia, Pa.
Horace Trumbauer, Architect

of classic design, excepting in so far as they may in the natural expression of trabeated and of arched architecture achieved with distinction. Mr. Robinson cites the diminution of cornice projection, and the modification of historical detail manifest elsewhere. These do not occasion the passing of the Renaissance. He speaks of Mr. Gilbert's admirable West Street Building and his Woolworth Building, as expressed in Gothic manner, showing the continuity of the supports of the steel frame. Both these buildings are careful studies in intellectual design, and require no classification in style. If Mr. Robinson means by the passing of the Renaissance the same elimination upon American work of the orders of architecture as ornament merely, or the avoidance of the exaggeration of derivatives from these orders to produce unnecessary interest of light and shade, surely the Renaissance of the 16th and 17th Centuries has fallen into neglect, and justifiedly so, for which we may be thankful.

But mere crude uncouthness of proportion fails to take advantage of the cultivated qualities of design which are inherent in Renaissance work. These crude proportions and undeveloped details are evident in many present day buildings, while the Memorial for Soldiers and Sailors, Evansville, Indiana, by Clifford Shoppell & Co., which is illustrated, owes its excellent character to classic proportions.

The American Architect, March 9. Mr. Thomas Young has finally written an article upon Architecture and Engineering which has no touch of imitation in it and states the case squarely and purely. There is a review of Mr. Bragdon's work up-

(From "The Architectural Forum")



House of Prof. F. W. Williams, New Haven, Conn.

Murphy & Dana, Architects

therefore often suggestive. It is as futile to ignore them as it is unintelligent to be bored by them. In the plates, Mr. W. L. Jackle's Church of the Holy Rosary, Dayton, Ohio, has a good arcade, an unnecessary pilastered treatment of gable and needs ago to soften its appearance. The caissons upon the arch soffits in the interior do not improve the otherwise good proportions of a simple structure.

Good Furniture, April, has an editorial upon Prof. Irving Fisher's remarks at the White House in March before the Conference of Govern-

(From "Architecture")



The Second Reformed Church, Albany, N. Y.

Philip Hooker, Architect

on Architecture and Democracy which is a simple synopsis of Mr. Bragdon's "hit at the architect who must have a precedent for his work." Precedents occur in languages, in Law, in Medicine and are of value when used with intelligence. In fact, precedents are merely some other man's interpretation of problems which have at least an iota of the needs of present problems in them and are

therefore often suggestive. It is as futile to ignore them as it is unintelligent to be bored by them. In the plates, Mr. W. L. Jackle's Church of the Holy Rosary, Dayton, Ohio, has a good arcade, an unnecessary pilastered treatment of gable and needs ago to soften its appearance. The caissons upon the arch soffits in the interior do not improve the otherwise good proportions of a simple structure.

Good Furniture, April, has an editorial upon Prof. Irving Fisher's remarks at the White House in March before the Conference of Governors and Mayors upon a new price level. As he says the new level exists, we all know it to our cost and constant irritation, and it is not likely at present to recede. Such things have occurred before many times under similar conditions, and after adjustment an even relation exists. The irritation exists only during the period of adjustment. But there is a much more serious subject, which is that of the dishonor of labor, the desire of the laborer to shirk his job, to take no interest in his work, other than the amount of his pay, and this attitude is one of the manufacturer as well. To obtain a price for bad material and for unintelligent work is at

least criminal theft and actual falsehood, and these two vices are constant in the rank and file of American producers today. They may also be constant elsewhere, they may be universal but that is no excuse for America. If higher wages and higher prices tend, as some hope, to clear this situation and to force the cheat and the shirker out of competition and restore self-respect to the community, they may be welcomed. Another editorial asking "Does Fine Craftsmanship Pay?" is pertinent to this question. Is the world so blind, is humanity so stupid that it cannot read the testimony of the ages past? Nothing pays that is not fine. There need be no argument, no temporizing, no opportunism. That is the axiomatic truth, irrefutable, incontestable. Nothing pays that is not fine, and the edict burns with the flame of the letters on Belshazzar's wall. Mr. Kissell has an illustrated article upon "Textile Birds, Ancient and Medieval," which shows some delightful specimens. Mr. Holloway's fourth article upon "Inter Period Furnishing" relates to the classic revival at the end of the 18th Century in France and England. It is entertaining and instructive and well illustrated, and the chart of the four great decorative influences is valuable.

The Journal of the American Institute of Architects, March. "Shadows and Straws" is well intentioned, but continues to lose sight of the forest in contemplation of the trees. Of what definite value is this threshing of

(From "Architecture")



South Porch, Residence of Franklin G. Colby, Esq.
Andover, N. J.

wings? A plain, definite statement that there exists a gamut in all the affairs of men—that there are heights and depths, and that clarification of the heights is likely to illumine the depths is worth much speculation. The very selfishness which "Shadows and Straws" deplores is gauged by its motives. The good motive of "Shadows and Straws" is manifest, but why be Cassandra, why talk about the "hollowness of the pulpit" and then preach? The historic article upon the Competition for the Federal Buildings, 1792-73, by Messrs. Fiske Kimball and Wells Bennett is extremely interesting. "Soria Osma & Cuenea" by Georgiana Goddard King, illustrates well a little-known

(From "The American Architect")



Church of the Holy Rosary, Dayton, Ohio
W. L. Jaekle, Architect

phase of Spanish work. The Processional Decoration of the Ida Noyes Hall, University of Chicago, by Mrs. Jessie Arms Botke, is pseudo-primitive Italian; it seems somewhat affected, but well arranged and is probably attractive in color. Mr. Sullivan W. Jones' address before the Institute of Electrical Contractors upon "The Building Contract of the Future," is well worth reading as a quiet, serious consideration of the subject. "Notes by the Wayside" tells of the Cooper Union Museum, which is not sufficiently well known as possessing one of the best, if not the best, collections in the world of designs and drawings of French Masters of the Eighteenth Century. Mr. Alfred Houghton Clark's paper, "The Theory of Contrast in Pictorial Presentation," is well written.

Good Furniture, May. There is an excellent arti-

ele upon new developments in textile printing and another by Mr. William Laurell Harris on "The Arts of Fire." In the article on textiles recognition is given the high stage of development that the batik process of hand dyeing has attained in this country as the means by which large decorative wall hangings are produced, and credit is given to Mr. Arthur Crisp and to Mr. Pieter Myer for their important contributions to the development of this art. By this means some remarkably beautiful pieces have been produced recently, entirely by the true batik process—essentially hand work of the individual artist and craftsman. Mention is also made of tie-dyeing as a favored means of decorating fabrics for interior decoration as well as for women's dress. This article also points out that since the present scale of wages for block printers and roller printers in Europe is now about equal to that paid at present in the United States, and since the foreign craftsmen are not able to buy as much for the money in their countries, American textile manufacturers can now profitably carry on block printing in the United States. Some are already doing this, for American fabric printers can now, for the first time in history, produce hand-blocked fabrics which can successfully

(From "The Architectural Forum")



House of Mrs. W. M. Ritter, Manchester, Vt.
Murphy & Dana, Architects

(From "The Western Architect")



Memorial for Soldiers and Sailors, Evansville, Ind.
Clifford Shoppell & Co., Architects

compete with imported goods, the article states. It is suggested that this may result in the production of designs for decorative fabrics that will be more in accord with American taste than designs made by Europeans, because our manufacturers have the advantage that arises from being in closer

touch with our people. The discarding of the European patterns now in favor, upon the passing of the vogue for designs of a historical character, is predicted if this country develops a style of its own—this event is admittedly uncertain and the course of any changes in public taste in this regard in this country is declared to be difficult to conjecture. Mr. Harris, in his article on "The Arts of Fire," reviews the arts of the potter and the glass-maker from the earliest times down to the modern master, M. René Lalique. He does this in a sympathetic and scholarly way that is, nevertheless, most interesting. He recreates the life and atmosphere of ancient courts through the means of the remains of the works of the masters of "The Arts of Fire." Among the notable examples illustrated are Persian ceramic friezes of the times of Artaxerxes and Darius, a detail from the Bordeni mosque at Cairo, a panel made by Chinese artists about 1600, for Shah Abbas I of Persia. Mr. Lalique's work is represented by a chandelier of cast, wrought glass.

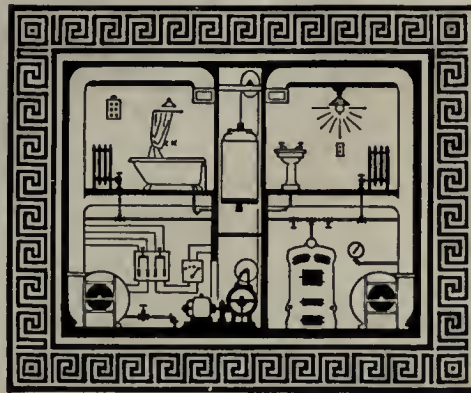
(From "Architecture")



Residence of A. Clayton Woodman, Esq., Andover, N. J.
Frank Seeburger, Charles F. Rabenold, Architects

EQUIPMENT

DEPARTMENT EDITED BY J. F. MUSSELMAN



THE PRESERVATION OF HOT WATER SUPPLY PIPE IN THEORY AND PRACTICE

THE paper, abstracts of which are given below, deals in a practical manner with the corrosion problem, particularly with respect to hot water supply pipe. The explanation of the mechanism of corrosion, however, applies to all cases and is the theory now generally accepted as to the cause of this trouble. Those who are interested in studying the details of this theory will find them clearly set forth in the first six pages of the paper referred to later in this article.

It may be stated in a few words that corrosion of iron starts by an initial solution of the metal in water by which ferrous hydrate is formed and the surface of the metal becomes covered with hydrogen. This tends to retard and finally stops the reaction, provided there is nothing present to remove the hydro-

gen by which the metal is protected or "polarized."

Free oxygen is always present in natural water, and this element having a strong affinity for nascent hydrogen, depolarizes the surface of the metal allowing more to enter the solution and thus, so long as oxygen is present, the destruction of iron continues. The rate of corrosion depends principally upon the temperature and pressure of the water and amount of free oxygen available. Oxygen also unites with the ferrous hydrate forming insoluble ferric hydrate, or rust, further increasing the rate of corrosion which stops only after the destruction of all the iron or after all available oxygen has been "fixed."

From a paper on "The Preservation of Hot Water Supply Pipe in Theory and Practice," by F. N.

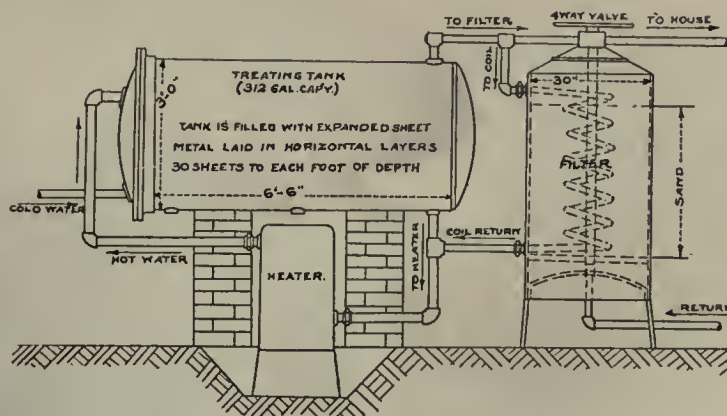


Figure 2—Water Heater and Deactivator for House in Boston

Speller, Department of Applied Chemistry, Massachusetts Institute of Technology, and R. G. Knowland, Metallurgical Engineer, National Tube Co., which was presented at the Annual Meeting of The American Society of Heating and Ventilating Engineers, New York, January, 1918, we quote the following:

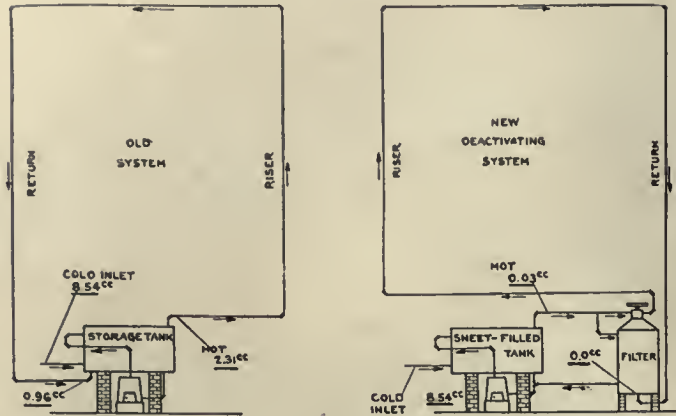


Figure 3—Sketches of the Hot Water System in the Apartment House in Boston, Showing Free Oxygen in Water at various Points

“Precisely the same reasoning indicates that the corrosion of brass or bronze pipes may be traced to identical causes. In this type of corrosion, the damage arises from the zinc being dissolved out of the alloy. The result is a very weak, honeycombed structure which under the microscope, is seen to possess the bright reddish color of copper. Now zinc and copper, when placed in acidified water, form an admirable ‘wet battery,’ and when improperly alloyed into brass may give a combination of myriads of tiny electrolytic cells. It follows, therefore, that in certain suitable waters the corrosion of brass may occur very rapidly. In any case, however, it is important to consider that dissolved oxygen gas plays the same part in aiding the corrosion process where brass pipe is concerned, that it does in the case of iron or steel.

“A practical method of taking advantage of these peculiarities of corrosion in hot water supply pipe was discussed last year in a paper on the subject by one of the present writers.* It was shown that by keeping hot water under pressure in contact with a large surface of iron for a sufficient length of time it is possible to remove it and “fix” the oxygen.

“It is this process of fixing the oxygen that renders water practically inactive or non-corrosive. The successful adaptation to practical uses of this method was shown by diagrams of two plants which are in actual operation. These are located, respectively, at the Irene Kaufmann Settlement in Pittsburgh and at the Research Laboratory of the National Tube Company in McKeesport, Pa.

“Data were given to indicate the great reduction in the amount of dissolved oxygen in the water after passing through the apparatus; and a number of tests were cited to show the beneficial results obtained.

*A Method for Practical Elimination of Corrosion in Hot Water Supply Pipe, by F. N. Speller; Journal of The American Society of Heating and Ventilating Engineers, January, 1917, page 149.

“A recent examination shows that no appreciable corrosion has occurred in the pipes carrying the deactivated hot water at these plants. On the other hand, there has been a great deal of trouble connected with other pipes in the same buildings, which carry hot water not treated by the deactivator systems. The sheet iron

with which the heating tanks are packed has not as yet given out and is apparently as active as ever after two years’ service.

“Because of the manifest advantages of this method of preserving the hot water piping in apartments and similar situations, it was decided to install a plant larger in capacity than those in Pittsburgh and McKeesport.

“The apartments at Hemenway Terrace, Boston, Mass., were selected as affording typical conditions; and the installation was made by the Research Laboratory of Applied Chemistry of the Massachusetts Institute of Technology acting in co-operation with the Research Department of the National Tube Company.

“The hot water supply at Hemenway Terrace is furnished by two heating and circulating systems, each complete in itself and separate from the other. The amount of water heated is about the same for each system and reaches a week-day maximum of about 650 gal. an hour.

“The deactivator, which went into operation on March 15, 1917, was placed on one of the supply systems, thus leaving the other free for purposes of comparison. It consisted of a Gurney coal-fired heater, a treating and storage tank, and a filter as shown by Fig. 2.

“The tank was built with a 42 in. flanged head, thus permitting easy packing of the Cambridge metal lath with which the tank was filled in horizontal layers from bottom to top. In circulation, as the arrows indicate, the water passes from the heater up into the deactivating tank where it makes contact with the sheet metal at a high temperature. It moves through this slowly as cooling currents of water from the cold supply urge it, and back into the heater or off through the house supply line.

“The hot water house-supply pipe leaves the tank at the top and passes to the filter. Through a four-way valve at the top of the filter, the water

for circulation in the house system passes into the space above the filter bed and down through the sand into a chamber at the bottom. In this passage, the rust formed in the deactivation of the water is wholly removed. The house supply is withdrawn through the vertical pipe in the center of the filter, while the gravity return line entering at the bottom provides for a continuous circulation of water.

TABLE 1. RESULTS IN REMOVAL OF DISSOLVED OXYGEN.

Month	Temp. in Deg. Fahr. (Average)	Oxygen in cc/liter	
		Cold	Hot
March	163	8.29	0.11
April	174	8.12	0.05
May	175	6.97	0.07
June	176	5.66	0.00
July	185	4.56	0.00
August	163	3.91	0.00
September	148	4.33	0.00
October	182	4.87	0.45*
November	155	6.16	0.26*

*This value is not an average for the month, but was taken at a time of severest demand when the requirements probably amounted to 1,200 gal. per hour. The system was designed for a maximum of 650 gal. per hour.

In summer, there is less dissolved oxygen in water than in winter; the phenomenon being due to the lower solubility of gases in water at the higher temperatures.

"The success of the apparatus in removing the dissolved oxygen from the heated water is shown in Table 1. That this removal of oxygen is accompanied by highly beneficial results will be understood from a comparison of present and past conditions at the apartments. When the deactivator was placed in operation, each hot water system had been in service for about eleven years. The one which we are particularly considering had been the source of great trouble and complaint and pipes were giving away very frequently. It had also been necessary to place three plugs in the supply tank where corrosion had caused the formation of large pits which broke through the metal. Everything in fact points toward the rapid destruction of the system. When the deactivator was installed, these sources of annoyance immediately ceased; and since that date no replacements have been necessary. On the other hand, the system which was not equipped with a deactivator went completely to pieces in a few weeks' time. Fifteen holes in the tank were plugged, and finally it became necessary to replace this bodily, the destruction of pipe in that system continuing as before.

"In removing contiguous piping for installing the apparatus, it was found that it was almost

completely filled with rust and dirt of various kinds. The superintendent of the building, Mr. R. W. Haines, after four months' use of the deactivator, reported that the pressure throughout the house has doubled. That this is due to the cleansing effect of the water is certain, since for two months after the apparatus was put into operation the hot water showed a distinct coloration.

TABLE 2. AMOUNTS OF DISSOLVED OXYGEN DETECTED IN SYSTEM NOT EQUIPPED WITH DEACTIVATING TANK.

Month	Temp. in Deg. Fahr. (Average)	Oxygen in cc/liter	
		Cold	Hot
March	176	8.29	2.26
April	158	8.12	1.58
May	141	6.97	1.69
June	144	5.66	2.01
July	144	4.56	2.32
August	148	3.91	1.45
September	138	4.33	1.53
October	120	4.87	3.76
November	138	6.16	3.02

The average of 65 analyses on the deactivating system shows that a final oxygen content of 0.06 cc/liter is to be expected in the deactivated water, starting with an initial content of 6.41 cc/liter.

The same number of analyses on the non-deactivating system shows a final oxygen content of 1.74 cc/liter with an initial content of 6.41 cc/liter.

The theoretical increase in life of tank and piping, therefore, when equipped with a deactivator will be $1.74/0.06 = 29$ fold. This theoretical increase is affected by the fact that corrosion is not always uniform, but is usually accompanied by pitting which is the actual destroyer of the tank and piping. It goes without saying, however, that the deactivator will increase the life of a hot water supply system many times. Conservative estimates would make the increased usefulness of the apparatus lie between five and fifteen fold, depending upon local conditions of the installation. Such an estimate obviously holds only for plants designed in the proper proportions based mainly upon the character, maximum hourly consumption, and the temperature of the water.

"Table 2 has been inserted to afford an idea as to how corrosion in a hot water supply system apportions itself between the tank and the pipelines. This table is based upon data obtained from the system that is not provided with a deactivating tank. The difference between the dissolved oxygen content in the cold water and that in the hot water (analyses taken at the tank) will indicate the amount of corrosion within the supply tank as compared with that which occurs in the lines when the hot water is passing through them. The fact that several times as much metal is rusted away in the tank as in the piping would be predicted from the higher temperature of the former and the fact that the hot water is in contact with the tank for a considerable time before being drawn into the piping system.

"From the standpoint of economy, the use of the deactivating system is recommended by its results.

It is much cheaper and vastly more convenient to corrode away a hundred pounds of sheet metal in the basement than the same weight of piping in miscellaneous locations throughout the house. The question as to how long the sheet metal will last can no more be answered than one as to the life of a hot water system before it has been tried out. However, it has not been necessary to replace the sheets in two years' operation of one of these plants. Furthermore, such a question is relatively unimportant, since the economy of using the sheet metal does not depend upon its cost. The real advantage of the deactivator lies, as we have suggested, in the fact, that without regard to its own cost, a material is wasted that is always somewhat cheaper than pipe; and that the danger, annoyance, and expense of replacing corroded piping is largely circumvented. The latter are very real problems as all real estate owners are well aware. Their elimination would do much to relieve one of the serious causes of complaint by tenants in apartment houses and hotels.

"The effectiveness of this method of oxygen removal is obviously not limited to installations of steel or of wrought iron pipe, although practical considerations of cost would suggest its use in systems over a certain size in combination with steel pipe as forming the most economical layout. As considerations already discussed would indicate, the life of brass or of bronze pipe may likewise be greatly increased by the removal of dissolved oxygen from the water. While it is true that under the usual conditions of service brass is comparatively durable, it is very often subjected to severe corrosion which is not apparent until failure occurs. With galvanized iron, on the other hand, the first evidence of rusting is found in the appearance of discolored water long before the pipes are seriously damaged. There are many localities where the water is alkaline and hard to such a degree as to prevent serious corrosion even in the hot water lines. In the large majority of cases, however, it would appear that the protection of a hot water supply system by deactivation of the water should be undertaken as a matter of common precaution."

Another paper on the deoxidation of hot water was presented at the meeting of the American Society of Heating and Ventilating Engineers last January, supplementing the one abstracted above and giving results of experience with these plants up to date which indicates that they have been operating satisfactorily during a period of two and three years without attention other than periodic reversal of the filters. Examination of the iron sheets in one of these plants indicated that in two years they had lost 25 per cent. of their weight but would still be serviceable for three or four years more. No appreciable corrosion has been noted on the ungalvanized test pipes in these plants up to this time. Some further data was included in this paper on the rate of the solution of zinc, brass, copper, and steel coupled to brass and copper in untreated and deactivated water.

SMALL HOUSES OF THE LATE GEORGIAN PERIOD

A BOOK that treats of a little-known period of English architecture, covering the years from 1750 to 1820, has just been published by *The Technical Journals, Ltd.*, London, under the title, "Small Houses of the Late Georgian Period." The author is Mr. Stanley C. Ramsey, Associate of the Royal Institute of British Architects. The book consists of one hundred plate pages, reproducing photographs of houses of the period under consideration, and an introduction that covers the period and shows an appreciation of the social and other influences that prevailed at the time and did much to mould the taste of the public in the matter of architecture.

That the houses built in the latter half of the Eighteenth Century and the early years of the Nineteenth Century have received comparatively little recognition from writers on architecture is attributed to the fact that this later work was in point of time too near the years of the Gothic Revivalists for them to have felt much interest in it, and that today we feel, perhaps, that it is not quite sufficiently hallowed by the sanctity of age or of geographical remoteness, and that we accept the houses of this period as entirely commonplace, requiring no effort of comprehension or appreciation.

He points out that for the most part these houses were designed by men of taste and capability, and that the houses themselves in many instances have attractive and admirable qualities.

Mr. Ramsey traces the development of the various phases of the period which he has taken as his subject and directs attention to the influence of the brothers Adam, Sir William Chambers, Sir Robert Taylor, James Paine and Carr of New York. The villa which Robert Adam built for the celebrated actor Garrick at Hampton-on-Thames is shown on one of the plate pages as an example of one of the smaller houses designed by the brothers Adam.

In addition to the traditions established by the Adam brothers and those of the late Palladian group, Mr. Ramsey traces, in the houses of the period, a third influence owing its origin to the "Gothic" manner of Horace Walpole and Batty Langley. He then considers the effect of the Greek Revival, beginning at about the time Stuart and Revett published their "Athenian Antiquities," in 1762. In conclusion the author speaks of the work of John Nash, who was a pupil of Sir Robert Taylor, and finds some slight remaining influences of the Palladianism of his master combined with the new "Greek" and "Roman" of his time, with here and there an echo of the Adam tradition.

He speaks of Nash together with Robert Adam and the Woods of Bath as the men who laid the foundations of modern town-planning in its more monumental aspects, as applied to the treatment of streets and street facades.



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EDITORIAL COMMENT ON ARCHITECTURE & THE TIMES

A CLEAR and simple outline of the conditions that unfavorably affect the health of the great mass of workers and their families—conditions that seem to be inherent in the type of multiple dwelling that prevails to so great an extent, was given recently by Dr. James Ford of the United States Housing Corporation at the National Conference for Social Work at Atlantic City.

Dr. Ford, after referring to the recognized shortage of dwellings throughout the United States, declared that new building to meet this shortage should be guided by high standards of planning, construction, sanitation and equipment. He emphasized the fact that where the housing is poor it is difficult for the employer to hold his employees and that the impaired health that is consequent upon living under unfavorable conditions unquestionably reduces the efficiency of the workers. He called attention to bad housing as one of the causes of the growing discontent and unrest in the industrial class, and made a plea for wholesome houses for all.

Recognizing that the first step in curing an evil is to understand its causes, and fully appreciating the difficulties in discovering the specific cause of each house disease, Dr. Ford then stated tentative conclusions which may be accepted as a reasonable basis for procedure in planning housing with a view to health.

Dr. Ford expressed the opinion that, multiple dwellings, though if they are properly planned within and properly placed on the lot, can be rendered tolerably wholesome, inevitably contain at best features which render them far from ideal as places of permanent residence.

Among the causes detrimental to health which Dr. Ford discussed, but that we have space only to mention, were the following:

1. Improper location on wet or imperfectly drained land or on a cold highly exposed position.
2. Fire risk from construction that may burn readily, causing not only death by burning or suffocation, but injury by accident or nervous shock. Defective structure or bad repair, winding stairs, insecure railings, etc., causing injuries that result in diseases classified as traumatic.
4. Defective orientation in relation to the points of the compass and to neighboring buildings which may obstruct sunlight and air.
5. Excessive height, increasing fire risk, restricting play of children, causing hardship to aged or those in ill health, deterring tenants above the second floor from taking outdoor exercise.
6. Increased danger of infection through crowding.
7. Nervous wear and tear and loss of necessary sleep through noise incident to density of population.
8. Crowded rooms, increasing liability to infec-

tion and preventing privacy—lowering the moral standards with disease as a consequence.

9. Inadequate, undesirable or defective plumbing.
10. Poor ventilation.
11. Poor lighting, inducing untidiness, eyestrain, favoring disease germs, particularly tuberculosis, causing reduced resistance to disease.
12. Improper equipment, leaky stoves, defective gas fixtures, lack of window screens, admitting malaria-bearing mosquitos and disease-bearing flies.
13. Proximity to factory if air is poisoned by chemical gases, mineral dust or soot.

In conclusion Dr. Ford pointed out that the effects of the discomfort of an un congenial environment are enervative and produce irritability, anemia and lassitude, or what is sometimes called the "slum disease."

He also called attention to the fact that some of the undesirable features in house construction which have been mentioned are actually reducing the resistance or causing disease to the vast majority of the persons now living in multiple dwellings. He declared that in comparison with the multiple dwelling, the detached house is far more conducive to high resistance and good health. With a little attention to planning the detached house can be made structurally safe and every room can be well lighted, well ventilated and equipped for the comfort and convenience of its occupants. Dr. Ford further pointed out that for families with children the detached house is ideal.

THE little-known wealth of artistic resources we possess in the skilled and talented handicraft workers of foreign birth, was revealed by the exhibition recently held in the galleries of The Art Alliance of America, 10 East 47th Street, New York City.

Few among us have realized that these people living in our midst and forming part of our national life, have the artistic knowledge, qualities of temperament and traditions of craftsmanship that will make them of incalculable value in the artistic development of this country, if their abilities are made available.

The first step in this direction is to recognize their presence and to become acquainted with their abilities. The next step is to consider in what ways these abilities can be utilized to the best advantage and to bring together the people who can produce a certain kind of work and the people who can use that particular kind of craftsmanship.

The Art Alliance of America has begun to do exactly these things through this exhibition and has announced the intention to facilitate in every way the co-operation of these crafts people and those who can make use of their skill.

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A COUNTRY house that has, in a sense, grown where it stands, is the brick and timber-work house at Rye, New York, by Mr. Hobart B. Upjohn, which is the subject of the opening article of this issue. The view across Long Island Sound to be obtained from the site and the desire to leave undisturbed the fine old trees of the orchard in which the house was placed were among the controlling factors in the designing of this building. This house is also interesting as a modern expression of the manner of building employed in the old timber-work houses of England, the timbers being the supporting timbers of the house, mortised, tenoned and pinned together.

The Church in the Gardens, at Forest Hills, Long Island, N. Y., of which Mr. Grosvenor Atterbury was the architect, is a small church of more than usual charm. The texture of its rough stone work together with the ancient appearance of the exposed timbers, which have been charred and toned, give this building a quality that makes it fit in especially well with its surroundings. Its square stone tower, surmounted by a picturesque roof, is given additional interest by the treatment of the chimney at one corner with a beautifully wrought fleche of iron, which contains the bell. This is an attractive as well as an unusual feature. The interior is interesting in arrangement as well as in decorative treatment.

The gardens at "Cragholm," the estate of Richard A. Strong, Esq., North Greenwich, Conn., have been planned so as to combine a certain amount of formality with the freedom and romantic quality necessary to bring them into harmony with the beautiful surrounding country.

A substantial city residence that is well arranged, well suited to its location and attractive, is the residence of A. F. Gallun, Esq., Milwaukee, Wis., of which Messrs. Brust & Philipp were the architects. Photographic views of this house are shown and it is fully described.

In memory of one of America's finest examples of architecture, a photograph of the Madison Square Presbyterian Church, McKim, Mead & White, architects, is reproduced as the frontispiece. The work of demolishing this church, to make room for a tall building, is now practically complete to the sorrow of lovers of beautiful architecture in general.

In "The Review of Interiors," edited by Mr. J. H. Phillips, the decorative work of the late Eighteenth Century is discussed. Due consideration is given to the work of the brothers Adam and particular attention is devoted to a number of examples of work of the same general type in Ireland, where this manner was marked by a more intimate character. The wood-panelled rooms of the period, which with their dignity and comparative simplicity afford a pleasant relief from the ornate stucco rooms of the Adam type, are also touched upon.

"The Review of Recent Architectural Magazines," the department conducted by Mr. C. Howard Walker, contains comments on a number of notable English buildings of the past as well as upon present day English buildings and upon current American architecture, as shown in recent magazines.

The department edited by Mr. J. F. Musselman under the heading "Equipment," is devoted this month to "Designing for Low Maintenance." The high percentage of the maintenance charges that are due to wear and tear of the equipment of a building is pointed out and consideration is given to provisions for lengthening the life of the parts of equipment most susceptible to deterioration and for removing and replacing such parts when they can be used no longer.

Exterior and interior photographic views in sepia duo-tone, showing the buildings which are described in the articles, appear in the regular plates of this issue, while the series of plates of "Old French Churches" and the series of plates of "Temples of Japan," both begun in the last issue, are continued.

IN THE SEPTEMBER ISSUE

One of the features of the issue of THE ARCHITECTURAL REVIEW for September will be an article on the work of Mr. John Vincent, illustrated with reproductions of many of his drawings of architectural subjects. A memorial chapel that is interesting and beautiful will be shown by photographic views and described. Plans, photographs and a description of a bank building of a size and type suited to the requirements of a large number of banking institutions throughout the country, will be presented. In addition there will be other interesting matter including the regular departments.



McKim, Mead & White, Architects

THE MADISON SQUARE PRESBYTERIAN CHURCH
MADISON AVENUE AND TWENTY-FOURTH STREET, NEW YORK
An architectural masterpiece that is now being demolished

The ARCHITECTURAL REVIEW

Volume
IX

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AUGUST 1919

Number
2

AN INTERESTING TIMBER-WORK HOUSE AT RYE, N. Y.

HOBART B. UPJOHN, ARCHITECT

A HOUSE that is informal in character, and homelike, is the house at Rye, New York, by Hobart B. Upjohn, illustrated here. It is built after the manner of the old English timber-work houses. The plan was developed in a natural way from the conditions found at the building site, and the style of exterior treatment adopted is one well suited to the expression of the irregular plan.

The starting point in the designing of this house was the decision by the architect to take the greatest possible advantage of the fine view across Long Island Sound to be obtained from a point on the property some distance back from

the street. It was this point, therefore, that was chosen for the site of the house, where a clear view of the sound is had with masses of trees at either side.

The line of vision from the point where the house stands to the sound was taken as the shorter axis of the plan and the entrance in the garden front of the house was placed so that from the interior the view is framed in the doorway. At either side of the hall were placed the principal rooms, namely the living-room and the dining-room, which also look out upon the sound. At the extreme ends of the house are porches which have been set at an angle to the main portion of



The Front that Overlooks Long Island Sound

the building in order that the view from these portions of the house might not be obstructed by the groups of old trees that form interesting features of the grounds. In addition to these groups of trees there are other fine old trees near the house which stands in an old orchard. Every effort was made to avoid destroying or damaging these trees and they add much to the charm of the place. Both porches are glass-enclosed. The one adjoining the dining-room is used as a breakfast-room, while the porch adjoining the living-room is furnished as a living-room. Along the garden front of house is a terrace paved with flagstone of irregular shape bounded by a brick wall. The terrace overlooks a sunken garden.

The drive, entering near a corner of the property, passes in a curved line at some distance from the terrace front of the house and just beyond the sunken garden. Swinging around the end of the house in which the living-room is located, it passes to the carriage entrance which is on the opposite side of the house from the terrace. From the carriage entrance the road circles about a piece of level lawn at the rear. The entrance door opens into the stair hall which connects with the main hall and with the library.

The kitchen, kitchen offices and servants' dining-room are accommodated in a wing that extends from the main house at an angle. Just beyond the library is a plant-

room equipped with a sink. It opens on a small platform from which the lawn is reached by a few steps.

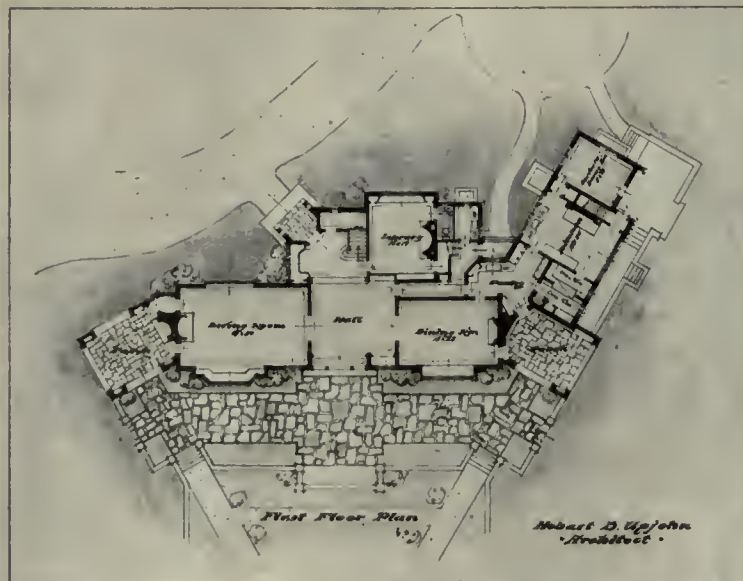
Two of the principal bedrooms connect with the second story porches at the ends of the house. These porches are provided with fireplaces and serve as boudoirs. The serving room at the end of the corridor on this floor is connected with the pantry by a dumbwaiter. The servants' quarters are on the second floor of the kitchen wing.

The interior is so arranged that the principal rooms on the ground floor are connected by wide openings placed in line so that a vista is had through the rooms, extending the entire length of the main portion of the building, a distance of some seventy-five feet.

The ceilings of the principal rooms have exposed beams which in some cases extend beyond the walls of the first story, supporting the overhang of the second story. The ceiling in the hall is formed by the exposed timber-work of the roof. The lower story is of brick with hard-burned brick introduced as headers for the sake of color variation. The timber-work is of solid oak timbers which are the supporting beams of the house. These timbers are mortised and tenoned together with wooden pins. They are hand-hewn. The braces are of a structural character, serving to strengthen the building as well as to ornament



Entrance Door



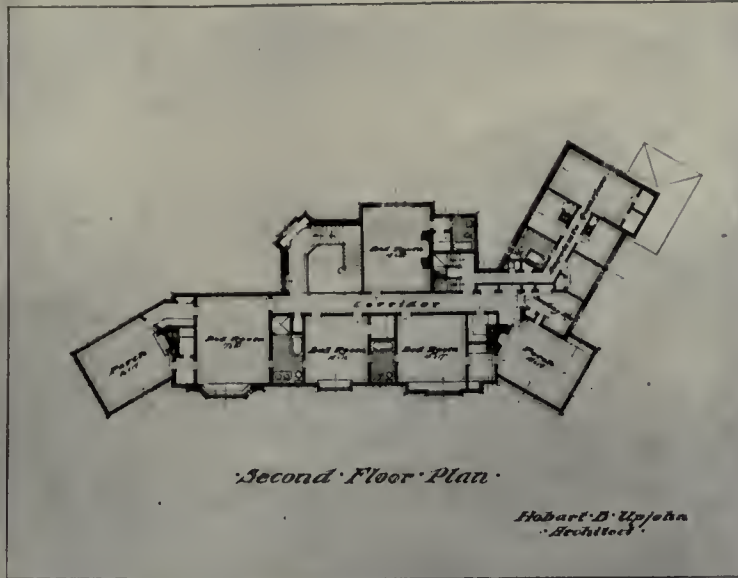
First Floor Plan

it. The brick-work filling between the timbers shows a variety of pattern.

The roof is of heavy slates, showing variation in color, including greens, purples, browns and a few black slates. The courses of slate vary in thickness, the thickest being at the eaves, and they decrease toward the ridge. Where roofs join there are not the usual valley flashings, the connection being made instead by laying the slates in the manner sometimes seen in old English houses.

The heavy double hinges of the entrance door, as well as the other ironwork, are in keeping with the style of the house. The entrance door is massive, built solidly of oak and has iron studs. A small swinging casement in one of the upper panels of the door is guarded by a strong, simple iron grating.

The effort to secure the charm characteristic of the old houses of this type has not been allowed to make this other than a practical present-day home. There are many evidences of this throughout the house and particularly in the planning and equipment of the kitchen and its dependencies. For example, the windows in the kitchen extend to the ceiling in order that the heated air may freely escape from the upper part of



Second Floor Plan

separated and icing is avoided. The dumbwaiter in the corner of the pantry cool-room communicates with the serving room on the second floor. Under the main stairway is a wood-box mounted on a lift. This is filled in the cellar with wood for the fireplaces and run up to the first floor level.

The interesting character of this house is due very largely to the logical development of the plan from the conditions and to its direct and simple expression in the exterior treatment, and one of its most attractive features is the genuineness of its timber construction.

The style, characteristic of the old English timber-work houses, has not been used as a system of superficial ornament, as is so often the case in present-day building of this type and the plan has not been made irregular merely for the sake of irregularity, but because of the peculiarities of the attractive site.



Breakfast Porch



THE MAIN ENTRANCE
HOUSE AT RYE, N. Y.
HOBART B. UPJOHN, ARCHITECT

THE CHURCH IN THE GARDENS AT FOREST HILLS, N. Y.

GROSVENOR ATTERBURY, ARCHITECT

A SMALL church that has the charm of rich texture, pleasant color and interesting massing, is The Church in the Gardens at Forest Hills, L. I., of which Mr. Grosvenor Atterbury was the architect.

The building is of local stone, warm in color, with Connecticut field stones in the corners and facings. These stone walls are laid in such a way that they have a surface of unusual friendliness and beauty of texture. Though the stones are of irregular shapes and uneven sizes, there is neither the appearance of eccentric striving for effect, nor the dry, studied irregularity that mars many modern buildings. The texture of these walls is even in general effect but free from monotony. The material has been used in a way that seems entirely natural and workmanlike. The steps of the entrance porch and those at the door of the vestry are of stone with risers of red brick.

Timber-work is introduced at some points, notably in the gable of the entrance porch and around the windows of the chancel. It is used effectively and is toned down and given the appearance of age by being charred and otherwise treated. The roof is of

brown tile and on the gable ends the purlins are exposed.

A sturdy square tower of stone marks the entrance. It has a quaint and picturesque roof with truncated gables. At a corner of the tower, is a chimney that has been made a decorative feature. It is surmounted by a fleche of a light and beautiful design in wrought iron, enclosing the chimes and the bell. The bell can be seen clearly through the ironwork. A weathercock tops this pinnacle-like feature. A fleche is seldom seen on a small church and this is an especially interesting example.

The interior of the church is attractive and in harmony with the exterior. In the auditorium the walls are of stone and the trusses and other timbers of the roof are exposed. These timbers are of antique appearance, due to their having been charred and treated. The windows in the chancel are of leaded glass rondelles, deep in tone, and the windows along the sides of the auditorium are of semi-transparent amber glass. Around the windows and other openings the stone has been chipped to give it a darker tone than the adjoining portions.

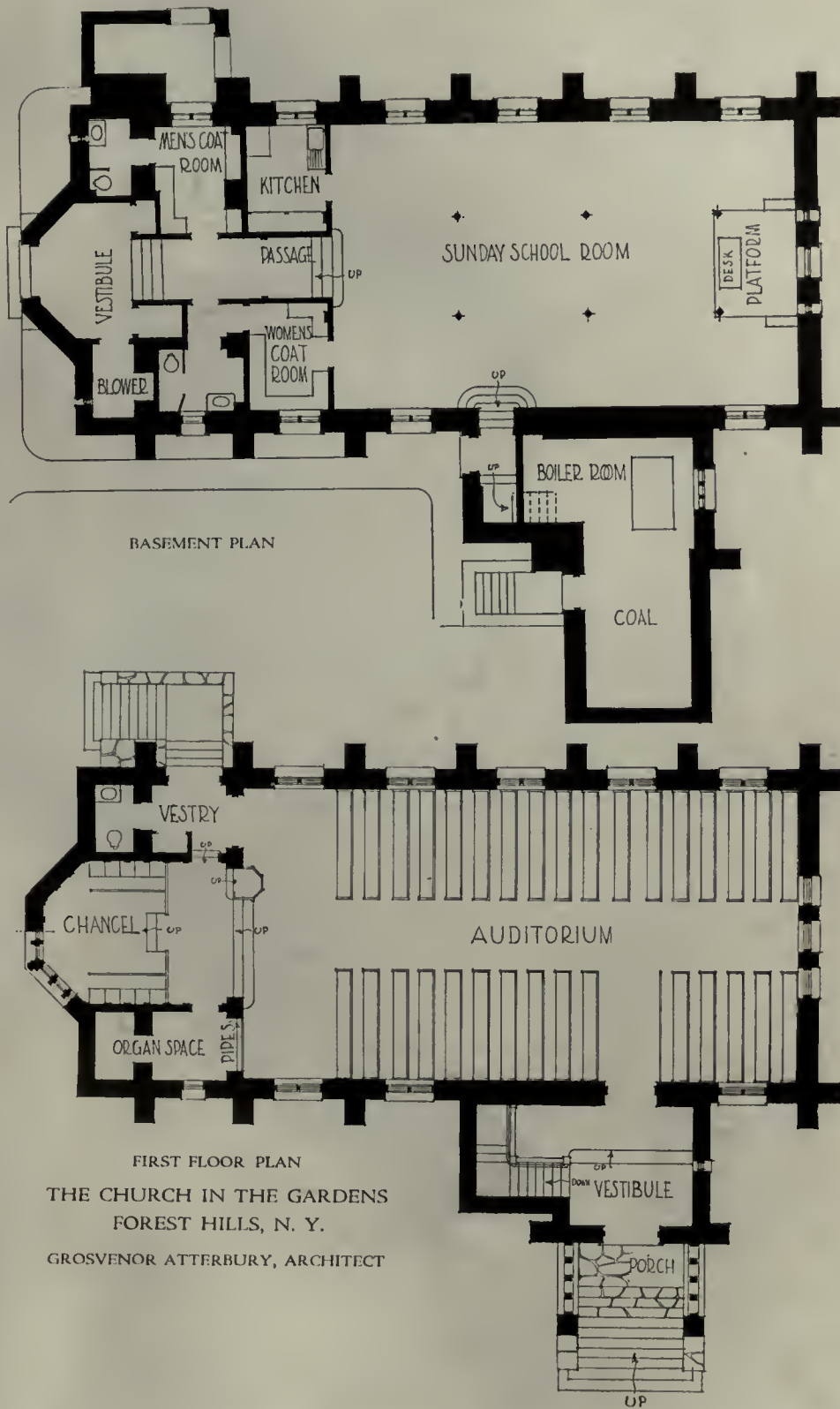


The Auditorium

The chancel



A VIEW ACROSS THE GROUNDS
THE CHURCH IN THE GARDENS, FOREST HILLS, N. Y.
GROSVENOR ATTERBURY, ARCHITECT



FIRST FLOOR PLAN
THE CHURCH IN THE GARDENS
FOREST HILLS, N. Y.
GROSVENOR ATTERBURY, ARCHITECT

screen is of wrought iron and in detail was patterned after bits of old iron-work. The crowning border of the screen is made up of symbols and quotations perforated in the iron. The center has the wrought pattern accented with color and gold. The border at the bottom shows a procession of biblical figures. This design also is perforated in the iron. The circular, wrought metal lighting fixtures suspended from the roof are of harmonious design and a delicately wrought spherical lantern hangs over the center of the chancel.

A short flight of steps leads up to the platform in front of the chancel and the lectern is placed at the right on these steps. At the left of the chancel is the space assigned to the organ and balancing this on the right is the vestry. The floor of the auditorium is of tile and the steps leading to the platform are of stone slabs with brick risers. The pews are of simple, dignified design and are finished to harmonize with the other features of the interior. The seating capacity of this church is slightly over two



A Pleasing Angle

hundred and fifty.

The basement under the entire building is devoted to the Sunday School room and its dependencies. The entrance to this room is under the chancel, and the door is at grade level. It opens into a vestibule from which a short flight of steps leads down to a passage at the right and left of which are coat rooms, etc. Three more steps bring one to the level of the Sunday School room. The platform with its desk is placed directly opposite the entrance. Steps also lead up from this room to the entrance vestibule of the church. Under the main entrance vestibule are the boiler room and space for storage of coal. The kitchen is located at the rear of the Sunday School room. The blower room is directly under the organ space.

The informal, old-world character that marks this building might well more often find expression, though not necessarily along these lines, in our smaller country and suburban churches, for our small churches are too often lacking in the charm of the village churches in Europe.

GARDENS FOR RICHARD A. STRONG, ESQ. NORTH GREENWICH, CONN.

HINCHMAN & PILAT, LANDSCAPE ARCHITECTS

THE gardens at Cragholm, the estate of Richard A. Strong, Esq., at North Greenwich, Conn., form a series of terraces on the natural levels of the ground which falls away abruptly to the south and east below the house which is built upon a rocky eminence.

The gardens, symmetrical and carefully tended, but not rigid in plan or angular in their formality, harmonize well with the natural beauty of the surrounding landscape. On the lower level and to the east is the terrace upon which are the rose garden and the swimming pool close.

The rose garden is at the foot of a series of cliffs which have been treated as a rock garden that forms a means of communication between the lower terrace and the house located on the crest of the cliff above.

The swimming pool close on the same level as the rose garden includes a pool, which is twenty feet by forty-two feet and is sunk in the lawn. The pool has a matt glaze terra-cotta coping with a life-rail gutter. The bathing pavilion, situated at the end of the pool, is a simple but attractive building with a dressing room at either side and a loggia in the center.

The close and the rose garden are surrounded by natural forest growth margined with evergreen planting, graded to formality at the border. The rose garden has a low curved wall of rough stone work and is given interest by architectural columns and by garden pieces of stone, and pot-

tery. The central loggia of the bathing pavilion is provided with garden furniture, which is painted white like the building.

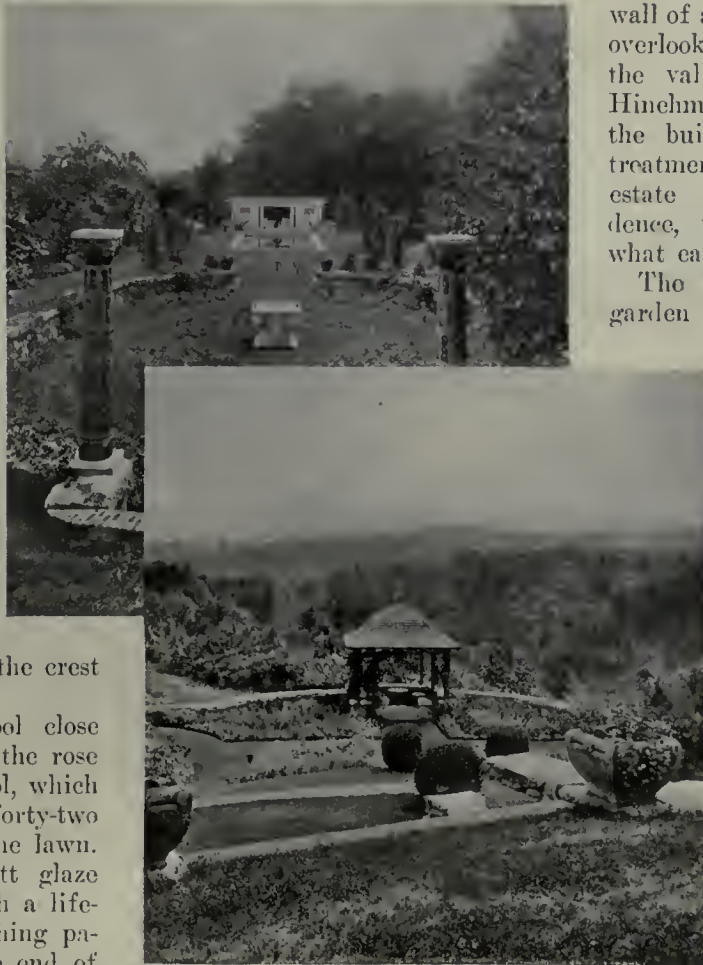
Near the bathing pavilion, a flight of steps, interrupted by platforms and with rough stone walls at the sides, leads up to the next level where an attractive tea house has been built in the center of the wide curve of the wall of an upper terrace which overlooks the wild garden in the valley beyond. Messrs. Hinchman & Pilat designed the buildings and landscape treatment of all parts of this estate excepting the residence, which is of a somewhat earlier date.

The view from the rose garden past the swimming pool to the bathing pavilion is a very quiet and pleasant one over a stretch of level garden with masses of trees at either side and in the distance. Against the green of the foliage, the gleaming white of the bathing pavilion is very effective. The curved walls of the rose garden in the foreground, convey a sense of informality.

From the upper terrace above the tea house, one looks out over a wide expanse of tree tops

that melt into graded masses of color, ranging from the rich green of the nearby foliage to the soft, indefinite hues near the horizon.

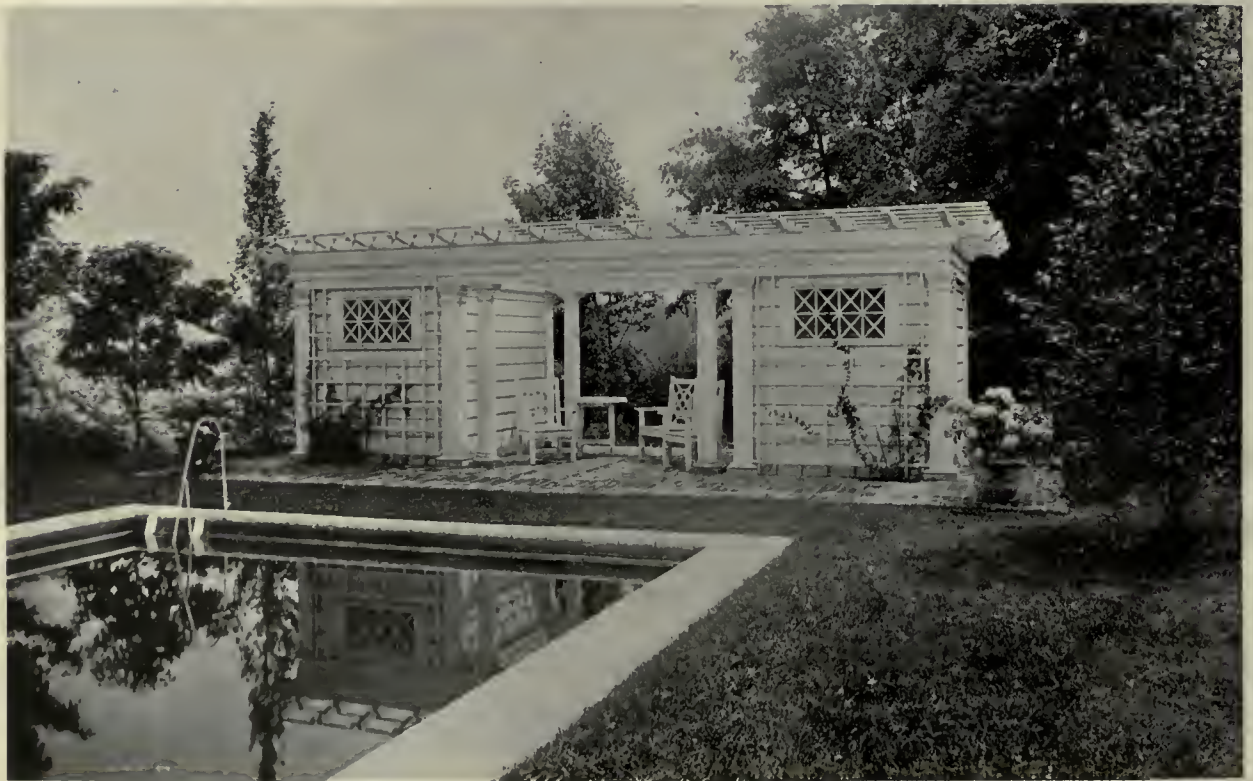
The rose garden and the swimming pool close give one the feeling of being sheltered in a quiet clearing in the forest, while the upper garden gives a sense of freedom.



The Rose Garden, the Swimming Pool Close and the Tea House on the Terrace



BATHING PAVILION AND TEA HOUSE



POOL AND PAVILION IN THE SWIMMING POOL CLOSE
GARDENS FOR RICHARD A. STRONG, ESQ., NORTH GREENWICH, CONN.
HINCHMAN & PILAT, LANDSCAPE ARCHITECTS

THE RESIDENCE OF A. F. GALLUN, ESQ. MILWAUKEE, WIS.

BRUST & PHILIPP, ARCHITECTS

BUILT on a plot of ground that is bounded on three sides by streets, having at the east Lake Drive with Lake Park immediately beyond, the residence of A. F. Gallun, Esq., Milwaukee, Wis., is admirably situated.

It has been so planned that the principal rooms have the best views, which are to the south and east. All of the rooms including the primary and secondary bedrooms receive sunlight at some time during the day.

The architects, Brust and Philipp, of Milwaukee, have produced in this building a residence that is well suited to its location and that is dignified, substantial and home-like in appearance.

The exterior is of a stone which is quarried some thirty miles or so from Milwaukee. This material is a limestone that shades from gray to buff with a considerable proportion of rust-stained stones, which give the walls color interest and a pleasantly warm general tone.

It will be seen, by reference to the ground floor plan, that the entrances have been carefully studied in connection with the garage. A car can be driven up to the main entrance in the west front or through the arch at the side of this entrance. In the latter case one alights at a door which leads directly into the main stair hall. The car can then continue on its way, passing through the garage and out into the street at will.

The living-room is placed at the south, where it receives the maximum of sunlight and the bay window, which has a considerable projection, gives a view toward the east and catches the morning sunlight. The dining-room, which is also used as a breakfast room, is placed at the east.

The sun porch is well placed at the southeast corner of the house in the angle between the living room and dining room. Here it not only receives the best light and commands the best view but gives added interest to both of the adjoining rooms. The wide doorways from the dining-room and the living-room opening upon the sun porch give these rooms a greater sense of space and freedom, and the views of the porch obtained through these doorways are very pleasing. This arrangement introduces an element of variety in the scheme of the principal rooms that is effective. This arrangement



A Portion of the Hall

also gives a sense of ease of circulation, making the house much more livable and pleasant than it would have been otherwise. The library and reception room are well placed on the west side of the house along the least important of the three streets where they are conveniently located.

The second floor is given over to the principal bedrooms, and all but one of these rooms have bathrooms adjoining. Most of the bathrooms have tubs but two of them have shower baths.

The bedrooms along the east front are made interesting and attractive by bay windows, while the one at the southeast corner has an unusually pleasant arrangement of windows.

A large portion of the third floor is devoted to the ballroom or amusement room. On this floor are also the music room, two bedrooms and the servants' rooms. The ballroom receives air and light through alcoves formed in the dormer windows of the east front and through a window in the gable at the north end of the house. Small doors in these dormer alcoves give access to storage spaces in the low portion of the roof at the east of the ballroom. Along the east wall of the ballroom are benches set in recesses. This room has been treated in a simple but pleasing manner with a panelled wainscot and with simple arches over the openings of the alcoves and recesses. Against the plain walls, which are light in tone, old Japanese prints are hung, adding a note of color.

The interior treatment of the rooms on the ground floor is homelike and pleasant. The living-room has woodwork of oak and the walls are covered with a goat's hair fabric. The ceiling is of stucco with hand-modelled relief decoration. The plain wall covering forms an excellent foil for the furniture which is covered with patterned fabrics of rich color and texture.



Entrance to the Reception Room

The dining-room is panelled in English oak from the floor to the ceiling line and the ceiling has a band of relief ornament in stucco. The panels of the upper row are carved with a Tudor rose motif in the center of each and there is a rich band of carving over the door opening into the sun parlor. The furniture is of oak and harmonizes in style with the wall panelling. The floor is of tile.

The reception-room walls are covered with a fabric in tones of light brown and buff and the woodwork is walnut. The walls of the main stair-hall are somewhat lighter in tone than the buff Bedford stone used around the door openings and the floor is of hand-made tile in deep red and brown tones with notes of dark gray approaching black. The woodwork is a rich brown and the draperies and chair coverings are crimson. Breadth of treatment

gives the hall dignity, and its plain walls, relieved by tapestries and paintings, afford a good background for the well-chosen furniture pieces.

The vestibule has been treated effectively and the entrance to the reception room is interesting.

The upper hall has more of the character of a long gallery than that of the usual second-floor hall and more dignity.

Well suited to its use is the billiard room in the basement, furnished and decorated in a sturdy satisfying fashion in every essential.



The Serving Room



Alcove in Billiard Room



MAIN HALL



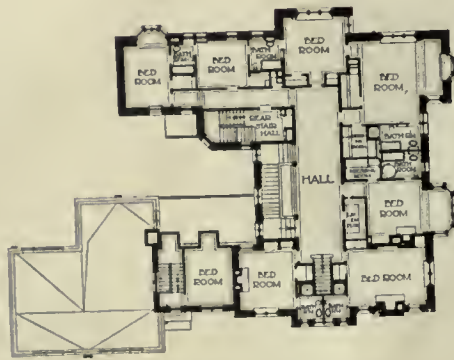
LIVING ROOM

RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.

BRUST & PHILIPP, ARCHITECTS



FIRST FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN

RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.

BRUST & PHILIPP, ARCHITECTS



THE LIVING ROOM AND PORCH
RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.
BRUST & PHILIPP, ARCHITECTS



SUN PARLOR
RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.
BRUST & PHILIPP, ARCHITECTS

THE REVIEW OF INTERIORS

Department Edited by J. H. Phillips.



LATE EIGHTEENTH CENTURY INTERIORS

IN THE notable interior decorations of the Eighteenth Century the greatest influence was the work of the Adam brothers, a manner which has had quite a revival in this country during the last few years. The works of Robert Adam, whose classic designs were inspired by the Pompeiian, Greek, Roman, and Etruscan models, were of a type superior in purity to that expressed in the late Louis XVI adaptations.

Ceilings, side-walls, and mantelpieces—everything that went into the room, including the hardware and fixtures and the furniture and decorations were most carefully designed, modelled and painted by the famous artists of the day, and the list includes such well-known names as Pergolesi, Cipriani, Angelica Kauffman and the Venetian, Zucchi. Walls and ceilings of the most delicate tints, paintings in the panels and on the doors, the

same idea often being repeated in the ornamentation of the furniture with great delicacy, were favored. Wedgwood ware was also frequently utilized in panels and plaques. Wedgwood becoming an enthusiastic worker in the manner developed by the Adams produced numerous articles of a decorated or decorative character in his potteries at Etruria at this time.

The spirit of the design of these interiors was carried out in all details even to the carpets, hangings, silverware and table linen. A perfect harmony resulted. It is a question, however, if a freer and more individual taste in the designing and furnishing of interiors is not preferable, for contrasts aid in creating more interest.

The Adams did not use wood panels with the boldness and character of the late Seventeenth Century and Early Eighteenth Century architects. They used in-



Fete Champetre at The Oaks, Surrey, England

From "Robert Adam and his Brothers"



The Dining Room, Kedleston House, Derbyshire, England
From "Robert Adam and his Brothers"



The Dining Room, Lansdowne House, designed by Robert Adam
From "English Furniture and Decoration," by G. M. Ellwood



The Dining Room, Curraghmore, Ireland
From "Georgian Mansions in Ireland"



The Grand Staircase, Curraghmore, Ireland
From "Georgian Mansions in Ireland"



Panelling in the Ante-dining Room at Bourdon House, Bourdon Street, London
From "The Practical Exemplar of Architecture"

stead highly ornamental plaster and composition enrichments, part in low relief and part painted, of a cameo-like character and of great delicacy. Italian artisans were used for the execution of the work.

The impression created by these highly adorned interiors, finished in stucco with statues and paintings, while very beautiful, seems to lack the noble quality of the Pompeiian, Greek and Roman interiors, and these rooms certainly do not have that romantic quality found in the earlier English interiors.

Of the particular type of decoration popular during the time of the Adam brothers, some of the most interesting rooms are those in Ireland, for they have more of the human quality.

The staircase at Carraghmore, the staircase at Beaulieu, the salon at Caledon all show a more intimate character than is usual in contemporary

English work and they recall the simple and dignified interiors of our own country, more especially those at Mount Vernon.

The hall at Florence Court, Ireland, is also an excellent example, leaning toward the dignified classic type of interior, with less of the delicate and over ornamented plaster enrichment on ceilings and walls. It is quite a relief to see the wood panelled rooms such as the ante-dining room in Bourdon House, London, after so much of the Adam rooms. The fondness in this country for decorations in the manner of the brothers Adam has been excessive, though our architects and decorators rarely do more than one of the rooms in an apartment or house in this manner. With all their refinement and beauty, even the best examples of the Adam manner do not make the deep and lasting appeal of the stronger simpler types of decoration.



Above—The Grand Staircase, Beaulieu, Ireland. From "Georgian Mansions in Ireland."



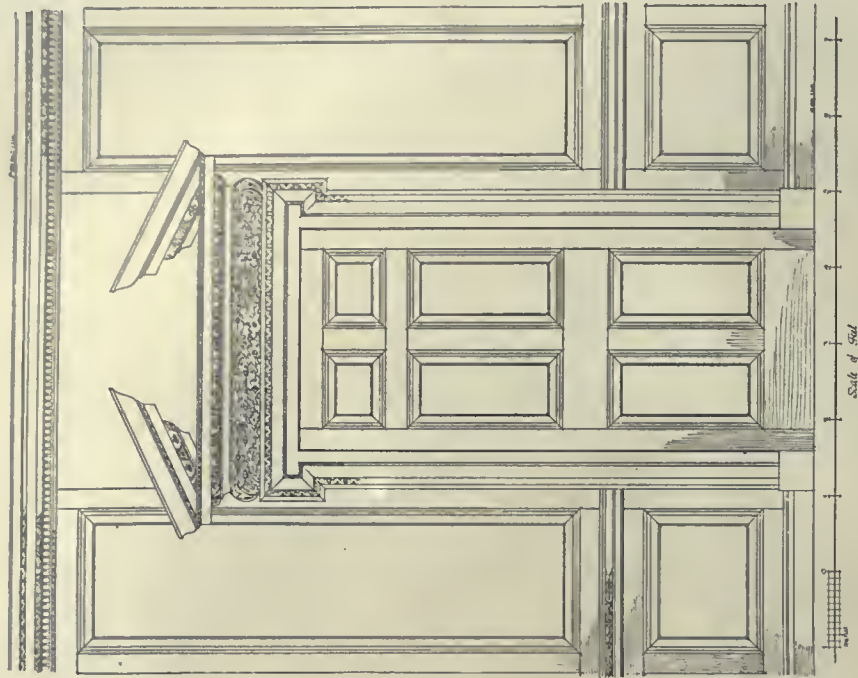
At the left—The Saloon, Caledon, Ireland. From "Georgian Mansions in Ireland."



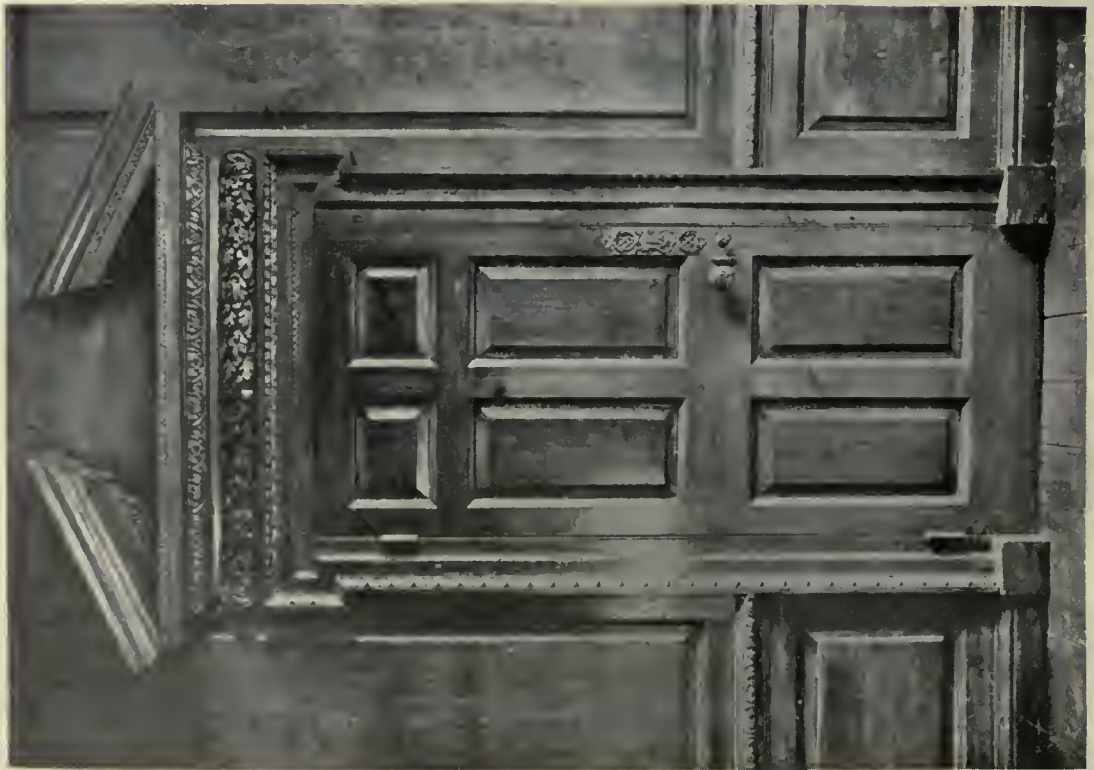
A French Interior of the End of the Period of Louis XV, the Dining Room in the Archbishop's Palace at Bordeaux
From "Motifs Historiques," by M. César Daly



The Grand Staircase, Caledon, Ireland
From "Georgian Mansions in Ireland"



Detail of Doorway in the Ante-dining Room at Bourdon House, London. A measured drawing by H. A. McQueen, above, and at the left a photographic view of the same subject. From "The Practical Exemplar of Architecture."



THE REVIEW OF RECENT ARCHITECTURAL MAGAZINES

By C. HOWARD WALKER

THE opening article in *The Architectural Review*, London, for May, is by Mr. Nathaniel Lloyd, "Gems of English Architecture, No. IV." It treats of Wren's House and the Pallant House at Chichester, both ascribed to Wren. The former is unmistakably by him and dates from 1696. As the article states the original dormers were small. The present ones have pediments which are too heavy. The stone quoins are not bonded, but have the effect of pilasters and the excellent cornice is broken about them forming ressauts. The principal virtue of this house, as in much of Wren's work, is that of admirable proportions. The Pallant house, of Queen Anne's time, when economies were necessary, is distinctly inferior to the Wren house. It has a dry verticality of proportions of openings. The cornice is meager; a moulding over the second story windows creating a pseudo frieze would improve it. The staircase, prototype of

much Colonial work, is rich and broad in effect. The garden front had an excellent opportunity in the central motif, of which no advantage has been taken. Second article by L. Arnot and Godfrey Allen is on Chelsea Old Church. The history of the church from the Twelfth Century foundation is carefully stated. It was the church of Sir Thomas More, and associations with him cluster around it. He created a chapel for his family and erected a tomb for his two wives. The chancel

(From "The Architectural Review," London)



Chelsea Old Church, London

is of Thirteenth Century work, but the remainder of the church, including the tower, was rebuilt early in the Sixteenth Century. The chancel roof, open beamed, flat-pointed arched, was plastered over with a flat ceiling. In 1910 the old roof was uncovered but unfortunately the inserted dormer windows remained and injured the continuity of the roof. The tower is very simple and excellent. The details of St. Paul's are very interesting. Some impressions of

(From "The Architectural Review," London)



Wren's House, London

(From "The Architectural Review," London)



Earls Hall, Leuchars, Fife

Toledo by Bart Kennedy are appreciative. Mr. Maresco Peuree's house, by Halsey Ricardo, at Chelsea, has an excellent plan with economy of space, the exterior is of brick made effective by simple motifs.

The Architectural Review, London, June. The "Gem of Architecture" is the restored Earlshall, Leuchars, Fife, a Scottish example. It was built by Sir William Bruce in 1540, and admirably restored by Sir J. Robert Lorimer about 1900 and is a most picturesque collection of buildings of stone. Mr. Kennedy in concluding his impressions of Toledo, especially illustrates the Cathedral with its detail and stone screens. Captain Orphoot's etchings, reminiscent of Meryon, show the firmness and truth of definition necessary to an etcher of architecture, who must know his architecture more thoroughly than by mere visual observation, as L. M. Ward's etching of St. Paul's testifies. Nelson's Tomb in St. Paul's Cathedral, by Benedetto da Rovanza, has little merit. Mr. Harold Falkner's sketches for a bridge at Charing Cross have an idea but little design.

Architecture, New York, June. The frontispiece is of the Blashfield Memorial Fountain in the Queensborough Bridge Market, New York, given by the Municipal Art Society. Edwin Howland Blashfield, painter, Eli Harvey, sculptor, Charles W. Stoughton, architect—dignified, well-proportioned, simple. Much as we

(From "The Architectural Review," London)



Chancel, Chelsea Old Church, London

(From "The American Architect")



West Facade of Casino, Villa Borghese

admire Mr. Blashfield's decorative sense, we feel the mosaic to be too pictorial in idea. The austerity of the design and its setting demand an almost archaic quality of figure. The article upon

(From "The Architectural Review," London)



Pallant House, Chichester, London

"Architecture and the Greenhouse," by Harold A. Caparn, illustrates well the lacelike quality of greenhouse work, and the architectural value of its regular repeats, simplicity of shape and uniformity of scale. Absurd as it may seem at first impression, there are some of the elements in a simple greenhouse that exist in a Gothic nave or a Greek peristyle. Industrial mill developments, etc., and occasionally loft buildings might gain merit in

their designs by reference to greenhouses. In the Editorial Comment there is evidence of a reaction against the "efficiency brigade." Mr. Keeble's address at Nashville seems to have done some good. The pity is that so many have failed to maintain a high ideal of their profession. Mr. Francis A. Nelson's Huguenot Memorial Church, Pelham Manor, N. Y., has a good east window and an interesting although rather heavily timbered interior. McKim, Mead & White's, Women's City Club, New York, formerly a residence, is simple, ample and well-proportioned. Geo. B. Allen's administration building for the Fisk Rubber Co., Chicopee Falls, is well conceived but dry. Trowbridge & Livingston's Musical Mutual Protective Union Building, New York, is well designed and detailed but would be improved by some object of interest in the large central panel. Messrs. Van Leyen & Schilling, with H. J.

(From "The Architectural Record")



Carson C. Peck Memorial Hospital, Brooklyn, New York City
Ladlow & Peckoby, Architects

(From "The Architectural Record")



The Engineers' Club, Dayton, Ohio
Schenck & Williams, Architects

Knough as associate, have designed the Baldwin High School, Birmingham, Mich., interestingly. The group of U. S. Post Offices, those at

Austin, Texas, Westerly, R. I., and at Wooster, Ohio, are of stone and of one type, the chief feature being a colonnade in antis. Two, those at

(From "The Architectural Record")



Brown Bros. & Co's Building, New York
Delano & Aldrich, Architects

Remidge, Minn., and Cherryvale, Kansas, are of brick and are Colonial in character. The largest, that at Augusta, Ga., is three-storied, pilastered, the first with arched openings, the third a frieze-story. It is well-proportioned and detailed.

The city residence of Leonard M. Thomas, Esq., New York, is praised for its restraint, of which there is so much that the window grills upon the first story and the

(From "The American Architect")



House for Charles L. Briggs, Miami, Fla.
Condon E. Miner, Architect

(From "Architecture")



Baldwin High School, Birmingham, Mich.
VanLeyen & Schilling, Architects. H. J. Knough, Associate

(From "Architecture")



Buildings for C. A. Coffin, Esq., Locust Valley, L. I.
Howard Greenley, Architect

(From "The Architectural Record")



Residence of Henry I. Harriman, Esq., Newton, Mass.
John Barnard, Architect

Venetian lion over the entrance alone show any design. The interiors, however, are excellent, especially the living-room and the patio are interesting. Mr. Michael A. Mikkelsen writes an encouraging article on "Building and the Cost of Construction." Ludlow & Peabody's Carson C. Peck Memorial Hospital, Brooklyn, N. Y., is well designed but suffers in effect from the color contrasts of the areas of brick and stone and the roof needs mouldings. Mr. Fiske Kimball writes "The Social Center. Part I, Commercial and Co-operative Enterprises." Smith, Hinchman and Grylls Recreation Building at Detroit, which is good but lacks shadows; the Greenwich, Conn., Y. M. C. Building, by M. L. & H. G. Emery with an interesting and well-proportioned corner entrance motive; the Central Y. M. C. A., Rochester, N. Y., by John F. Jackson has, as the main features of interest, an arcaded loggia at the top and the cornice over it, both very well done but not related in scale with the remainder of the building. The Central Branch Y. M. C. A. at Cincinnati, by Elsner S. Anderson, is well detailed but with too high a subdivision by the belt at the fourth story windows for the mass above. The Central Branch Y. M. C. A., Brooklyn, N. Y., by Trowbridge & Ackerman, is consistent throughout in scale but lacking mouldings. The Portfolio of "Current Architecture" has two works of Mr. Roland F. Santer, both simple in treatment.

The Architectural Record, June. The first article is upon the residence of Henry I. Harriman, Newton, Mass., by John Barnard, of a simple, Eighteenth Century French chateau type, formal and broad in character, and well-proportioned and detailed. Schenk & Williams, Engineers' Club, Dayton, Ohio, having its second story windows enriched as they are, should have a richer treatment upon its center triple-arched openings and mouldings in the cornice. The use of a classic order and entablature at any point on a building at once demands that a similar regard for finesse shall pervade other important structural factors. Mr. George C. Nimmons illustrates his article "Modern Industrial Plants, Part VII," with his own buildings for the Sears, Roebuck & Company's plant at Chicago. Mr. Nimmons has shown very often a genius for making the utilitarian impressive and interesting. The tower and the administration and merchandise buildings of this plant are designed with power and are effective. It is to be regretted that the remaining buildings were changed in motive. Mr. Fiske Kimball illustrates his article upon "The Social Center. Part II, Philanthropic Enterprises," by Messrs. Peabody & Stearns's South End Houses, Boston Assembly Room, quiet and refined. Messrs. Pond & Pond's Hull House, Chicago, the Polk St. flank of which is a strange jumble of unrelated motifs though the entrance to the

(From "The Architectural Review, London")



An Artist's House in Chelsea, London
Halsey Ricardo, Architect

apartments, is excellent, and Mr. R. Clipston Sturgis's, South Bay Union, Boston, refined and well-proportioned. The portfolio of "Current Architecture" contains a house for Mrs. Henry A. Dalley, Ardmore, Pa., by Tilden & Register, low-lying and attractive and ascetic. Some interiors forming austere backgrounds for excellently selected and installed furniture and rugs in a house for John D. McIlhenny at Germantown, Pa., by Duhring, Okie and Ziegler, who are distinctly artists in their work. Delano & Aldrich's Brown Bros. & Company's Building, New York, looks like a wood cut of Nash's work in London in the first half of the Nineteenth Century. Clement Heaton writes lovingly upon St. Remy at Rheims now much destroyed.

The Architectural Forum, for June, is devoted to hospitals. The various articles are full of valuable instruction and many of the hospitals themselves have distinct artistic merit, especially the following: Scopes & Feustmann's, William West Winchester Memorial Hospital, New Haven, Conn., and Mr. Harold Field Kellogg's, Norfolk County Tuberculosis Hospital, Braintree, Mass., which is admirable. Mr. Andrew J. Thomas in his new garden apartments, Queens County, New York City, has undoubtedly been ingenious and studious in his plans. The general effect of the results, as far as architecture is concerned, is mechanical.

The American Architect, June 4. Allerton House in East 39th Street, New York, by Arthur Loomis Harmon is very well done,

(From "The American Architect")



Allerton House, New York
Arthur Loomis Harmon, Architect

both as to exterior and interiors. It is extremely well-conceived, well-proportioned and massed, textured and detailed with skill. The lounge is an especially fine room, the other interiors have distinction and the roof garden is charming.

The American Architect, June 11. The opening article is upon the Italian house at Miami, Florida, for Chas. L. Briggs, by Gordon E. Mayer. It is attractive, but the balconies seem too heavy and the eastern elevation is somewhat complicated in its approach and the re-entering court. *The American Architect*, June 18. Joy Wheeler Dow writes upon the Villa Borghese. Mr. Dow writes in his usual fashion. Probably he has admirers who consider his style terse and graphic, but his article adds nothing to an appreciation of what is fine in Vasangio's work, which is that of a very skillful appreciation of proportioning spaces and focusing ornament, and maintaining harmonies of relative scale of parts. The illustrations are good. Tracy & Swartwout's design for the National Victory Memorial Building, Washington, is, like most of their work, refined and scholarly. Mr. J. A. Schweinfurth's entrance to Tod Homestead Cemetery, Youngstown, Ohio, has previously been reviewed.

(From "The American Architect")



Roof Garden, Allerton House, New York
Arthur Loomis Harmon, Architect

Architecture for July contains an interesting illustrated article upon Mann & MacNeille's housing development at Three Rivers, Province of Quebec. The scheme is carefully considered, exhaustively studied, foresighted, and on the architectural side is sympathetic with the buildings of the old French town. It is

stated that the type chosen is a "modern adaptation of the French Renaissance." In the main this is true, but the new designs have an English touch in the use of the double gable, and the truncated gables, and certain Georgian details. Perhaps this is expressive and as it should be. There is an article upon the mural paintings by Will H. Low in the State Education Building, Albany, N. Y. Mr. Low's official letter to the trustees on Feb. 20, 1912, thoroughly explains his intention. He takes for his theme "The Aspiration of Man for Intellectual Enlightenment and the Results of his Attainment," and he chose the subjects for the symbolic expression of his theme admirably, and states that the duty of a mural painter is "to provide in the space allotted to his work an agreeable pattern in mass, color and in scale, that shall decorate"—in a word composition, in scale, shape, tone and color. This is the basis of all great mural painting, and Mr. Low has always composed his work—the only question is as to the success of the composition, and we feel that the panels in the passage to

the rotunda are not entirely successful in this respect. Whether numbers one and four should become respectively, numbers two and three is a mere matter of choice and of little importance, but the figures of Icarus in number two and Prometheus in number three have no harmonic composition of pose relative to each other, and the center panels in the rotunda have their groups placed too

low for the height of the figures in the side panels, also we feel the backgrounds to be too literally pictorial with large expanses of atmosphere and sky. This is not an unusual procedure of modern mural painters, despite the examples of the minimizing of landscape by the great masters. Mr. Irving Pond's address upon the status of the architect, read at the Convention of the A. I. A.

at Chicago, may be read with benefit. Mr. David Varon writes upon "Rhythm in our Architecture," very prettily, very truly, very naively. Let him read Penrose and Pennithorne and Kipling's couplet: "You need not take pains to inform us, we knew it some seasons before." The houses of Bermuda are excellent object lessons in simplicity

and good proportions excepting Dorchester House. St. Joseph's Roman Catholic Church, Fort Edward, N. Y., by M. L. & H. G. Emery, needs to have its bell deck window placed higher, and seems heavy in detail—its massing is good.

The Architectural Review, London, July, opens with an excellent article on Baalbek by G. Berkeley Wills, and has a frontispiece of Sir Aston Webb's. The

principal entrance to the Royal College of Science, Dublin, of which the dome is not successful and is perhaps unnecessary, is illustrated. Mr. Walter Godfrey in his first article upon "War Memorials, Suggestions from the Past," treats of wall tablets and illustrates with a series of examples all of which are of the worst period of English Rococo, and to be carefully avoided. The fifth example of "Gems of Architecture" is devoted to the concluding chapters on a Scottish example, Earlshall, Fife, renewed by Mr. Mackenzie, the description of which was begun in the June number. It is delightful throughout—the gardens and interiors are quite as pleasing as the exterior

of the house itself. Chipped yews, grass pathways with flagged margins and flowers on either side are among the charming features of the grounds. The walls of the hall are enriched by their covering of handsome tapestries. Hilltop, Sunningdale, a country house by Messrs. Richardson & Gill, is sober, serious, correct and unlovable but gives an impression of substantial dignity.

(From "The Architectural Record")



Hull House, Chicago, Ill.
Pond & Pond, Architects

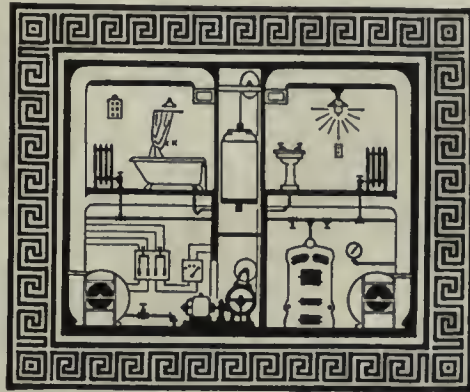
(From "The Architectural Record")



South Bay Union, Boston, Mass.
R. Clipston Sturgis, Architect

EQUIPMENT

DEPARTMENT EDITED BY J. F. MUSSELMAN



DESIGNING FOR LOW MAINTENANCE

THE average useful life of a city building is probably about thirty years, after which it is of no further use, and it is cheaper to tear it down and replace it than to modernize the interior and equipment to the extent that would be required to meet in competition the new buildings of the same neighborhood. This average useful life is, of course, subject to wide variation not only on account of the quality of material, the character of workmanship and the care and foresight in design and maintenance, but, as well, on account of the changing land values, which cannot be foreseen and which sometimes demand that a twelve-story structure not more than ten years old come down to make way for a new one of double its height, or more.

On the other hand, the revision in price of the lot may have been downward and occupants may have availed themselves of their unhappy privilege of moving to another part of town, in which case the building must be held together and patched to disguise the fact that it is a relic, long after its normal life of usefulness has passed.

Structurally, there are used in a well-constructed building very few materials which are subject to deterioration. The foundation, the walls, the steel work and the interior finish are, if properly constructed and reasonably maintained, in almost

as good order at the end of thirty years as they were when the building was new.

But with the equipment it is different. This is not used in a passive sort of way, but is actively busy every day of the building's life. Although its original cost was only 25 per cent. of the total value of the building, the maintenance charges which it has to bear are over 50 per cent. of the total cost of maintaining the building.

There is no reason to assume that some of our most modern ideas of perfection in building equipment will not be laughed at thirty years from now, but it is very difficult to guess which particular parts will meet with the disfavor of the coming generation and which other parts will be considered good enough to retain.

Hence, one of the most important points to be attained in the design of the equipment is to make the normal, useful life of as many parts as possible equal to the probable useful life of the building shell; on the theory that systems and devices in general have now been perfected to such a point that they will not be altogether useless within that time.

However unlimited the first cost of the equipment may be and however carefully it may be designed, some individual parts of the equipment will have to be renewed once or twice or many

times. This situation must be faced as it stands and it is necessary to study in the design of the equipment not only the provisions for lengthening the life of the parts most susceptible to deterioration, but also the possibilities of removing and replacing such parts when they can be used no longer.

Taking in order the individual branches of equipment work, it may be of interest to mention some of the more vulnerable points, with suggestions as to how their maintenance costs can be reduced or their renewal provided for.

In the elevator equipment, a large per cent. of the maintenance cost and an equally large part of the time lost by shut-down is on account of cable renewals. To this question of cable renewal costs fully as much attention must be given as to the current consumption per car-mile. It is not only possible, but oftentimes the case that an elevator installation which shows a remarkably low operating cost in current will show such a high maintenance cost in cables as to make cost per year excessive.

The data available in connection with the probable life of cables is indeed limited, and so little attention has been paid to it, that it is difficult to know what may be reasonably expected. The cables are not put in under any fixed guarantee, and innumerable opinions may be had as to the relative merits of cables of different kinds. With machines of any given kind, roped without back bends, and with a fixed ratio of diameter of sheaves and cables, there seems to be no good reason why elevator cables should not be bought with a mileage guarantee with adjustments allowed where the guarantee is not fulfilled, in the same way that automobile tires are sold. It is not unlikely that such a guarantee on cable life would make easier the introduction of the single-lap or "V" groove traction machine that is now making its appearance. Recently the quality of cables has been shot to pieces by the war, and cables have been sold as a special favor to the buyer, but with a resumption of normal conditions and better competition it is reasonable to expect that the cable or elevator manufacturers will come to this.

With an ordinary low pressure system, or vacuum system of heating, one of the principal items of upkeep is the maintenance of boilers and boiler settings. The boilers themselves, with reasonable care, are almost indestructible. The cracked sections of cast-iron boilers and retubing of steel boilers are more often chargeable to faulty operation than to defects in construction or to deterioration.

The degree of care with which the boilers are cleaned and laid up for summer is another factor in the maintenance cost over which the designer has no control.

The grates and the lining of brick settings will burn out and have to be renewed however they may be constructed. It does not follow, however,

that all kinds of setting linings have about the same length of life. One additional year in the life of a boiler setting will easily cover the difference in cost between the best possible lining and the cheapest one procurable.

The pipes of a heating apparatus are subject to little corrosion and practically no wear. Under ordinary conditions they may be expected to last as long as any other parts of the building. There are, of course, exceptions to this, such as return-bend pipe coils where the lower pipe carries air-laden return water, which is most corrosive. Another exception worth mentioning where the internal corrosion is high, is the air piping, designed, sometimes in 1/2-inch sizes, to conduct the air from the air valves—the ones that invariably stop up with their own rust and are usually discarded after a few years' use. And the pipes with acid-forming insulation in damp places, and the ones buried in wet cinders must not be overlooked, for with them the external corrosion is immediate and rapid.

The quality of the valves, especially the radiator valves is worthy of careful consideration. Some will outlast the building, others will last, with a few repairs, for one or two heating seasons. With the high cost of brass and much competition, the cheaper radiator valves have been reduced in weight to such a point that there is little chance of any part of them holding together for the ten thousand operations or more, which should be required of them. The packless feature, recently introduced, can never make up for the lack of weight, for, after all, it is a very inexpensive matter to repack a radiator valve and a comparatively difficult process to renew one.

With the plumbing system, if the fixtures selected are of a grade and of material adapted to the conditions, which, by the way, eliminates renewal of crazed porcelain ware; then the maintenance charges will be reduced to the renewals of inferior brass work, and the replacement of pipes and tanks destroyed by corrosion. The fact that light and inferior brass parts and trimmings of plumbing fixtures constitute the worst possible investment is so self-evident that it is hardly worth mentioning.

The corrosion of pipes in the plumbing system, especially those conducting hot water, is one of the most serious questions that has to be provided for in the design. They are ordinarily concealed throughout, necessitating extensive repairs and re-decorations when they are renewed and until very recently nothing had ever been done to prevent their corrosion.

The deterioration and maintenance of electric work concern largely small items that require constant attention and a number of repair men. More attention to the quality of such small parts as switches and bell pushes is worth while in the equipment design in order to reduce this item of maintenance.



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EDITORIAL COMMENT ON ARCHITECTURE & THE TIMES

TWO of the factors in the future cost of building material that are of more importance than is often realized are the probable large expansion of lumber exports and the progressive exhaustion of our sources of lumber supply.

These elements of the problem have recently been given special study by the Forest Service of the United States Department of Agriculture. Colonel Henry S. Graves, chief of the Forest Service, has set forth the conditions in a circular recently issued by the Department of Agriculture.

It is pointed out that the exportation of American lumber on the scale likely to result from the European demand for material will, unless accompanied by provision for regrowth, seriously deplete the supplies needed by home industries.

The situation is especially critical in the case of certain of our highest grade woods, such as ash, oak, hickory, yellow poplar, black walnut, and with southern yellow pine of which the main bulk of the supply is reported approaching exhaustion. This fact is especially significant because large quantities of this wood are likely to be exported to meet foreign demands in reconstruction work.

It is recognized that meeting this situation does not, however, necessarily demand the discouragement of exportation, for the United States stands second among the countries of the world in forest area and produces more than half of the sawed lumber. It should, naturally, play a more important part in the world's lumber trade than in the past.

The avoidance of exhaustion of our supply of lumber, obviously lies in taking steps to safeguard and develop our timber resources. This action would be in line with the policy adopted by the leading industrial nations, for not only the nations that produce lumber largely and are exporters but those nations whose countries are not heavily wooded have in general shown an appreciation of the importance of caring for the source of lumber supply.

If our sources of lumber supply are properly safeguarded from now on, the development of a strong export trade in lumber seems highly desirable. It must be remembered, however, that the exportation of any merchandise or raw material in order to be successful must be backed by ample resources, and that the only way in which the exportation of lumber can be made a permanent source of income to this country is through the carrying out of provisions for regrowth of timber which will make our supply of timber a continuous self-perpetuating resource.

As an example of the insecurity of an export trade in lumber that has not a proper supply back of it, the case of our supply of old growth southern

pine, which will not supply even our own domestic needs for more than the next ten or fifteen years, is cited.

The report of the Forest Service shows that before the war we were exporting 3,500,000,000 board feet of lumber and saw logs, nearly half of which was southern yellow pine and more than one fifth of which was made up of hard woods, about ten per cent. of our total cut. This was partly offset by the importation of 1,500,000,000 board feet of lumber and logs, 1,000,000,000 cords of pulp wood, 895,000,000 shingles and 565,000,000 lath imported from Canada. More than 1,140,000,000 pounds of wood pulp and 600,000,000 pounds of book paper, newsprint paper and wrapping paper were imported from various European countries. Many other articles and products derived from wood were also imported, relieving to a certain extent the drain upon our own timber resources.

It is stated that the emergency need for lumber in Europe above the consumption in normal times is estimated at about 7,000,000,000 feet of lumber a year in the near future. As the European forests have been depleted by the war, demands upon the lumber resources of the United States will be particularly large.

The report states that the leading countries of Europe must continue to be large importers of timber. In Europe only Russia, Finland and Sweden, it is stated, can increase their timber exports without lessening their forest capital. In other parts of the world still possessing vast timber areas, the forest resources remain largely inaccessible and do not contain the common soft woods that are the chief timber product of international trade.

It is pointed out, however, that Europe needs mainly cheap lumber for reconstruction, and that our product will not be attractive for her principal needs, nevertheless the situation affords an opportunity for a permanent export trade that would seem to be limited only by our powers to sustain the production of raw material.

THE publication of a pamphlet by the Bureau of Education, at Washington, under the title, "Industrial Art a National Asset," is a step in advance. The pamphlet is by H. M. Kurtzworth, director of the Grand Rapids School of Art and Industry. The introduction is by Miss Florence N. Levy, general manager of The Art Alliance of America.

The realization that without numerous skilled artisans and trained craftsmen the execution of architectural detail of a refinement and beauty must remain difficult of accomplishment, is growing to be a recognized fact.



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THE work of John Vincent, a young artist, whose remarkable ability in architectural rendering has recently received the recognition it merits from many of the most prominent architects, is the subject of the opening article in this issue. Examples of Mr. Vincent's manner of handling different mediums in the representation of a wide variety of architectural subjects is shown in the text illustrations and in the plate pages on India tint paper. Some of this artist's sketches which are interesting examples of technique are also shown.

An article that is especially timely because of the interest now being taken in war memorials is the description of the Washington Memorial Chapel at Valley Forge, Pa. The chapel and the cloister which adjoins it, are part of a proposed group of memorial buildings to commemorate the heroism of the officers and men of the Continental Army encamped at Valley Forge during the winter of 1777-78. The chapel is especially intended as a memorial to the character of Washington as a churchman, for he was a communicant and lay reader of the Protestant Episcopal Church.

The work on the chapel and the cloister has progressed far enough to make the taking of satisfactory photographs possible, and a number of photographic views of this building have been made a feature of the plate section. This building is an interesting example of ecclesiastical architecture and of continued interest in a memorial project. The work has been in progress about sixteen years, being carried forward as circumstances permitted. The funds for the building have been derived from contributions by individuals and patriotic societies, and the land upon which the buildings are being erected was also a gift. Pains-taking care has been devoted to the design of every part of the building and of its furnishings in order that it might be in every way a worthy memorial. The architects are Messrs. Zantziger, Borie & Medary.

The building for the Trenton Banking Company, Trenton, N. J., of which Messrs. Dennison & Hiron

were the architects, is a well-designed bank of a size suited to the requirements of the average banking institution of a high class. Founded in 1804, this bank has always been known as the "White Marble Bank" and the buildings the institution has occupied for over a century have always been constructed of white marble. For this reason this material has been used for the exterior of the new building. Photographs and plans as well as a description are presented.

In a thoughtful article, Mr. C. Howard Walker discusses "War Memorials." His analysis sets forth the purpose of war memorials and the controlling principles that should govern the architectural expression of this purpose.

In "The Review of Interiors," the department edited by Mr. J. H. Phillips, the subject discussed is "Nineteenth Century Interiors." Special consideration is given to the Empire manner of interior treatment, the most important of the Nineteenth Century developments in decoration. Work of the period, in this country and in England, is also touched upon, the changes of manner being traced to their origin in political and social conditions of the times.

"The Review of Recent Architectural Magazines" contains helpful comments on the buildings illustrated in many current publications. It is edited by Mr. C. Howard Walker.

In "Equipment," the department conducted by Mr. J. F. Musselman, the development of air vents and return valves is traced and their vital importance in steam heating is shown in a clear and very readable article under the title "The Part of Air Vents in Steam Heating Progress."

In addition to the regular plates which show illustrations relating to subjects treated in the text, there are supplementary plates continuing the series of Old French Churches and of Temples of Japan, including a view of Horyuji Temple, the oldest temple in Japan, built 607 A. D.

IN THE OCTOBER ISSUE

The leading features of the issue of THE ARCHITECTURAL REVIEW for October will be photographic plate illustrations, text illustrations, plans and descriptions of two admirable country houses, one by Messrs. Delano & Aldrich and the other by Messrs. Hiss & Weeks, and illustrations and descriptions of some interesting groups of farm buildings of which Alfred Hopkins was the architect. A large business building will be illustrated and described. "The Review of Interiors," "The Review of Recent Architectural Magazines," "Equipment," and the plates of French Churches and of Temples of Japan will be continued.



Courtesy of the Art Institute, Chicago

THE FOUNTAINS

FROM A PAINTING BY HUBERT ROBERT

(Paris 1733-1808)

The ARCHITECTURAL REVIEW

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IX

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SEPTEMBER, 1919

Number
3

DRAWINGS BY JOHN VINCENT

CHARACTERISTIC RENDERINGS OF ARCHITECTURAL SUBJECTS
AND INTERESTING SKETCHES

THE drawings by John Vincent reproduced here and in the plate section of this issue represent this artist's work in various mediums—in water-color, in pastel, drawings on stone, drawings in lithographic crayon on paper, and sketches for engraving on copper. It is worthy of note that in each medium Mr. Vincent's style is entirely distinct from his manner of working in every other medium. In each case he has been controlled evidently in the development of the method of handling by an appreciation of the character, limitations and possibilities of the medium.

A typical example of his manner of handling water-color is the drawing of St. Thomas's Church, New York, which is reproduced at small size on this page. Though the color is unavoidably lost in this illustration, and with it much of the beauty of the original water-

color drawing, the reproduction conveys an idea of the technique.

An interesting contrast to this picture is afforded by the drawing in pastel, "Canterbury at Dawn," which is reproduced on page 66. The latter drawing reveals the artist's appreciation of the opportunities afforded by pastel colors to produce effects of great tenderness and delicacy of tone and tint.

These qualities have been developed to such a degree in this picture that the tower and pinnacles of the cathedral are suggested rather than shown through the early morning mist. They are not defined, still an impression of their architectural character is conveyed. Though in parts they are barely discernible, and at the most are but dimly seen, a sense of solidity and permanence has been retained that accentuates the lightness and ephemeral character of the



Bertram Grosvenor Goodhue, Architect

St. Thomas's Church, New York, in Water Color



"Canterbury at Dawn," in Pastel

enveloping mist. It seems as though details of the main tower can almost be discerned, for with this knowledge of the detail of this building the artist has been able to suggest much in this picture. Almost in monochrome, for it is done in a seemingly infinite number of delicately graded tones of grey, this picture contains hardly-perceptible notes of closely harmonized color.

Many of Mr. Vincent's drawings are made with the lithographic crayon, for he not only makes drawings on stone for reproduction by the lithographic process, but prefers to use the lithographic crayon when drawing upon paper, whether the particular work in hand is to be lithographed or not.

The positive black of this crayon obliges the artist to do decisive, clean drawing and to get his effects in a direct and positive manner. A characteristic of this medium is that the crayon brings out the texture of the stone or the paper readily and this gives a rich, velvety quality to the lines.

Taking advantage of the opportunity to produce rich textures in this medium, Mr. Vincent has established a convention in the treatment of

the sky which he consistently observes. Instead of endeavoring to suggest the natural appearance of a sky, by indicating clouds or by other means, he simply fills the sky space with graduated areas of tone that are rich and pleasing in texture.

When one has accepted this treatment of the sky as a convention, and ceased to consider it in the light of a representation, its suitability to the purpose is apparent. By its simplicity, it serves as a foil for the buildings which it brings into prominence, and at the same time it fills the space with a texture that carries the same technique as the rest of the picture. The gradation of tones gives a sense of distance back of and above the building. It also serves to confine the eye within the area of the picture and to center it upon the building.

The way in which Mr. Vincent varies this method of sky treatment to suit the character of the building represented is to be seen readily by comparing the drawings reproduced in the plate section which show the use of this method. It will be noted, for instance, that the sharpest gradation of tone is used in the sky of the drawing of a design for a church in the Gothic style,



Cod Fishers, St. John's, Newfoundland

with the character of which this treatment harmonizes. In the drawing of the Graham Memorial Building, a sky treatment of this type has been broken up into small tone-areas by being covered with a network of slender tree branches that give it a lightness and delicacy in harmony with the Georgian design of the building and an irregularity that accentuates the quiet dignity of the colonnade. In the drawing of the design for the New York City Colosseum, a rich but delicately graded texture fills the sky space, bringing it into harmony with the character of the building, of which the order of the colonnade is the keynote. In the drawing of the design for a memorial to the Seventy-seventh Division, A. E. F., a heavier and more solid texture has been used to bring the sky into harmony with the feeling of the colonnade to which its depth of tone imparts a luminous quality.

Though these drawings bear evidence of the artist's thorough academic training, they are in no sense academic, but are marked by individuality and freedom. They are broad in treatment, vigorous and brilliant, as they should be for the

purpose of presenting the general appearance and character of the proposed structure without undue attention to detail, which is, nevertheless, effectively suggested.

Of an entirely different type well adapted to the character of the subjects are Mr. Vincent's drawings of Gothic cathedrals and churches. In these drawings he has rendered faithfully, but without any suggestion of hardness or of the microscopic, the myriad details which are so essentially a part of Gothic architecture. He has conveyed the tenderness, the human appeal of the Gothic, as well as its spirituality; the charm of its delicate detail, as well as its dignity of composition and its impressiveness of mass.

With a fine sense of fitness Mr. Vincent always makes any figures he introduces into his architectural drawings seem part of the scene, so much so in fact that they provide the desired suggestion of human life and give the scale while they do not attract attention to themselves.

In his drawings of famous old European monuments of architecture, he has presented fresh inter-



Fishing Boats



Unloading Codfish, St. John's, Newfoundland

pretations of buildings that have been drawn over and over again by the artists of many generations. He has done this through the individuality of his way of seeing things and of his technique in rendering what he sees, rather than by any effort to present these buildings from a new angle or to force an effect by striving for striking composition. This may be due to the fact that his drawings of old buildings made during his travels are primarily studies in which he has evidently endeavored to render the character of the building and his pleasure in its contemplation in a subjective manner, suggesting the detail previously studied with care.

His drawing of the façade of Rheims is masterly in the handling of light and shade and in the rendering of the architectural character of the building. The portal of Milan, represented on one of the plate pages, is drawn in a manner in accord with the different character of the building. The portal of the interesting old church of Saint Merri in Paris is rendered in an equally pleasing manner.

A keen feeling for character in architecture—of sympathy with the spirit of the building he draws—is evi-



A Canadian Landscape



McKim, Mead & White, Architects

The Hotel Pennsylvania, New York, a Drawing on Stone

dent in Mr. Vincent's work as well as a thorough knowledge of Gothic and Classic architecture. Sensitiveness to the character of different mediums is shown by this artist's choice of the medium in which he renders each building and in the way in which he develops the distinctive qualities of each medium.

The characteristics which give interest and value to Mr. Vincent's work have been developed by his architectural and artistic training in this country and in Paris and by the thoroughness with which he has studied the fine old buildings of

Europe during his travels, for he has sketched persistently and earnestly.

Much of the charm of Mr. Vincent's drawings is undoubtedly due to his interest in landscape drawing and in the pictorial representation of the activities of every-day life. This counteracts any tendency to dryness or hardness which might come from the exclusive rendering of architectural subjects. It gives increased freedom, breadth, and sense of atmosphere and affords valuable exercise in technique. Some of these sketches are reproduced at small size, on this page. Those of fishing scenes being doubly interesting, for they represent a characteristic phase of the life of Mr. Vincent's native Newfoundland, in addition to being good examples of technique. The spirit of the scene has been caught and admirably revealed in each case.



A Labrador Landscape

THE WASHINGTON MEMORIAL CHAPEL AT VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS

A NOTABLE expression of patriotic sentiment, as well as an interesting building from an architectural standpoint, is the Washington Memorial Chapel at Valley Forge. It is part of a projected group of memorial buildings intended to perpetuate the memory of Washington and of the officers and men of the Continental Army encamped at Valley Forge in the Winter of 1777-78. Thousands of these men died from the effects of exposure and from lack of food and clothing and were buried on the hills about the encampment. The chapel overlooks this historic ground.

Since the building of this memorial was inspired by an appreciation of the heroism of these men and by veneration for the character of Washington as revealed by the manner in which he met the severest trials of his career at this place, it is fitting that this chapel should have an expression of dignity, repose and strength as well as a suitable ecclesiastical character. In accord with this feeling, evidently, the architects, Zantzinger, Borie & Medary, have given this building a more massive type of design than is usual in churches of its size and have incorporated a suggestion of the character of a mediæval fortress, so far as is consistent with the purpose of a church.

The Washington Memorial Chapel and the Cloister of the Colonies, which adjoins it, have now progressed to a point approaching completion. The features which are still lacking, mainly in

the interior, are certain individual memorials. Their absence does not greatly affect the general appearance of the building.

The rough exterior walls are of Holmesburg granite, while the cut stone of the exterior and the tracery are of Indiana limestone. The entire interior is of the latter material, including the pulpit, lectern, font, altar and perclose.

Incorporated in the design are many details that are of either a symbolic or heraldic character, notably the arms of Washington, the Crusaders' cross and various ecclesiastical symbols. These have been employed in the ornamentation of the pulpit, lectern, font and other important features of the interior and in some instances on the exterior.

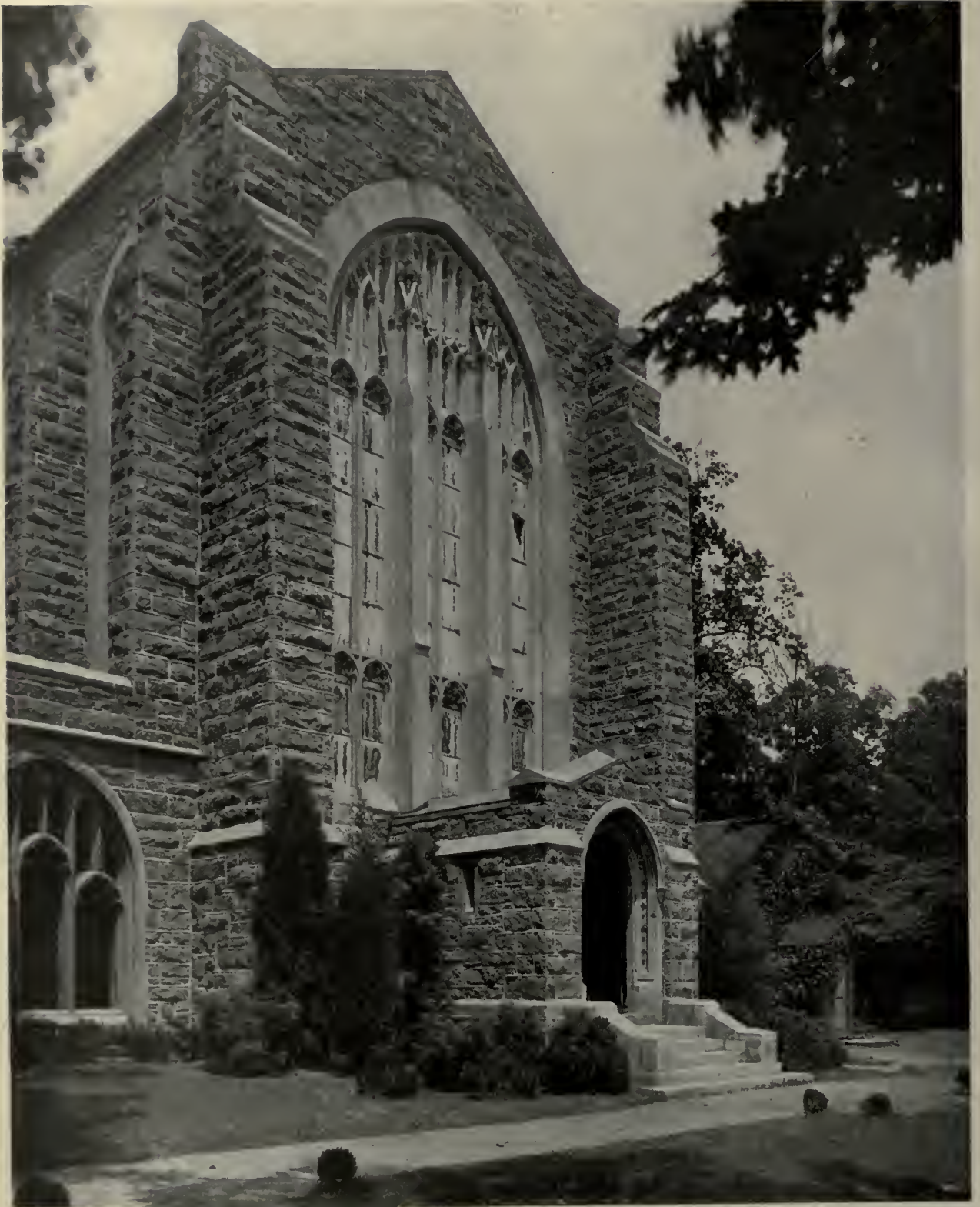
The windows depict the history of our country: the discovery of America, the settlement of the colonies, and the development of the nation. The series leads up to the representation of the life of Washington, which will be shown in thirty-six medallions in the west window. These windows commemorate great leaders of the Revolution.

Forty-eight panels compose the ceiling, each dedicated to one of the States of the Union, the whole representing the nation which grew out of the thirteen original colonies.

The pews bear evidence of having been designed with the same care that has been bestowed upon the other parts of the building. One, known as the Presidents' Pew, is dedicated to the memory



General View



PORTION OF CHAPEL WITH OLD CHAPEL AT THE RIGHT
THE WASHINGTON MEMORIAL CHAPEL, VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS



Arched Drive Through the Cloister of the Colonies

of the men who were at Valley Forge and later became Presidents—Washington and Monroe.

The pew screens are also of interesting design and workmanship. They bear inscriptions, symbolic motifs and devices, including carved and colored representations of the flags of various divisions of the Continental Army.

At the right of the choir, the choir stalls have been placed in position. In the niches at the top are figures represented in the uniforms of Continental commands with which these stalls are associated. Above each stall will hang a flag reproducing the colors of the command. Some of these flags can be seen in the photographs. There will be sixteen of these flags in all, including the colors of two French regiments that served in this country. The panels of the reredos are to be enriched with decorations that will carry the same color scheme as the window above.

In a canopied niche by the lectern, stands a bronze statuette of Washington by Franklin Simmons, cast in Rome. It is a memorial to the late wife of the rector of the chapel and was presented by her friends.

The Cloister of the Colonies adjoins the chapel, and when completed will form three sides of a hollow square, the wall of the chapel forming the fourth side. Ten of the thirteen bays of which it is to be composed are now built. Each bay is to represent the officers and men who served in

the Revolution from one of the original colonies. The colonies not yet represented are Rhode Island, Georgia and North Carolina. The cloister is built of Holmesburg granite and Indiana limestone, like the chapel, and the floors are of Knoxville marble. In the floor of each bay is a large brass representation of the seal of the colony. In the center of the ceiling of each bay is emblazoned the arms of the state.

A drive passes under the arch of the Virginia bay and enters the Washington Memorial Cemetery. A door opens from the cloister into the chapel. In the space which will be enclosed by the cloister, facing the chapel, is a bronze figure, "Sacrifice," by the late Bela Pratt.

The project is to include, in addition to the Washington Memorial Chapel and The Cloister of the Colonies, a building to be known as Patriots' Hall, in which patriotic societies may meet; the Thanksgiving Tower, overlooking the encampment, a library of documents relating to the Revolutionary period and a museum of historic relics.

The buildings still to be erected will be placed on the opposite side of the chapel from the cloister and will be of the same materials and in the same style as the portions already built.

The tower, as designed, is to be one hundred feet in height and topped by a crenelated parapet with a turret upon which will be mounted a flag-



Detail of The Cloister of the Colonies



INTERIOR OF THE CLOISTER OF THE COLONIES
THE WASHINGTON MEMORIAL CHAPEL, VALLEY FORGE, PA.
ZANTZINGER, BORIE & MEDARY, ARCHITECTS

staff. The interior of the tower will be of Indiana limestone, the stairs to the second floor and to the bell-floor will be of granite with a hand-rail of bronze. There will be a chime of thirteen bells.

The building of this group of memorials was proposed by the Reverend W. Herbert Burke, some sixteen years ago, and he has worked constantly since that time to bring about the realization of his conception that sprang from the deep impression of the religious character of the founders of the nation and particularly of the character of Washington as a churchman.

The cornerstone of the chapel was laid by the Bishop Coadjutor of the Diocese on the one hundred twenty-fifth anniversary of the evacuation of Valley Forge. The first service was held on Washington's birthday, 1905, the lower portion of the building having been erected and covered with a temporary roof. Work was resumed in 1912, and has been continued as circumstances permitted. The small wooden chapel, built for temporary use, stands beside the new chapel, and may be seen in one of the photographs reproduced in connection with this article.

A very valuable contribution to the history of Revolutionary times, as well as a help to visitors to Valley Forge, is the Reverend Mr. Burke's "Valley Forge Guide," which covers the history of this section and in addition supplies detailed in-

formation regarding the development of this memorial. The Reverend Mr. Burke is rector of the chapel.

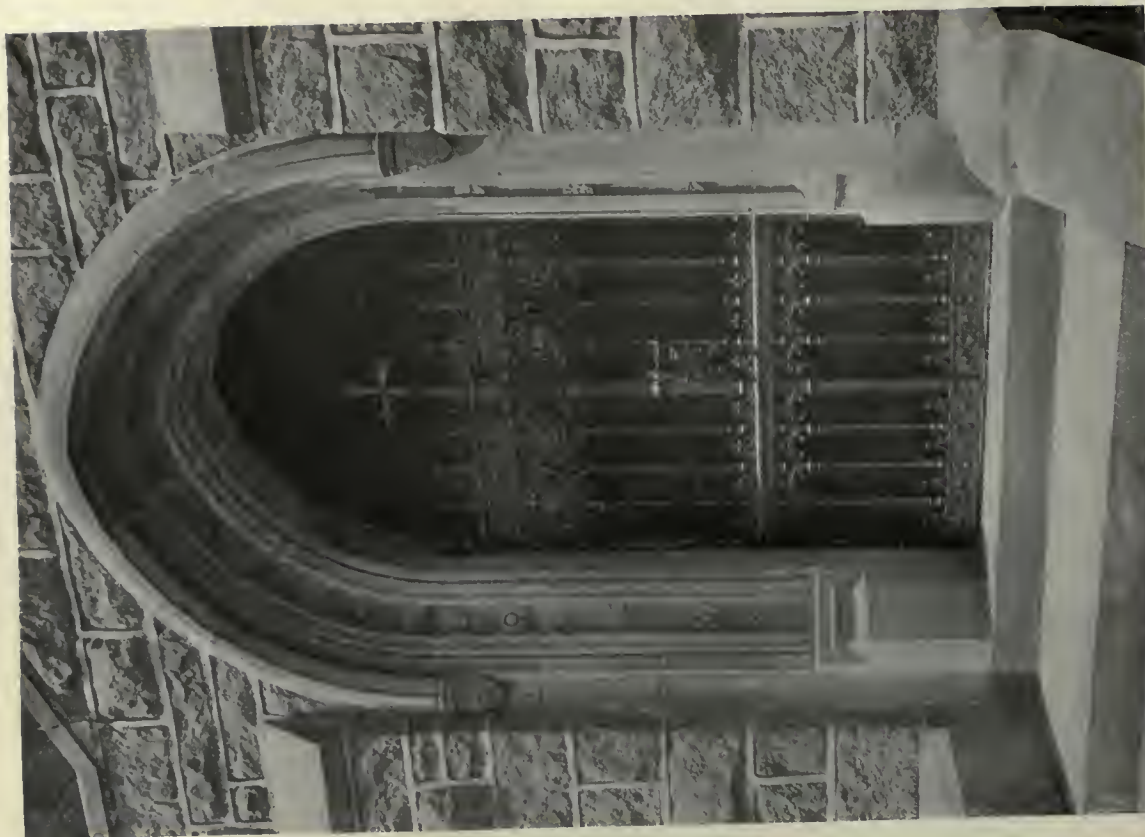
The steady carrying forward of this project over a long period of years has demonstrated that a memorial of this character can be a continuing source of interest in which many memorials, of varying cost and character but identified with the main thought, may be incorporated. This memorial has been built so far and is to be carried to completion by means of contributions from individuals and organizations who have made special gifts. The land upon which the chapel stands was given. In many cases these contributions have taken the form of portions of the buildings which are made memorials to some man or group of men who served at Valley Forge. The

entrance porch, the beautifully wrought doors, pulpit, font, and the other interior features are, for instance, memorials of this kind.

The Washington Memorial Door, an illustration of which is shown, was given by The Colonial Chapter, Daughters of the Revolution. The Massachusetts bay of the Cloister of the Colonies was presented by The Massachusetts Society, Sons of the American Revolution, and the New York bay by the Society of Colonial Dames of America. Other societies, some religious and some of a patriotic character and many individual contributors have aided in the creation of this memorial.

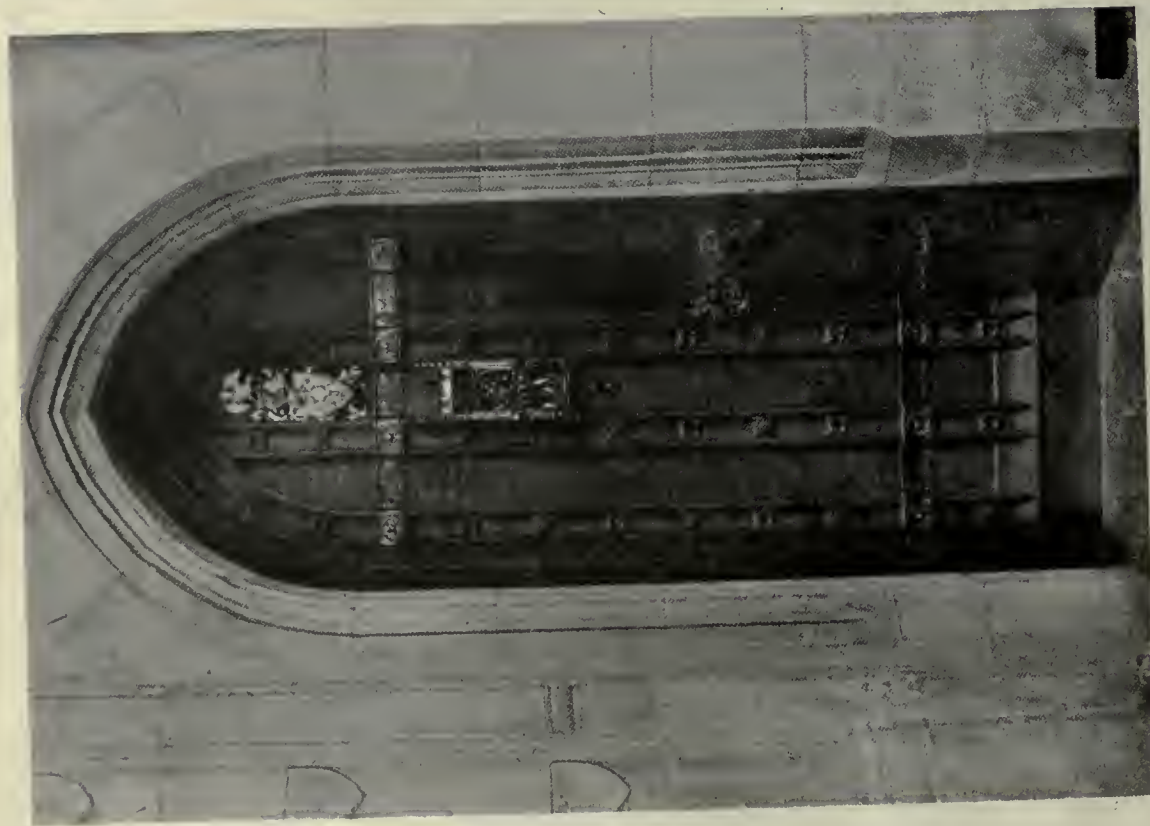


The Washington Memorial Door



MEMORIAL TO LIEUT. SAMUEL WALES AND LIEUT. THOMAS CUSTIS
VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS



MEMORIAL TO BRIGADIER-GENERAL JEDEDIAH HUNTINGTON
THE WASHINGTON MEMORIAL CHAPEL,

BUILDING FOR THE TRENTON BANKING CO. TRENTON, N. J.

DENNISON & HIRONS, ARCHITECTS

A BANK building that is pleasing in design and planned to take care of the future development of the business of the institution as well as to provide suitable accommodations for the present business, is the building for the Trenton Banking Company at Trenton, N. J., of which Messrs. Dennison & Hirons were the architects.

The exterior is dignified and restrained in treatment, but its simplicity is relieved by touches of ornament that enrich the building, and by the effective handling of piers and arches.

The exterior is of white Vermont marble. This is in keeping with a tradition of the institution, which has always been known as "The White Marble Bank," and the buildings it has successively occupied have always been of white marble. This banking house was founded in 1804 and it has been closely associated with the development of the country throughout its existence. Both the exterior and the interior are marked by the richness and good taste combined with an air of up-to-date business efficiency desirable in the appearance of a bank.

The building is situated on a street corner and

there are entrances from both streets. These entrances give access to a spacious banking room. The first impression one receives of the interior is that of modest richness of design and of an inviting and agreeable color scheme.

The gates and grilles and the tracery of the bronze vestibules are finished in light bronze, harmonizing with the polished Botticino marble balustrades that surround the generous spaces allotted to the officers and customers at either side of the entrance on the longer front of the building.

The bank screen is of light statuary marble delicately modelled and polished. The base is of Botticino marble. Seen against the walls, arches and pilasters of grey Travertine, the contrast is effective.

The deeply coffered soffit of the plaster ceiling shows a well-modelled design, while the vertical face of the ceiling well shows figures and festoons in relief.

At one side of the main entrance is the ladies' reception room which is finished and furnished in American walnut. Mirrors, draperies, furniture of pleasing design, and a handsome Chinese rug give this room an air of refinement and com-



Detail of Facade

fort. Opposite, is the office of the president of the bank. This room is furnished in a simple, comfortable manner.

The daylight throughout the main floor is especially well distributed. The lighting fixtures on the bronze check desks and the electric lamps on the desks and tables are unusually successful in design.

The vault work embodies the latest ideas in protection and the vaults are ample in capacity. The large circular vault door, which can be seen in the general view of the banking room, swings on a heavy crane and, though it weighs several tons, it moves with the greatest ease.

The lock and time mechanism show through the plate glass that covers the inside of the door. The large fireproof vault in the basement is reached by means of an automatic electric lift. The heating is by steam from concealed radiators under thermo-

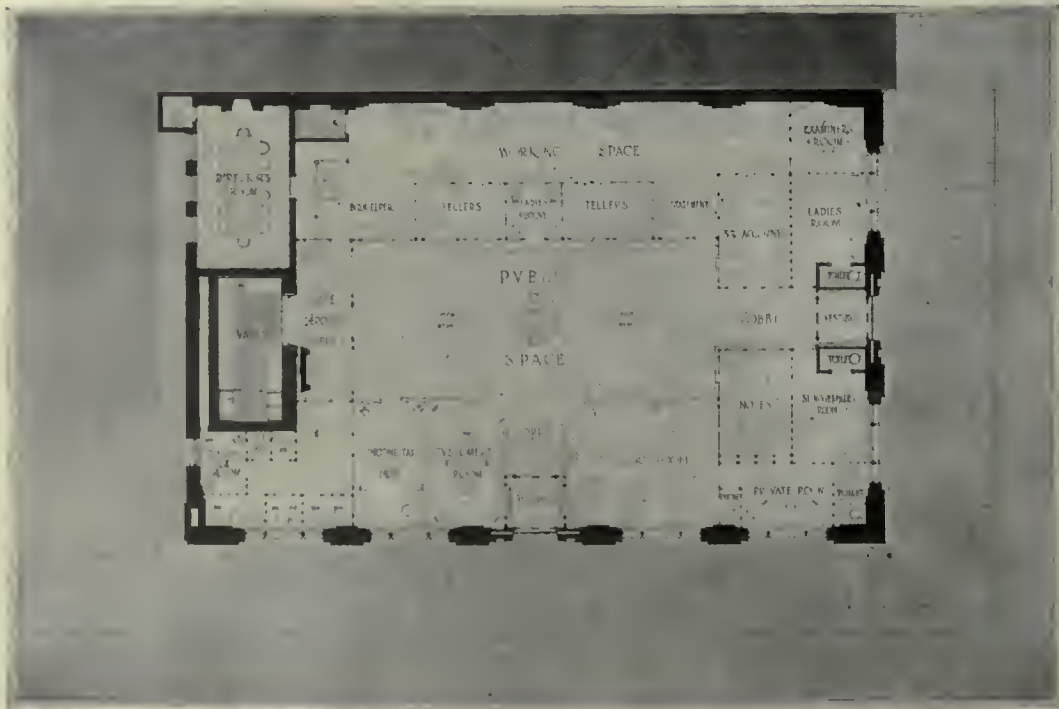


Ladies' Reception Room

static control. There are complete telephone and signal systems.

The safe deposit and Liberty bond departments are conveniently located, and are furnished in good taste. They include committee rooms and coupon booths. In the directors' room casement windows open upon a garden. These casements are filled with leaded glass with painted glass inserts. The vaulted ceiling of the directors' room is modelled after the Italian Renaissance manner. At one end of the room a marble fireplace interrupts the rich brown oak panelling which covers the walls.

The banking room on the first floor provides for the bank's safe deposit business but, anticipating the future development of this department, space has been provided in the basement of the building for it, and stairs and elevators have been conveniently located to



Ground Floor Plan

serve the department whenever it may be so located.

At present the basement contains trunk storage rooms, book storage vaults, a clerks' luncheon room with adjoining kitchenette and an open space forty feet square to be developed as may be required in the future, also a room for general storage. In addition to these there are in the basement, a machinery room for the elevator machine and the vacuum cleaning machine, a clerks' locker room, toilets, janitor's room, boiler room and coal bunkers. A space has also been provided for an electric sidewalk lift and its machine for taking trunks in and out of the trunk-storage space. Shower baths and dressing rooms are connected with the clerks' room.

There are electric watchmen's stations throughout the building and the vaults are electrically protected, connection being made with a police station.

The plan of the main floor has been carefully arranged with reference to the requirements of the business, provision having been made for the most convenient and expeditious operation of all the departments. At the right of the entrance in the longer front of the building is an officers' room of ample size. Next to this at the right is the note teller's room. A private room for consultations lies beyond this room, communicating with the stenographers' room. A telephone booth is conveniently placed be-



Basement Plan

tween the consultation room and the officers' room.

The ladies' reception room is located at the right of the second entrance. Next is the saving tellers' room and beyond, to the left, are the paying tellers' space, the ladies' alcove and the receiving tellers' space, in the order mentioned.

Back of the tellers is the bookkeepers' working space. On this side of the room, in the corner of the building, is the examiners' room.

Beyond the bookkeepers' working space are the elevator and the entrance to the directors' room. The safe-deposit department, the vault, etc., together with the directors' room occupy the rear portion of the building. Here are a coupon room, booths and all other conveniences for the customers of this department. The income Tax department and the customers' room are between the space given over to the booths of the safe deposit department and the entrance lobby. There is ample open space in the center of the room to provide easy access to the various departments.

Bank design is a matter of timely interest at present, for, according to a recent official report, one hundred eighty-nine new banks were granted charters and two hundred twenty-four others were authorized to increase their capital within a period of six months, indicating that activity in the construction of buildings for banking purposes may be expected soon.

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Detail of Window Grille



EXTERIOR DETAIL OF ENTRANCE

BUILDING FOR THE TRENTON BANKING CO., TRENTON, N. J.

DENNISON & HIRONS, ARCHITECTS



INTERIOR DETAIL OF ENTRANCE

WAR MEMORIALS

THEIR PURPOSE AND ITS EXPRESSION IN ARCHITECTURE. THE QUESTION OF UTILITY. AVOIDING THE MISTAKES OF THE PAST

THERE have been excellent articles upon War Memorials in various architectural publications, and good advice has been given by the American Federation of Arts to committees in charge of such memorials, but one or two phases of the subject are still open for further discussion and consideration.

For what purpose is a war memorial and with what desire is it erected? The answer would seem to be, to perpetuate the memory of the defenders of our national ideals and institutions, in the places from which they came, associated with such perpetuation in inscription or in symbolism as will express the nobility of the cause and the success of the achievement, the Victory, and will be the acknowledgment of the debt of gratitude owed and sense of appreciation felt by the community. All of these are high and dignified motives, deserving the noblest expression. All of these sentiments are universally felt for the dead, and many of them for the living men who participated in the conflict and helped to win the victory.

In what degree should a memorial be devoted to the activities of the living? The answer to this question determines the decision as to the type of memorial to be built. If the activities of the living soldiers and sailors are to be made a fundamental factor of war memorials, then rooms of a social character may be associated with memorials, but it is doubtful whether they are in any way essential to the memorial purpose, nor is it probable that such rooms and buildings will awaken the enthusiasm as years go on, which is anticipated of them. We are not a military nation, the majority of our defenders return to civil life. They have many and varied interests, and their social life is influenced by these interests. The bond of having participated in a war will group bodies of men together mainly on the anniver-

saries of events in that war—which will occur only occasionally and will lose much of their significance with the death of the participators, and rooms or buildings for such purposes will eventually change in character and may become a burden for unnecessary maintenance.

Rooms for memorial ceremonies, however, are in a different category. In such rooms the spirit of the past will always be met by the spirit of the present, and it is justifiable to associate these rooms with a memorial and they should be of a size proportionate, first, to the prospective size of the audience, second, in proportion to the probable cost of maintenance. But even such rooms will be used only occasionally for the purposes for which they were intended, and there will be a constant solicitation for their use, most of the time for purposes never contemplated in a memorial. The argument that any noble intention will be sympathetic to the original purpose is somewhat sophisticated, the wish often being father to the thought.

One of the principal suggestions, i.e., the introduction of the memorial within a building of entirely utilitarian character, because the funds for such a building and the funds subscribed for a memorial make both possible, is to be carefully inspected. Beware of the Greeks bringing gifts.

That special organizations, such as schools and colleges, should erect memorial buildings is thoroughly in accord with their purpose.

"Render unto Caesar the things that are Caesar's." A war memorial is a monument in memory of service and sacrifice, and it seems that any portion of it which shall be used in the present and the future should be built for and devoted to the perpetuation of that memory.

The types of monuments are many, and they are usually of some simple geometric solid, or combination of solids. They are unmistakable in



The National Maine Monument, New York

H. Van Puren Magonigle, Architect
Attilio Piccirilli, Sculptor

character, manifestly minimizing all suggestion of utility.

When by desire or necessity they take the shape of buildings, they are not complex. The inherent idea is simple and direct in expression. Dignity, nobility, simplicity and distinction are integral attributes of fine memorials. The greater the deeds memorialized, the less the expression is commonplace, trivial, or ephemeral. Approaches, terraces, enclosures are subsidiary factors created as a guard of honor about them. Always the focus is the memorial to which all the accessories are subordinated and lead. This integrity of the main purpose cannot be over accentuated and precludes the advisability of incorporating a memorial with other things.

It should be isolated, incapable of injury by environment, either actual or prospective, in fact, protected from contact with sordid surroundings. And if, by necessity, the memorial is so small that it is merely a memorial stone or an inscription, and perforce is placed upon or within some structure, it should be associated with the best work only.

It is not intended to discuss here the relative merits of arches and bridges, columns, shafts, pedestals, altars, bases to flagstaffs, colonnades, stele, nor of temples of various shapes, chapels or mausoleums, nor of pyramidal or domical structures, fountains, towers and campanile. Each and all are appropriate. But, whichever is selected, it should be completed as a distinguished performance, and if possible should have expression in all three of the Fine Arts, Architecture, Sculpture, and Painting.

No coarse simulacrum of a fine antecedent should be permitted, no stone left uncut, no part of the work slighted. The eloquence which proclaims in words the ideals of the nation and the quality of its achievements should be equalled in its war memorials. No ordinary speech is adequate to the task, no ordinary monument is worthy of the memorial spirit, and, in this relation, it may be well to consider certain conditions which exist, especially in the smaller communities, where the expenditure for memorials is most often made at the suggestion of commercial firms who supply stock patterns at wholesale prices. With but few exceptions these so-called designs are without merit and unworthy of perpetuation. There are indications that the public is recognizing this fact, but the warning cannot be too often reiterated. Of all classes of design, that of a memorial requires the most skilled knowledge and trained artistic appreciation. It should be the very epitome of fine proportion and perfected detail.

Nearly all contemplated memorials have inscriptions and tablets with names. The wording, the lettering, the spacing of words and letters in these inscriptions is a fine art in itself. As instances of the beauty of inscriptions, attention should be given to those composed by ex-President Eliot of Harvard, and to the many admirable inscriptions upon Italian Renaissance monuments.

In most cases the final touch of distinction in monumental work, and this applies to both small and large examples, is so subtle that memorials should usually be studied in models, not alone in drawings, sections, elevations, and perspectives.

As to contemplated painting and sculpture and architecture, it should be recognized that the difference between mediocrity and excellence is absolute and that it occurs suddenly. There are no modulations between indisputable works of art and manifest failures, and for that reason it is imperative that men of acknowledged reputation should be employed. And if the committees in charge of the selection of artists for the work, have not the knowledge requisite for the selection of artists, which is often the case, they should associate with themselves others who have that knowledge.

A very large proportion of the Civil War memorials perpetuate sentiment and good intention accompanied by ignorance, and are unworthy of their purpose. There is less excuse for that ignorance now than there was in the period after the Civil War, less excuse for making the errors of selection of that time, and the failures should not be repeated. They were never due to intention but they were largely due to the ingrained tendency of the men of an independent race to exaggerate their own capacity to judge in matters of Fine Art to which they were unaccustomed and untrained, and to an impression that economies were justifiable in the quality of the work which were justifiable in the quantity of it.

The same tendencies are rife in small communities today and are fostered by commercial purveyors of monuments. There is only one antidote to such insidious influences, and that is to fall back upon the intention of the memorial, which is to be erected in memory of the highest ideals, the most supreme sacrifice in a war which, of all wars, has been most against outrage and for universal welfare. As in the days of the building of the great cathedrals, no labor, no skill was too great to spend for the Glory of God, and no work could be too good for His Shrines, so now, no skill can be too great to spend and no work can be too fine for a memorial to the glory of noble humanity.

C. Howard Walker.

THE REVIEW OF INTERIORS

Department Edited by J. H. Phillips.



NINETEENTH CENTURY INTERIORS

THE strongest decorative manner of the Nineteenth Century, that of the Empire, sprang from and expressed the remaking of France during the last years of the Eighteenth Century and the early years of the Nineteenth Century. Though in its full development it was dominated by the personality of Napoleon I, the genius of the new order, its basis was always the Classic manner that had established itself before

the Revolution and had outlived the monarchy. The Rococo of Louis XV had given way to the Pompeiian refinement of the late Louis XVI. The characteristic Louis XV type of interior, with its excess of enrichment and its motifs that were often meaningless and bizarre—an expression of the love of luxury, the extravagance, the craving for novelty to relieve the tedium of a purposeless round of pleasure—had been succeeded



Music Room of the Duc de Laval, Mont Parnasse
From "Plans des Maisons a Paris"

by the delicate Classic type that expressed the spirit of the time of Louis XVI and of Marie Antoinette.

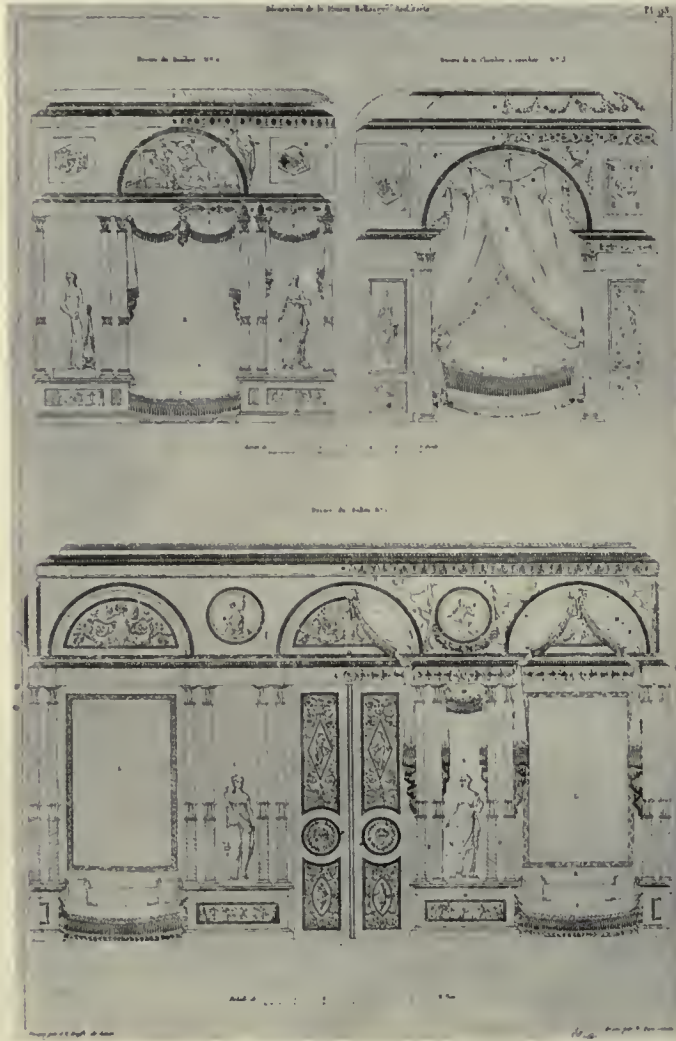
The interiors in the Louis XVI manner, though they often command admiration for their elegance, and respect for the excellence of their proportions and composition, though they make a certain appeal by the delicate beauty of their ornamentation, are lacking in the expression of vitality so necessary to any work of art that is to produce a wholly favorable impression. This inherent weakness of the decorative manner of the period may well have been more than an accident—perhaps it was both an unconscious confession and a foreshadowing of the disastrous and sudden termination of the reign of the royal pair with whose names this manner is associated.

The guillotine, uncouth and effective instrument of the Revolution, brought into control a régime that had abundant vitality. It liberated all whom it did not destroy. Everything reminiscent of royalty was distasteful to the people of that day—but something positive was needed upon which to build a new decorative expression.

The spirit of the Classic remained. Stripped of the marks of the old order it became the foundation of the new manner. It must have been refreshing for artists and artisans who had worked in conformity to the requirements of the court of Louis XVI, to find an opportunity for more masculine expression. They, too, must have come through the cataclysm of the years 1793-1795, with a new sense of freedom and strength.

The spirit of the Directoire, more properly called the Transition, was that of enjoyment of newly-won freedom, not mere political freedom but freedom in every phase and expression of life. It is natural that in this mood people found themselves in sympathy with the Classic designs of Rome and of the remains of the buried cities of Pompeii and Herculaneum. This tendency developed during the period of the Consulate, 1799-1804, and culminated in the manner of the Empire.

As a setting for the pomp and ceremony that Napoleon introduced at his court and as an expression of his imperial state, the decorations and furnishings took on a rich and heavy character, ornamental metal mountings and appliques were used in preference to carving on furniture and interior woodwork. Motifs were drawn from Classic sources, and distinctive designs suggesting Napoleon's military activities were incorporated in many of the schemes. Chief among these were: the sphinx, which made its appearance after the Egyptian campaign; winged figures, trophies of arms, the laurel branch, the wreath enclosing an initial—



Decorations in the Maison Belanger
From "Plans des Maisons a Paris"

characteristic emblems as was the bee, which Napoleon adopted as an emblem.

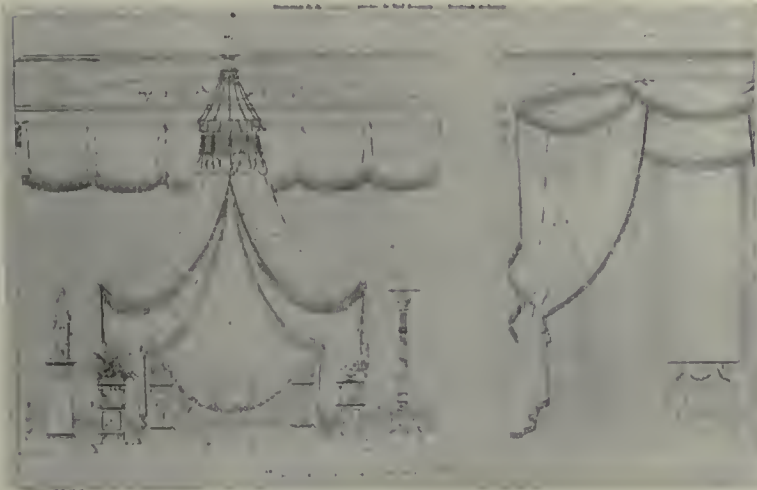
The more familiar examples of the Empire manner of decorating, those of palace interiors and furniture, do not represent the domestic style which is best seen in the interiors of the Chateau de la Malmaison.

In America, at first a continuation of the Georgian influence was seen and wallpapers of a scenic character, imported from France and from

England, were largely used.

Soon, however, the influence of the Empire manner in furniture and interior treatment was strongly felt, but by the end of the first quarter of the Nineteenth Century, this influence had ceased to be an important factor.

In England, the Empire influence was never strongly felt. By the middle of the Century most of the fine earlier traditions had faded into mere memories, and while there were exceptions, the taste in decoration was on a very low plane. After the Civil War in this country and after the beginning of the reign of Victoria in England, a commonplace dead level was maintained with few exceptions, commercialism was the keynote of the times. Haircloth and wax flowers were succeeded by spindling gilded chairs with ribbon bows. Walnut furniture of impossible design and marble-topped tables were the vogue. The Eastlake



Decorations of a Chamber for Mme. Recamier
From "Plans des Maisons a Paris"

decoration contributed characteristic examples of the taste of the period. William Morris, in England, was doing work that was to start a notable movement for the development of the art-crafts.

During the last years of the Nineteenth Century there was a revulsion of feeling caused by an

awakening to the inartistic character of the great mass of furniture, furnishings, and of the wall treatments that were in general use. A fad for plainness, barrenness and crudity in the name of simplicity swept over this country and the art-craft began to be fostered as an antidote for the prevalent commercialism of the times.

In England, while much good arts-and-crafts work was done, the "Modern Art" fad gained a considerable following.

In France and Belgium a desire to create a new style brought forth l'Art Nouveau.



Rooms at Valencay Indre, Property of Duc de Talleyrand et Sagan. At the Left, the Royal Chamber, at the Right, the Vestibule

From "Twenty-five Great Houses of France," by Sir T. A. Cook, published at the offices of "Country Life," London



CHAMBER OF NAPOLEON, CHATEAU DE LA MALMAISON



VESTIBULE IN THE GRAND HOTEL, BRUGES



GRAND SALON



DINING HALL

CHATEAU DE LA MALMAISON



Courtesy of Little, Brown & Co., Publishers, Boston

PARLOR MANTEL AND SCENIC WALL PAPER (1820), COOK-OLIVER HOUSE

From "The Woodcarver of Salem"



Courtesy of Little, Brown & Co., Publishers, Boston

DRAWING-ROOM IN HAMILTON HALL, BUILT IN 1805, BY SAMUEL McINTYRE

From "The Woodcarver of Salem"

THE REVIEW OF RECENT ARCHITECTURAL MAGAZINES

By C. HOWARD WALKER

IN THE *Architectural Record*, for July, the most interesting article to the architect is Mr. Hamlin's "Renaissance Architecture and Its Critics," Part III." Mr. Hamlin is a critic after our own heart—he is comprehensive in his view, not obsessed by one idea, constructive, not destructive, and while occasionally sardonic, is just. Personally we have sufficient irritation at the critics of the Renaissance to desire to carry the war into the enemies' camp and to apply their own criticisms to a considerable number of examples of mediæval architecture, but it is not worth while. Mr. Hamlin has adopted the better method. Only, why not admit that structurally each type of architecture has made its changes experimentally, certain crystallization of expression has followed naturally, and that fundamental elements which resembled each other and reminiscent expressions which recalled similar precedents have always been cited as plagiarisms. Literature has been subject to exactly the same badgering. Nomenclature is an

easy index but a very poor instructor. The opening article is on the house of A. Stewart Walker, Esq., of Walker & Gillette. The interiors are attractive. The Cosmopolitan Club, New York, an old building transformed into a woman's club by Mr. Edward C. Dean, is admirably done without too much effort. A great deal

has been made of a little, especially in the courtyard. The austerity of the plain interiors is almost monastic, and hardly suggests femininity. Mr. Fiske Kimball has his third article on the social centre, this time upon civic enterprises, illustrated principally by plans, and with a photograph of the Northampton Institute, Clerkenwell, London, by Mr. E. W. Mountford, and a perspective of the New Frier Township High School, Kenilworth, Ill., by Messrs. Perkins, Fellows & Hamilton. The English example has the only too frequent picturesqueesqueness of English work, and the American example has as usual too little attention paid to picturesqueesqueness. English charm grafted upon American common sense

(From "The Architectural Record")



Court of Cosmopolitan Club, New York
Edward C. Dean, Architect

(From "The American Architect")



House for M. C. Heath, Esq., Columbia, S. C.
Edwards & Sayward, Architects

(From "The American Architect")



House for James Burns, Esq., Newton Centre, Mass.
Coolidge & Carlson, Architects

would seem advisable in many cases. The portfolio of current architecture in this issue has views of a home for E. Digby Baltzell, Esq., St. Martins, Chestnut Hill, Philadelphia, by Mr. Edmund D. Gilchrist. It is very attractive and simple, and it is gratifying to see a well-studied chimney. The Santa Barbara County Detention Home, by Mr. Roland Sauter, is an uncompromisingly utilitarian building. It might at least, have had an adequate crowning motif to its walls.

Good Furniture, August. Mr. Quill Jones has a very interesting article upon Oriental rugs, especially the rugs of Samarkand, and Mr. Harris writes upon the "Vanishing Handicrafts of China," giving

(From "The Architectural Forum")



Office of Samuel Yellin, Esq., Philadelphia
Mellor, Meigs & Howe, Architects

examples from a very wonderful collection in a New York apartment house, and suggests that Chinese forms be adopted and used as inspiration to Western artists ere they become obsolete. Much of the furniture in the illustrations is the result of exactly this adaptation, caused by the introduction of Chinese art into Europe, in the Eighteenth Century through the East India Companies. It would be ill suited to our uses if this had not been the case. The characteristics of Chinese glyptic forms are simple and persistent, i. e., a minimum use of moulding, especially of varied and grouped mouldings, and a softening and rounding of all corners, also a marked rectangularity of skeleton de-

(From "The Architectural Record")



Cloister, Cosmopolitan Club, New York
Edward C. Dean, Architect

(From "The Architectural Record")



Loggia, Cosmopolitan Club, New York
Edward C. Dean, Architect

(From "The Architectural Record")



House of E. Digby Baltzell, Esq., Philadelphia, Pa.
Edmund B. Gilchrist, Architect

sign, and low relief of all carving. It is in intense color with black and white and gold that Chinese work is so virile and superb, barbaric in its conception, cultivated in its achievements. The Chinese, if unaffected by other national arts do not allow the flowing curve to dominate their compositions, and, therefore, their compositions have a rectitude and strength which is almost unique. Mr. Holloway writes upon "Decorative Accessories, Their Display and Sale." He is extremely catholic in his choice of objects, and appreciates the finesse of Baroque technique even when applied to design without relative scale of parts or harmonies of form. It is a perfectly well recognized fact that small "objets de vertu" can be riotous in expression, if their exuberance is performed with skill, but the necessity for sobriety and serenity increases with geometrical progression as the size becomes greater. The appreciation of the fact that what is bizarre in the little becomes monstrous in the big is evident in Mr. Holloway's article.

The Architectural Forum, July. The opening article is by Mr. Eberlein upon "The Architecture of the Dalmatian Coast." Mr. Eberlein begins by classifying varieties of architects, of which he finds three species. First, enlightened men who know precedent and sanely make use of it as a foundation and guide. Second, purists who follow precedent slavishly. Third, self-satisfied individuals who do not know precedent and condemn

what they neither understand nor appreciate. Upon the first of these species we must rely for expressions of value. They are evolutionists, not revolutionists. Mr. Eberlein's point is well taken, and it is apropos of his study of Dalmatian work. He traces the effect of Diocletian's Palace at Spalato through the work of the succeeding centuries, and the entrance of Romanesque, Venetian, Gothic, Renaissance and finally Baroque influences, which are harmonized with each other, showing the consistent acknowledgment in each of its debt to its predecessors. The plates relate to industrial plants. The power and heating plant for Yale University, by Day & Klauder, is excellent and the treatment of the boiler chimney gives an example of how this usually bald feature can be made attractive. Treatment of chimneys which has occurred constantly in English work from the late Sixteenth Century has too often been

neglected in American designs. Mr. Albert Kahn's Detroit News Storage Warehouse is straightforward and with good masses. In many designs of this type, the sky-line edge gives an impression of incompleteness and seems to suggest the future addition of more stories. This can easily be obviated by a very slight parapet indication. The A. B. Dick Company's Manufacturing Building, Chicago, Ill., by S. N. Crown, has a good tower. Messrs. Miller, Meigs & Howe's workshop for Samuel Yel-

(From "The Architectural Record")



Northampton Institute, Clerkenwell, London
E. W. Mountford, Architect

lled, by S. N. Crown, has a good tower. Messrs. Miller, Meigs & Howe's workshop for Samuel Yel-

(From "The Architectural Record")



Residence of A. Stewart Walker, Esq., New York
Walker & Gillette, Architects

lin, Philadelphia, Pa., is simple and good and the private office is excellent. There is an unusual opportunity in these industrial plants to obtain effects in modern work and for modern purposes, these are the effects of long low and simple masses with an occasional accent. Architects have always desired to relate masses with the contours of their sites, and have adopted zone treatment and exaggeration of horizontal motives to associate buildings with the levels upon which they were placed. We remember years ago the commendation given to Mr. George Post's New York Produce Exchange because of its unbroken façade and continuous ridge. Fortification walls with long horizontal surfaces have unified and enhanced the effect of the mediæval towns. They are, of course, obsolete, but here in the industrial plants is the same motive of a continuous, simple façade,

(From "The Architectural Forum")



Manufacturing Building of A. B. Dick Company, Chicago, Ill.
S. N. Crowen, Architect

quiet, stable, undisturbed. It matters little that much of its surface is glass. The reflection of light from its planes is uniform, as is its indication of purpose. Base and eaves, or parapet lines have the power of great length and continuity. Corners having light from two directions can be made more positive than the walls between. Zone terminations always need accent to indicate their completion. Towers may be for utilitarian purposes or for announcing lines of circulation or terminations of action. All these are

great elemental factors of architecture for which the designer should be grateful, and all frankly express purpose and structure. We feel that in some cases reminiscences of buttresses, pinnacles, etc., are superfluous and detail, excepting at foai, overdone. The buildings have great elemental possibilities from their extent, scale, and repetition of units

(From "The Architectural Record")



Residence of A. Stewart Walker, Esq., New York
Walker & Gillette, Architects

(From "Good Furniture")



Chinese Furnishings in the New York Apartment of a Foreign Diplomat

(From "The American Architect")



House at Jouy-en-Josas, France
Ernest Newton, R.A., Architect

(From "The American Architect")



Lincoln Free Library
Sir Reginald Bloomfield, R.A., F.R.I.B.A., Architect

which seldom exist elsewhere. They are subjects for study of zones and masses. In comments upon the Post-War Committee upon Architectural Practice, Mr. Nimmons shows his appreciation of just these opportunities of which he has more than once taken admirable advantage. Mr. Pond makes one of his able pleas for the fact that beauty is well worth paying for, and Mr. Walter Kalham urges more frequent interchange of ideas between architects and engineers. This is earnestly to be desired, and appears to be now welcomed by both professions. Mr. Maginnis in his comment is talking good sense. Mr. Frederick Sterner's City House, New York, is a good example of what can be obtained by simple means carefully studied.

The American Architect, July 2. Mr. Ivens, of the Metropolitan Museum staff,

New York, interestingly shows the absolute copying by Batty Langley and Sheraton, of designs by the French designers, Guilward, Salembier and others. A model housing plan for reclaiming a St. Louis district, by Conzelman, Herding & Boyd, shows a system based upon central garden courts surrounded by blocks of houses. The result is naturally more attractive than that of isolated houses could possibly be. It does not seem to be as acceptable to promoters in America as the single house plan, which may be a mistake or may not. The Minneapolis Y. M. C. A. building by Long,

Lamoureux & Long, while good, is not entirely convincing in the skyline. The Municipal Auditorium, Savannah, Ga., by Henrik Wallin, has simple lines and proportions and is well studied.

The American

(From "The American Architect")



Nether Swell Manor
E. Guy Dawber, Architect

(From "The American Architect")



Imperial Delhi Processional Way
Herbert Baker, F.R.I.B.A., Architect

(From "The American Architect")



Imperial Delhi Government House
Sir Edwin L. Lutyens, A.R.A., Architect

Architect, July 9. John Russell Pope's Union Passenger Station, Richmond, Va., has the usual distinction of Mr. Pope's work.

The American Architect, July 16. The notes from London, by Selwyn Brinton, are upon buildings by well-known men—men whose reputation has been assured for years past, and it is interesting work. There is a charming, distinctly English house by Mr. Ernest Newton in France at Jony-en-Josas. Sir Aston Webb and his son Maurice show additions to a mill at Greenwich. It is interesting to see how the tower conforms to architectural traditions more than do the designs of similar character in America such as those by Mr. Nimmons.

That is, the architectural treatment has been accented more than with us. It seems justified by the result. There is an attractive house by Mr. Hare. Sir Reginald Bloomfield is represented by his Lincoln Free Library, which seems to us exotic to Lincoln, and to be the deliberate adoption of a stylistic preference in a locality with which it is not in harmony. It has an entirely inadequate base zone, and a disjointed entrance motive. Mr. Guy Dawber's Nether Swell Manor, Gloucestershire, charmingly picturesque, shows Mr. Dawber's appreciation of the relative areas of openings in walls and the serenity of occasional undisturbed surfaces. Sir Edwin Lutyens and Mr. Herbert Baker show admirable designs for work at Delhi, thoroughly appreciative of Indian motives and details. The plates show the house of M. C. Heath, Columbia, S. C., which has a superabundance of columns. The approach to the house is attractive. Coolidge & Carlson's house for James Burns, New-

(From "The Architectural Forum")



Yale University Power Plant
Day & Klauder, Architects

to the housing problems, and to the fact that small as these houses were, they were done by trained architects of acknowledged ability and reputation, and that the simpler the work, the more thorough training was necessary, or the results would be uncouth. The New British Institute of Industrial Art should be welcomed by all artists, and its lead should be followed in this country at once, if we are with the greatest resources in the world to develop our industries beyond the utilitarian phase. Mr. Nimmons' plea for Architectural Instruction in American Colleges is pertinent. Certain fundamentals of that knowledge

ton Centre, Mass., has good proportions and extraordinary detail. Their house for Mr. Pennock at Braintree, Mass., is much more conventional.

The American Architect, July 23. Mr. Kimball's address at the convention of the A. I. A., at Nashville, is scholarly and earnest. The plates show T. P. Barnett Company's Bank Building for the American Trust Company, St. Louis, Mo., which has a Corinthian colonnade in antis, well detailed and well proportioned.

The American Architect, August 6th. The opening article relates to Mr. Stanley C. Ramsay's "Small Houses of the Late Georgian Period," calling attention to the applicability of this type of work

could well be taken up in the last year of high school study. Architecture is the physiography of the most conspicuous creations of man and instruction in regard to it and its methods of expression could be taught early to great advantage in many ways. Mr. Nimmons' article treats many sides of this important question in an admirable manner.

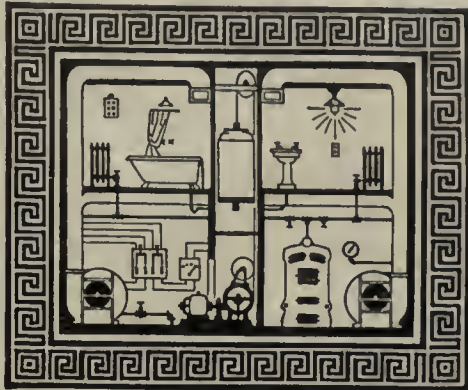
(From "The Architectural Forum")



"Detroit News" Storage Warehouse
Albert Kahn, Architect

EQUIPMENT

DEPARTMENT EDITED BY J. F. MUSSELMAN



THE PART OF AIR VENTS IN STEAM HEATING PROGRESS

THE history of steam heat is the history of the air valve and the return valve. It may be only a remarkable coincidence that the graphic curve that would represent the improvement in heating systems would be practically parallel to that showing the improvement in venting devices, but a close study of the entire history of the industry affords us sufficient evidence to conclude that the popularity of the one is closely related with, and to a great extent, dependent upon the other.

We know that without some means of relieving steam heating units of air we could not have steam heat, and after we have fully digested that fact it is a natural step to conclude that without perfection in the first, we cannot have perfection in the latter.

Although many histories credit James Watt—the discoverer of steam's power—as being the first designer and builder of a heating system, the heating of greenhouses by steam is mentioned by an English writer in 1660. Rivins, in 1548, tells of æolipiles being used to impart an agreeable temperature to rooms in dwellings.

Colonel William Cook illustrated and described in the "Gentleman's Magazine" in 1847 a "Method to Warm Rooms by the Heat of Boiling Water."

In his system a boiler was heated by the kitchen fire and the steam pipe ascended through one tier of rooms and descended through another, traversing backward and forward in each room according to the temperature required. The escape of condensation (and unconsciously the air) was manually controlled by a drip-cock.

In the winter of 1784-85, Watt had a study about twenty feet square which was remarkably cold and damp and he hit upon the scheme of heating the room by utilizing what was then his chief hobby—steam. Accordingly he built two plated tin boxes several feet square, a few inches wide and piped together. A copper pipe connected to these crude radiators led outside of the room to a small boiler.

The radiators were furnished with a hand-operated pet-cock which was used to let out the air when the boiler was first heated. The heat thus obtained was not as great as hoped and Watt blamed the bright surface of his radiator.

It is probable, however, that one reason for this failure was due to incomplete venting of the radiator, coupled with the lack of carrying capacity of the copper supply pipe which must also have had thrust upon it the duty of conducting the return condensation in the opposite direction

to the steam flow. The fact that Watt unknowingly depended on pressure rather than good circulation to get the heat into the radiator was fatal to the success of the undertaking.

As a matter of fact, conveying heat by pressure rather than by good circulation continued for another fifty years. In a large measure this was caused by air, which should have been displaced by the steam having no means of escape, remaining in the one-pipe systems of that time to block steam circulation. This was not only the initial air that was in the radiator when it was cold—a pet-cock would obviate difficulty with this—but also the air brought in by the steam, which alone under some conditions amounts to about .10 cubic inch per square foot of radiation per hour. This air is heavier than steam and as it will not condense and return to the boilers it must be eliminated from the system, or it will soon cool and air-bind the radiator or retard the movement of the steam.

After Watt's first attempt, experiments were continued with little success until in 1799 a Mr. Lee of Manchester, directed by Watt and his confrere Boulton, hit upon the idea of using cast-iron pipe to convey steam to the radiator. This time the radiator took the form of a cast-iron cylinder incased in brick with an air chamber between the two. "The air in the cylinder was allowed to escape by a stop-cock while the steam was entering, the condensed water escaping by a pipe not shown."

No information is available as to the success of this system, but evidently results were not as anticipated for we find Watt and others doing little to improve the systems that followed.

It is true that increasing attention was paid to air vents and to the air and partial vacuums formed by condensation; in fact, various crude arrangements were installed—syphons to drain the water, hand-operated air vents and drains, placed at any convenient spot in the system regardless of the position of the radiators. All of such devices appear to have been of the hit-or-miss type, not based on logical or scientific reasoning. Later inventors began to realize the importance of the air-relief. This realization came about by accident. The story

goes that a certain steam system—unlike its brethren—answered every heating demand made upon it—the radiator heating up very quickly. The great objection to it was the odor of steam and smelly pipes. The designer was called in to investigate, and discovered several sand-holes in the cast-iron pipes, which acted as perfect air vents to stimulate circulation. When these holes were closed the circulation stopped and the system lost much of its heating efficiency. The designer's hands were tied. He had discovered that air venting had to be more or less continuous but he did not have the means to carry this out. He and others were powerless to improve steam heating systems.

Consequently the industry remained more or less stationary from 1840 to 1860 and hot water became firmly established as the better system. It held its popularity in this country until big buildings forced more active effort in the improvement of steam systems.

As early as 1860 automatic air valves were used on some of the few steam systems installed at that time. These were usually supplemented by a pet-cock for use when the air valve refused to work or to draw off the ever-annoying condensation.

Even in 1889 we find authorities advocating drawing a basinful or more of water from the air-cock each morning. This served the double purpose of letting out the accumulated air and ridding the system of a small part of the condensation for which no proper provision had been made. It is probable, however, that even in those days the family servant utilized her prerogative and objected strongly to this daily pilgrimage—and the house-keeper to the puddles that resulted.

From 1889 on, necessity once more gave birth to an invention resulting in the gradual development of the automatic air valve. Hot-water systems proved inadequate for large buildings and steam heat, to be successful, required automatic air venting. By 1901 there were five or six automatics on the market. But the fact that as late as 1908 manually-operated vents were still extensively used is sufficient evidence to show that perfection had not as yet been reached.

These early forms of auto-

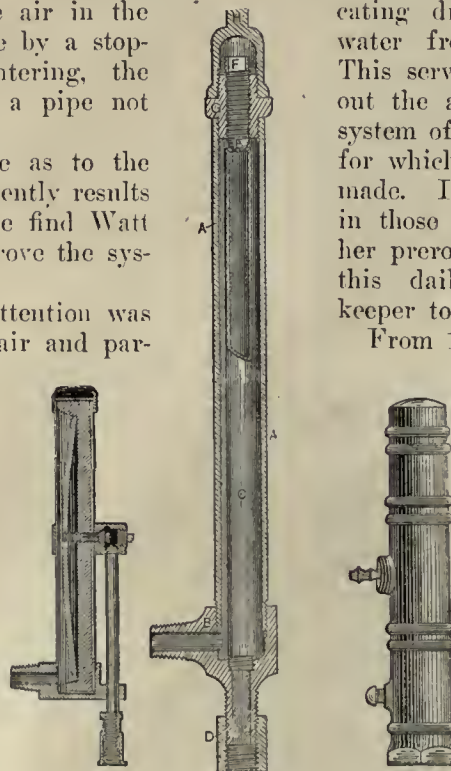


Figure 1 Figure 2 Figure 3
Some of the Earlier Forms of Automatic Air Valves

matic air valves made up in size what they lacked in venting proclivities and there seems to have been a popular contest in the trade to get the largest and most hideous air valve.

It will be noted that these pioneer valves show marked difference in detail and construction, although there is the same underlying principle in using the expansive force of metal or composition parts.

One such valve used a combined strip of brass and steel connected to a pin which entered the air-port of the valve. Due to the differential expansion of these two metals the strip, bent into the shape of a broad hair-pin, tended to open when heated, so raising the pin and closing the vent.

These earlier types of air valves had some faults common to all and others that were distinctly individual. In common they made no pretense of holding back water, if water were present in excess in the radiator

In some valves the expansion members were absurdly short which necessitated extremely delicate adjustment and very slow venting. Some were so noisy that they functioned like a peanut whistle, from which their design may have been copied. Almost without exception they were adjustable. This in itself is not objectionable, except for the frequency of adjustment required to insure satisfactory venting and the possibility of improper adjustment by investigative tenants.

One of the worst difficulties which had to be overcome, before even near-perfection could be claimed by designers, was that of valves spurting water, not only the occasional slugs of water caused by faulty piping or leaky radiator valves, but the condensation in the air valve itself had to be reckoned with. To overcome the first mentioned condition, floats of various kinds were placed in the body of the valve and later, to eliminate the valve condensation, the syphon (a misnomer by the way) or drain tube was introduced

for the purpose of conveying the water back into the radiator and permitting the valve to vent without escape of condensation. Many modern valves are fitted with so-called syphons, the drains of which have no syphonic action.

Another comparatively modern improvement is the introduction of valves in which air is the expansive medium and another type in which the expansion of a volatile fluid or gas causes the valve operation. Both of these types introduce the all-metal non-adjustable construction, the latter being a great forward step in increasing the longevity of the valve.

In spite of these developments which constitute real improvements many engineers still maintain that it is better economy to purchase the cheaper carbon-post type of valves, which require frequent adjustment and have a comparatively short useful life. Advocates of this procedure claim that in the long run it is

cheaper to supply two or three sets of these than to buy the more expensive types with the longer lives, but the cost of labor of adjusting and changing valves must be taken into account.

In that most excellent handbook of Nelson G. Thompson, "Mechanical Equipment of Federal Buildings," are model specifications, and it is worthy of note that all types of air valves are "to have all-metal thermostatic elements, no carbon-post valve is acceptable."

All of the valves heretofore described, including the most modern, are sometimes objected to on account of the odor of the air which escapes from the radiator. The first step toward meeting this objection was the introduction of the so-called air-line systems in which the air was carried away from the valve in a small pipe and vented in the cellar. The next advance was the use of a vacuum-pull on the air lines, this being the forerunner of the system which is at present considered the last word for large areas or where



Figure 4



Figure 5



Figure 6



Figure 7

An Early Type of Automatic Air Valve, Figure 4
Air Valve with Short Expansion-post, Figure 5
Non-adjustable Air Valve, Figure 6
Carbon-post Air Valve, Figure 7

exhaust steam is used—the vacuum system. For smaller systems the equivalent is the ‘vapor system.’ There being no need for the use of vacuum except where very low head-pressure is desirable.

In both of these systems the air, as well as the condensation, is passed through a valve on the return end of the radiator. The air being vented and the condensation returned to the boiler by pump in vacuum systems and gravity in vapor systems.

The first form of valve used in this latter system was thermostatic and consisted of a long fixed expansion post designed to open and close with the very small difference in temperature between the condensation and the steam. Even by the use of the most expansive materials obtainable in this fixed post, it was necessary to make the most minute adjustments in the length of this post in order to obtain even tolerable results—otherwise a valve either allowed a wasteful amount of steam to escape into the vacuum return system or prevented the condensation from escaping. The whole matter was complicated further by the fact that these expansion posts had a way of taking a permanent set after they were in service for a while, necessitating a complete and tedious readjustment. These obvious defects of the original form of return valve prompted attempts at improvements if nothing else.

The next development was the use of a light float only, to which was attached a pin seating loosely and permitting condensation air and steam to escape continuously. The float was raised only when excessive condensation reached the valve. The inefficiency of such a valve, with its resultant steam loss, is clearly evident.

About 1905, two-pipe vacuum systems had been perfected to such an extent by the use of more positive return-line valves that it was possible to reduce the high vacuum-pull on the return-line to atmospheric

pressure or nearly so. This was an important advance for it permitted the elimination of the pumps and other apparatus used for creating the vacuum on the lines.

In this connection a paper was presented, in 1906, before the American Society of Heating and Ventilating Engineers by James A. Donnelly, the originator of a return-line system distinctly different from the types then in use. It says in part as follows: “It was believed that if correct mechanical devices were employed, a gravity return system could be made to work in a similar manner to a vacuum exhaust system, with all of the advantages of the latter; chief among these might be mentioned the doing away with the automatic air valve, the most irritating and annoying of all contrivances which is supposed to be a necessary evil in connection with each radiator. This paper apparently is the first mention of “the practicability of graduating the inlet valve to secure a partial heating of the radiator.”

As a result of many improvements, such as the introduction of automatic return devices for boilers and the appearance of more perfect graduated or modulating supply valves, we have today the two-pipe gravity modulating or vapor system, which has more advantages for average work than any system presented up to this time.

The present type of return-valve considered the best and that tests have proven to be the most efficient consists of a valve-body containing one or more sealed metallic chambers partially filled with a volatile fluid which vaporizes, expanding flexible diaphragms, and positively closing the valve-port whenever steam reaches it. As a rule they are non-adjustable and are not to be tampered with after they leave the factory. Because of this fact it is essential that they be given a rigid individual test to make certain that no “duds” get past the test table.

The importance of high standards of requirements for
(Contin. on p. XII)

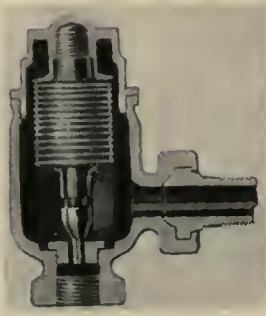


Figure 8

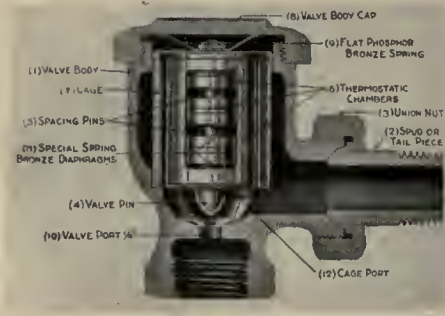


Figure 9

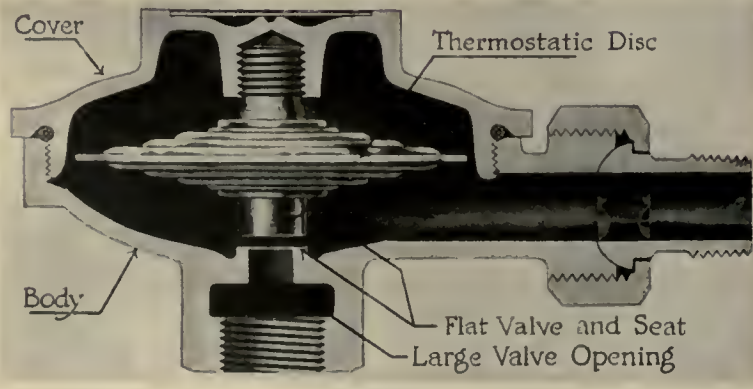
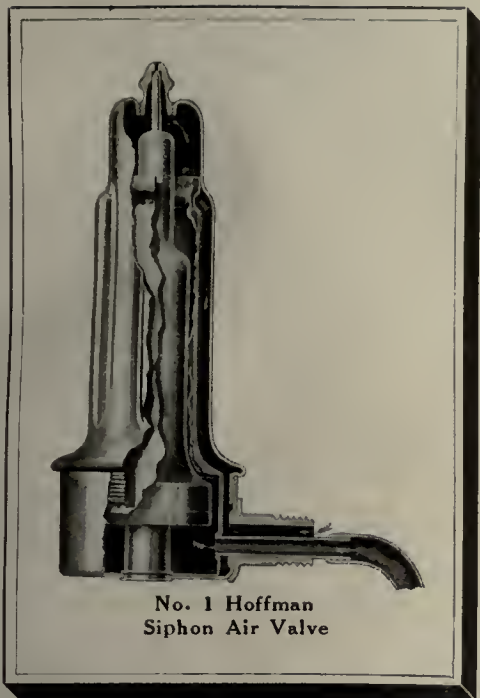


Figure 10
Several Forms of Modern Return Valves

96^a



No. 1 Hoffman
Siphon Air Valve

HOFFMAN VALVES

Venting valves for every service

A Valve to which there
is no "or Equal"

BECAUSE the Hoffman Valve was constructed for the purpose of eliminating air venting problems in steam systems and it immediately proceeded to make good.

If the dissatisfaction which prevailed before Hoffman Valves appeared on the market is compared with the efficiency of steam heat of the present day—and then the fact is added that over 1,250,000 Hoffmans are at work—some realization will be possible of how much credit is due Hoffman Valves for this increased efficiency.

There is no "or equal." This fact has been—it is being—it will continue to be demonstrated. The proof is in the Hoffman Guarantee—satisfaction guaranteed or valve replacement, or money back, whichever is preferred.

Hoffman Specialty Co., Inc.

512 Fifth Ave., New York City

Chicago
130 N. Wells St.

Los Angeles
215 W. Seventh St.

96^a

EDITORIAL COMMENT ON ARCHITECTURE & THE TIMES

A NOTABLE achievement in intensive art training was the work accomplished by the American E. F. Art Training Centre at Bellevue, Seine-et-Oise, France, during the three months that school was in session. Though the curriculum was planned with special reference to unusual conditions and to take advantage to the fullest extent of the opportunities afforded by the location of the school, many of its features are adaptable to work under normal conditions and the report which has been issued, covering the work in detail, affords a valuable study in art training.

The termination of hostilities found the United States with a large army that included a considerable number of men possessed of artistic talent located in or near parts of France that are rich in sources of artistic inspiration. In order that these men might benefit by the opportunity to study while they remained in France awaiting demobilization of our forces, this school was organized. The organization of the school was begun by the Y. M. C. A. educational commission, but the work was taken over by the army, April 16th, and the men connected with the school became members of the Educational Corps, A. E. F.

In November, 1918, Mr. Lloyd Warren was invited by Mr. George S. Hellman—then recently appointed director of the department of fine and applied arts of the Y. M. C. A. Educational Commission in New York—to become associate director. Mr. Warren, having accepted, arrived in France on January 1, 1919, and immediately took up his work. He already had the Pavillion de Bellevue in mind as the best possible location for the school and he found that it was available. Its use as a hospital had just been discontinued, and the lease of the building was taken over by the army for the use of the school. Mr. Lloyd Warren was appointed chief of the faculty and, later, Director of Educational Work. He planned the curriculum and gathered a well-chosen body of instructors. In the department of architecture the teaching staff was as follows: Victor Laloux, Membre de l'Institut, Commandeur de la Légion d'Honneur, Professeur et Chef d'Atelier, Ecole des Beaux-Arts; Lloyd Warren, Educational Corps, A. E. F.; Archibald M. Brown, Ensign, U. S. N. R. F.; J.-P. Alaux, S. A. D. G.; Jacques Carlu, S. A. D. G.; R. M. Rice, 1st Lieut., Inf., Student Instructor; Robert Scannel, 1st Lieut., Engrs., Student Instructor; Philip L. Small, 2nd Lieut., F. A.; F. Nelson Breed, 1st Lieut., Engrs., Student Instructor; George H. Gray, Major, Engrs.; Clarence E. Howard, Capt., Engrs.; Francis A. Robinson, 2nd Lieut., Engrs.; Geo. B. Ford, Major, A. R. C.; Cyrus W. Thomas.

The Bellevue Art Training Centre was opened to receive students on March 5th but it was not until a month later that the school was filled. The capacity of the school was between 250 and 300 students and the greatest number at any one time was 268. Over 225 students at all times were working there in various branches of art.

THE PART OF AIR VENTS IN STEAM HEATING PROGRESS

(Continued from page 96)

return-line valves cannot be too strongly emphasized. If the average architect and engineer were as exacting as to quality and tests of return-line valves as the Government there would be a mad scramble of manufacturers to improve the efficiency of the product that would be very beneficial. These government tests are most rigid; stated in part they are as follows:

"It is required that valves shall have an efficiency of 99 per cent. under any of the three following test conditions: All condensation shall be passed and not more than 1.0 pound of steam (including re-evaporation in return) per hour with a pressure of six inches of mercury on the supply and a vacuum of ten inches on the return. Not more than 0.3 pound of steam per hour shall be passed with six inches of mercury on the supply and atmospheric pressure on the return, and not more than 0.1 pound of steam with one inch pressure on the supply and a five inch vacuum on the return."

To meet these requirements the thermostats must be sensitive in operation and respond instantly to slight temperature changes, for the differential between steam and condensation is very small unless the condensation is held up in the radiator for a considerable time. This of course is not desirable.

The changes in design of return-line valves have been so rapid (the oldest design extensively used at present being less than sixteen years old) that there exists in the minds of users doubt as to whether the present forms have come to stay. It is reasonably certain that they have, for the present tendency of progressive manufacturers seems to be to perfect their existing types rather than to try new designs. There doubtless will be minor improvements, but the general type is probably as firmly established as the globe-valve or gate-valve.

There is a growing tendency on the part of architects and engineers to insist for their protection upon guarantees from the manufacturer as to the satisfactory service to be obtained from his products. It is advocated that a binding guarantee be exacted from the manufacturer.



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Vol. IX, No. 4

October, 1919

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A HOUSE of unusual distinction and beauty of design is the residence on the estate of J. A. Burden, Esq., at Syosset, L. I. This house is described in the leading article in this issue and is shown by plate illustrations and by reproduction of working drawings, as well as by illustrations in the text. It embodies the best traditions of one of the most pleasing types of Southern Colonial architecture. The plan is an especially interesting one, developed along the lines of old houses of this style, but shows due regard for the requirements and the conditions in this particular case. The architects were Messrs. Delano & Aldrich.

Farm buildings have been given increased attention from an architectural standpoint during recent years in this country, and though we were, perhaps, rather slow to realize the possibilities in the designing of modern farm buildings compared with the people of Europe, some farm groups have been built that compare favorably with the best in the older countries. We are fortunate in being able to present in this issue photographs and plans of some farm buildings by Alfred Hopkins, architect, Charles S. Keefe, associate.

A large country residence, the plan of which is well studied in relation to the site, is the house for Mr. B. F. Jones, Jr., Sewickley, Pa., of which Hiss & Weekes were the architects. The interior is of more than usual interest. It is spacious and rich in effect, well designed and suitably furnished. This house is the subject of one of the illustrated articles. The plan grew out of the fondness of the owner for the unusually fine views to be had from the site—views that were familiar through residence in a house which was removed to clear the ground for the present building. The logical development of the plan from this starting point has given this house much of its individuality and interest.

The Cunard Building, which will be, when completed, one of the most important of New York's big office buildings, is shown by reproductions of a rendered drawing of the Broadway front and of plans.

The architect is Mr. Benjamin Wistar Morris. Messrs. Carrère & Hastings are the consulting architects.

Houses of moderate size present problems of planning and design that seem to increase in difficulty in inverse ratio to the size of the house. That is probably one of the chief reasons there are so comparatively few well-designed houses of this size. The designing of houses of moderate size is a field in which there is need for good design but in which the services of a competent architect are not usually obtained. One solution of this problem is shown in the plans of a house of which the architects were Hollingsworth & Bragdon.

The regular departments: "The Review of Recent Architectural Magazines," by Mr. C. Howard Walker; "The Review of Interiors," edited by Mr. J. H. Phillips, and "Equipment," the department edited by Mr. J. F. Musselman, contain helpful comments.

In addition to views of buildings described in the text, the regular plates this month include views of interiors in two of the most attractive of the many homes of artists of note in New York.

A HELPFUL DEPARTMENT

That a large number of the readers of this magazine find "The Reference List of Business Literature" a great convenience is evidenced by the many letters that have been received at this office asking for the listed printed matter descriptive of building materials and equipment. In this department, which was started in the July issue, various catalogues, hand books, portfolios, etc., of reliable manufacturers are listed, a summary of the contents is given, and the list is arranged for convenient reference. Each item has been given a serial number, by which it may be ordered, without further description. Any architect or draftsman may secure copies by communicating either with the manufacturers who issue them or with the publishers of THE ARCHITECTURAL REVIEW.

THE NOVEMBER ISSUE

The contents of the issue of THE ARCHITECTURAL REVIEW for November will be varied in character. A large country house of remarkable interest and charm will be described and shown by numerous photographs and drawings. Business buildings of different types will also be illustrated. An interesting farm group will be the subject of one of the leading articles. The regular plates, the supplementary plates, and the regular departments will be among the features.



Courtesy of The Art Institute, Chicago

THE LANDING-PLACE

FROM A PAINTING BY HUBERT ROBERT

(Paris 1733-1808)

The ARCHITECTURAL REVIEW

Volume
IX

Old Series Vol. XXVI
OCTOBER · 1919

Number
4

HOUSE FOR J. A. BURDEN, ESQ.,
AT SYOSSET, L. I.

DELANO & ALDRICH, ARCHITECTS

THE approach to the home of J. A. Burden, Esq., at Syosset, L. I., is by a road winding through woodlands that extend almost to the house, which stands where the edge of the woods meets a wide expanse of open fields. As one rounds the last curve of the road the house comes into view at the end of a vista down a straight stretch of road.

Nearing the house, one obtains the view of the north front shown in the photograph on this page. The drive swings into an oval in front of the steps leading to the main door and the loggia at the west of the main entrance gives convenient access to the house. This loggia is especially use-

ful in stormy weather, for a car can be driven close alongside of it and a stairway leads directly to the main floor.

There is a difference in ground level of seven or eight feet between the north front and the south front of the house, the basement story showing mostly above ground on the north and the first floor being at grade on the south, where a door opens on a wide, level lawn. Beyond, to the south, are wide spreading fields.

The door in the center of the south front has an architrave and pediment of white marble. The cornices, window sills, chimney caps, the treads and platforms of the steps leading to the main



The Central Portion of the North Front



SECOND FLOOR PLAN

FIRST FLOOR PLAN

HOUSE FOR J. A. BURDEN, ESQ., AT SYOSSET, L. I.

DELANO & ALDRICH, ARCHITECTS



STAIR HALL



DINING ROOM

HOUSE FOR J. A. BURDEN, ESQ., AT SYOSSET, L. I.

DELANO & ALDRICH, ARCHITECTS

entrance and other details are of white marble. Laid in Flemish bond, with narrow joints, the brick exterior walls have a pleasing, quiet texture in keeping with the design. The roof is of slate.

The exterior and plan embody the traditions and spirit of one of the most pleasing types of Southern Colonial architecture. The design is refined and scholarly and has unusual distinction.

The main entrance, in the north front, gives access to a circular entrance hall which has a black-and-white marble pavement and walls of cement, painted white. Beyond, in the center of the house is the stair hall, paved with alternated squares of black and of white marble. The walls here are also of cement, painted. The stairs are of white marble and along the wall is a black marble string that silhouettes the ends of the steps effectively. In the wall over the turn of the stairs is a window that opens from a corridor on the second floor.

A vista opens in either direction through the principal rooms and ends in a porch. The porches can be enclosed with glass and the one adjoining the dining room can be used as a breakfast room.

A broad hall extends from the stair hall to the door that opens upon the lawn at the south. At the west of this hall is the salon which is used as a reception room and study.

The women's reception room is at the head of the stairs that lead from the loggia through which

guests arrive most conveniently, while the men's reception room is farther down the same corridor. Both these reception rooms are so situated that guests may reach them to remove their out-door clothing before entering the central hall or any of the principal rooms.

It will be noted by reference to the drawings

shown in connection with this article that the house consists of an oblong main building, having a central projection on the north front, and two flanking wings with pavilions linked to the main house. On the main floor in the east wing are a number of servants' bedrooms.

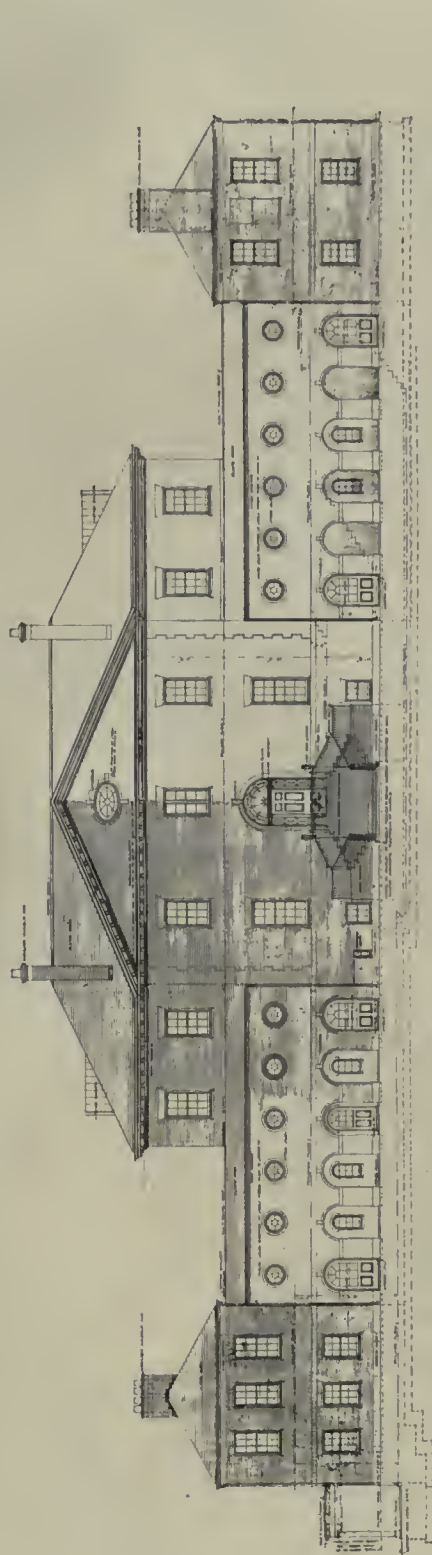
The west wing is given over to the two sons of the owner. On the main floor in this wing is a suite comprising a sitting room and two bedrooms, with both rooms adjoining. Across the corridor is a lavatory with a shower. On the lower floor, at the basement level, are three guest rooms. This west pavilion is practically separate from the main part of the



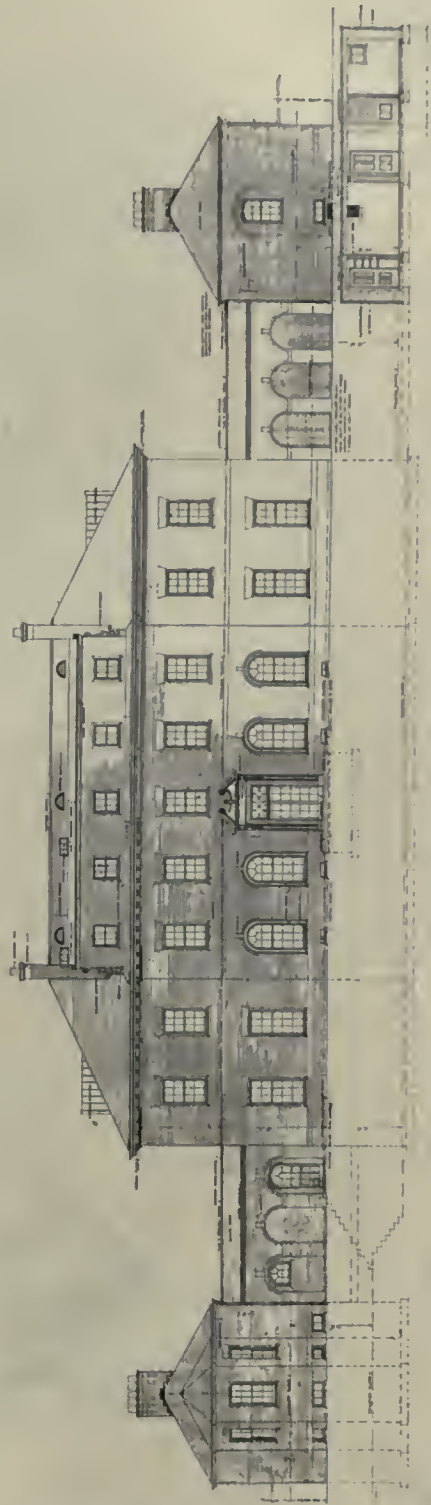
Fireplace in the Living Room

house and has a separate entrance, at the basement level, on the west. It can be reached however from the loggia at the west of the main entrance and there is a door connecting this wing with a corridor of the main house on the first floor.

Several changes of floor level, incidentally, add much interest to the interior of the main floor. There is no master's lift, for none of the principal bedrooms is above the second floor.



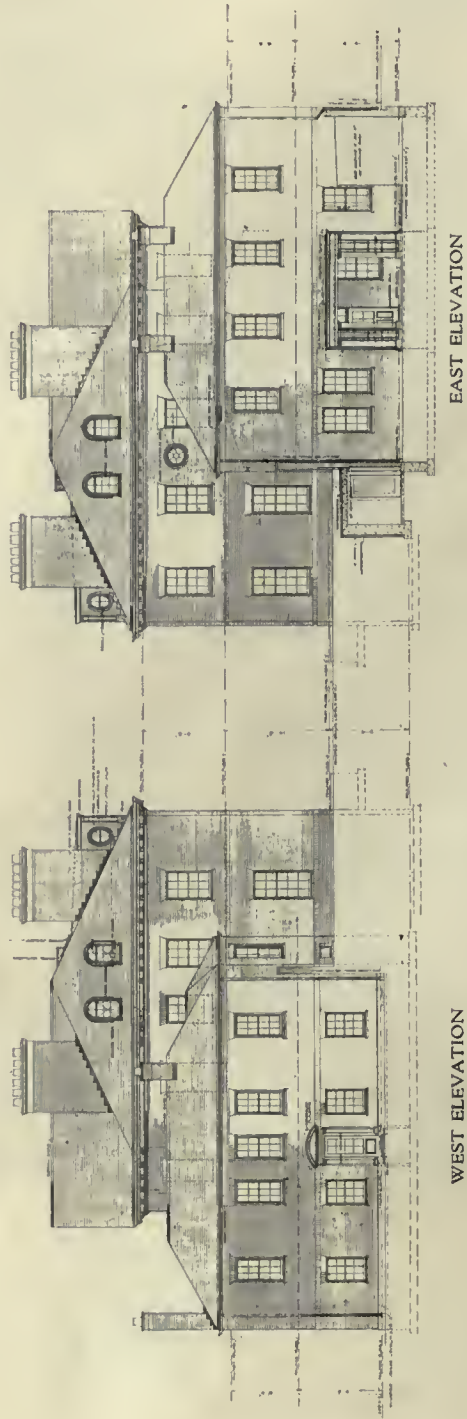
NORTH ELEVATION



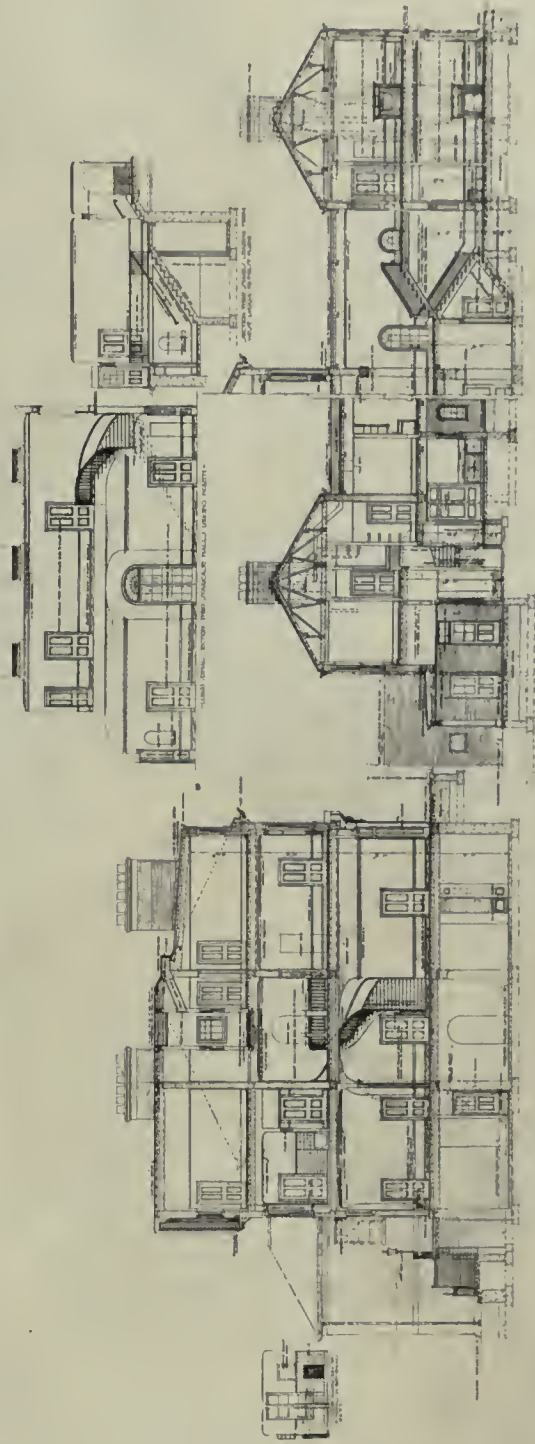
SOUTH ELEVATION

HOUSE FOR J. A. BURDEN, ESQ., AT SYOSSET, L. I.
DELANO & ALDRICH, ARCHITECTS

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HOUSE FOR J. A. BURDEN, ESQ.,
AT SYOSSET, L. I.
DELANO & ALDRICH, ARCHITECTS

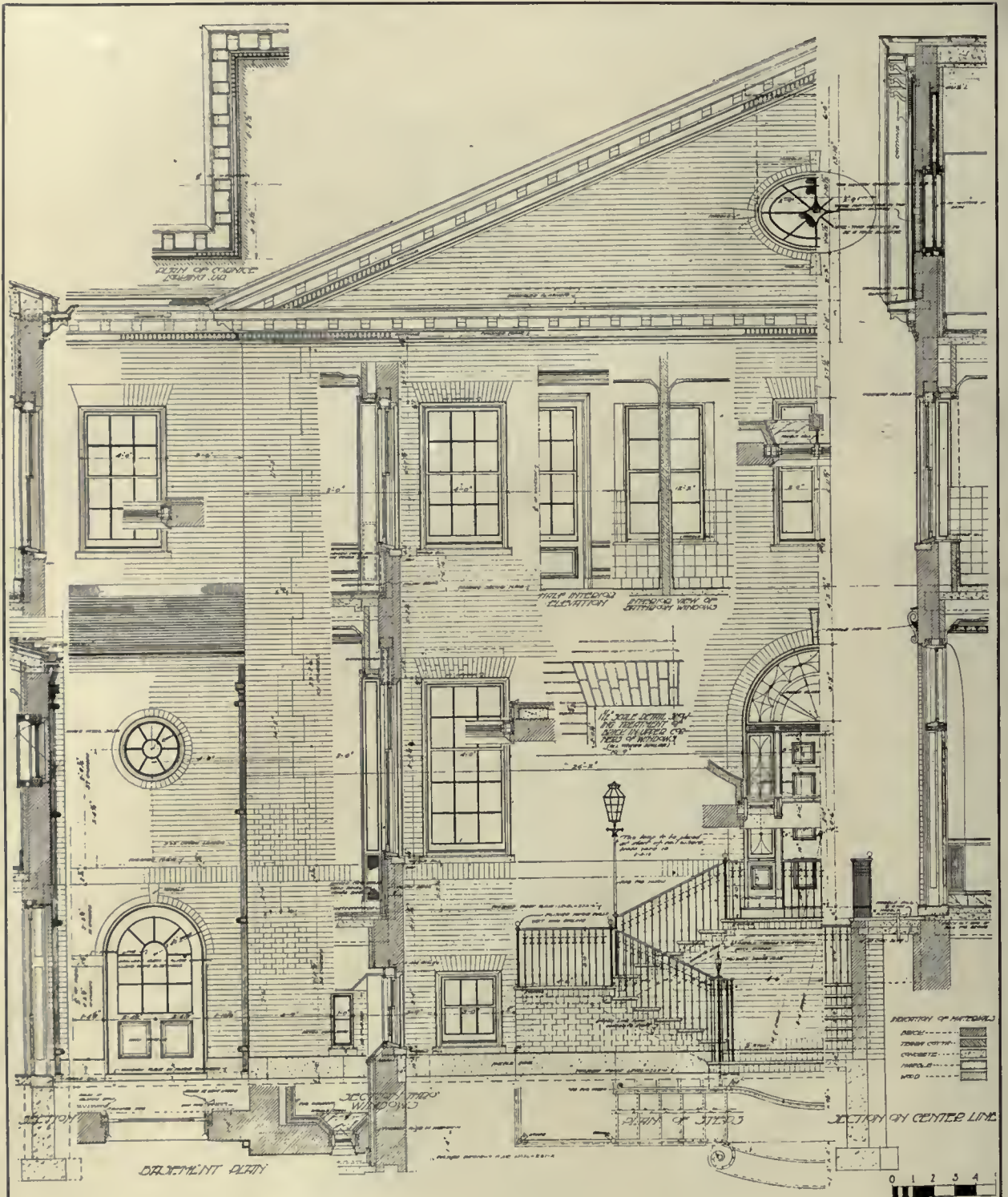


SECTIONS

HOUSE FOR J. A. BURDEN, ESQ.,

AT SYOSSET, L. I.

DELANO & ALDRICH, ARCHITECTS



DETAILS
HOUSE FOR J. A. BURDEN, ESQ., AT SYOSSET, L. I.
DELANO & ALDRICH, ARCHITECTS

SOME INTERESTING FARM BUILDINGS

ALFRED HOPKINS, ARCHITECT. CHARLES S. KEEFE, ASSOCIATE

THE farm buildings for Glenn Stewart, Esq., at Locust Valley, Long Island, and the group for Adolph Mollenhauer, Esq., at Bay Shore, Long Island, are typical of the usual requirements for farm groups in this country.

In the ways in which these general requirements have been met, and the special needs in each case taken care of, these two farm groups differ considerably. In both cases, however, one of the most important controlling factors has been the desire to insure the comfort and health of the animals which the buildings are designed to accommodate.

It will be noted that in both cases the quarters for the animals extend north and south, giving east and west exposures, as this is the most desirable orientation, usually, for buildings of this kind, and should be secured whenever possible.

In both of these groups the hen houses face the south, with the runs extending southward, as this gives the best exposure, and secures the needed sunshine.

One of the fundamental principles of the best practice in designing farm groups today is to show the same regard for the health and comfort of the animals in planning these buildings, that is shown for the health and comfort of the owners in planning the residence. Modern, carefully-planned farm groups do not depart far from this established principle, excepting under the pressure of circumstances which cannot be overcome.

The group for Mr. Stewart is arranged around a courtyard which faces the east. Along the west side of this yard is a stable containing five stalls for hunting horses. At the south of this is a building extending east and west, in one end of which are stalls for two horses. The remaining space in this building is given over to a storage room, and to the poultry house, with feed room at the north and ample runs at the south. Along the north side of the courtyard is a building containing the feed room for the stable, the har-

ness room, carriage room, and, in the westerly end, an owner's room and guest room. In the wing adjoining are a bath room, a room for a servant, an office or living room, and the kitchen. These rooms are for the use of the owner on occasional visits to the estate during the winter.

This wing is balanced by another wing which also extends toward the north.

Enclosed by the main building on one side and by these wings at the right and left, is a small garden with a dovecot in the centre. A view of this garden is shown in one of the photographs reproduced in connection with this article. As these buildings were only recently completed, there has not been sufficient time for any scheme of planting to develop properly, and the gardener's efforts in this direction, as will be noted from the photograph, have not, so far, at least, contributed materially to the appearance of the place.

The wing at the east of this garden is devoted to the dairy and cow barn. The feed room is in a convenient location, between the stable and the cow barn. Nearby at the northeast of this group, but across the drive which leads to the residence, is the superintendent's cottage. A view of this cottage is shown in the plate section of this issue. It has the simple charm characteristic of the old farmhouse of this type.

The group of buildings for Mr. Mollenhauer is arranged around a yard, the north half of which is devoted to the paddock, and the south half to the cow yard. At the west are three box stalls for horses, the harness room, stalls for two cows, and the feed room, which is placed between the stalls for the cows and those for the horses. At the south is the poultry house with feed room at the north and runs at the south. Along the north side of the paddock is a building containing a wagon room, a shed, and the machinery room. At the south side of this building is a porch extending from the harness room to the tool room.



Detail of Farm Group for Adolph Mollenhauer, Esq.
Bay Shore, L. I.



Farm Buildings on the Estate of Glenn Stewart, Esq., Locust Valley, L. I.

which serves as an entrance to this part of the group. A feature that adds interest to the scheme is the tower. The lower portion is used for storage and the second floor contains a room for an extra man needed on this estate during the summer. The roof serves as a dovecot. Connected with these buildings by an arbor is the cottage which is of very pleasing design.

The mill on the farm of H. G. Haskell, Esq., at Cossart, Pa., which is shown in a photograph in the plate section, is well suited to the character of the landscape setting, and has the picturesque quality usually associated with old buildings. The walls are grey granite and the roof is of dark slate. A semicircular recess in one of the walls contains the water wheel, which is of iron. Because of its slenderness of construction and dark color it can barely be seen in the shadow in the photograph.

In exterior design these buildings are admirable examples of a style that is well suited to American farm buildings, for it is essentially

American and has the air of simplicity and quiet which we are accustomed to associate with farm life. Then, too, these simple, white buildings are very pleasing against the green of the fields and trees. The cottages in these farm groups well express the spirit of the early farmhouses of this country. They are designed with so fine an appreciation and knowledge of the old work that they might easily be taken for old buildings, if it were not for the absence of the signs of wear and tear and of the destructive force of the elements that old buildings naturally show. The stone mill is an equally successful design in a different type of simple American architecture. It is plainly the right building for its place.

With the increase in the number of large country estates used for summer residence, the need for well-planned farm groups of pleasing appearance has grown of late.

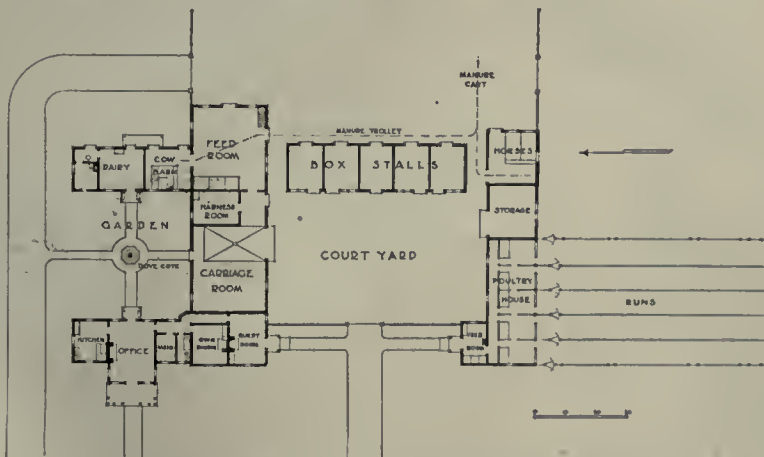
Farm groups of this kind being a source of pride to the owner usually afford large opportunities for good designing.



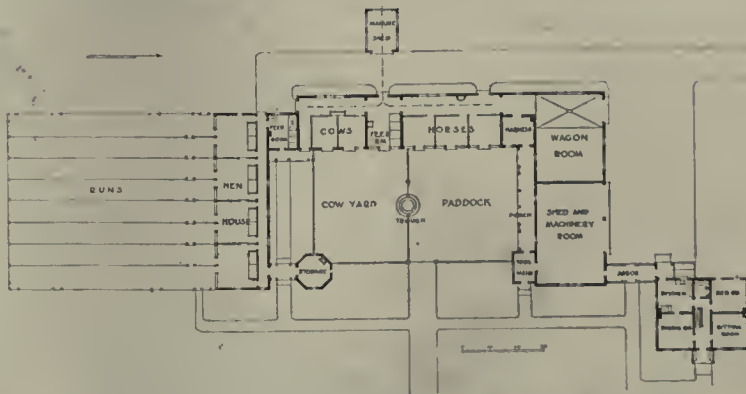
Farm Buildings on the Estate of Adolph Mollenhauer, Esq., Bay Shore, L. I.



General Layout of Farm Group for Glenn Stewart, Esq., Locust Valley, L. I.



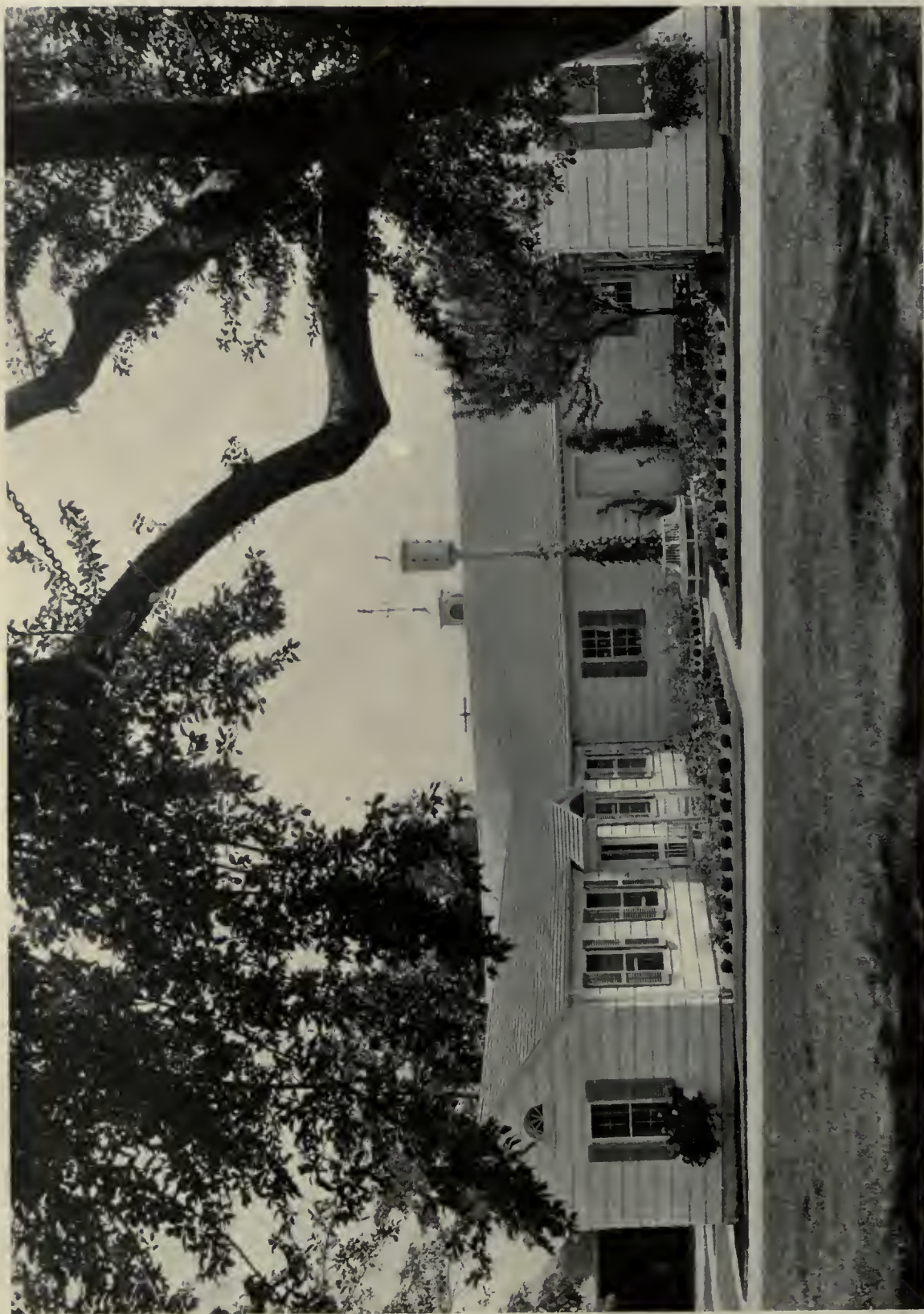
Farm Buildings for Glenn Stewart, Esq., Locust Valley, L. I.



Farm Buildings for Adolph Mollenhauer, Esq., Bay Shore, L. I.

FARM BUILDINGS

ALFRED HOPKINS, ARCHITECT
CHARLES S. KEEFE, ASSOCIATE



FARM BUILDINGS FOR GLENN STEWART, ESQ., LOCUST VALLEY, L. I.

ALFRED HOPKINS, ARCHITECT. CHARLES S. KEEFE, ASSOCIATE

HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.

HISS & WEEKES, ARCHITECTS

THE best views from the site chosen for the residence of Mr. B. F. Jones, Jr., at Sewickley, Pa., are toward the west and the south—views that were familiar to the owner and his family through residence in the house which was removed in clearing the site for the present building. In order to take advantage of these views to the full extent, a large veranda was placed at the west and another at the south. The living room was given a place next to the west veranda, and the south veranda was made the principal entrance.

The gallery into which the south veranda opens serves the purpose of a main entrance hall and of a formal salon. From the gallery, a hall leads to the stair hall which is at the east end of the main building.

The carriage entrance, also at the east, connects with this hall through an entrance porch and a vestibule. The drive takes the form of a circle passing under the porte cochere at this entrance. This area enclosing the circular drive has been given a formal character and an architectural screen shuts off the view of the kitchen wing from the drive.

The dining room is at the north and has a large bow window. Adjoining the dining room is the breakfast room, which, though on the north side of the house, has a window that faces the

east and catches the early morning sunlight.

More than usual care has been taken to prevent kitchen noises from reaching the dining room during dinner. The connection between the kitchen and the dining room resembles that frequently found in the large English houses rather than the arrangement usual in American homes, where the tendency is to shorten the distance between the kitchen and the dining room. If a sufficient number of servants are employed, there is no necessity for shortening or simplifying the service greatly. From the kitchen the food passes on a turn-table through an opening into the butler's pantry. Here it is arranged for serving and carried across a hall, passing through two swinging doors before the alcove of the dining room is reached. There are, therefore, three barriers to sound between the dining room and the kitchen, and at least one of these is practically certain to be closed at all times.

The kitchen is provided with a scullery and a cold room in addition to a room for stores, closets and the usual features.

Adjoining the kitchen is a maids' dining room with windows on three sides, which make it bright and airy. On the northeast corner of the kitchen wing is a large service porch.

On the second floor are the private suites. The one at the south consists of a chamber and adjoin-



South Front



VIEW THROUGH GALLERY AND HALL FROM LIVING ROOM
HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.

HISS & WEEKES, ARCHITECTS

ing dressing room over the south porch, the boudoir connecting at the west and a chamber at the southwest corner of the house. At the northwest corner is a suite consisting of a chamber and boudoir with bathroom and dress closets between. At the north, over the breakfast porch and den, is a large sleeping porch that can be reached either from the hall or from the sleeping rooms at either side. There are also guest rooms on this floor.

An interesting feature of the building is the private stairway from the gallery on the first floor to the center of the house on the second floor, which provides a short means of communication between the principal bedrooms and the main rooms of the first floor.

The bedrooms for women servants are on the second floor over the kitchen and maids' dining room. A maids' work room is provided on the passage from the maids' bedrooms to the main house on this floor and the room for the housekeeper, with its bathroom, is placed in a corner of the main house adjoining the kitchen wing.

On the third floor are bedrooms, store rooms and servants' rooms, also a large room at the west end of this floor, fitted as a dormitory in which to accommodate extra men guests.

The exterior of the house is dignified and restrained in design and is of Indiana limestone. Terraces surround the house on three sides, the one at the west being given the greatest prominence and having steps leading down to the garden and swimming pool. A door from the terrace to the service hall between the dining room and butler's pantry provides a convenient means of access to the service stairway, making it possible

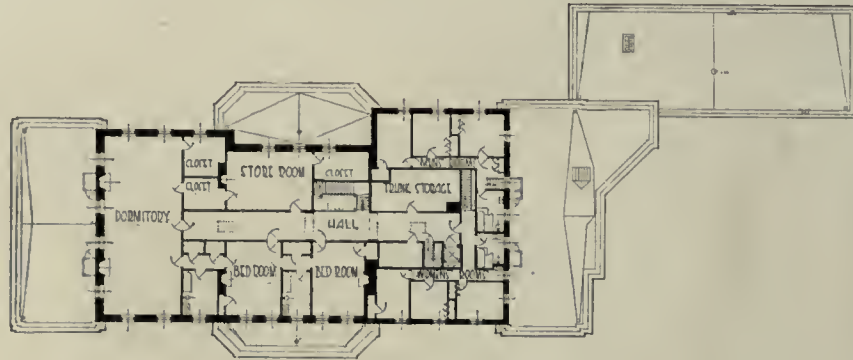
for people coming from the swimming pool or tennis court to reach the second floor without using the main stairway.

The interiors give a sense of space and dignity. The walls and ceiling in general are kept simple and the ornament focused in the architectural features, such as the doorways, mantels and cornices. By this means the rooms have been given an air of richness and at the same time have been kept from heaviness and over elaboration.

The floors of the gallery, the hall and stair hall are of squares of black and white marble. The walls of the gallery are painted ivory color. The west veranda has walls of stucco of a rough, interesting texture and a mantel of Indiana limestone. There are bands of ornament in polychrome on the walls of this room and the floor is of red tile.



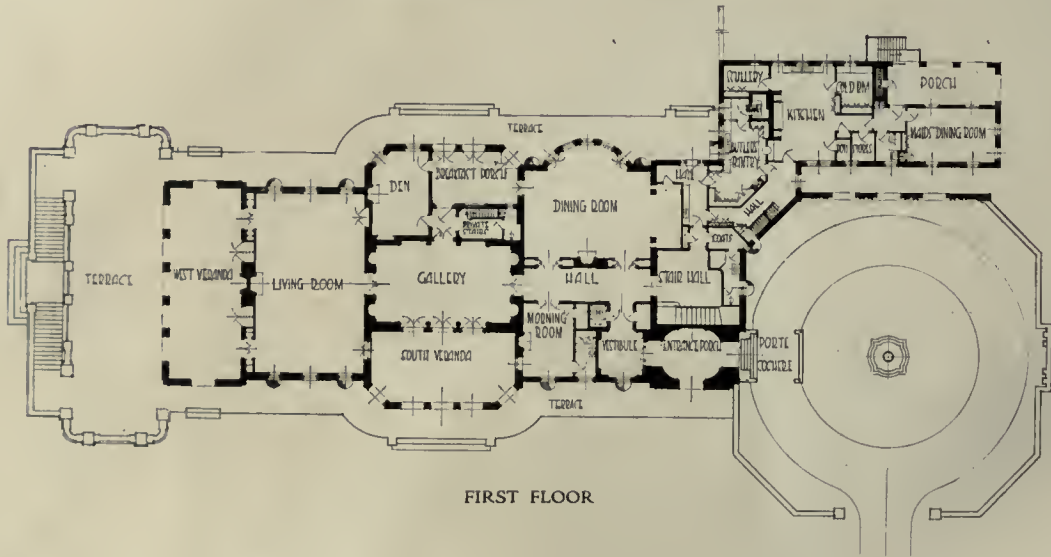
View Through Hall and Gallery to Living Room



THIRD FLOOR



SECOND FLOOR



FIRST FLOOR

HOUSE FOR MR. B. F. JONES, JR.,

SEWICKLEY, PA.

HISS & WEEKES, ARCHITECTS

THE CUNARD BUILDING NEW YORK

BENJAMIN WISTAR MORRIS, ARCHITECT
CARRÈRE & HASTINGS, CONSULTING ARCHITECTS

A BUILDING which will be one of the most important in the down-town section of the city already notable for its colossal business structures is the Cunard Building upon which work is now under way.

It will be located at Broadway, Morris and Greenwich Streets. The acquisition of the site involved \$5,000,000, and the building will probably cost upwards of \$10,000,000 more.

This building will be twenty-one stories in height above the sidewalk level. It will have a base area of 48,400 square feet and a total floor area of 700,000 square feet.

The contracts call for completion by May 1, 1921, but it is expected that, if building conditions are normal, the building will be ready for occupancy by October, 1920.

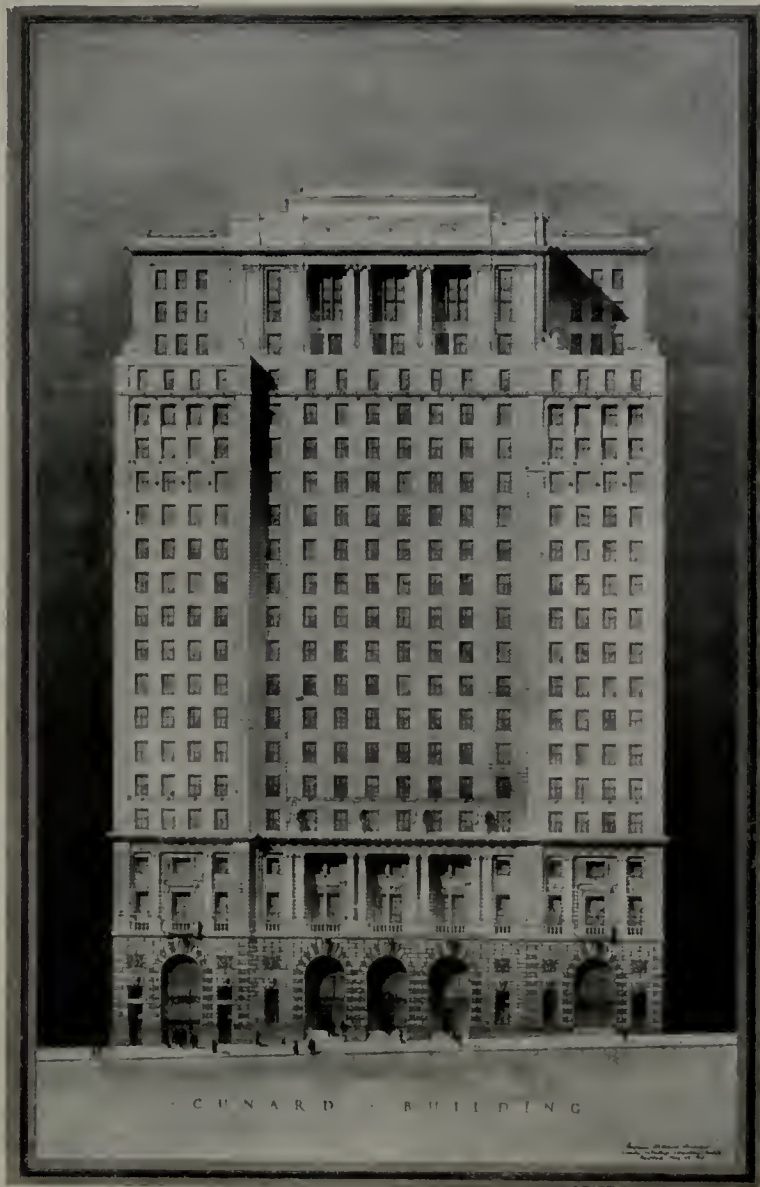
This building will house the New York offices of the Cunard Steamship Company, Ltd., the Anchor Line, the Anchor-Donaldson Line and other allied and subsidiary lines of the company.

A great hall for the passen-

ger departments of these lines will occupy the major part of the first three floors, which, together with the basement, have been reserved by the steamship companies. This hall will be 185 feet long, 74 feet wide, and will have a ceiling height of 65 feet. The ceiling will be vaulted and richly decorated.

About 500,000 square feet of rentable space will be available. Provision will be made for housing a bank at the corner of Broadway and Morris Street. Private elevators to the fourth floor will be provided for the bank, also safe deposit vaults in the basement.

The site of the building has been carefully studied and the plans made to take advantage of the characteristic features of the site. There will be no interior courts, there will be open courts of unusual width at the north and south, and there will be no inside offices to rent. The upper stories will be set back, forming a terrace. The front on Broadway will be of Indiana limestone.



The Broadway Front



PLAN OF MAIN FLOOR



PLAN OF TYPICAL OFFICE FLOOR

THE CUNARD BUILDING

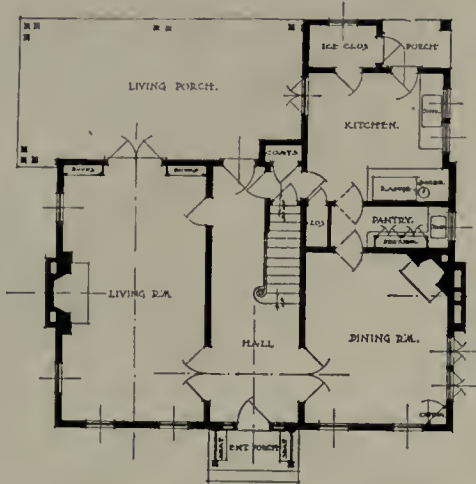
BROADWAY, MORRIS AND GREENWICH STREETS

NEW YORK

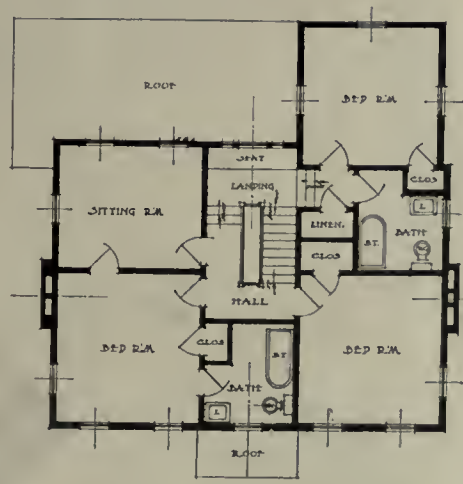
BENJAMIN WISTAR MORRIS, ARCHITECT. CARRÈRE AND HASTINGS, CONSULTING ARCHITECTS



GENERAL VIEW



FIRST FLOOR PLAN



SECOND FLOOR PLAN

HOUSE FOR JOHN W. BANKS, ESQ.
BRIDGEPORT, CONN.
HOLLINGSWORTH & BRAGDON, ARCHITECTS



DETAIL OF ENTRANCE
HOUSE FOR JOHN W. BANKS, ESQ.
BRIDGEPORT, CONN.
HOLLINGSWORTH & BRAGDON, ARCHITECTS

THE REVIEW OF INTERIORS

Department Edited by J. H. Phillips.



TWENTIETH CENTURY INTERIORS, PART I

THE turning point in the education of the American public in architecture, interior decoration and art generally was marked by the World's Columbian Exposition, held in Chicago, 1893. The seven years that followed saw the formation of the taste which was to prevail during the early years of the Twentieth Cen-

tury and the manifestations of a new desire for surroundings of an artistic character—the impulse that is making the present century notable in the history of art development. Other centuries have produced interior decorations and furnishings of rare beauty: superior, perhaps, to anything the designers of our times have pro-



Dining Room in House of C. D. Barnes, Esq., Manhasset, L. I.

Peabody, Wilson & Brown, Architects

duced. But never has there been so wide, so democratic a dissemination of the knowledge of artistic decoration, so general a demand for good design in interior decoration and furnishings.

In ancient times, in the Middle Ages, during the Renaissance, and in the Eighteenth Century, men and women of cultivated tastes were among the minority. The beautiful interiors were those of palaces, villas, chateaux and mansions. It is true that many a humble home possessed a kind of attractiveness due to its simplicity and an elemental human appeal, but the surroundings of all but the favored few were lacking in artistic design.

During the Nineteenth Century the concentration of thought and effort upon commercial and industrial pursuits was accompanied by a low standard of taste, but it provided the wealth and general prosperity that made possible the advance which was to come with the opening of the Twentieth Century.

To thousands of our people who had never seen the wonderful works of architecture and art abroad, "The World's Fair" revealed a new and marvelous world of beauty. It quickened in them sensibilities the very existence of which they had not known or even imagined. It set a new standard of taste for the whole country.

Back of this event were, of course, the real forces—on the one hand the training and breadth of view acquired by the men who had availed themselves of the advantages of travel and study,

and on the other hand the great mass of the people who had received a preparatory education in our public schools that made them receptive.

An appreciation of the beauty of the remaining examples of Early American interior decoration and furniture was one of the first evidences of improvement in taste. The collecting of this furniture was taken

up by many among those who had the necessary means, and the use of reproductions, more or less correct, of Early American furniture pieces, became general. Historic interiors and furniture of other periods and other countries also received much attention, but the readiness with which the greater part of the people joined in the revival of Early American traditions in decoration and the steady fastness with which they have held to this manner has shown their appreciation of the fact that when employed intelligently and sympathetically it forms one of the best sources of inspiration for

present day American decoration. It is quite natural that the older English interiors have been found to afford suggestions adaptable to our needs and in conformity to our traditions.

The simple furniture of the old Spanish missions supplied at least a name for a type of American furniture parallel with the contemporaneous European "Modern Style." Italian interiors and furniture have exerted a strong influence of late, the artist's studio character has crept into many room treatments.



Dining Room in the House of Lawrence M. Keeler, Esq., Whitinsville, Mass.

Joseph D. Leland, Architect



LIVING ROOM IN HOUSE FOR LAWRENCE M. KEELER, ESQ., WHITINSVILLE, MASS.
JOSEPH D. LELAND, ARCHITECT



LIVING ROOM IN A HOUSE AT WATCH HILL, R. I.



VIEWS IN A RESIDENCE AT HARTFORD, CONN.

GOODWIN, BULLARD & WOOLSEY, ARCHITECTS





VIEW IN HOUSE FOR ROBERT J. COLLIER, ESQ.
AT LAKEWOOD, N. J.

JOHN RUSSELL POPE, ARCHITECT



DINING ROOM IN HOUSE FOR JAMES BREESE, ESQ., AT SOUTHAMPTON, L. I.

McKIM, MEAD & WHITE, ARCHITECTS



DINING ROOM IN THE RESIDENCE OF WALTER J. ROSEN, ESQ.

J. H. PHILLIPS, ARCHITECT

Doves of peace form the ceiling decoration in this modern room inspired by old interiors



ARCHITECT'S STUDY FOR THE DINING ROOM ABOVE

THE REVIEW OF RECENT ARCHITECTURAL MAGAZINES

By C. HOWARD WALKER

THE July *Architecture and Building* opens with the Church of St. Vincent Ferrer by Bertram Grosvenor Goodhue, a dignified, noble Gothic church with deep buttresses and shadows. Personally, I like to see vaulting ribs start from capitals, but that is probably a prejudice, as is my desire to have a rose window with wall surface all about it rather than with mullioned tracery below it. Renwick, Aspinwall & Tucker's Dollar Savings Bank, 147th Street and Third Avenue, New York, is a studied, serious piece of architecture, well proportioned and detailed. The flutes do not improve the pilasters, which might well have been left plain. Graham-Anderson, Probst & White's Hotel Cleveland is restrained and the interiors are attractive. Eames & Young's Boatmen's Bank Building, St. Louis, is of the conventional, necessary type, well done.

The Western Architect, July, mentions the proposed Department of Public Works, which, excepting for the ponderousness, apparently common to all such de-

partments, seems advisable. The number is largely devoted to the Pennsylvania Freight Terminal Station, Chicago, by Price & McLanahan. This is a noteworthy building, and it was an exceptional opportunity of which advantage has been taken in many respects. Its mass is good, its purpose is indicated, and, as is mentioned in

the article upon it, it expresses power due to its proportions and simplicity. But there is no occasion for the curved lines that constantly slur the frank expression of verticals and horizontals. None of the great historic buildings with power is slurred nor are the terminations little truncated cones. The tower silhouette is excellent, the wall silhouettes against the sky seem timid. It is, on the whole, so admirable a building that it is to be deplored that any desire for softening should have been felt. There is no softening in the brick campaniles of Italy, nor in that noblest of all towers at Pistoja. Brick is not a plastic material. There is a predilection in American and some Continental architect-

(From "Architecture and Building")



Interior, Church of St. Vincent Ferrer
New York

B. G. Goodhue, Architect

(From "The Building Review")



Perspective for Residence
Myron Hunt, Architect

(From "The Building Review")



Memorial Museum, San Francisco, Cal.
Louis Christian Mullgardt, Architect

ture, as in the Hotel Lutetia in Paris, to make edges and pinnacles seem in the process of melting and to evade study of the relation of the proportions of adjacent rectangles by the introduction of slipping curves. It may be a search for the artist's "lost line" which is lost indeed. But the architect is dealing with geometric solids, and should not be led astray by the insidious grace of an unnecessary curve. Nevertheless, this freight building is of such an exceptionally fine character that criticism seems ungracious. The first paper on "Architecture of the Spanish Renaissance in California" by Rexford Newcomb is very interesting. Built in the last three decades of the Eighteenth Century and the first two of the Nineteenth Century, before the "Louisiana Purchase" indirectly checked Spanish development, the buildings referred to are better than contemporaneous architecture in Spain. There are twenty-one of them on the map which accompanies the article. Apparently the same necessary economies which influenced Bulfinch in Boston were felt by Father Junipero Serra in California and the result in both cases was simple, direct and expressive architecture without ostentation.

The Building Review, San Francisco, August. Mr. Irving Mor-

(From "The Western Architect")



Tower, Pennsylvania R. R. Freight Terminal, Chicago, Ill. Price & McLanahan, Architects

nerism and neglect indication of surfaces, of continuity, of shadows, and are devoid of shades. All things look alike. We realize that there were probably better-felt gradations in the pencil originals, reproduced in ink black, but the delicacies of eaps and croekets at Wells, the exquisite finesse of the south porch at Chartres and the sumptuous pomposity of Burgos are all appar-

(From "The Western Architect")



Pennsylvania R. R. Freight Terminal, Chicago, Ill. Price & McLanahan, Architects

row writes upon some European drawings by Abe Appleton, architect. We do not find the virtues in these sketches that Mr. Morrow praises. With the exception of that of the Pont Neuf, which has a breadth, they give no information excepting that of general composition. They have one constant man-

(From "Architecture and Building")



Church of St. Vincent Ferrer New York

B. G. Goodhue, Architect

ently neglected. The drawing of the towers of Tours is the best. Mr. Mullgardt's Memorial Museum, Golden Gate Park, San Francisco, is a very interesting building. It smacks, of course, and appropriately,

of Spanish traditions and has the broad massed contrasts of plain surface and exuberant detail so characteristic of Spanish elemental emotions. It also has the disregard for restraint. But it is nobler than the Plateresque, and more dignified than the work of Chirruquera. Its fringe of pinnacles against the sky out-herods Herod, but is justified by its effect. The placing of the staccato shadows is admirable. We cannot help feeling that the decoration of the verticals needs stronger edges to hold it and maintain their integrity as supporting members. The details are finely conceived. Myron Hunt's work is as usual simple and carefully and well proportioned.

The American Architect, August 13th. The first article is by Martha Candler on "The Community House as a War Memorial." In this article she states, "It is now generally conceded that mere shafts of granite or statues of bronze, be they ever so artistic, are inadequate to express the tribute we would pay to our soldiers." Nothing, surely, is further from the truth than this

statement. Miss Candler's paper is full of didactic statements which are not as true as she feels them to be. Later in "Editorial Comment" *The American Architect* frankly states its assumption, but it may be added it calls it an "assumption" not an established fact, that "the problem of war memorials is strictly technical" and they "should possess a utilitarian purpose." It then quotes Mr. Gilbert and then goes on to say that the "most permanent would appear to be a memorial building." Granted, but not a utilitarian building *per se*. *The American Architect's* peroration is excellent.

The Englewood Neighborhood House, by Mann & MacNielle, is attractive and interesting. The writer feels that the tower would have been improved either by being one story higher or by the placing of the roundels above instead of below the windows and by moving up the story course to the third-story sill-line. Mr. William Steele's First Congregational Church, Sion City, Ill., is an unusual performance in plan, exterior and interior. Circulation appears choked, indirect and inconvenient in plan. The girders are overwhelming in the interior. The fenestration does not well express the rooms within. The entrance buttresses are unnecessary, and the wall and dome terminations against the sky are bald. Kilham & Hopkins' Town Hall at Tewksbury, Mass., is well composed and well designed.

The American Architect, August 20. The opening article is upon "Solving the Problem of the Low Cost House," and shows a number of designs for various shipping

(From "Architecture and Building")



Hotel Cleveland, Cleveland, O.
Graham, Anderson, Probst & White, Architects

boards, etc., by trained and able architects. These designs are object lessons to those who consider that architects are superfluous for this class of building. The architect is of value, first for an exhaustive conception of present and future treatment and development of the sites, no two of which are identical, for the arrangement and orientation of the buildings, for the increased pecuniary value of the general attractiveness of appearance, which is a distinct and calculable asset, and for the control of work and expenditures which alone in most cases, saves enough

and more than enough to cover his commissions. These contentions have been proven many times. Even the Government, which cannot be accused of aesthetic or sentimental peculiarities, has recognized these facts. The article upon "Art. Profession or Business?" reviews a subject discussed

(From "Architecture and Building")

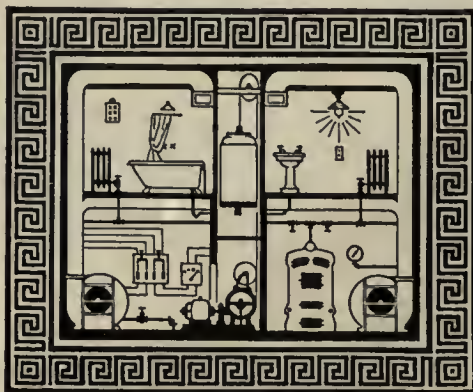


Boatmen's Bank Building, St. Louis, Mo.
Eames & Young, Architects

in the *London Architect*, quite pessimistic—what is it all about? Large business enterprises require business handling, and always did from the time of Rameses II. Architects existed then who handled them, and exist now. Other types of work require other qualifications. In some cases all qualifications are necessary. The field is open, the choice will be and always has been made. No man recognizes his limitations until the fact is forced upon him, and many men fail to do so under any circumstances, and yet there is no man but has some small jewel of talent in his head which, if he will polish it, will be of value to others and to himself. It makes one think of the cow that "always wants to be where she ain't."

EQUIPMENT

DEPARTMENT EDITED BY J. F. MUSSELMAN



THE SELECTION OF PLUMBING FIXTURES

PROBABLY no duty which the architect or equipment engineer has to perform is more irksome or less interesting to him than the selection of the fixtures for a plumbing installation; unless it be the job of writing a specification for these fixtures, in such a way as to get good competition among a number of manufacturers, with all bidding on about the same grade pieces. But the joylessness of this process of selection comes not so much from the fact that plumbing fixtures are in themselves uninteresting, as from the minute details necessary in order to select, judge, or specify them.

The fact is that plumbing fixtures are really more interesting than most of the materials that enter into the construction and equipment of a building. This is evidenced by the overwhelming importance that the average client gives to them. The brick, the stone, even the interior decorations, may be left to the architect's taste, but the plumbing fixtures, in the case of residence work, have to be selected under the personal direction of the client, or more-often of the client's wife.

Until comparatively recently, selection has been complicated rather than simplified. It became the custom of the plumbing supply houses in the larger cities to provide show-rooms filled with fixtures of many kinds and makes. This in

itself was a great convenience, but the complication came when the supply house posed as the manufacturer of everything shown, the names of the real producers of fixtures and brass goods not being mentioned. When each design was given an alias corresponding to the catalogue of the supply house in question, the result was that a plumber's estimate was either a matter of guess or a lump sum figure based upon the approximate prices given by a single supply house.

Some of the supply houses went so far as to insist that their names be cast or enameled in the fixtures handled by them, and refused to allow the manufacturer's mark to appear on his product. This led to a bitter fight with some of the manufacturers, but on the whole it has been beneficial, since it has led the manufacturers to catalogue their own goods intelligently, and to merchandise their own goods. It has also simplified and cheapened production by reducing the number of designs, making it unnecessary for a single manufacturer to carry a multitude of designs and patterns—several hundred different water closet bowls, for instance—as was the practice a few years ago in one of the large eastern potteries.

An important fact in connection with the selection of plumbing fixtures that is apt to be given less consideration than it deserves, is that a com-

plete plumbing fixture is made up of two distinct features, both of about equal importance—the fixture body and the brass work. They are made by separate trades and often by different manufacturers.

For the satisfactory operation and maintenance of a fixture, it is more important that the brass goods be right than that the fixture body be of any certain design. Plumbing specifications are apt to be loose in this respect, for there are really no fixed standards of weight or quality that can be stated in a specification to cover all conditions.

For Government work, the Departments of War, the Navy and the Treasury have compiled, at great labor and expense, a book of standards that gives all of the minute details of fixtures that exactly meet the requirements of these departments. This book is easily procurable and would be most useful were it not that the quality throughout is better than the average job will bear, especially with the prevailing high cost of building.

The present high standards in brass goods have been reached by a process of eliminating those articles which will not stand up under long usage. The compression pattern faucet has come into such wide use because of its durability. There is no inherent objection to Fuller faucets except that they have been cheaply made so often that it is doubtful if the damage to their reputation will ever be lived down, especially in these days of high



Built-in Type of Bath Tub

pressures and scalding hot water. The amount of brass work visible should be reduced to the minimum—brass work is no longer considered ornamental and the labor required to keep it polished is an item worth

considering, especially in a hotel or an office building. The brass parts are apt to be good in direct proportion to their weight, for in the best brass work the amount of material is reduced to a consistent minimum and any saving that can be effected from this is done at the sacrifice of quality and useful life.

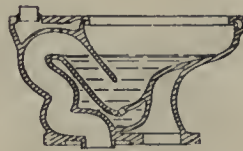
If flush valves are used, the pressure of the cold water system should be reasonably constant, for wide variations in pressure are apt to be attended by unsatisfactory operation, especially with cheaply made flush valves, which, by the way, should be avoided under any condition on account of the constant repairs they require.

Shower baths are becoming so popular of late that the shower mixing valve deserves a word. Those who have most experience with the average grade mixing valves are loudest in condemnation of them. They say that most mixing valves are improperly named,

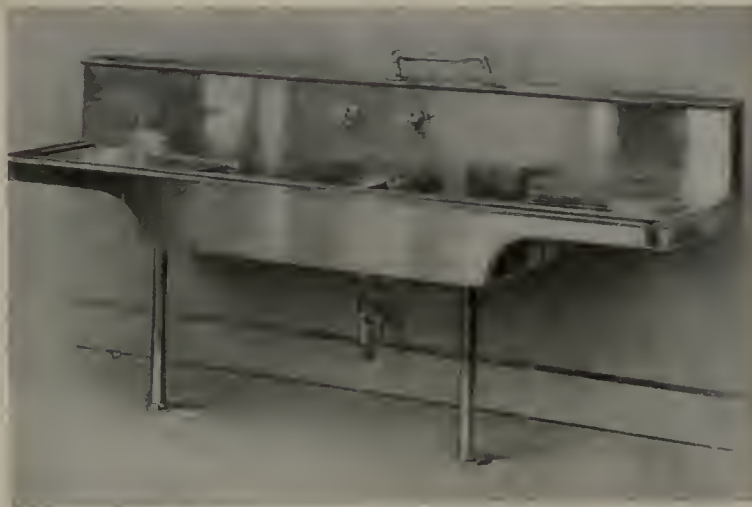
because they will not mix and they are not valves. Without prejudice against any type or make of mixing valves, it may be said that two compression valves, if well made and fitted with a yoke and a head pipe of proper size, will give satisfactory results for shower control under all usual conditions.



Pedestal Syphon-jet



Syphon-jet Closet



One-piece White Metal Pantry Sink

In considering the materials of which the bodies of the fixtures should be made, there are points to be taken into account, on which the useful life of the fixture is directly dependent.

It is of prime importance that the surface of the fixtures should be hard, and that the glaze should be as bright and as white as possible. This surface glaze should also be deep and it seems advantageous for the color of the material to be white throughout its entire depth.

It is also important that the surface glaze should not craze easily, that is, become full of minute cracks, which quickly become discolored. The surfaces should be such that they will not readily stain by contact with metal polish or ordinary preparations used for disinfection or for cleaning.

White china, known as vitreous wear, is largely used for fixtures up to a certain size. This ware is extremely hard and tough and will not easily chip. Its surface is highly glazed, its color is white throughout. It is very difficult to stain, and it presents a very attractive appearance. It is, however, difficult to cast, and to date no process of casting has been devised by which fixtures larger than a lavatory can be produced.

For bath tubs, either porcelain or enameled iron is generally used. Enameled iron tubs are light in weight, good in color, and the glaze, or enamel, if properly applied, is very durable. In recent years enameled iron tubs of greatly improved design have been produced.

The lavatory may be of almost any size to fit the conditions, but 20 in. x 24 in. is considered

a good average size for most cases. It is frequently of vitreous china, and in tiled rooms it usually has no back. The faucets are of the compression type, and the supply fitting is of a combination pattern to facilitate the mixing to a usable temperature and

washing in running water.

The overflow is cast as a part of the lavatory and involves no brass work to be cleaned and polished. It is becoming customary to hood these overflows in the castings in such a way as to make them very inconspicuous and give them a neat appearance.

The syphon-jet type of water closet, one pattern of which is shown in the cross-section cut, gives highly satisfactory results. The seal of such a closet is deep and the action positive. It is usual now to have extended fronts and split seats on water closets, these being as nearly sanitary types as are made.

The flush may be accomplished by a flush valve or a lowdown tank. High tanks, as originally used, are no longer popular.

In spite of the increased cost, the built-in type of bath tub in one piece is popular. It presents a better appearance, is more sanitary and easier to keep clean. Some of the recent designs in enameled iron tubs of this style are very attractive. The usual preference

is for concealed supply and waste fittings on such tubs, but this makes repairs difficult.

Where no question of price is involved, the pantry sink can be made one of the most attractive features of a plumbing installation. It is customary to build this of a heavy-weight white metal with drain boards, apron and back, all formed into a single piece. Such a fixture offers an expansive area to be cleaned and polished, but the yielding surface of the sink and drain board reduces the breakage of dishes and for this reason, if for no other, the expense of such a fixture is often justified.

As it becomes possible to cast vitreous ware in larger pieces, the use of vitreous china slop-sinks and pedestal type urinals is becoming popular. These fixtures are now made in syphon-jet pattern.



Pedestal Lavatory



Modern Pedestal Type



Syphon-jet Closet



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· EDITORIAL · COMMENT · · ON · ARCHITECTURE · & · THE · TIMES ·

THE influence that is retarding the resumption of construction work on a scale sufficient to meet promptly the need for buildings throughout the country seems no longer to be in any great degree an expectation that the prices of building materials and labor involved in the construction industry may decrease in price in the immediate future, or within a period short enough to make investment in building at this time unwise.

This stage seems to have been definitely passed. Most people, probably, have come to accept by this time the fact that we are on a permanently higher price level than we were before the war, in building materials as well as in everything else. The question in the mind of the prospective builder now is, how much will prices increase between the time they are quoted and the carrying out of the work.

Though lumber is a much less important factor in construction in urban sections, it is a most important material in the towns and villages and in the country districts, as well as in the suburban section of our cities. The fact that a very large percentage of the people of this country live outside of the large cities makes lumber a great factor.

During the war the lumber industry lost a large percentage of its labor by diversion to war industries, and it has been slow to return since the cessation of hostilities. There is, therefore, small prospect of a very great increase of production in the immediate future.

The fact that prices of lumber and of building materials in general did not advance in proportion to the cost of other commodities during the war, and that at present they are relatively cheaper than other commodities, may be taken as a reasonable basis for the assumption that they will continue to rise in price until this difference is at least somewhat reduced. This equalization may come about partly, it is true, through some reduction in the cost of the necessities of life, which will gradually result no doubt from an increase in production, and accompany the elimination so far as possible of profiteering in food and other necessities, whenever this condition may be found. However, a considerable advance in the prices of building materials may still be looked for, though there may not be the rapid changes that have been experienced of late.

Several influences are at work to stabilize the prices of materials in the building industry. One of the chief of these is the realization on the part of many leading materials men of the fact that the greatest good to the industry will come from the prompt supplying at this time of the needs

of the people and from the continued and regular construction of buildings.

The fact that building materials are now relatively lower in price than other commodities, that, in other words, a dollar will buy more in building materials than in almost anything else, is the strongest argument for building at this time is appreciated by these men. That this advantageous differential shall be maintained, so far as producers of and dealers in building materials may be able to withstand the continued pressure brought about by the constant advance of the cost of production, is the desire of the far-sighted materials men, and efforts are being made to avoid increasing the price any more than is absolutely necessary.

One of the plans that has been put into effect with good results, in the effort to stabilize the price of lumber, is the issuing, by an important firm, of a price list good for thirty days from date.

In the case of building materials other than lumber, the general tendency is upward, with little or no assurance as to future prices excepting that they will generally be higher.

In some cases there are contracts with labor covering a considerable time in the future, which give assurance as to what this element in the cost of certain materials will be, but in at least one of the important industries producing building materials this contract with labor calls for a very considerable increase in wages from year to year during the course of the contract.

Organizations of manufacturers in general, through the discussion of the conditions in their industries, are a valuable force in meeting the problems of the industry wisely and with a view to the general good of the country, which will ultimately be for the good of their own industries.

Though there is every reason to be certain that the prices of material, and in many instances of labor, involved in the construction industry will continue to advance for some time, and will not recede in several years, there is a considerable tendency to stabilize prices, in order that the industry may be relieved of the uncertainty which is at present so strong a deterrent.

Notwithstanding the hesitancy that still exists there are indications of an increasing tendency to proceed with constructive work. In some of the more crowded centers of population, at least, there has been a strong movement by people who have been spurred by high rents to purchase homes already built, but this in no way relieves the housing situation, for it simply means a change of occupants. It does, however, show a significant will to own a home on the part of a large number of people.

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Architects: Davis, McGrath & Klesning, New York City.

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NEW·YORK

THE opening article in this issue is devoted to a large country house that fits into its surroundings admirably and that has the home quality and artistic appeal usually associated in our minds with the delightful old examples of English domestic architecture. In this design there is, however, no appearance of undue striving for quaintness or picturesqueness. There is abundant evidence of a keen appreciation of the relation which a house should bear to its surroundings. In massing it is effective and interesting, in line and color it is sensitive and pleasing. It gives the impression of being essentially a hand wrought house in distinction to the type so frequently encountered, in which the influence of the T-square is in evidence. Nothing is forced. Its picturesque outline is a natural development from the shape of the surrounding hills. Its coloring has been suggested in the same way. The living room wing has been set at an angle to the main house not merely for the sake of securing picturesque irregularity in the plan, or because such irregularity is characteristic of many old houses, but because the formation of the ground about the site of the house prompted the making of a garden in stepped terraces following the line of a ravine in such a direction that the wing of the house was naturally turned in this way to command a view down the length of the garden. The interiors are spacious, dignified and home-like. The treatment of the stairs in the main hall, the library made to harmonize with a Georgian doorway, and the living room, which has been furnished in such a way that it is home-like though very large, are especially interesting features of the interior. Messrs. Cross & Cross were the architects. Miss Marion C. Coffin was the landscape architect.

A farm group that is adapted to its site on a southern slope by being built in two levels is that for Charles M. Schwab, Esq., at Loretto, Pa. This group not only fits its location, following the natural contour of the ground but is also in harmony with its surroundings from the standpoint of appearance. The buildings are grouped in such a way that they

form an interesting and effective composition besides serving their purpose. Unlike most such groups on large estates, this farm unit does not include cow barns or poultry houses, the reason being that the cow barns and the dairy were already located on another part of the estate, at some little distance, and the poultry houses also formed a separate group. The group described is devoted mainly to quarters for the work horses of the farm. It includes unusually complete facilities for the preparation, refrigeration and storage of meat. The farm lands to which this group belong supply the fodder for the dairy group. The farmer's cottage is attractive, both inside and out. Messrs. Murphy & Dana were the architects. Mr. Charles Wellford Leavitt was the landscape engineer in charge of the improvement of Mr. Schwab's estate, including this farm group.

A very pleasing, home-like house is that of Mr. Henry Swartley, Jr., at Great Neck, L. I., by Messrs. Bates & How, which is shown by photographs and plans. The walls of this house are of brick, rich and soft in color and texture. It is unusually well done, a house that is attractive, interesting and of lasting worth.

In his "Review of Recent Architectural Magazines" Mr. C. Howard Walker discusses a wide variety of buildings, old and new, including English and Canadian work, as well as American work.

In "The Review of Interiors," the department edited by Mr. J. H. Phillips, the discussion of interiors of the present century is continued. The influence of the simpler Italian interiors is dwelt upon in this article.

The department conducted by Mr. J. F. Musselman, under the title "Equipment," contains a very helpful statement of the characteristics of different types of heating boilers as a guide to selection.

In addition to the regular plates presenting photographic views of buildings described in the text pages there are supplementary plates of "Old French Churches" and of "Temples of Japan."

THE DECEMBER ISSUE

The issue of THE ARCHITECTURAL REVIEW for December will open with an article on a large country house by Mr. James W. O'Connor. Housing designs by Messrs. Murphy & Dana will be described in a leading article. Reproductions of the Architects' drawings, as well as photographic views, will make the presentation helpful. There will be the regular departments, the regular plates and supplementary plates which are monthly features of the magazine.



Courtesy of The Art Institute, Chicago

THE OBELISK

FROM A PAINTING BY HUBERT ROBERT

(Paris 1733-1808)

The ARCHITECTURAL REVIEW

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RESIDENCE FOR CHARLES H. SABIN, ESQ., AT SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS

THE land on which the residence of Charles H. Sabin is built, slopes towards the north from a low hill down to a more or less level strip of ground which ends in a bluff at the edge of the bay. In order that the house might merge with the landscape, it was placed in a little hollow at the foot of the slope rather than on the hill above. This leaves a sufficiently wide strip of ground between the house and the edge of the bluff for a large level lawn.

The house is further harmonized with the surrounding country by its long, low lines. It not only has a long roof line, but the roofs of portions of the building have been carried down to the first story, drawing the building down to the ground still more. The forecourt, the terraced garden and the planting of trees and shrubs tend further to tie the house into the landscape. The coloring has been chosen with the same thought of harmony in mind. The roofs of mottled green slate and the walls of grey-green stucco, blend with the coloring of the hills,

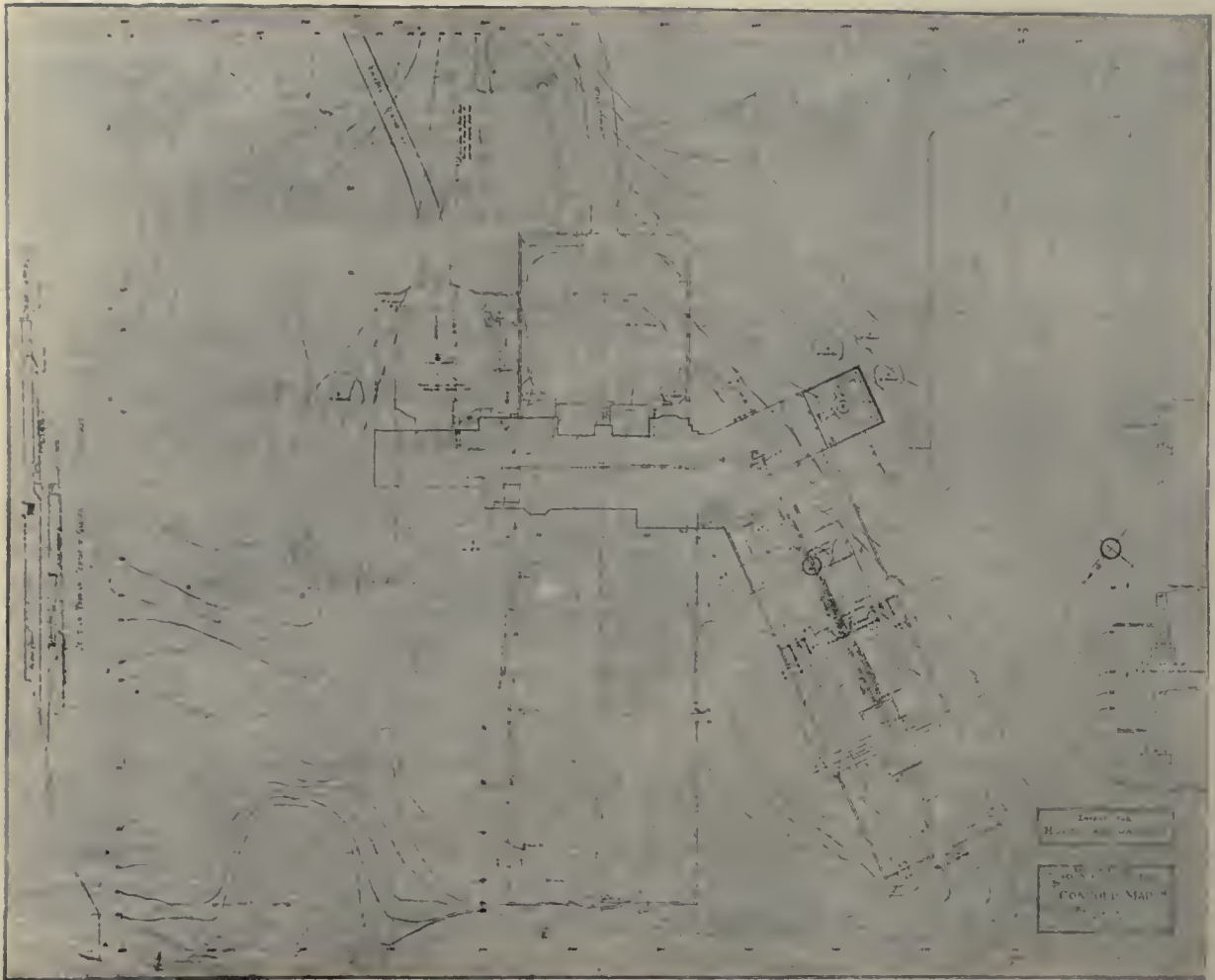
which are covered with an uneven growth of bushes and coarse grass, among which the grey and yellow of the gravel and sand show. There was no growth on this land but bayberries and long grass, all the trees and shrubs were moved in.

A shallow ravine at the northwest of the site selected for the house suggested the idea of a garden in stepped terraces, and the planning of this garden determined the turning of the wing of the house just above at an angle to the main building. In addition to the wide lawn and the terraced garden, a number of other features go to make up a landscape scheme that provides an unusually interesting and attractive setting for the house.

The gardening not only helps to make this house part of innumerable pleasing pictures when seen from different points of view, but provides views of unusual charm from the various rooms of the house. One gets a number of quite different views out of the windows. Toward the north, one looks over the level green



Entrance Front from the South-west



Layout for House and Gardens

lawn and the bay beyond it. A little to the west of the lawn is a section in rough planting that is very picturesque and interesting in itself and that provides a good contrast, both for the level lawn and for the terraced garden, which lies just at the west. This terraced garden descends in three levels from the west, or living room, wing of the house, and in the summer it is a mass of bright colored flowers. Looking down the length of this garden one faces the point at which the sun sets in the summer. At the foot of this series of terraces, is the landing place for boats at the water's edge.

Next to the terraced garden is a walled rose garden that has its own special appeal, that gives an entirely different impression than the other parts of the landscape scheme, and that provides a place where, protected by the walls of the garden, one can enjoy sitting in the sun on days when the wind is blowing out of the north. Just at the south of the living room wing, is a group of apple trees that make the view from the windows

of this room and from the living-porch very pleasant. They also lend much charm to the view of this portion of the house from the grounds.

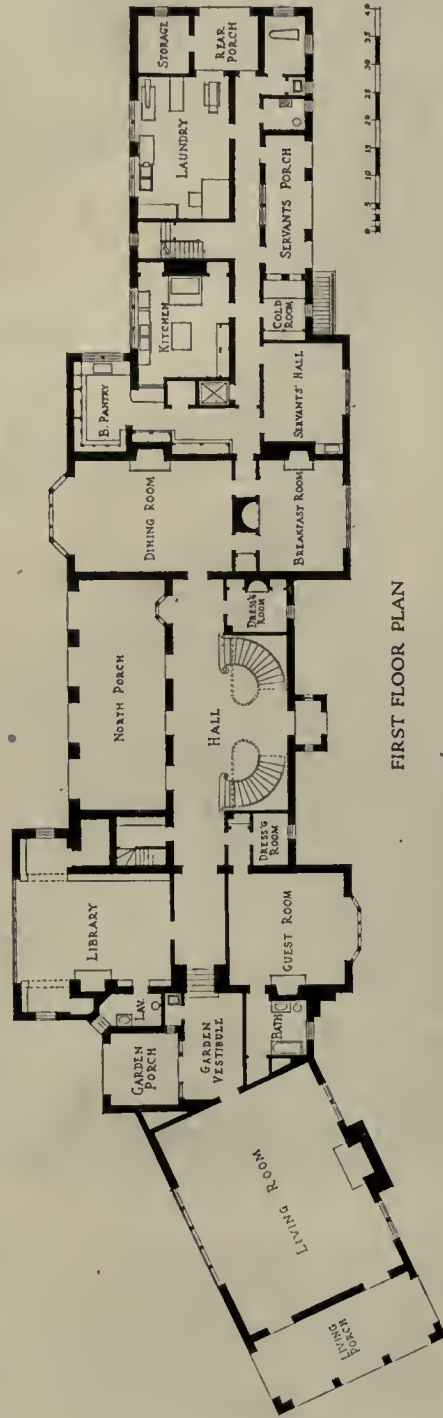
The house is built of terra cotta blocks stuccoed. The roofs are of very heavy slates. All edges and valleys are rounded and the slate is worked in. Hardness of line has been avoided in every way. For instance, the line of the ridge of the main roof is dropped in a very slight curve toward the center. About as much curvature has been given it as would probably be found in an old roof of the same size and type which had sagged a bit, in the course of time. The chimneys are of varied design like the chimneys on old English houses. They are of a local brick which blends in with the general soft coloring of the house. A little stone is introduced at the angles of the bay windows and of the entrance porch, also in the small oriel window in the second story. The windows are all steel casements with rectangular leaded glass panes. Some of the windows are provided with awnings of a dull terra cotta red that



THE LIBRARY WING FROM THE TERRACED GARDEN
RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS MISS MARION C. COFFIN, LANDSCAPE ARCHITECT



SECOND FLOOR PLAN



FIRST FLOOR PLAN

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



Entrance Front and Forecourt

lends a note of warmth to the color scheme. A lining of old blue inside of these awnings saves the rooms from the hot light that would otherwise come from red awnings.

A little wrought iron work has been introduced in the way of lantern brackets, balconies and other features. Though inspired by Italian and Spanish precedents, this iron work harmonizes with the rest of the house. Over the entrance gate is a fine piece of wrought iron work with little touches of worn gold.

Shutters of oak on the three windows in the second story above the entrance give a good color note, for they are finished in a weathered grey color. All the window frame construction of the house is also of oak in this grey finish, which works in well with the color of the stucco.

Old stone garden urns from an English estate flank the broad, low steps that lead up to the pavement of irregular shaped flagstones in front of the entrance door.

Going into the house through the main entrance, one finds oneself in a large, oblong hall, the walls

of which have simple paneling. Facing about toward the entrance, one sees double winding stairs that meet directly over the entrance door and proceed from that point as a single staircase to the level of the second floor. These stairs have fanciful wrought iron balustrades containing bird, animal and fruit motifs wrought into the Renaissance design. Each of these balustrades curves around into a newel, topped by a receptacle from which ivy falls, mingling with and seeming almost a part of the foliage of the wrought iron design.

The floor of the entrance hall is of brown tiles. Its wide expanse is broken by an oriental rug. Glass doors in the wall opposite the entrance open upon the large north porch which in turn gives on a wide lawn over-looking the bay. At the right and left of the stairs are dressing rooms.

The walls of the hall are relieved from the severity of the simple paneling by the use of a variety of old mirrors and prints which lend themselves especially well to this purpose. Light-brackets of old cut-glass and of carved wood and a fine barometer are among the minor objects that



The Garage Group

give interest to the room.

At the right of the hall, as one enters, is the dining room. The walls of this room are paneled and finished in a soft, light shade of green. Over the mantelpiece is a Bogdani painting set in the wall. In a corner is a eupboard that forms a niche. This fine old piece of furniture has been taken as the basis of the color scheme of the room. In front of the door leading to the passage from the serving pantry is a handsome old Chinese red lacquer screen. There is a very unusual sideboard in the dining room with a mirror, in a very fine frame of carved and gilded wood, over it.

Adjoining the dining room is the breakfast room.



Breakfast Room

The walls of this room are covered with a scenic paper in Chinese design toned down by glazing in antique effect. This wall treatment together with the old Adam mantelpiece, which has appliqué ornaments of pewter, make this a very unusual as well as attractive room.

Near the opposite end of the hall from the dining room is the library which is paneled in plain pine wood left in its natural state excepting for a coat of wax.

The paneling and the other woodwork of this room was designed to harmonize with the very beautiful Georgian doorway and mantelpiece which gave the color note to which the rest of the room was matched. Opposite the door is a run of mul-



A Corner of the Library



DETAIL IN THE LIVING ROOM
RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS

lioned windows extending all across the end of the room. At opposite sides of the room are recesses or nooks which increase the actual size of the room considerably and provide convenient places for writing tables. The walls are paneled from floor to ceiling with books on shelves. These books, with their fine old leather bindings, varied coloring and gilded tooling, give the same rich background that is furnished by old tapestries. Simple casement curtains are used at all the windows to soften the light.

Passing down a few steps at this end of the hall one reaches the garden vestibule, and the garden porch that gives access to the terraced garden. Crossing the vestibule one enters the living room, which occupies an entire wing at the west end of the house. This fine old room was built in England around the old doorway through which one enters the room. Since this room is thirty feet wide, forty feet long and has a ceiling height of seventeen feet, it naturally required to be furnished to scale.

The Ruchurn painting over the mantelpiece makes an admirable center of interest on the south wall of the room. Flanking the mantelpiece are large windows that look out to the south and east over a lawn, shaded by apple trees, where an old sun dial of curious design has been placed.

At the left of the fireplace is a sofa against the back of which is a fine old ten-fold Chinese lacquer screen. Massed casement windows look down over the terraced garden to the bay.

At the end of the room opposite the entrance door is a fine satinwood cabinet that contains powder blue porcelain, formerly in the Morgan collection.

The room is so well furnished with large sofas, comfortable armchairs and other well-chosen pieces that it is very home-like notwithstanding its large size. At the end of this room doors open upon a wide living porch that extend across the whole end of the wing and that gives upon the rose garden.

The bedrooms on the second floor are of ample size, and each has a fireplace. They are furnished with old canopied beds and are decorated in such a way that they have the charm of old rooms, and are not too modern in appearance, while off of these rooms are bathrooms, that are all one might ask for in the way of modern convenience.

The walls of the bathrooms are formed of large sheets of white glass and the floors are tiled, the fixtures are of the most improved type and the bath tubs are built in. As an instance of the care with which the practical considerations have been kept in mind, it may be noted that the clothes closets contain hot water pipes which are run ex-



The Entrance



North Front

posed through the closets to keep the clothes dry in the damp weather which is apt to be experienced at the sea shore.

The big open attic insures the insulation of the rooms on the second floor from the heat of the summer sun. The roof is constructed with double sheathing separated by furring strips. This allows any wind-driven water which may penetrate under the slates to run down in the open space between the two sheathings and not come through into the house.

The pantry, kitchen and laundry are supplied with all the mechanical devices and modern equipment that aid in housekeeping. The refrigerating plant in the cellar keeps the cold-room at the proper temperature and supplies the ice for the house.

The service portion of the house extends eastward from the dining room and breakfast room. A short passage between these two rooms connects with the passage that runs the length of the service section. Next to the dining room is the butler's pantry with the serving room and service lift. Next beyond these rooms is the kitchen, then one comes to the service staircase and the laundry. On the south side of the corridor in this portion of the house are the servants' hall, the cold-room and the cleaning room, in which the pressing of clothing and like work is done.

There is a rear porch at the extreme end of this portion of the house and on the south side is a large servants' porch giving upon the service court, which has a paved central space surrounded by grass and is enclosed in a wall. The service drive

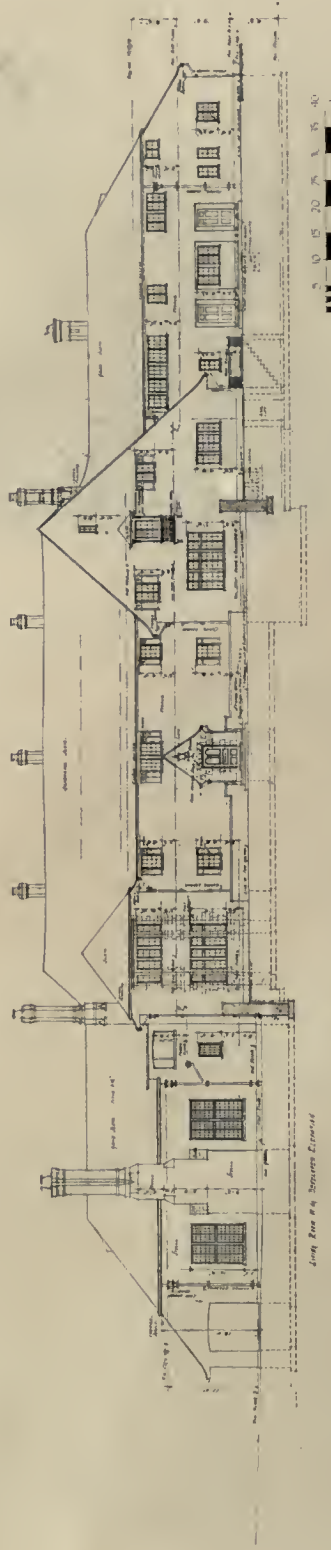
enters this court through a gateway at the south.

At some distance to the southeast from the house is the garage and the cottage for the chauffeur as well as ample space for the cars. At one end of this group of buildings is a machine shop under which are the pump and pressure tanks that supply the water for the estate. A walled yard surrounds the portion of the garage given over to the cars. The main entrance drive to the estate passes through an arched way in the center of this group of buildings. The roadways, covered with white gravel give an interesting note and their color harmonizes with that of the surrounding landscape and with the color scheme of the house.

The way in which the house has been united with its surroundings, not only by its design and coloring, but by the landscape treatment, is one of the most interesting things about this estate. The gardens and other features of the grounds have been so designed and so developed that they ably supplement the work of the architects. They make the surroundings of the house delightful and of unending interest. The landscape architect was Miss Marion C. Coffin.

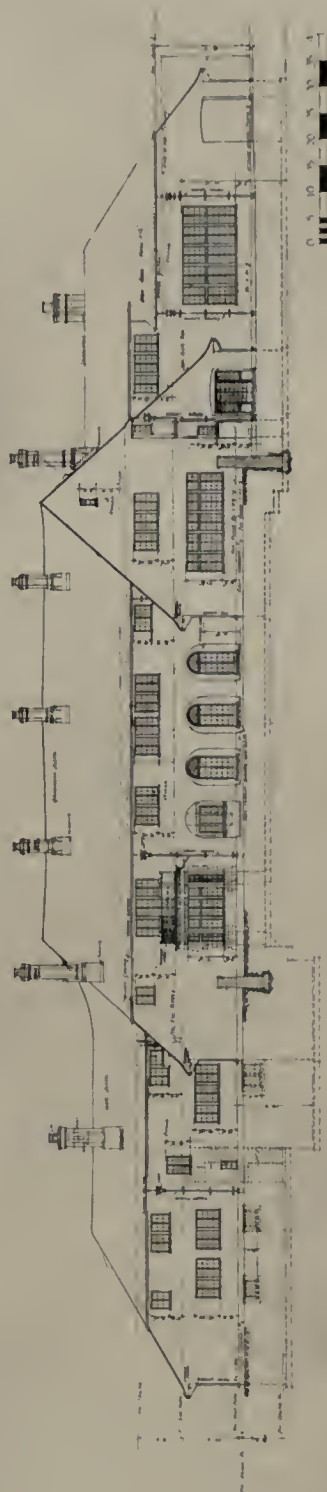
The charm that characterizes the exterior and the gardens is found in the interior as well. The rooms are largely furnished with old pieces of the finest character, well chosen and well arranged.

This house stands on the shore of Peconic Bay, in the centre of a group of pleasant estates and near the golf links. It is one of the most attractive and beautiful of the many fine country houses for which Long Island is noted and it is a distinguished example of domestic architecture.



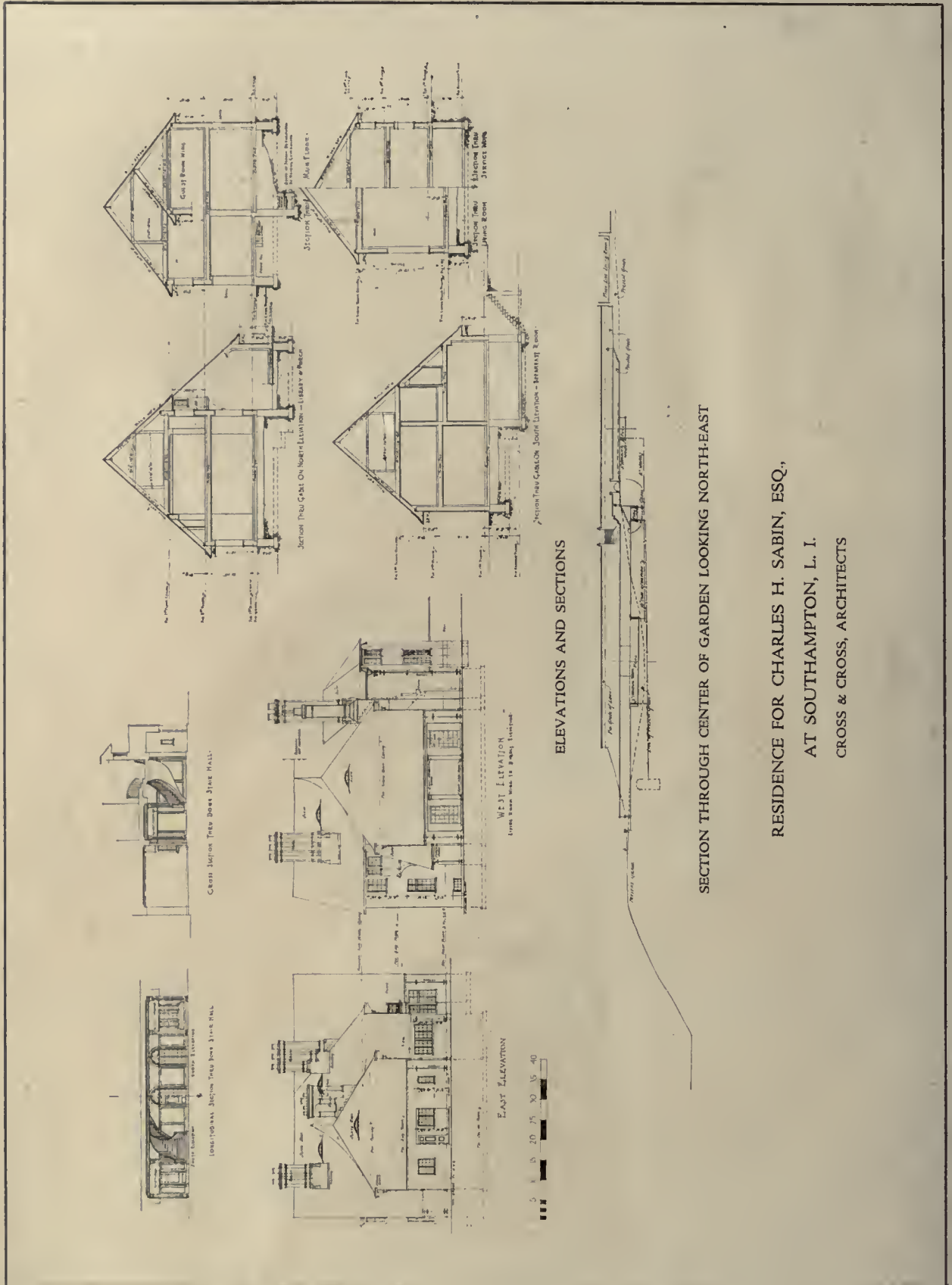
SOUTH ELEVATION

RESIDENCE FOR CHARLES H. SABIN, ESQ.,
AT SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS



NORTH ELEVATION

RESIDENCE FOR CHARLES H. SABIN, ESQ.,
AT SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS



ELEVATIONS AND SECTIONS

SECTION THROUGH CENTER OF GARDEN LOOKING NORTH-EAST

RESIDENCE FOR CHARLES H. SABIN, ESQ.,
 AT SOUTHAMPTON, L. I.
 CROSS & CROSS, ARCHITECTS

FARM GROUP FOR CHARLES M. SCHWAB, ESQ., AT LORETTO, PA.

MURPHY & DANA ARCHITECTS.
CHARLES WELLFORD LEAVITT, LANDSCAPE ENGINEER

ALAY-OUT that is unusual, if not unique, in the designing of farm buildings in this country has been evolved in the case of the farm group for Charles M. Schwab, Esq., at Loretto, Pa. The site chosen is an especially advantageous one for it is on a hillside that has a southern aspect. This gives the maximum of direct exposure to sunshine and at the same time insures protection against the cold north wind. The value of such a location for a farm group in any portion of the country where the winter weather is at all severe is obvious.

At the point chosen as the location for this group the natural contour of the ground was of a character that suggested the placing of the buildings on two levels, and this idea has been logically developed. The buildings on each level have been arranged around a courtyard. Being banked up, one above the other, on these two terraces, all of the buildings have the benefit of unobstructed sunlight and of the free circulation of air.

Along the north side of the upper courtyard are arranged the buildings for machinery, tools, supplies and storage, also the wagon shed and the slaughter house. These buildings in which no animals are housed, give the other buildings protection from the north wind and cold in addition to that provided by the natural advantages of the site. That time-honored feature of the American farm, the wagon shed, has in this case been given architectural character very successfully.

The slaughter house is unusually complete in its arrangement and equipment for a building of the kind on a private estate which is not of a commercial character. The refrigerating plant connected with this building, and the cooler and store room are of ample capacity.

The group of buildings at the south of the courtyard include the barn for work horses, with its feed room and harness room. Adjoining is the wagon room. The entrance to the horse barn and to the wagon room is on the courtyard at the lower



General View



Lower Level from the West

level, while the hay barn above is reached from the upper level. Though the farmer's cottage forms part of the group and has been placed on a line with the buildings at the south side of the upper courtyard, it is separated from the quarters for the animals. It has no connection with the barn excepting a high garden wall. Placed at the approach end of the group, where it is reached without passing the stable or other buildings, this cottage is detached. It has a picturesque location in the bend of the road that branches from the main drive and swings around to the portion of the group that lies on the lower level. This cottage has an entrance from the courtyard at the upper level but its grounds are entirely outside of the gates to the courtyard on the lower level, around which the buildings in which the animals are housed are arranged and upon which they open.

Across the road from the farmer's cottage is the sheepfold with its feed room at a corner of the courtyard on the lower level. On a line with the sheepfold, but at the opposite corner of the courtyard on the lower level is the piggery, with its feed room at a corner of the yard. From both the sheepfold and the piggery, enclosures extend down the hillside toward the south.

In exterior design the buildings harmonize with

the landscape. The outer walls of all the buildings of the group are covered with stucco that has an effective rough texture. All the corners of the buildings are rounded. This tends to soften the lines and gives an appearance of greater strength. The absence of wood work around the windows and doors is a feature of the design and the deep reveals of these openings contribute to the effect of simplicity and permanence. The roofs are of slate that shows considerable color variation, ranging from purple to gray-green and green. The wood work of the windows is painted white and the outer doors are painted a light green. There is no wood work along the eaves, the slate being brought close to the stucco walls. This gives a true masonry character to the buildings.

A point of accent in the design is the round tower, in the upper part of which is a dovecot. The half timber work about the top introduces an effective note. The farm bell, which is used to mark the beginning and ending of working hours, hangs from the front of this tower. It is rung by a rope that passes down the outside of the building to the door.

The design shows evidences of the careful study of every detail of planning and equipment to meet the practical requirements in the best manner.

The orientation of the group as a whole and of its component parts has evidently been considered with a just balancing of the requirements under the circumstances.

The thoroughness with which the details have been looked after is indicated by the fact that the rafters of the sheepfold have been enclosed and plastered on the under side, the stables have been equipped in the most modern manner and the pens of the piggery have concrete floors that drain to the center, with a sufficiently steep pitch to facilitate flushing and each pen has a wooden slat floor covering one-half of its floor space.

At the right of the road, just before one reaches the farm group, is the spring house in a little grassy depression. It is one of the most pleasing features of the estate. It has massive piers and arches and is finished with rough stucco like the main buildings of the group. Stone is, however, introduced in this building very effectively. It is a local sandstone from the nearby village of Patton and in its warm coloring suggestions of yellow, brown and pink may be found. This stone has been largely used in the other buildings on the estate.

Mr. Schwab's estate on which this farm group is situated, comprises an extensive area on which are many buildings besides the residence with its gardens and the farm units. This estate lies at the head of the street that runs the length of the town of Loretto, where highways branch to the right and left at the market cross and skirt Mr. Schwab's property.

The town is associated with the name of Prince Gallitzin, the Russian priest who established a church at this place early in the Nineteenth Century.

The most strik-

ing view of this farm group is probably that from Mr. Schwab's "House in the Woods," a small stone building to which he retires. This house is on a hill opposite the farm group. Seen across the valley from this point the farm group appears like a miniature village and its appropriateness in design to its beautiful mountain landscape setting is more than ever apparent.

This farm group is a picturesque part of the unusually interesting and well planned estate which has been created for Mr. Schwab in accordance with a comprehensive and well studied plan by the landscape engineer, Mr. Charles Wellford Leavitt.

The old residence was removed to a distance and a new one built on the site, new roads were made, gardens were constructed, planting was done, existing buildings were remodeled and new buildings were erected, including this farm group. In this work Mr. Leavitt had the co-operation of many men, including the architects of the different groups of buildings. The result is an estate that is modern in every way, but that retains much of the spirit of the location.

The absence of provisions for the housing of cows and of poultry from the plan of the farm group described here is explained by the fact that the cow barns and dairy form a separate group at some distance, while the poultry houses are in still another location. This unit is intended to serve primarily as a place for housing the work horses and the machinery used in cultivating the adjoining fields. It also provides a home for the farmer in a location convenient to the part of the estate of which he has charge. This unit grows feed.



Detail



GENERAL VIEW



FIRST FLOOR PLAN



SECOND FLOOR PLAN

HOUSE FOR MR. HENRY R. SWARTLEY, JR.

GREAT NECK, L. I.

BATES & HOW, ARCHITECTS



DINING ROOM

HOUSE FOR MR. HENRY R. SWARTLEY, JR.

GREAT NECK, L. I.

BATES & HOW, ARCHITECTS

THE REVIEW OF INTERIORS

Department Edited by J. H. Phillips.



TWENTIETH CENTURY INTERIORS, PART II

THE simple type of Italian interior has come into favor as the inspiration for rooms in modern houses. Its broad, plain wall surfaces enhance by contrast the beauty of fine carved furniture and draperies of rich weaves. The absence of wood work around the doors and windows together with the depth of the plastered reveals gives an impression of sturdy simplicity. There is a sense of being within walls of substantial, enduring masonry. Perhaps the feeling of restfulness these rooms usually give is due as much to this sense of security as it is to the breadth and quiet dignity of the treatment. The vaulted ceiling or the simple beamed ceiling so often used, helps this impression. We seem to have at the back of our minds many memories, all but obliterated, of the lives our forebears lived, and the satisfaction one feels today in the knowledge that there is a good wall

between oneself and the rest of the world may well go back to the day when a man's house was indeed and of necessity his castle.

Italian Renaissance furniture has a sturdy quality that is in keeping with this type of wall and ceiling treatment. It shows a power in the conception of the designs and a vigor in their execution that give it dignity. Its richness of effect, provides the note needed to round out the scheme into a satisfying ensemble.

The wide acceptance of this simple kind of Italian room as the basis for the treatment of present-day rooms in city residences, and in many of the larger country houses as well, shows that it satisfies a need of the day and is adaptable to the expression of the feeling of the present. The failure of the elaborate type of Italian interior to gain more than a very limited recognition in this country, though it was intro-



Detail in Residence of Albert Rossin, Esq.,
New York

Taylor & Levi, Architects

duced earlier, is also significant. Rooms completely covered with rich decorations, panels, pedimented doorways, coffered ceilings, ornament in polychrome, were all very well in the palaces of Italy where they served strictly as gala rooms to provide the setting for brilliant social functions, but they do not fit into our scheme of life. The simple type of Italian interior, on the other hand, is acceptable, probably because it is rich without being oppressive, strong without being crude.

The same tendency to simplify the wall and ceiling treatment is to be seen in many of the more recent interiors developed from the old English Renaissance rooms, a swinging back to the stronger and less elaborate handling of the Elizabethan and Jacobean types.

This turning toward the simple forms of room treatment is to be seen in England as well as in this country.

The increasing use of fireproof materials of the present century is also a reason for the leaning toward the simpler treatments for interior walls. It is a most natural outcome of our modern method of

construction. Plaster walls, in some shade of grey, form a most pleasing background for furnishing and are suitable, for they are in character with the social life of today.

This type of wall treatment lends itself well to the scheme of decoration for a simple cottage interior with bright and gay colors in the furnishings, and it is equally appropriate for the dignified high-ceiled main living hall of a big country home or for the large studio room in a modern duplex apartment, the last word in urban luxury.

The simple plastered wall is well adapted to serve as a setting for richly ornamented antique furniture or for the modest hand-painted peasant furniture of the cottage. The real enjoyment that may be had by those who live in rooms of this character is of the kind that is enduring. To people who possess good taste, the charm of rooms of this kind is a joy. One never tires of them and they are a constant source of inspiration to live and work in. They are strong and restful.

The big plain expanse of wall, pleasing in texture, gives dignity and it enhances the beauty of old tapestries and other hangings.

The manner of treatment is ideal for many of the studio apartments that are so much favored. The big main room of such an apartment calls for simple treatment. Its ceiling height, equal to that of two ordinary rooms, affords an opportunity for bold, broad effects.

Since these duplex apartments which have a big studio living room extending through two stories have been developed as homes for artists, many people of

wealth have adopted the idea and taken apartments of this kind and decorated them in the same general fashion as the apartments of their artist neighbors. This simple wall and ceiling treatment is especially good since studios usually contain a considerable variety of furniture pieces picked up by the owner while studying and traveling abroad. Most of this furniture is heavily carved and richly ornamented. Then, too, much of this furniture is often Italian or of the English Renaissance and consequently harmonizes.



Hall in the Residence of Thomas Newbold, Esq.,
New York City

McKim, Mead & White, Architects



DINING ROOM IN HOUSE FOR C. BAI LIHME, ESQ., AT WATCH HILL, R. I.
MOTT B. SCHMIDT, ARCHITECT



HALL IN HOUSE FOR C. BAI LIHME, ESQ.,
AT WATCH HILL, R. I.
MOTT B. SCHMIDT, ARCHITECT



BEDROOM IN RESIDENCE OF WALTER T. ROSEN, ESQ., NEW YORK CITY
J. H. PHILLIPS, ARCHITECT



LIVING ROOM IN THE RESIDENCE OF THOMAS NEWBOLD, ESQ., NEW YORK CITY
McKIM, MEAD & WHITE, ARCHITECTS



ROOM IN THE RESIDENCE OF ALBERT ROSSIN, ESQ., NEW YORK CITY
TAYLOR & LEVI, ARCHITECTS



DETAIL IN HOUSE FOR C. BAI LIHME, ESQ.,
AT WATCH HILL, R. I.
MOTT B. SCHMIDT, ARCHITECT



ROOM IN RESIDENCE OF ALBERT ROSSIN, ESQ., NEW YORK CITY
TAYLOR & LEVI, ARCHITECTS



DINING ROOM IN A HOUSE ON LONG ISLAND
JAMES W. O'CONNOR, ARCHITECT

THE REVIEW OF RECENT ARCHITECTURAL MAGAZINES

By C. HOWARD WALKER

THE September number of *The Architectural Review*, London, has interesting articles, strongly local, however, in character. The first is on "A Great Canadian Building, The Sun Assurance Company's New Premises, Montreal," in which it is frankly stated that the architectural tendency of the Dominion is obviously and naturally that of her great neighbor, the United States, where within recent years, the monumental manner has received the fullest and finest expression. We have always maintained that the weakness of English modern architecture is due to the fact that the affection for the picturesque caused an attempt to make classic architecture, which is inherently monumental, into picturesque compositions, both in mass and detail, and that persistent incongruity resulted. This is not the case with Messrs. Darling & Pearson's Building which is of the portico in antis

type so prevalent in United States Government buildings. It has good mass and excellent scale details, but its fenestration leaves something to be desired, especially in the panel windows of the fourth story, in the corner pavilions. The interiors are good but not of great interest. Mr. Nathaniel Lloyd has his seventh paper on "Gems of English Architecture, Westwell, Tenterden, Kent," which he admits resembles Wren's Talant House, but asserts has not Wren's touch. It has, however, the touch of paucity of imagination and of the theories of economies of Queen Anne's time; it is dated 1711. There are in the houses of this period an amplitude accompanied by a somber sobriety devoid of the slightest suspicion of joyousness that is reminiscent of Mr. F.'s aunt.

The breakfast room ceiling at Sir John Soane's Museum, his residence in Lincoln's Inn Fields is one of the best pieces of design

(From "The Architectural Review," London)



New Premises of the Sun Life Assurance Co., Montreal, Canada

Darling & Pearson, Architects

(From "The Architectural Forum")



House at Belle Terre, L. I.

Tooker & Marsh, Architects

(From "Architecture")



Boat-house, Estate of Albert Herter, Esq., East Hampton, L. I.

Grosvenor Atterbury, Architect

in this interesting house. The house was built in 1812 at about the time Bulfinch was busy in Boston and Washington. It is so apparent that Bulfinch studied Sir John Soane that it is strange no evidence of that fact has ever been unearthed, but the American has a more just sense of proportion. Soane was experimenting with "original ideas in details," this house is full of them. The round mirrors in the pendentives of the ceiling are original, and not very successful.

Mr. Walter Godfrey writes on "War Memorials, Suggestions From the Past." Part III is an article upon "Market Crosses and Halls." The article is well illustrated and well written, weighing carefully the claims of sentiment and those of utility. The following are wise words: "The benefit of the community, its material comfort, convenience, and welfare should be the normal preoccupation of the state, the municipality and other public authority. In the erection of a war memorial, we are presented with an entirely different problem, and it is a profound mistake to confuse the two."

Mr. Edward Warren makes suggestions for the improvement of the newer portions of Oxford, which of many cities, perhaps, is least in need of improvement. Mr. Thomas Adams in a reply to Mr. C. E. Voysey, in an article entitled the "True Meaning of Town Planning," disclaims the "taint of collectivism" and of "super-stress on symmetry" in the desires of town planners and cites, justly, the

(From "Architecture")



Winchester Cathedral, Winchester, England
Photo. Avery Library, Columbia University

(From "The Architectural Review," London)



Westwell, Tenterden, Kent, England
Principal Front

(From "The Architectural Review," London)



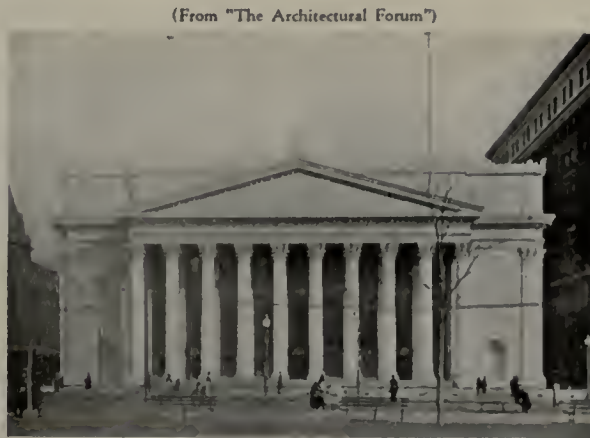
Market Cross, Swaffham, England

disregard for nature in American planning as one of the biggest blunders of the most successful and powerful of democracies." Exactly! Mr. Voysey is known to be a sensitive artist. Mr. Adams, from the testimony of his article, seems to be the same. Most town planners are not. Many have rushed in where angels fear to tread, and are of the same ilk as the majority of efficiency experts, who make a great deal of smoke over a very

little fire. Democracies level down before they level up, and are usually desirous that something shall always be doing rapidly. Towns grow, they are Frankensteins when made whole. Certain desiderata are essential and must be foreseen, later developments are best when controlled, not coerced.

Architecture, for September, opens with an article by Reverend Canon John Vaughn, canon residuary of Manchester Cathedral, who writes upon the cathedral. It is naturally authoritative and savors of affection and sentiment, but the nave of this cathedral is far from being "the finest Gothic nave in existence." That statement courts protest. There is much glamour about William of Wykenham. He was a great churchman and an able statesman, but he conferred no benefit upon architecture when he transformed the Norman nave, which Durham Ely-St. Albans, Southwell bears testimony must have had great dignity, into the wiry, tenuous, monotonous, thinness of that least inspired of English Gothic styles, the perpen-

dicular. The plan is simple and organically correct and fine. The great length has the impressive quality inherent in English cathedrals. The fan vaulting, that is by no means the best in England, gives the decorative quality of its time. The West front is impoverished in its thin formality and has been mischievous in its suggestions to architects of the Victorian epoch. Mr. C. C. Burrough's house for Mr. B. W. Lawson, at Cincinnati, of brick and half-timber, is picturesque, but has unfortunate corbels under the ends of the verge boards. Mr. Eberhard, in his discussion, makes a plea for the architect to consider his draftsmen as brother architects. Of course, if they are of that metal, sometimes they are not. Mr. Eberhard



Post Office and Court House, New Haven, Conn.
James Gamble Rogers, Architect

thinks the architects have failed to accomplish anything for themselves as a body, have failed in the conduct of their individual offices. Of course some have and many have not. This is not unique to the profession. Mr. William B. Tubby's Nurses' Home, Greenwich, Conn., is well proportioned, well detailed, and simply designed. Mr. Grosvenor Atterbury's Country Estate for Albert Herter, Esq., East Hampton,

Long Island, has much artistic charm. Mr. George H. Wells' own house at Mt. Vernon, New York, is admirably proportioned for so small a house, Mr. Wells having obtained the dignity of Georgian work in a forty-three foot front. The Second Presbyterian Church at Albany, New York, by Phillip Hooker, is not particularly inspiring, but

(From "The Architectural Forum")



School for Frank A. Vanderlip, Esq.,
Scarborough, N. Y.
Welles Bosworth, Architect

(From "The Architectural Forum")



Public Space, Post Office and Court House,
New Haven, Conn.
James Gamble Rogers, Architect

is formally good. The house for Mr. William B. Tubby, Jr., at Greenwich, Conn., is picturesque and attractive. The residence for Alexander Bonnyman, Knoxville, Tenn., by Barber & McMurry, is simple and interesting.

Architectural Forum, September. The frontispiece shows Mr. Goodhue's Chapel of the Intercession, New York, a fine composition, finely detailed and with a very unusual sense of unity throughout. Of Day & Klauder's University of Colorado, Boulder, Colorado, we have already spoken. New views are given which maintain the excellence of the work previously shown. This is an exemplification of the possibilities of very simple architectural masses, when the geometric solids are well studied. There is very little decorative work upon these buildings and there are few mouldings. They have the simplicity of the simple Italian work by which

they were inspired, yet they accord with their site and answer all the modern requirements. Mr. Eberlein concludes his series of articles upon "The Architecture of the Dalmatian Coast." James Gamble Rogers' Courthouse at New Haven, Conn., has a Roman ten-columned Corinthian portico, well and simply flanked at the ends. The tops of the acanthus leaves in the capitals turn over excessively. The detail is excellent, as are the interiors, especially the ceilings. Mr. Bosworth's house for Mr. Frank Vanderlip, Scarborough, New York, has the individual touch showing keen appreciation of Greek restraint and detail. Messrs. Delano and Aldrich's Greenwich House, New York City, is delicately detailed,

(From "The Architectural Forum")



Chapel of the Intercession
New York

Bertram Grosvenor Goodhue, Architect

(From "The American Architect")



Detail, Office Building for Walter Baker Co., Ltd.,
Dorchester, Mass.

George F. Shepard, Architect

and of an impressive sobriety. The decorative painting by Arthur Crisp may have good color, it is embryonic in design. The half-timber house at Belle Terre, Long Island, N. Y., by Tooker & Marsh, is very good.

The Building Review, September, opens with an article by Walter Cope, written shortly before his death in 1902, upon "The Relation of Nature and Artificial Beauty in Landscape." Coming in the midst of articles upon housing, plumbing, and efficiency, upon mutual recommendations in relation to the general inadequacy of everything in general, this article has a serenity and thoughtfulness and a calm faith in beauty as an accomplished fact which removes it from the turmoil of today. It is contemplative and not controversial and we recommend that it be read. The State Agricultural Exhibit Building,

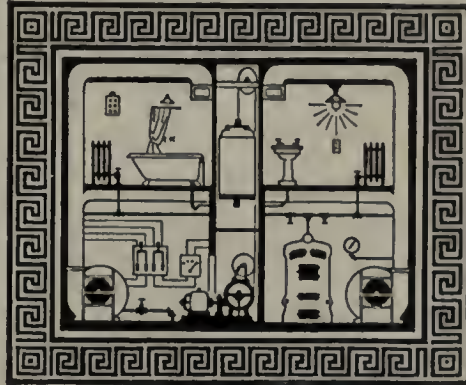
Sacramento, Cal., Edgar A. Mathews and Sylvain Schnaittacher, architects associated with Geo. B. McDougall, State Architect, is well massed and detailed, and has a good dome. It needs a base. The main entrance detail especially is carefully studied. Mr. Allen illustrates "The Welcoming Doorway" with several doorways of varying degrees of merit.

The American Architect, September 3. The office building for the Walter Baker Co., Ltd., Dorchester, Mass., by George F. Shepard, has a refined, delicate Colonial portico. The Hurley-Wright building, Washington, D. C., by C. L. Harding, is well conceived, well proportioned, and has an unusually good and adequate cornice. It shows an intelligent and interesting use of a tried and accepted type.



EQUIPMENT

DEPARTMENT EDITED BY J. F. MUSSELMAN



THE SELECTION AND OPERATION OF BOILERS

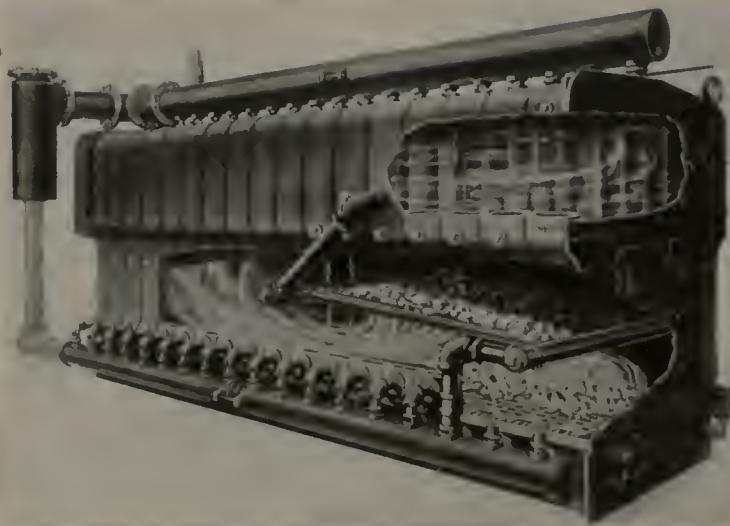
THE cost of operation of a city building of any kind is made up of so many items, all of which are variable, that it is difficult to arrive at any factor or set of factors that can be said to represent fair averages upon which estimates may be based, but the item of fuel, in the climate of New York, is sure to be one of the largest of these items, and is apt to run from 20% to 25% of the total.

When it is necessary to economize in operating costs, the first thought is always the cost of coal and how it can be reduced. Inasmuch as this question is sure to come up sooner or later, and as the efficiency in the use of coal is so largely dependent on the type

and size of boiler, it is well that the selection of the boiler be given consideration early, and that a boiler be chosen that fits the conditions with such nicety as to assure, with reasonably intelligent operation, the minimum cost of fuel and of upkeep.

In connection with the cost of fuel, it must be borne in mind that all grades and kinds of coal are not equally effective from the standpoint of heating value, neither do they all cost the same per ton or the same per unit of heat.

The costs of the various kinds of coal are different in different sections, depending on the freight, but the following is a tabulation of the present prices



Down-draft Water-grate Cast Iron Boiler

per ton in the New York market, and the corresponding number of heat units per dollar's worth of coal of various kinds:

PRICE OF COALS, OCTOBER, 1919,
ANTHRACITE AND BITUMINOUS

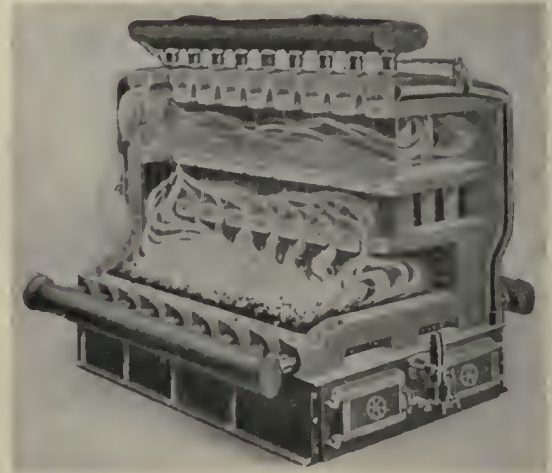
(Net Ton, Including Delivery to Office Buildings
and Apartments, New York City)

Description	Price per ton	B.T.U. per lb.	B.T.U. Per \$1.00	Ash%
Egg	\$10.75	12,800	2,381,000	11%
Stove	11.00	12,700	2,309,000	11%
Nut	11.10	12,600	2,270,000	13%
Pea	9.00	12,300	2,733,000	17%
No. 1 Buck	6.90	12,000	3,478,000	21%
BITUMINOUS	7.25	14,000	3,848,000	9%

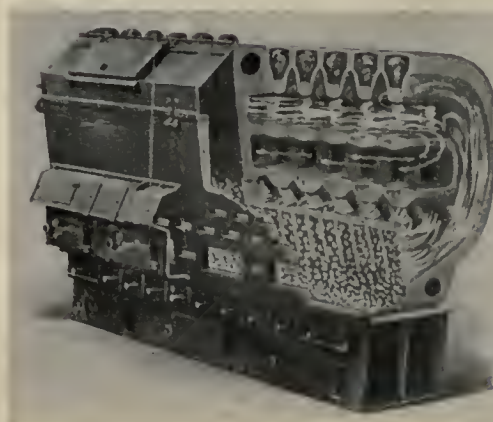
The saving that can be effected by the use of bituminous coal is obvious, both from the standpoint of cost of coal and cost of ash handling.

Within the limits of a short discussion on boilers, it is not desirable to go into the comparative merits of power boilers of different kinds, especially as the number of buildings in which power plants are being installed is constantly decreasing, along with the elimination of the hydraulic elevator, and the decreasing price of electric energy from outside sources.

Heating boilers may be divided into two general



Vertical Sectional Cast Iron, Outside Header Type



Down-draft Magazine Feed Cast Iron

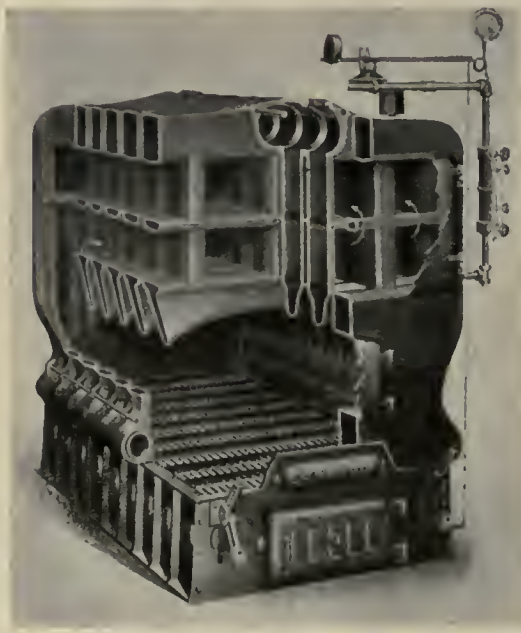
classes: cast iron and steel. These are susceptible of many sub-divisions as to the details of construction, character of fuel for which they are designed, and the principles of operation.

Both the cast iron and the steel boilers have some inherent disadvantages, which may be stated at the outset as applying to a greater or less extent to all of the different types.

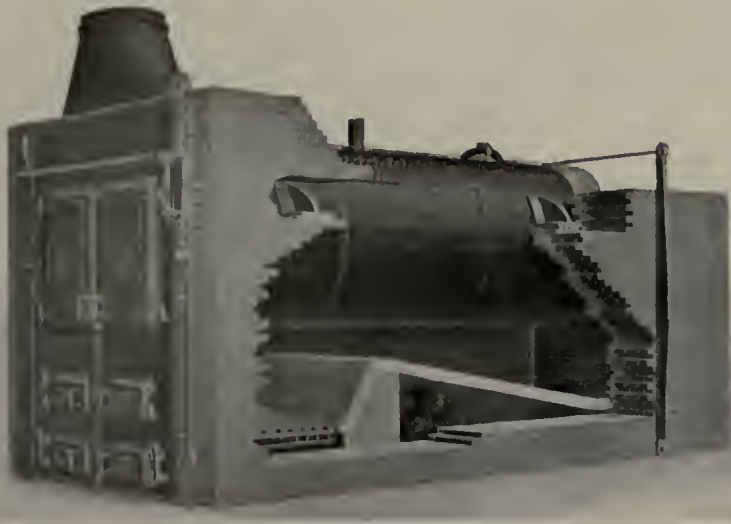
A cast iron boiler, however it is made, is more or less apt to crack in operation. This is generally chargeable to faulty castings and the improper provision for expansion and contraction, but it is often on account of improper operation and the mistake of putting cold water into the heating system when the boiler is hot, and oftentimes partly dry.

Cast iron has a corresponding advantage, as a material for low pressure boiler construction, in that it is not effected by corrosion, and it is often said that a cast iron boiler that has weathered one heating season, if properly handled, will last forever, the only upkeep being the cost of renewing grates, which is common to all boilers of every kind.

The greatest disadvantage in connection with the use of a steel boiler, is the deterioration on account of corrosion. This process is ever present, and is really doing its greatest damage during the summer seasons when the boilers are not in use. When boilers are used only for heating, the internal corrosion is immaterial, but the sweating of the metal surfaces under the soot and the dust of



Vertical Sectional Cast Iron, Slip Nipple Type



Horizontal Tubular Brick-set Boiler

combustion is serious on steel tubes and plates unless they are cleaned and laid up for the summer with the greatest possible care. In this connection attention may be called to the serious mistake of burning waste paper and rubbish under steel boilers in summer. It promotes corrosion so vigorously that it forms about the most expensive method by which the waste materials can be disposed of.

With the many types of boilers which may be used in any individual installation, a number of which oftentimes seem to have an equal number of advantages and disadvantages, the price of the boiler plant must sometimes govern, in spite of the fact that an ordinary heating boiler burns up in coal the equivalent of its cost in less than a single heating season. There is no reason, however, why price alone should be taken into account, for it can be said, generally, that the cheapest boiler is the most expensive in the long run.

In the cast iron boilers, the simplest form is the round sectional type. These boilers have a round grate and occupy very little space, but the travel of the flue gas is short. This is apt to be attended by comparatively high flue temperatures when operating under full load. They are extremely simple, and easy to operate, and the very fact that the fire-pot is round and deep, makes boilers of this kind most advantageous for small work

where the fire receives attention only at long intervals. They do not use the cheapest sizes of fuel, and best results can be had with them by the use of a mixture of stove size and pea size anthracite coal.

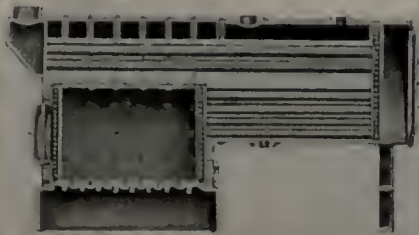
As the diameters of the round grates are increased, the uniformity of the fire is lost. On this account the round boilers are not popular in sizes larger than 30-inch grate diameter, and many authorities consider 28-inch grates the maximum size that can be used advantageously.

The round cast iron boilers, like most other cast iron boilers, are usually overrated as to capacity and the catalog ratings cannot always be depended on. They usually give best results when used in sizes about 60% larger than would be indicated by their catalog ratings.

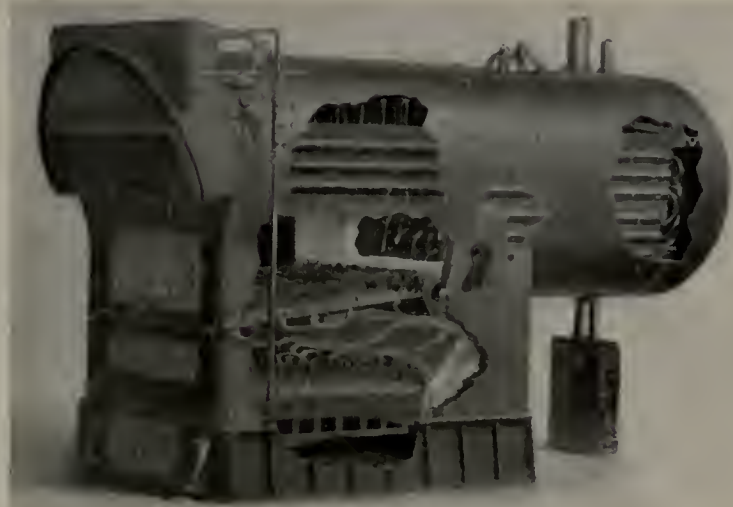
Next in order of size and simplicity in cast iron boilers is the vertical sectional type. These are made up of vertical cast iron sections, put together either by three sets of internal slip nipples, or by packed long screw nipples and outside headers of cast iron.

They are widely used, and for some conditions give very satisfactory results. The combustion chambers of boilers of this kind are very low, which tends to imperfect combustion. The ash pit is correspondingly shallow, making it difficult to clean out.

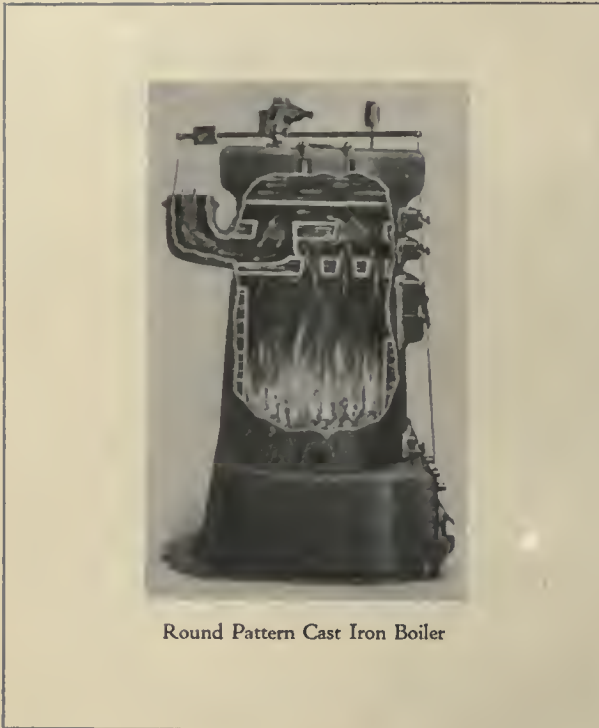
The flue travel of boilers of this kind is suffi-



Return Tubular Firebox Steel Boiler



Portable Steel Firebox Down-draft Boiler



Round Pattern Cast Iron Boiler

ciently long to give fair economy, but the size of the flues is generally open to criticism at certain points in the range of boiler sizes, that is, no increase is made in the sizes of the internal flues as sections are added. It is obviously illogical to reason that the flue size is properly proportioned for a boiler having a 13 sq. ft. grate, if the same size flue can be used to handle the gases from 40 sq. ft. grate, especially as the length of the flue for the larger grate has been more than doubled, with a corresponding increase in friction.

Another disadvantage in connection with the addition of one section of the grate for each section of the boiler is the fact that the grate soon becomes too long for easy firing. It is almost physically impossible to maintain an even fire in a low fire box with a grate as long as some of the boiler manufacturers recommend.

Boilers of this kind give the best results when operated with a mixture of pea and stove size anthracite coal, although the use of pea size coal exclusively is common and, if the fire is tended with sufficient frequency, the results are very satisfactory.

Bituminous coal cannot be used in the vertical sectional boiler without the generation of a great deal of smoke. These boilers, too, are generally over-rated and give best results when used in rated sizes about 50% in excess of the actual radiation supplied by them.

The difference in cost between the stove size

coal and the smaller sizes of anthracite coal has brought about the introduction of boilers of the magazine feed, or down-draft pattern. These are made in several different types, in cast iron, and are based on the principle of standing the fire on edge rather than laying it flat. With boilers of this kind, no air is introduced through the grate.

The operation of this type of boiler is generally very satisfactory, and the amount of attention required is reduced to the minimum. They are as economical as any other form of cast iron boiler, but unfortunately they are usually disgracefully overrated, so much so in fact that there is no very definite relation between their rating and the amount of heating surface that they will actually supply.

(Continued on page xii)

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, Of THE ARCHITECTURAL REVIEW, published monthly at New York, N. Y., for October 1, 1919.

State of New York, } ss.,
County of New York, }

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Clarence H. Peters, who, having been duly sworn according to law, deposes and says that he is the President of The Architectural Review, Inc., publisher of THE ARCHITECTURAL REVIEW, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

<i>Name of</i>	<i>Post office address</i>
Publisher, The Architectural Review, Inc.,	681 Fifth Ave., New York, N. Y.
Editor, Eugene Clute,	681 Fifth Ave., New York, N. Y.
Managing Editor, None.	
Business Managers, Ralph Reinhold,	681 Fifth Ave., New York, N. Y.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent. or more of the total amount of stock.)

The Architectural Review, Inc.,	681 Fifth Ave., New York, N. Y.
C. H. Peters,	681 Fifth Ave., New York, N. Y.
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Ralph Reinhold,	681 Fifth Ave., New York, N. Y.
J. E. R. Carpenter,	681 Fifth Ave., New York, N. Y.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent. or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

CLARENCE H. PETERS,
Publisher, Owner.
RHONA PELS,

Sworn to and subscribed before me this first day of October, 1919.
Notary Public for New York Co. No. 32
(My Commission Expires March 30, 1920).
Register Number 10032

160^a

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HEATING SERVICE

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EDITORIAL COMMENT ON ARCHITECTURE & THE TIMES

A SIGNIFICANT fact brought out by the drive now being conducted by the Massachusetts Institute of Technology Endowment Fund Committee for an unrestricted endowment fund to meet the arrears which the war and increased registration have caused in the Institute's budget is the appreciation on the part of big business men of the importance of technical training in its relation to the business and industry of the country.

The M. I. T. had no sooner announced its intention of appealing to the alumni and friends for funds to finance the after-the-war developments of the Institute than a "mysterious Mr. Smith" came forward with his generous offer of \$4,000,000 provided that Technology would raise another \$4,000,000. Three million dollars of this sum must be paid in or pledged before the first of the next year.

In a recent meeting of the Alumni Council, Dr. Maclaurin announced that contributions and pledges for the fund amount so far to \$1,500,000. This is only the start and as the campaign gains impetus the committee expects a much greater volume of returns.

THE SELECTION AND OPERATION OF BOILERS

(Continued from page 160)

With a fair grade of small size bituminous coal these down-draft boilers give satisfactory results, but they are primarily designed for pea size anthracite, and with the use of coal of this size the boiler selected should be rated about 125% more than the actual load.

There are other types of magazine feed boilers, of a little different design, that are rated more conservatively. These are made not only in cast iron, but of steel, a special copper-steel tube being used to reduce corrosion.

To facilitate the burning of bituminous coal where smoke is prohibited by city ordinances, the down-draft water grate principle is coming into extensive use in cast iron boilers. This consists of a double set of grates, one above the other, the upper one of which is made up of cast iron or steel water tubes, and on this upper grate the green fuel is fired, allowing only the coked coal to fall and burn on the lower grate. This arrangement of drawing the unburned gases through the live fuel bed gives a very perfect combustion, and very little smoke. It makes an efficient boiler, and as a rule they are conservatively rated. They are now made in very large sizes, up to 150 H.P.

When boilers of very large sizes are used, of a cast iron construction, the outside header construction becomes more advantageous, on account of the fact that this construction makes it possible to

disconnect and plug-off a single section in case of rupture during the heating season.

In steel boilers the water-tube construction has not been widely used for heating purposes, on account of its high first cost, with no corresponding gain in efficiency.

The horizontal, tubular, brick-set construction has been most widely used. This type of boiler is simple, reliable and easy to operate. It has a wide range of capacity and if properly handled and maintained is very efficient. The principal drawback in connection with this construction is the difficulty in keeping the brick-work tight, and if this is not done, the efficiency falls off at an alarming rate. A few small leaks in the brick setting will oftentimes be attended by a loss of 30% or more in the boiler efficiency.

The horizontal return type principle has been developed in connection with the fire box or locomotive type steel boiler, and this type has practically all the advantages and none of the disadvantages of the brick-set return tubular. It occupies considerably less space than a brick-set boiler and is not subject to the wasteful air leaks.

For smokeless combustion of bituminous coal, this latter type of boiler has been developed with a water grate, similar to the Hawley furnace that was so popular at one time. This down-draft construction is probably the most economical type of large size boiler on the market. It is smokeless and easily handled.

Steel boilers as a rule are rated on a very much more conservative basis than the cast iron boiler, and any of the ordinary makes will operate satisfactorily under their full rated load, provided, of course, that the fire is given constant attention and that the draught is exactly right.

The makers of low pressure boilers in general, especially boilers of the cast iron type, were rating their products in their catalogues on a competitive basis, in such a way that it became generally understood ten years ago or more that no dependence could be placed on these ratings.

In order to overcome this condition to a certain extent, there was a committee appointed by the American Society of Heating and Ventilating Engineers to make recommendations as to how such boilers should be rated and tested. This report is rather technical in detail, but forms a basis on which satisfactory comparisons can be made.

In the operation of boilers, especially the large size boilers which get constant attention, the most common mistake is to use too strong a draught, thus drawing an excess amount of air through the fire and probably wasting 20% of the total consumption of coal in the average building.



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December, 1919.

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Same in principle today
as in 1903



INVESTIGATE the trap question and you find two truths: that in the last fifteen years the carbon post type and the float type traps have been supplanted by the thermostatic disc type trap—and that the Dunham Radiator Trap, the *first* thermostatic disc trap, is essentially the same in principle as when it was first marketed.

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HEATING SERVICE

The Dunham Radiator Trap was designed to relieve the radiator of the entrained air and water under conditions varying from 10 pounds pressure to 15 inches of vacuum, without adjustment. It did this in 1903—it does it today.

Complete data on every element in Dunham Heating Service may be found in Sweet's Index, pages 916-921

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A USEFUL MAGAZINE FOR 1920

IN THIS ISSUE

USEFULNESS is the keynote of the plan laid out for the issues of the ARCHITECTURAL REVIEW which will appear during the coming year. A wide variety of buildings will be represented, including the kinds that are most needed, namely, apartment houses, small and medium-size homes, theatres, hotels, banks, schools, libraries, business buildings, farm buildings, and industrial plants, while fine city and country residence work and monumental buildings will receive due attention throughout the year.

In order that the most helpful presentation may be made of the subject matter reproductions of the architect's working drawings, including details, sections and elevations as well as plans, with graphic scale, will be liberally used. Numerous photographs and concise descriptions will supplement the drawings.

Articles by some of the best writers on architectural matters will be features of the new year's program. These articles will range from descriptions of the architecture of places of more than usual interest, to articles treating of particular phases of architectural practice by men who have given special attention to the matters about which they write.

A collection of photographs of Italian wrought iron balcony rails, and window grilles, will be published in the plate section. These photographs, which were taken by Mr. William Winthrop Kent, afford inspiration for a great variety of iron work suitable for buildings of the present day. The photographs show the iron work of the smaller out-of-the-way buildings in a number of most interesting places in Italy, including Venice, Florence, Siena, Palermo, Genoa, and along the shores of Lake Como.

A series of etchings by Mr. Paul Valenti will also be reproduced in the plate section. Mr. Valenti has presented appreciatively many fine bits of old Italian architecture in these etchings.

FEW houses, if any, in this country show so interesting a development of plan, exterior and interior treatment as the house for W. R. Grace, Esq., at Westbury, L. I., which is the subject of the leading article in this issue.

Though houses that have grown by being added to in this direction and that are common enough in the older countries, particularly in England, they are rare here. The architect, Mr. James W. O'Connor, has handled this problem with distinction.

In order to provide the houses needed to relieve the shortage caused by the practical cessation of building in most parts of the country, excepting war housing developments, an unprecedented amount of building will soon have to be done. That these buildings should show an improvement over the average of those built in the past is to be hoped. In this connection the development for The United States Housing Corporation at Waterbury, Conn., is well worth studying. It is described and illustrated in this issue.

That motion picture theatres would ever be built to rival or surpass the buildings devoted to grand opera was not thought of a few years ago. Soon they were built, however, and each has shown an advance on the best previous one, until now we have The Capitol Theatre, New York, of which interior views are shown.

A MULTIPLE DWELLING NUMBER

THE February issue of this magazine will be devoted to multiple dwellings, from the finest apartment houses down to the medium-price and low-price apartment buildings, and houses for two or more families. The different sections of the country will be represented.

The buildings will be shown by working drawings and by photographs and sketches. There will be articles by men whose special experience has well fitted them to write on these matters.

THE JANUARY ISSUE

Among the features of the issue of THE ARCHITECTURAL REVIEW for January will be an illustrated article on a notable utilitarian building that has been given architectural character by simple, direct handling of the problem. Other buildings of a public and semi-public character, a garage that has the charm of old European farm buildings, a house of moderate size, and much other interesting matter will be included. In the plate section will appear reproductions of a number of etchings of Italian architecture by Mr. Paul Valenti, as well as photographic views of current architectural work.



Courtesy of The Art Institute, Chicago

THE TEMPLE

FROM A PAINTING BY HUBERT ROBERT

(Paris 1733-1808)

The ARCHITECTURAL REVIEW

Volume
IX

Old Series Vol. XXVI

DECEMBER 1919

Number
6

HOUSE FOR W. R. GRACE, ESQ., AT WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT

A HOUSE that has developed from a small Long Island Colonial farmhouse into a large and most interesting country residence is the home of W. R. Grace, Esq., at Westbury, L. I.

The original building consisted only of that portion of the plan shown on page 162 marked Room No. 3 and Room No. 4 with the staircase and small room at the right.

Some time in the "seventies" or "eighties" an addition was made in the style prevailing at the time.

When Mr. O'Connor was first called in some ten years ago the building consisted of the old Colonial farmhouse and the adjoining building, much larger than the original structure. In order to make the old building conform to the style of the new building the Colonial roof had been replaced by one in the prevailing style. The result was typical of the period, the kind of building we con-

sider impossible today.

Mr. O'Connor restored the Colonial portion of the building and altered the rest to harmonize in design; he also constructed an addition of Colonial design.

Three or four years ago Mr. O'Connor was once more called upon to design additions to the house, this time on a more extensive scale.

Portions of the existing building were altered

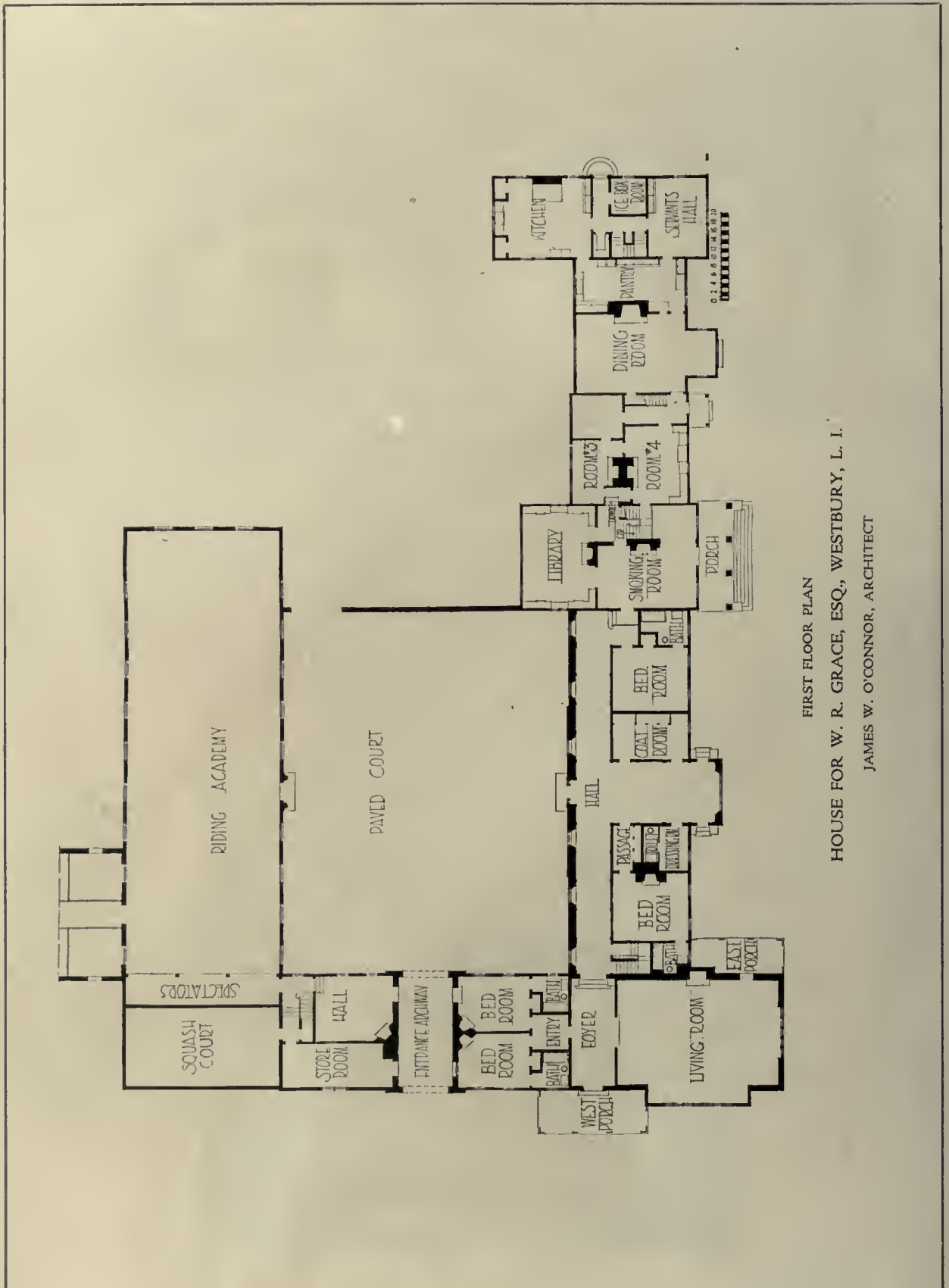
to suit new uses and new portions were built, forming the sides of a large paved court, which is entered through an archway that runs through the portion of the house at the west.

On the north side of the court were built the riding academy and the squash court, comprised in the "sports wing." At the east the court is enclosed by a high wall in which there is a wide gate.

Each portion of the house has its own entrance, a very convenient feature where the building is so large. Entering



A Portion of the South Front



FIRST FLOOR PLAN

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT

through the porch, a photograph of which is shown on page 161, one enters an attractively furnished morning room or smoking room. Back of this room is the comfortable library and at the east, down a step or two, one enters the old Colonial portion of the building where the rooms are furnished appropriately. Beyond this, to the east, is the dining room, with its appropriate and pleasing furniture and wall treatment. A feature of this room is the bay at the south which is fitted to serve as a breakfast alcove.

The pantry, kitchen and servants' hall occupy the section at the east of the kitchen.



The Court from the Entrance Archway

If one enters through the door in the center of the south side of the court one finds oneself in a broad hall with a long hall extending to the right and left. On opposite sides of the hall are the coat room and dressing room. Near the west end of the long hall is a small staircase to which access is had through a door concealed in the panelling of the wall. The closet adjoining the stair also has a concealed door. This staircase provides a short way from the living

room to the principal rooms of the family, which are above on the second floor.

From the end of this hall one goes down two or three steps to the foyer, that opens upon the



A Portion of the Riding Academy



Hall on the First Floor

west porch and gives access to the living room.

Placed at the southwest corner of the house, with long rows of mullioned windows on two sides, this large panelled room is unusually pleasant.

Opening from the north side of the foyer is an entry that gives access to two bedrooms. Each of these bedrooms has a door opening directly into the entrance archway at the north.

Across the drive is a hall fitted up as a comfortable sitting room. Beyond are the squash court and riding academy.

The portion of the second floor shown by the plan on page 165 includes the most interesting arrangement of rooms found in the southwest corner of the building, where are located the principal rooms of the family. Along the south side are the children's play room, with adjoining kitchen, and a series of bedrooms. At the north end of the corridor is a sitting room so furnished that it can be used as a dining room or breakfast

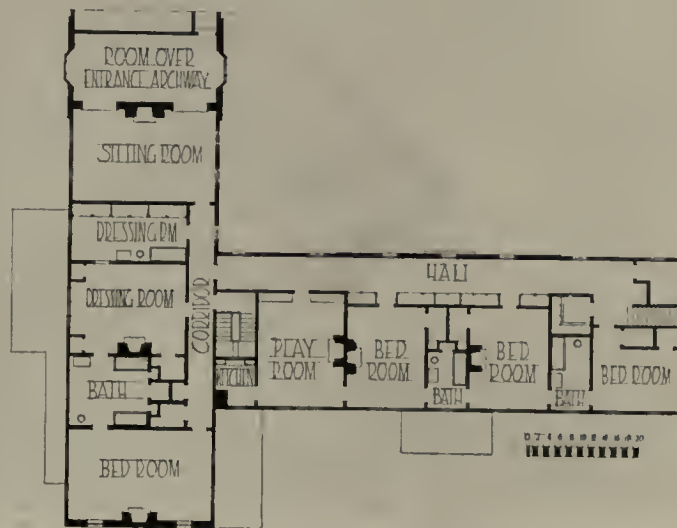
room. The walls are covered with a French hand-blocked wallpaper in an old Chinese design.

Beyond the sitting room is a pleasant room over the entrance archway. From this point one can reach the riding academy without going out of doors. The squash court and the riding academy are unusually interesting features of this residence.

The exterior design shows a pleasant variety of treatment and a degree of informality in keeping with this kind of plan, while the unity of character has been well preserved throughout.

The interiors are similarly varied, ranging all the way from the simple white paneling of the rooms in the original Colonial farmhouse to the rich, dark old oak of the living room.

As an example of the happy handling of a difficult problem in alteration, the entire operation is of special interest at this time, when the remodeling and reconstruction of old houses is receiving more than ordinary attention.



Plan of a Portion of Second Floor



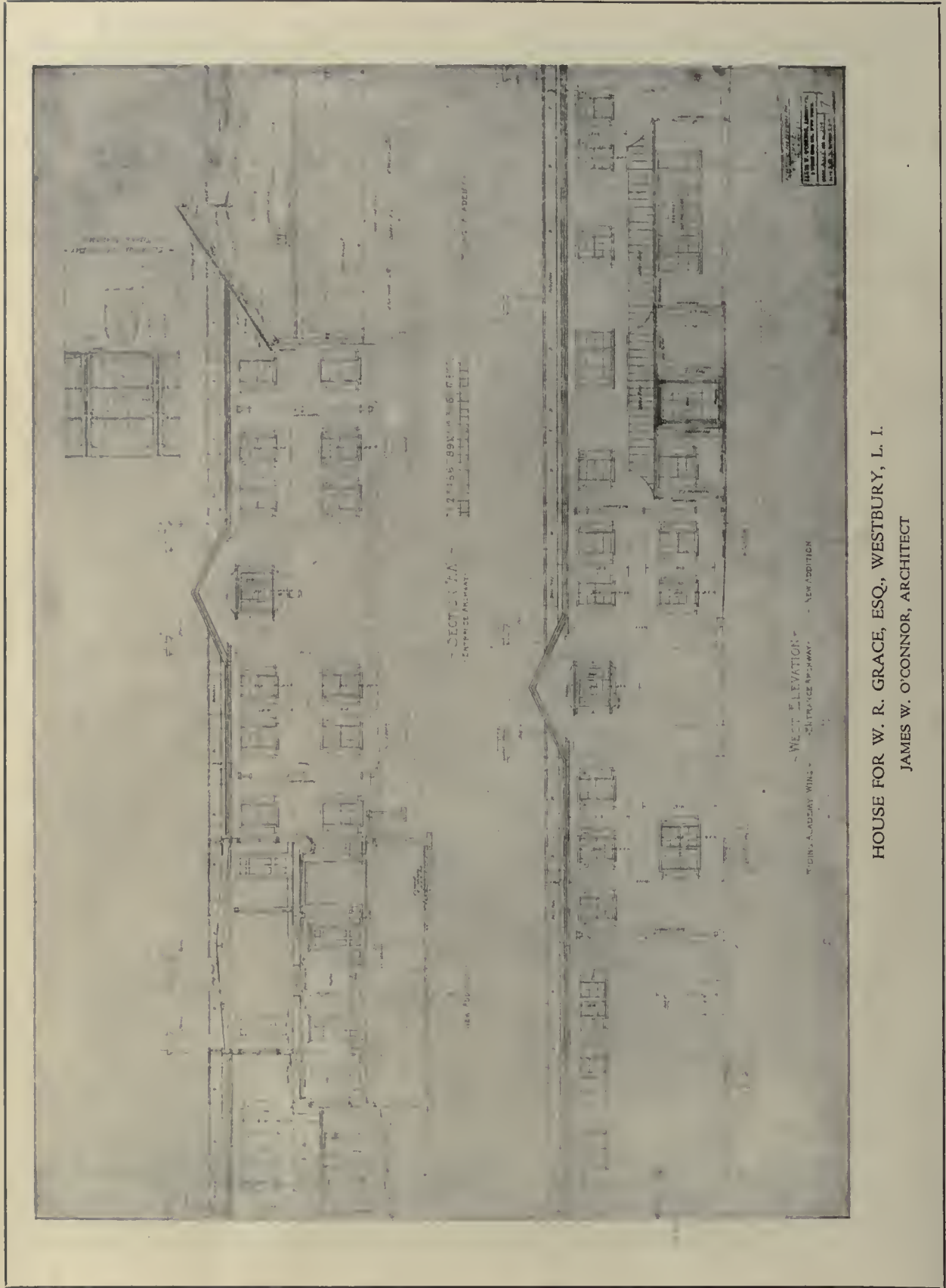
LIVING ROOM

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

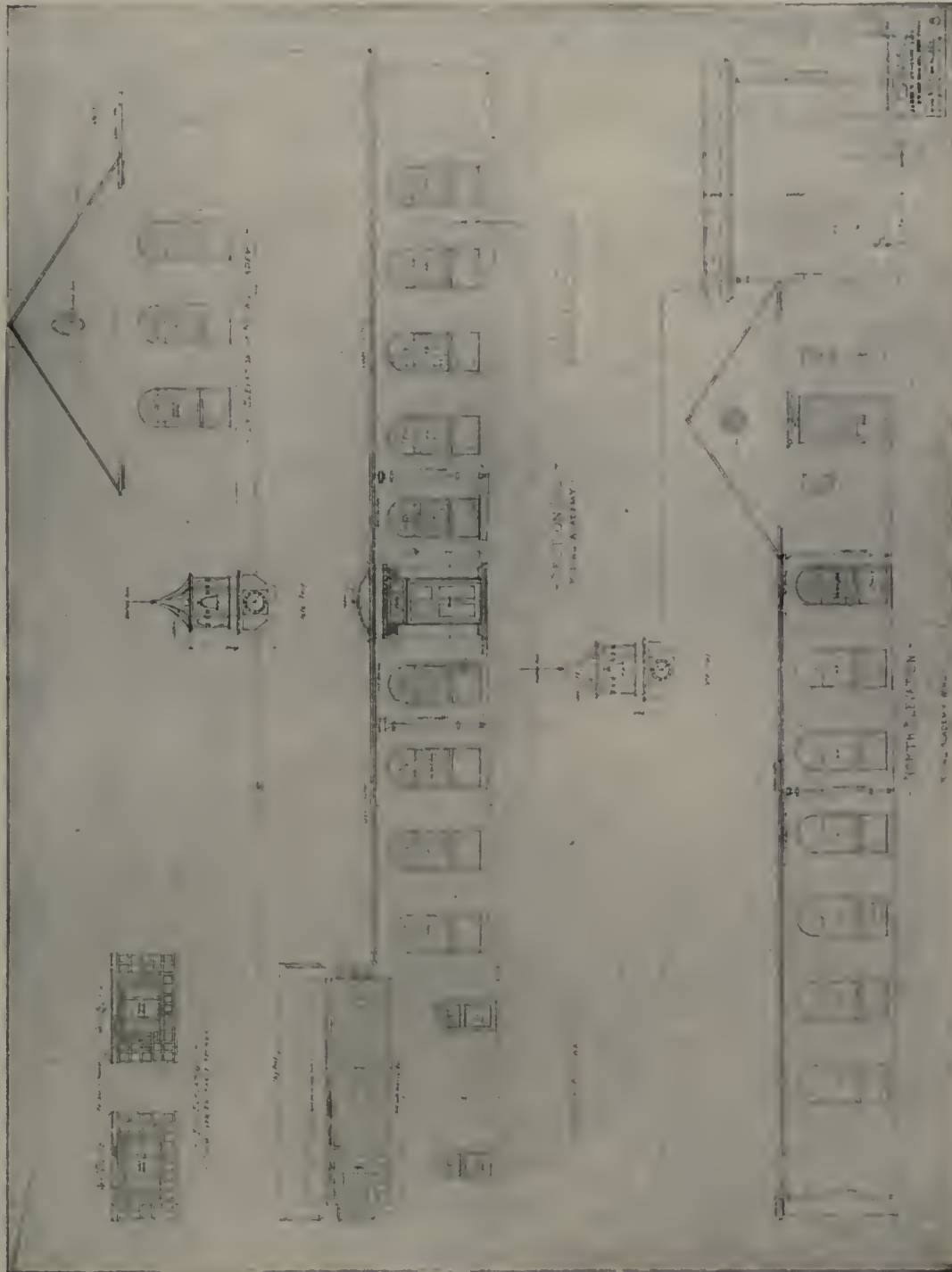
JAMES W. O'CONNOR, ARCHITECT



SITTING ROOM. SECOND FLOOR
HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.
JAMES W. O'CONNOR, ARCHITECT

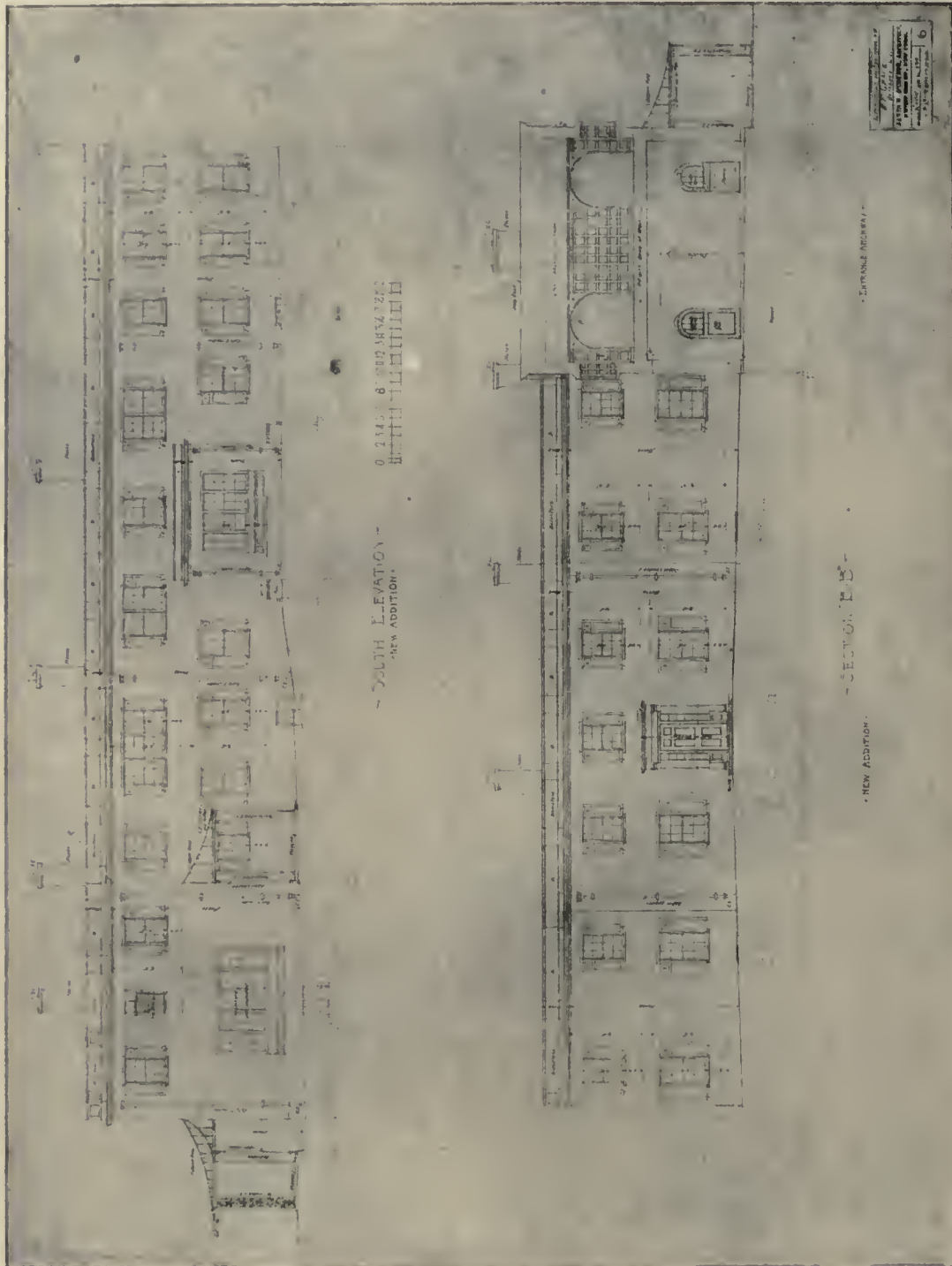


HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.
JAMES W. O'CONNOR, ARCHITECT



HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.
JAMES W. O'CONNOR, ARCHITECT

DEVELOPMENT FOR THE UNITED STATES HOUSING CORPORATION AT WATERBURY, CONN.

MURPHY & DANA, ARCHITECTS
 FREDERICK B. HINCHMAN, TOWN PLANNER

THE pressing need for houses throughout the country makes the designing of low cost houses and the development of unused land as important a subject now as it was during the war.

Though this work will be carried on by private enterprises—speculative builders, real-estate operators, and by individuals—it is to be hoped that the houses built will be of a better character in many instances than those built previous to the war. The essential requirements are the same as those in the war time housing. It is still a matter of building healthful, attractive and substantial homes, at the lowest possible cost, and of

giving the whole development a pleasing appearance in each instance.

It seems that the influences of the work done in the war housing developments must have brought a new appreciation of the desirability of putting work of this kind into the hands of well-trained architects, such as those who were engaged on war housing.

The housing development carried out in an effort to care for ship-yard workers and the employees in munition plants may well be studied as examples of the working out of the problem under different conditions, and along different lines.

Many of the ideas embodied in these de-



House, Type A 1



Double House, Type A 3



DOUBLE HOUSE, TYPE B 2



DOUBLE HOUSE, TYPE A 4

DEVELOPMENT FOR THE UNITED STATES HOUSING CORPORATION
WATERBURY, CONN.

MURPHY & DANA, ARCHITECTS



A Typical Street

developments are applicable to the solution of the problems to be met by builders in developing new sections of our cities.

Of more than usual interest from this standpoint, is the development for the United States Housing Corporation at Waterbury, Conn., since the problem solved in this case is similar to that met with in the average industrial city.

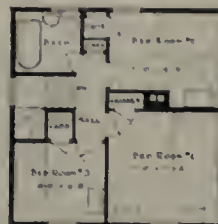
The work on this development was in charge of Mr. George W. Fuller, engineer, Messrs, Murphy & Dana, architects, and

Mr. Frederick B. Hinchman, town planner.

The site in this case was a tract of farm land at the south of Waterbury, adjoining the built-up portions of the city, near a school, within walking distance of several large factories, and on a trolley line. This property is one of three which were considered for the development at Waterbury, the other two having been abandoned, and this tract, known as the Sylvan Avenue site, developed only in part. A study of conditions in Waterbury led ultimately to



FIRST FLOOR



SECOND FLOOR

House, Type B1



The Yards at the Rear

the adoption of a scheme which included both single and double houses. Two typical plans, each for a single house, were adopted. By doubling either of these plans, a two-family house was produced, and by reversing the plans, and turning them about, eleven different façades were produced. The buildings are all of frame construction on stone foundation walls, stone from the property being used. The exterior finish consists of stucco applied on a background of a ready-prepared board, which serves as sheathing and provides a key for the stucco.

All framing lumber was standardized and in lengths that did not cut waste. Complete framing plans were supplied. Gutters and leaders were omitted for economy. Casings around windows and other exterior trim was also omitted. Stock windows, doors and interior trim were used. The floors are of edge-grain pine, stained and varnished. Doors and interior trim were treated



House, Type A 1

with a stain with which a wax finish was incorporated. The kitchen, bath-room and pantry walls were finished with a washable paint, and the walls of the other rooms were papered with inexpensive plain papers.

The roofs are of stained shingles and the blinds instead of being painted were dipped in creosote stain. This treatment is not only economical, but has produced a very attractive effect.

In making the general layout of the site it was necessary not only to make a satisfactory subdivision of the property into lots of proper size and shape but to relate the new roads and streets to those existing in order that the most convenient lines of communication might be obtained.

The top soil was preserved with care and black soil from the swampy portion of the property was treated with lime, making it unnecessary to bring in top soil from outside of the property for the landscape work.



General Lay-out of Site



AUDITORIUM



FOYER

THE CAPITOL THEATRE, NEW YORK CITY

THOMAS W. LAMB, ARCHITECT



DETAIL OF INTERIOR

THE CAPITOL THEATRE

NEW YORK CITY

THOMAS W. LAMB, ARCHITECT

THE REVIEW OF INTERIORS

Department Edited by J. H. Phillips.



TWENTIETH CENTURY INTERIORS, PART III

MUCH that passes under the name of interior decoration is merely the product of brokers in furniture and furnishings. These men have no real appreciation of fine things, but are clever business men who employ clever salesmen.

Their day is passing. They prospered during the time when great numbers of people, having

won wealth by the part they played in the development of the business and industry of the country, turned their attention to surrounding themselves with the refinements of life. Clients flocked to these men who offered to give them, for a handsome consideration, that which they most keenly felt the need of—a background.

These clients were not capable of discriminat-



A Children's Play-room
By Karl Freund

ing in the matter of decoration and they wanted a great deal done promptly and in a businesslike manner. Their demands created a commercial type of decorator.

The situation is different now. A large percentage of the people of wealth have an appreciation of what is really good. The very same people who were ignorant of all these things not so many years ago have learned much. They have read, traveled and lived well. Their sons and daughters have grown up in circumstances favorable to the development of good taste and have enjoyed the advantages of a liberal education, which their parents lacked. This has had its effect in raising the standard of taste in decoration.

Recognition is now being given to the men who are capable of creating attractive rooms from the wealth of old material gathered by buyers and collectors abroad and in this country, using fine antiques in such a way that none of their charm is lost through their new association in an ensemble that is distinctly of

the Twentieth Century. These men know how to use old things in a new way. This requires the knowledge of a connoisseur as well as the creative imagination of a designer. A number of examples of this manner of decorating are shown in connection with this article, selected from the work of Mr. Karl Freund.

The influence of the past upon distinctly modern decoration is seen not only in the use of old furniture and furnishings in new relations, but in the manner of treatment of mural decora-

tions. This fact is illustrated in a striking manner by the photographic views of the works of Mr. Robert W. Chanler. Though original to a remarkable degree and expressive of the personality of the artist in both conception and execution, these mural designs are clearly related to the art of the past. They have the qualities of design that one finds in mediaeval tapestries, in old Persian textiles, and in Far Eastern lacquers. The decorations on the walls of the hall in Mr.

Chanler's studio, portions of which are shown, are of special interest because of the way in which this treatment gives a sense of space as well as interest to a narrow stairway, the walls of which are broken by irregular angles. The decorations on the ceiling of the main hall of the Colony Club, New York, give a sense of lightness to this arched ceiling and the seemingly infinite variety of motifs in the design gives it unending interest.

Another way in which the past has strongly influenced modern interior decoration is through the use

of fabric wall coverings, of old designs, particularly such fabrics as toile de Jouy, and chintz, which lend themselves to the beautifying of the more homelike rooms. An example of the use of an old chintz in a room furnished in such a way that it mingles the old-time sense of comfort with a thoroughly modern note is one of the rooms in Gayne House, by Baron De Meyer.

By recognition of the art of the past, the progress of the art of the present century is on a sound basis for future development.



A Library
By Karl Freund



Treatment of a Corridor
By Karl Freund



Living Room
By Karl Freund



A Boudoir
By Karl Freund



Detail of Interior
By Karl Freund



Study for a Sun Parlor
By Karl Freund



A Hall
By Karl Freund



Main Hall of the Colony Club, New York City
Decorations by Robert W. Chanler



Detail in Mr. Chanler's Studio



Study for Wall Decoration
By Robert W. Chanler



Detail on Stairway in Mr. Chanler's Studio



Painting by Robert W. Chanler in the Brooklyn Museum



Rooms in Gayne House, by Baron De Meyn,

scale to the structure upon which they are placed. The cupola on this building at Plainfield is an excellent monument in itself, a Greek tholos, or circular temple. But its intercolumniation immediately and unavoidably throws it out of scale with the portico below. The interiors are good. Mr. Matlack Price in his descriptive article says, "Perhaps the only detrimental incident in the front elevation is seen in the windows of the super-story." We do not agree with him; these windows are well related to the openings below and lighten a parapet story which without them would have been too heavy, also they are necessary. "The Colonial Precedent in Minor Domestic Architecture," written by George F. Marlowe, is illustrated by very good examples, and bears out our previous contention that simplicity of mass, harmony of scale of openings, and elimination of unnecessary details are characteristics of the best architecture.

Good Furniture, October, has an article upon color harmonies and correct arrangements for rooms, embodying current merchandise by Mr. William Laurel Harris. This is a brave attempt by Mr. Harris who is a man of good taste. We appreciate the effort, and we realize the difficulties of color plate representation, especially upon small-scale perspectives which exaggerate effects. The details of these color plates are excellent, however, and we are inclined to think the results in the rooms would be better than the colored pictures indicate. Of course, elaborate patterns should be recognized as special factors, not to be spread broadcast, and contrast of colors approaching complementaries should be recognized as effects to be used sparingly. Both, therefore,

(From "The Architectural Forum")



Municipal Building, Plainfield, N. J.
Laurence F. Peck, Wm. Lawrence Bottomley
Associate Architects

well be comparatively neutral so that they may accommodate themselves to the heterogeneous collection of objects which accumulate even in houses where good taste is paramount. We look somewhat askance, therefore, upon elaborate æsthetic schemes for modest homes, and Mr. Harris is right in stating that it is "easier to arrange color schemes for stately buildings than for homelike interiors" and that "stately interiors and modest homes demand very different color schemes." Mr. Wuerpel, director of the St. Louis School of Fine Arts, Washington University, writes well upon "Why the Manufacturer and Retailer Should

Help the Art Schools" and he incidentally suggests an art school as a war memorial. How many other things are to be suggested for war memorials?

Journal of the American Institute of Architects, November. This number is one of the best that has appeared and has several very interesting articles. Mr. Coxhead and Mr. Bakewell write upon the A. E. F. School of Architecture in France. This school was of special value as its object lessons and subjects for study were actually at hand, and not merely expressed by drawings, photographs and other documents. Such a school should be permanent, not alone in France, but elsewhere. Especially is this the case in regard to

(Continued on page xii)

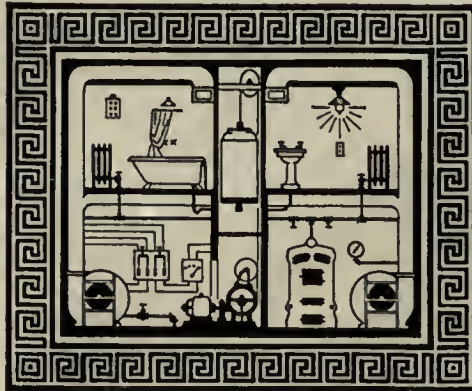
(From "The Architectural Forum")



Entrance Hall, House of Francis S. McIlhenny, Esq.,
Chestnut Hill, Philadelphia, Pa.
Mellor, Meigs & Howe, Architects.

EQUIPMENT

DEPARTMENT EDITED BY J. F. MUSSELMAN



RESIDENCE INSTALLATIONS

IN THE vocabulary of the architect or engineer there is probably no word, unless it be the word "building" that can be stretched to cover a wider field of usage than the word "residence." This may be anything from the small ready-cut, with plans thrown in, complete, F.O.B. mill, to the pretentious structure which the owner hopes may, with the help of age and ivy, be dignified some day by being called a castle, provided always, of course, that we Americans let it stand that long and do not tear it down to make room for something modern, like a tenement house, or a carpet factory.

The equipment of such a residence, whatever it may be, between and including the two extremes mentioned, is apt to amount, in cost, to something like twenty-five per cent. of the total sum set aside for the venture. It, too, can be bought from the catalog and guaranteed to fit, but those who have tried the system say that such installations are apt to be not altogether satisfactory.

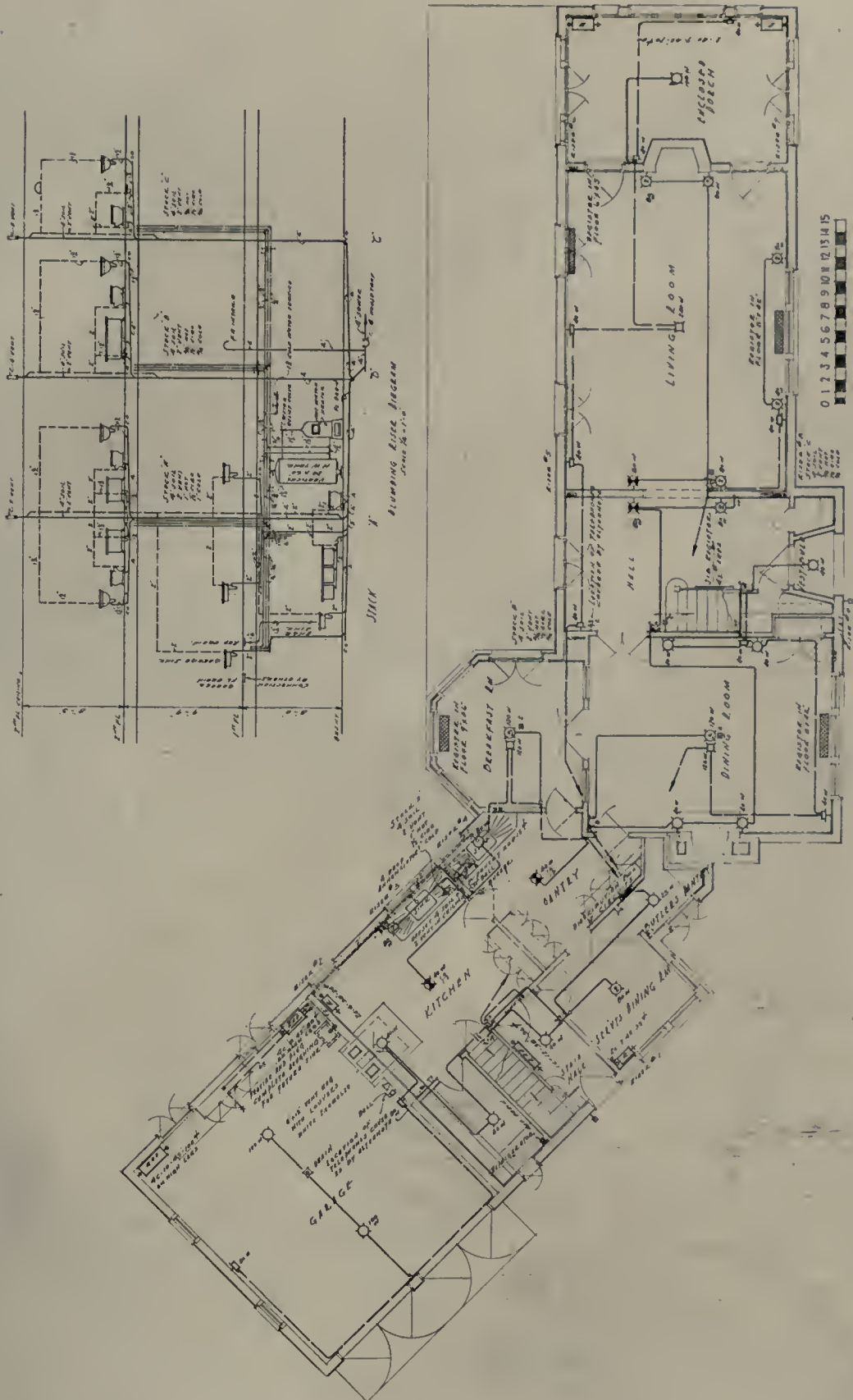
The contracting builder, as a rule, is a man with an intellect of a fairly high order. If his ambition ran to architecture, he could probably design a scheme of equipment for a residence, with the help that the owner so cheerfully gives, that would compare very favorably with the heat-

ing layout or sewage disposal system produced by the average steam fitter or plumber. But for a moderate priced house, it seems to be nobody's job; there is not enough compensation attached to attract the consulting engineer, and the details of this branch of the work are nerve racking to the architect.

Standard textbooks and hand-books are very specific and full in their treatment of equipment design, and with the use of these, along with common sense and a good deal of time, a draughtsman can produce plans and specifications of all essential features of this part of the work more satisfactorily than the average small sub-contractor, especially when it is considered that the sub-contractor is apt not to have all of the construction drawings of the building from which to work.

Aside from the minute details of the various systems, in which few jobs are similar and no two alike, the design of the equipment for residences of different grades has become more or less standardized, and the usual practice which represents the desires of the majority can be followed with fair probabilities of the client being pleased.

The heating of residences of the smaller and cheaper kind is generally accomplished by stoves, but these being portable, and moving in and out with each new tenant, have no place in a discus-



Basement Plan and Section of Country Residence, Showing Vapor System of Heating, with Indirect Radiators. Plumbing According to Greenwich, Conn., Code, and a Simple System of Electric Work.

sion of building equipment, in spite of their high thermal efficiency. The pipeless furnace is sometimes considered in this same class, but this is an injustice, for in places where it fits, it is said to give excellent results. They are low in cost and economical in the use of fuel and can be used in small, compact houses of eight rooms or less. Their success is dependent, of course, on the fact that all of the inside doors of such a residence are left open, but this is usually the case under any circumstances.

Next in order of first cost and simplicity comes the hot air furnace of the ordinary type. Hot air furnaces were used, in one form or another, long before the use of steam and hot water heat was general, but in spite of this fact their development has been rather unsatisfactory, on account of the fact that they have always been designed and installed by guess, and until recently no one took the trouble to make any accurate figures or to issue any data as to capacities or performance. This condition has improved of late, and now a number of furnace manufacturers get out very complete catalogues and instruction books, which if followed carefully, make it possible to design a furnace installation with at least a reasonable probability of successful results.

When a hot air furnace installation is correctly proportioned and properly provided for in the building construction, it should give results that are very satisfactory in a compact residence of moderate size, but without some mechanical means of circulating the air, it positively will not heat satisfactorily long wings, especially wings extending toward the coldest exposure.

There are two distinct methods of making hot air furnace installations, one taking all the air for heating from outdoors, while the other re-cir-

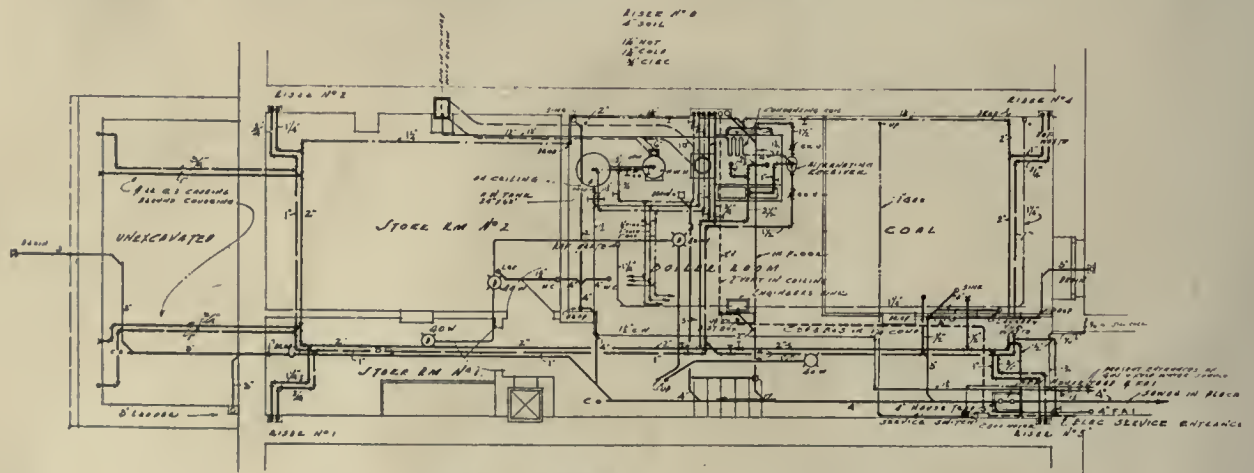
culates the air, drawing all or a part of its supply from a register in the floor of the lowest story. The latter method consumes, on an average, about two thirds as much coal as the former, and compares favorably in coal consumption with a steam plant. With the present prices of fuel, the use of all outdoor air is to be condemned in residence work, on account of the fact that the fresh air ventilation is not needed by the small number of occupants. The humidity of outside air in winter is very low, which causes a room to feel much colder than it really is.

The reputation of hot air furnaces has been a martyr to cheapness. What has been saved in fire surface has been wasted in coal, and the discomfort of living in the same house with a cracked fire bowl, that gave out because it was too light and badly cast, can hardly be exaggerated. The best makes cost not much more than half the price of a steam plant, and nothing less than the best should be used.

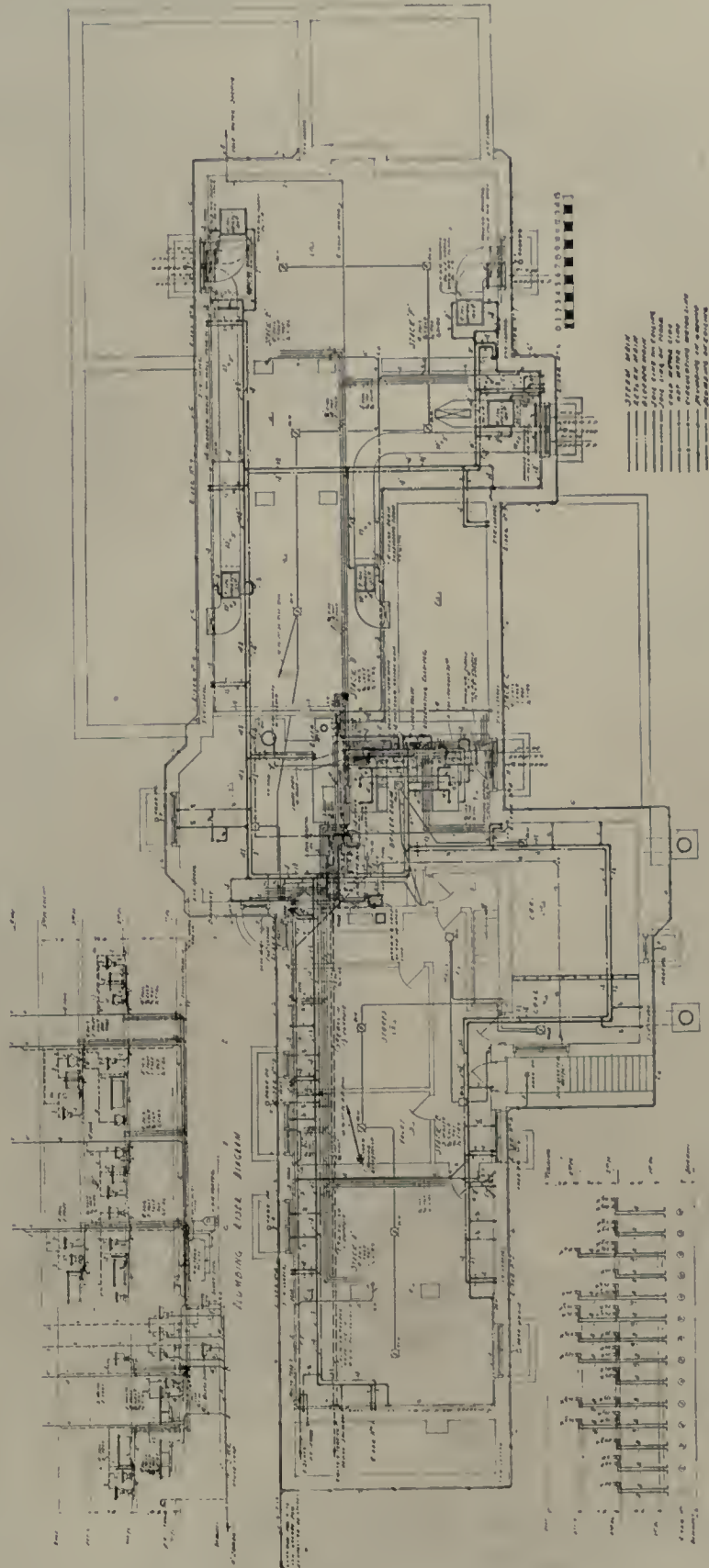
The simplest steam system of heating is the one-pipe system. It is easily operated, quick to heat, dependable, and occupies little space. If direct radiators are used, the cost of such a system need not be great, and the results of the use of such a system in a moderate priced house is almost sure to be satisfactory.

The design of a one-pipe steam system is so simple that there is little chance of failure either in planning or installing the work if reasonable care is exercised in the use of the standard tables for computing and proportioning the parts.

Probably the most popular system of heating for large residences, and the one that gives the best all-around results, where the spaces to be heated and the length of the runs are great, is the vapor or gravity modulating system. With



Cellar Plan of Small City Residence, Showing Heating, Electric and Plumbing Work.



First Story Plan, Suburban Residence, Plumbing Section.

this it is possible to heat up quickly, to maintain a fairly uniform temperature in all spaces, and to use indirect radiators, which is the most satisfactory form of radiation, especially for the important rooms on the ground floor, on account of the fact that ordinary exposed radiators occupy valuable space, and are unsightly.

This system is rather difficult to lay out, and the perfection of operation is dependent on the design to a large extent. Such a system is noiseless, and gives off no disagreeable odors, which are sometimes objected to where air valves discharge directly into the rooms. No air valves are required on a system of this kind, and the control valves of the direct radiators are set at locations where they are the easiest to operate.

For residences of moderate size, there is no form of heating that gives quite as satisfactory results, all things considered, as a hot water system. The temperature of the water is so readily varied with the weather conditions, that the entire house can be kept at a uniform temperature without difficulty, and without operating the individual radiator valves.

The hot water system, of course, has the disadvantage of being slow to warm up when the water is once cooled. Another disadvantage, sometimes objected to in a hot water system, is the possibility of freezing individual radiators. This possibility is especially considerable with indirect radiators, unless some form of automatic control is used to shut off the fresh air when the water in the system is cold.

The cost of hot water is greater even than the vapor system, and one of the principal items of expense is the large pipe sizes required to insure perfect circulation. The proportioning of the pipes is the principal difficulty to be met in the design of a hot water plant, and one that cannot be overcome without more study than is apt to be given to a layout by the ordinary hot water fitter.

The layout of the plumbing system, as far as the waste, drains, sewers and vents are concerned, is a question of following the local code, which applies in the individual case, and it is surprising how these codes disagree in various sections of the country.

To go into the question of the relative merits of the various systems of venting, which are so much discussed just now, is not material, for after all the schemes must be passed on generally by the local authorities before they can be used.

Proper venting is of paramount importance, and modern sanitation demands that this item be followed carefully in the field as well as in the layout.

An item of design in connection with the waste system that is sometimes worth more consideration than it is given, is the noise of the water in the soil and waste pipes where such pipes pass adjacent to a living room, or a dining room. The greatest possible care should be used in sound-proofing the chases or insulating such pipes.

The study of the water piping, as far as the

cold water is concerned, is comparatively simple, especially if the pressure is sufficient to adequately supply the top story. It is necessary, of course, to proportion the pipes in accordance with the demand, but unless flushometers are used there is little chance of getting the cold water pipes too small. It is advantageous, however, to expose all water pipes as far as possible, and to provide ample shut-offs and provisions to drain.

With a system of hot water piping, it is a different story. If the residence is large, it is essential that the circulation be perfect, and in order to accomplish this, considerable care is required in proportioning the pipes. The fact that the hot water pipes have a tendency to fill and stop, on account of the corrosive properties of hot water has to be taken into account in determining the sizes. For the fact that the circulation is satisfactory when the job is new is not conclusive proof that the results can always be depended on.

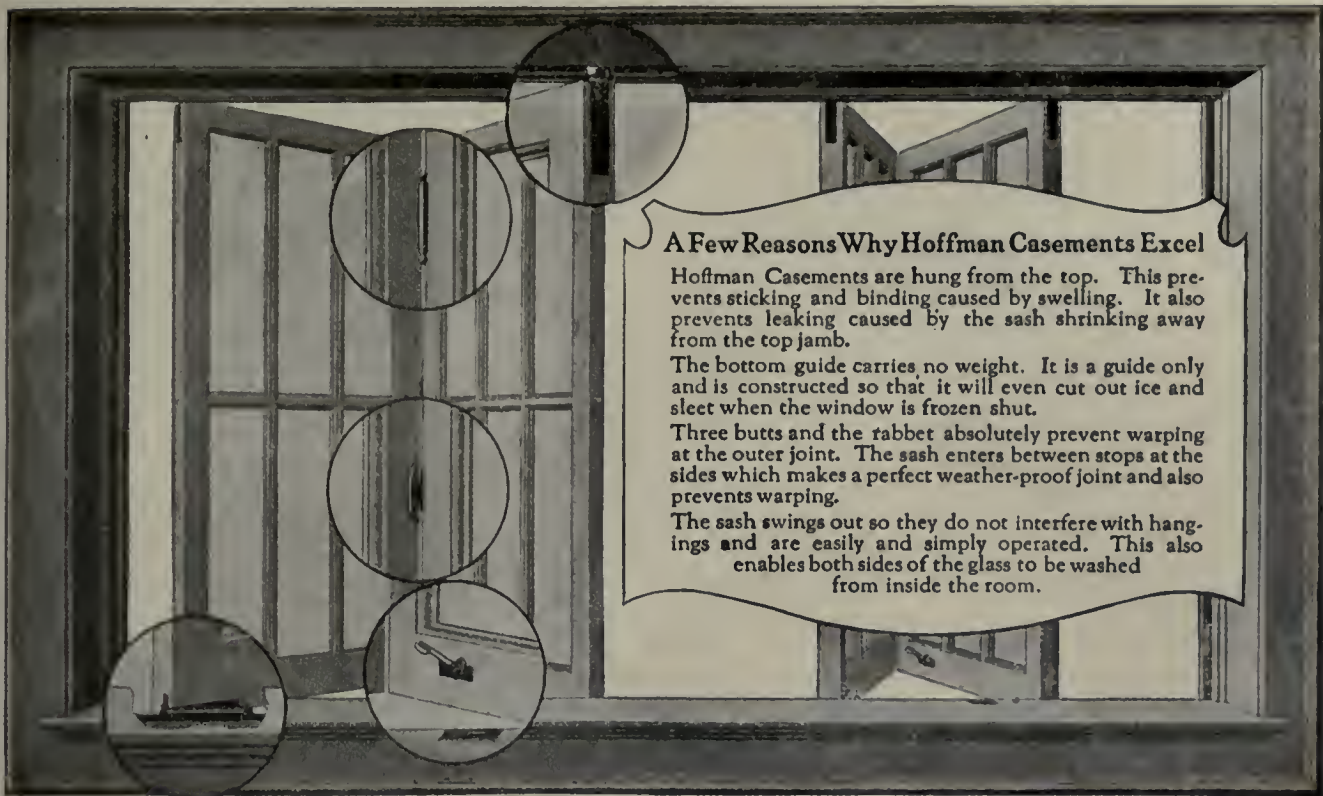
The electric installation for a residence is probably more complicated and more difficult to lay out than the electric installation in any other class of building. The location of outlets and character of fixtures have to be given consideration more from the point of view of the owner than the electrician.

It is now customary in country residences to use a system of lights that are ordinarily known by the alarming name of "burglar lights." This makes it possible to control certain lights in all parts of the house from a single switch, usually located in the owner's bedroom, independent of other switches. The technical details in connection with this system of wiring requires very careful study.

The wiring is generally installed with flexible steel-sheathed conductor, unless the building be fireproof, in which case rigid iron conduit wire is generally used. In the less expensive houses, it has been customary to install concealed knob and tube wiring, but such a system is more or less hazardous from the standpoint of fire, and less wiring, properly installed, is a better investment, even in the less pretentious houses.

The low potential system, if the usual schemes are followed, is apt to be overdone, and there are few large residences in which one cannot find innumerable push buttons that have never been used. This, in spite of the fact that each unit of the low potential wiring, is a possible source of trouble, unless the work be done with even greater care than is generally used in the installation of the wiring for lights.

Central vacuum sweeping plants and the piping for the same, that were once popular in residence work, are not now generally considered advisable, not on account of any defects in the operation of such a system, but on account of the fact that the weight and inconvenience of the hose are considered more objectionable than the use of portable electric sweepers, which have been so perfected within the last few years as to give almost universal satisfaction.



A Few Reasons Why Hoffman Casements Excel

Hoffman Casements are hung from the top. This prevents sticking and binding caused by swelling. It also prevents leaking caused by the sash shrinking away from the top jamb.

The bottom guide carries no weight. It is a guide only and is constructed so that it will even cut out ice and sleet when the window is frozen shut.

Three butts and the rabbet absolutely prevent warping at the outer joint. The sash enters between stops at the sides which makes a perfect weather-proof joint and also prevents warping.

The sash swings out so they do not interfere with hangings and are easily and simply operated. This also enables both sides of the glass to be washed from inside the room.

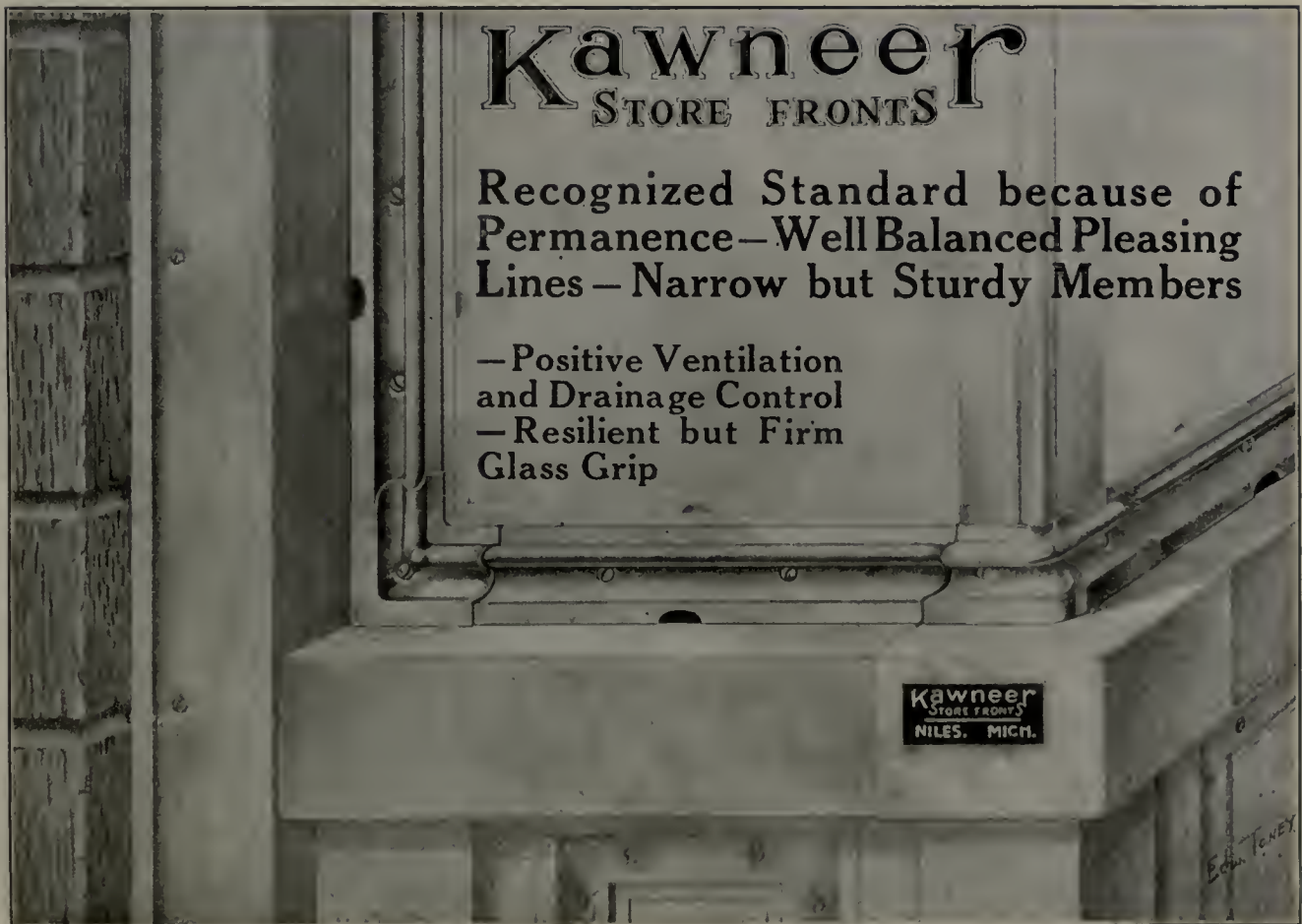
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Kawneer
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Kawneer
STORE FRONTS
NILES, MICH.

E. J. TENNEY

·EDITORIAL·COMMENT· ·ON·ARCHITECTURE·&·THE·TIMES·

AN event of more than usual interest will be the exhibition of modern French art at the Metropolitan Museum of Art, New York. The delays in shipment of the exhibits having been overcome, it is announced that the exhibition will open with a reception on the evening of December 15, after which it will be open to the public through February 1.

This exhibition, which has been organized in Paris by the French Ministry of Public Instruction and the Fine Arts, with the co-operation of the artists' association known as the Triennale, will consist of contemporary French paintings, sculptures, drawings, prints, and examples of the decorative arts, all selected as representative of the French art of today. The interest the French authorities have taken in sending it to America may be judged from the facts that it is forwarded at the government's expense, and that it comes here under the patronage of the President of the French Republic, the Ambassador of France at Washington, the Minister of Public Instruction and Fine Arts, and the Director General of the French Services in the United States, who has charge of its arrangements in this country.

In addition to the patrons, the French government has named the following as an Honorary Committee of the exhibition: Paul Léon, Director of Fine Arts; Léonce Bénédite, Curator of the Luxembourg Gallery; Robert Brussel, Chief of the Service d'Etudes; Maurice Chabas, President of the Triennale; d'Estournelles de Constant, Director of the National Museums; Anatole Le Braz, Professor at the University of Rennes; Gaston Liébert, Consul General of France in New York; Marcel Rouffie, Inspector General of the French Services in the United States; Marcel Knecht, and Lieut. Caesar Michaux, head of the Bureau of Fine Arts of the French Services.

THE REVIEW OF INTERIORS

(Continued from page 187)

Gothic work, which is so inherently based upon an intelligent construction, which can be thoroughly comprehended only at first hand. An unusual opportunity was offered to the members of this school, and we may expect a much more thorough knowledge of the things which constitute the elemental principles of good architecture from them than from students who have received merely academic training. Thus far we have had abroad a number of travelling students, who have made

their own investigations (excepting at the schools in Athens and Rome). It is to be hoped that we may supplement academic education by schools similar to that of the A. E. F. Georgiana Goddard King writes interestingly of Spanish cloisters. The article is well illustrated. Mr. Whitaker quotes and reviews Mr. Renard's book upon "Guilds of the Middle Ages," which seems to be a very careful and thoughtful little work upon the subject. Mr. Renard makes no dogmatic assertions, recognizes both the virtues and faults of the guilds, and especially the fact that few sweeping generalizations can be made in regard to them, as they were so varied in their character. Mr. Whitaker states certain basic principles of the guilds which were admirable, i.e., first they believed "industry to be an honorable service and work a noble function," and believed wholly in quality and cared nothing for quantity. Profit was gauged by the value of the service, and not by the ability to make it as "large as the traffic would bear." Mr. Whitaker also reviews Mr. Cram's "Walled Towns," which is pertinent also to a consideration of the guilds. The administration of this town is seemingly as full of prohibitions as is that of the present systems of town government. "Division between capital and labor cannot exist." But as capital is merely compressed labor, and labor potential capital, each does exist even if called by other names or no names. It is the excessive power of either which causes dissensions. "Competition is impossible under the guild system." What becomes of the survival of the fittest which is a fundamental law of the universe? Even one star differeth from another in glory. It is interesting to see that the entire tendency of the world is towards co-operation and the amalgamation of small units into large correlations. But "Walled Towns" advocates free-will and proceeds to prohibit it all along the line. It is a vexed and mixed question. The art museum is considered "a contradiction of terms." Call them what you please, collections of works of art are of great value and if only for comparative purposes. Also it is difficult to conceive of anything but local art occurring in the churches and public buildings of the "Walled Towns." So many people have an obsession that selfish motives govern men's actions today more than has been the case in some Utopian past. All the evidence proves the contrary. The very frequency of idealistic propaganda, even when it is irrational, testifies to the modern interest in ideals.



FOUNTAIN IN THE GARDEN

RESIDENCE OF CHARLES M. MACNEILL, ESQ., 15 EAST 91ST STREET, NEW YORK

FREDERICK STERNER, ARCHITECT



DETAIL IN THE SALON

RESIDENCE OF CHARLES M. MACNEILL, ESQ., 15 EAST 91ST STREET, NEW YORK

FREDERICK STERNER, ARCHITECT



FIRE-PLACE IN THE DINING ROOM
RESIDENCE OF CHARLES M. MACNEILL, ESQ., 15 EAST 91ST STREET, NEW YORK
FREDERICK STERNER, ARCHITECT



MAIN STAIRCASE

RESIDENCE OF CHARLES M. MACNEILL, ESQ., 15 EAST 91ST STREET, NEW YORK

FREDERICK STERNER, ARCHITECT



RECEPTION ROOM



DINING ROOM

RESIDENCE OF CHARLES M. MACNEILL, ESQ., 15 EAST 91ST STREET, NEW YORK

FREDERICK STERNER, ARCHITECT



MAIN ENTRANCE

RESIDENCE OF CHARLES M. MACNEILL, ESQ., 15 EAST 91ST STREET, NEW YORK

FREDERICK STERNER, ARCHITECT



TRELLIS AT END OF GARDEN



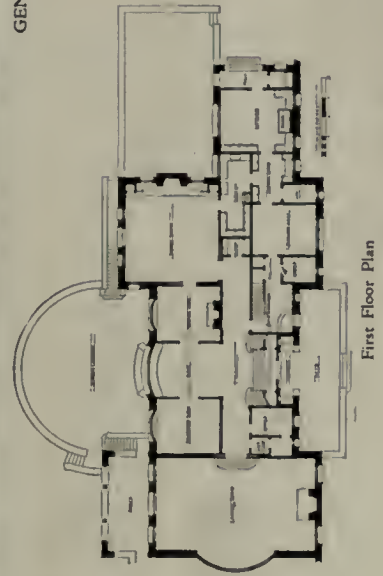
TERRACE IN THE GARDEN

HOUSE FOR DR. W. S. RAINSFORD, RIDGEFIELD, CONN.

GROSVENOR ATTERBURY, ARCHITECT



GENERAL VIEW



First Floor Plan



Second Floor Plan

HOUSE FOR DR. W. S. RAINSFORD, RIDGEFIELD, CONN.

GROSVENOR ATTERBURY, ARCHITECT



VIEW IN THE HALL



DETAIL OF STAIRWAY

HOUSE FOR DR. W. S. RAINSFORD, RIDGEFIELD, CONN.

GROSVENOR ATTERBURY, ARCHITECT

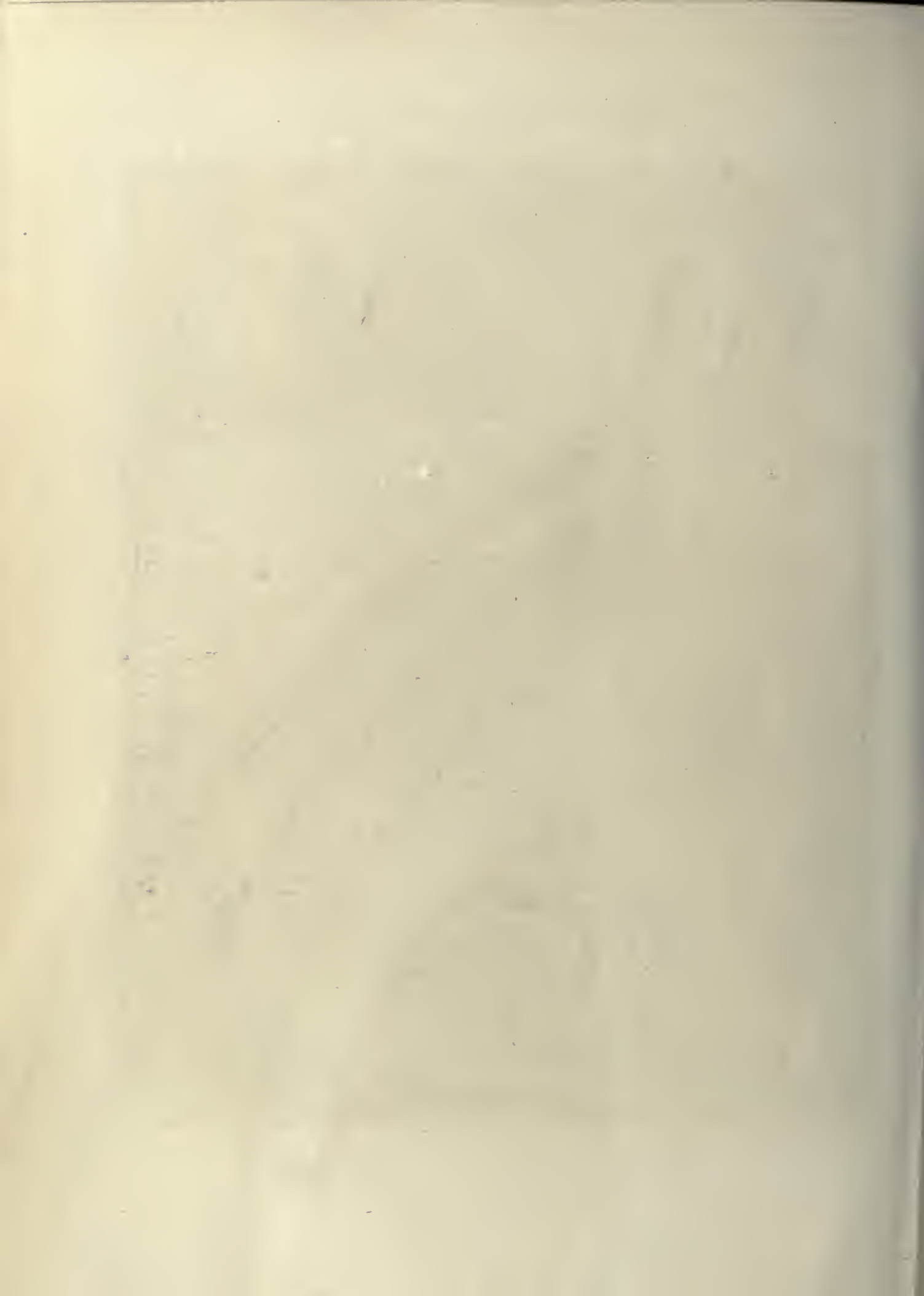


GATE BETWEEN CLAFLIN HALL AND TOWER COURT
DORMITORIES FOR WELLESLEY COLLEGE, WELLESLEY, MASS.
COOLIDGE & CARLSON, ARCHITECTS



REAR VIEW OF CLAFLIN HALL, SHOWING SERVICE ENTRANCE
DORMITORIES FOR WELLESLEY COLLEGE, WELLESLEY, MASS.

COOLIDGE & CARLSON, ARCHITECTS





PORTE COCHÈRE AND FOUNTAIN, TOWER COURT
DORMITORIES FOR WELLESLEY COLLEGE, WELLESLEY, MASS.
COOLIDGE & CARLSON, ARCHITECTS





MEMORIAL TABLET TO ELLEN STEBBINS JAMES, IN THE LIVING ROOM, TOWER COURT
DORMITORIES FOR WELLESLEY COLLEGE, WELLESLEY, MASS.

COOLIDGE & CARLSON, ARCHITECTS



STAIRWAY IN SHOW ROOM
BUILDING FOR THE FORD MOTOR CO., 1710 BROADWAY, NEW YORK
ALBERT KAHN, ARCHITECT



THE RECEPTION ROOM
BUILDING FOR THE FORD MOTOR CO., 1710 BROADWAY, NEW YORK
ALBERT KAHN, ARCHITECT



GENERAL VIEW OF THE SHOW ROOM
BUILDING FOR THE FORD MOTOR CO., 1710 BROADWAY, NEW YORK
ALBERT KAHN, ARCHITECT



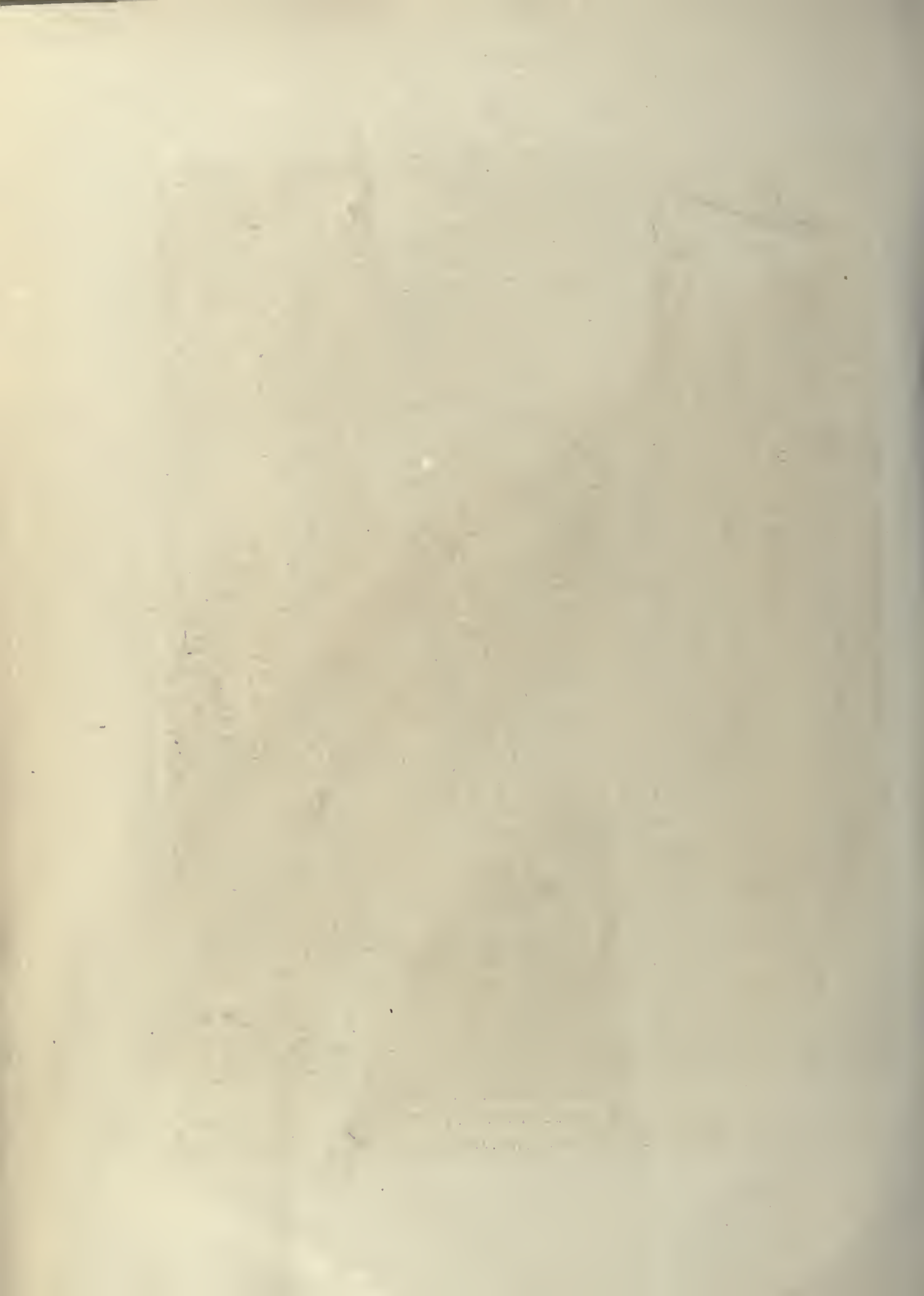
VIEW ON THE TERRACE
HOUSE AT RYE, N. Y.
HOBART B. UPJOHN, ARCHITECT



VIEW FROM THE DRIVE
HOUSE AT RYE, N. Y.
HOBART B. UPJOHN, ARCHITECT



THE TERRACE FRONT
HOUSE AT RYE, N. Y.
HOBART B. UPJOHN, ARCHITECT





THE ENTRANCE FRONT
HOUSE AT RYE, N. Y.
HOBART B. UPJOHN, ARCHITECT



THE LIBRARY WING
HOUSE AT RYE, N. Y.
HOBART B. UPJOHN, ARCHITECT



LIVING ROOM

HOUSE AT RYE, N. Y.

HOBART B. UPJOHN, ARCHITECT



VIEW THROUGH HALL TO DINING ROOM

HOUSE AT RYE, N. Y.

HOBART B. UPJOHN, ARCHITECT



GENERAL VIEW

THE CHURCH IN THE GARDENS, FOREST HILLS, N. Y.

GROSVENOR ATTERBURY, ARCHITECT



VIEW FROM THE SOUTHWEST

THE CHURCH IN THE GARDENS, FOREST HILLS, N. Y.

GROSVENOR ATTERBURY, ARCHITECT



DETAIL OF THE EAST END
THE CHURCH IN THE GARDENS, FOREST HILLS, N. Y.
GROSVENOR ATTERBURY, ARCHITECT



GENERAL VIEW FROM THE SOUTHWEST
RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.
BRUST & PHILIPP, ARCHITECTS



VIEW FROM THE NORTHEAST
RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.
BRUST & PHILIPP, ARCHITECTS



THE LIVING ROOM

RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.

BRUST & PHILIPP, ARCHITECTS





THE HALL ON THE SECOND FLOOR
RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.
BRUST & PHILIPP, ARCHITECTS



VIEW IN SUN PORCH



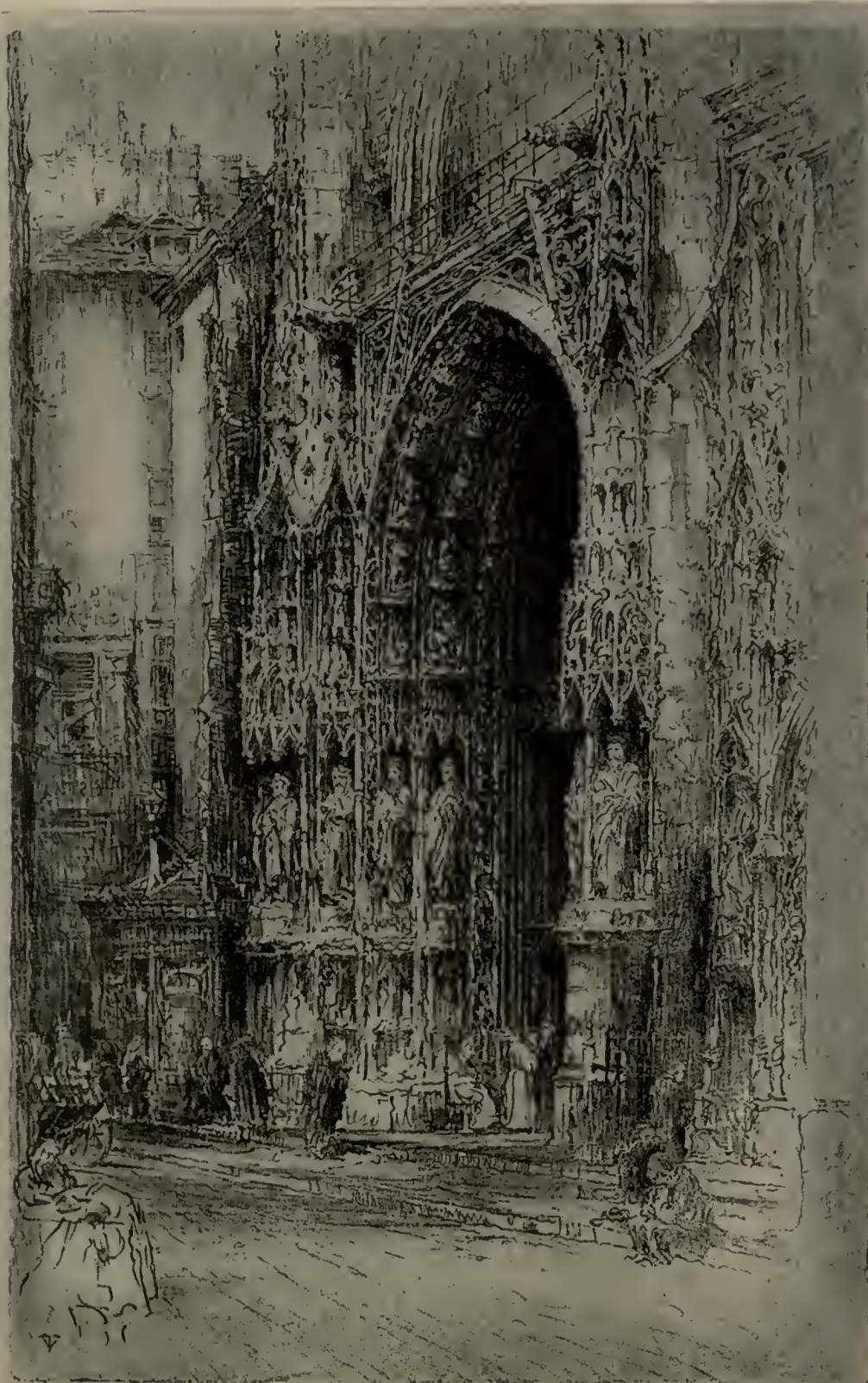
VIEW IN DINING ROOM

RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.

BRUST & PHILIPP, ARCHITECTS



VIEW OF THE LIVING ROOM FROM THE SUN PORCH
RESIDENCE OF A. F. GALLUN, ESQ., MILWAUKEE, WIS.
BRUST & PHILIPP, ARCHITECTS

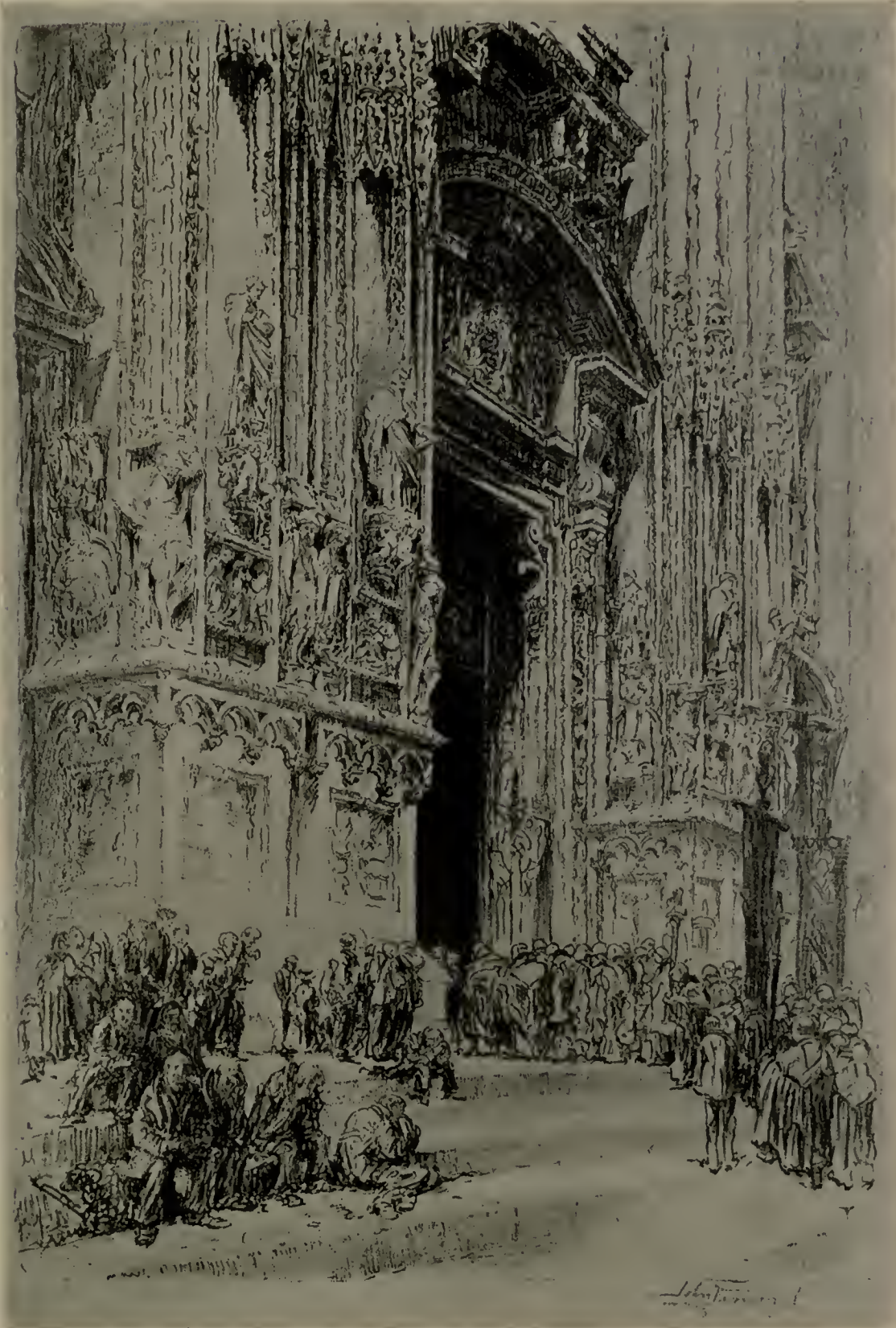


PORTAL OF THE CHURCH OF SAINT MERRI, PARIS

FROM A DRAWING ON STONE BY JOHN VINCENT



FACADE OF RHEIMS CATHEDRAL
FROM A DRAWING ON STONE BY JOHN VINCENT



PORTAL OF MILAN CATHEDRAL
FROM A DRAWING ON STONE BY JOHN VINCENT





George B. Post & Sons, Architects

THE EUCLID BUILDING, CLEVELAND, O.

FROM A DRAWING BY JOHN VINCENT



Warren & Wetmore, Architects

PROPOSED NEW YORK CITY COLOSSEUM

FROM A DRAWING BY JOHN VINCENT



Warren & Wetmore, Architects

DESIGN FOR A CHURCH

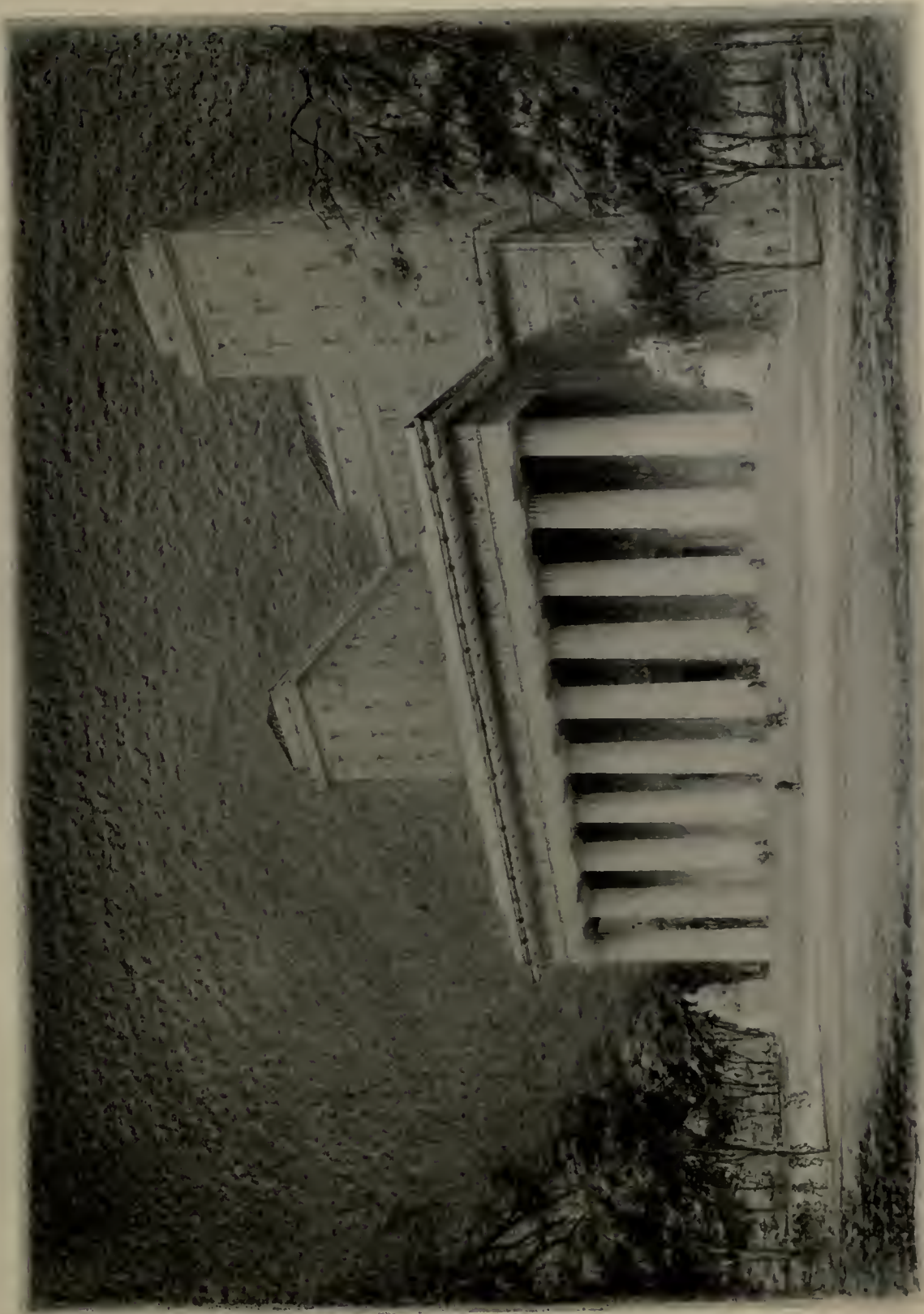
FROM A DRAWING BY JOHN VINCENT



H. B. Upholt
Hobart B. Upholt, Architect

THE GRAHAM MEMORIAL BUILDING, UNIVERSITY OF NORTH CAROLINA

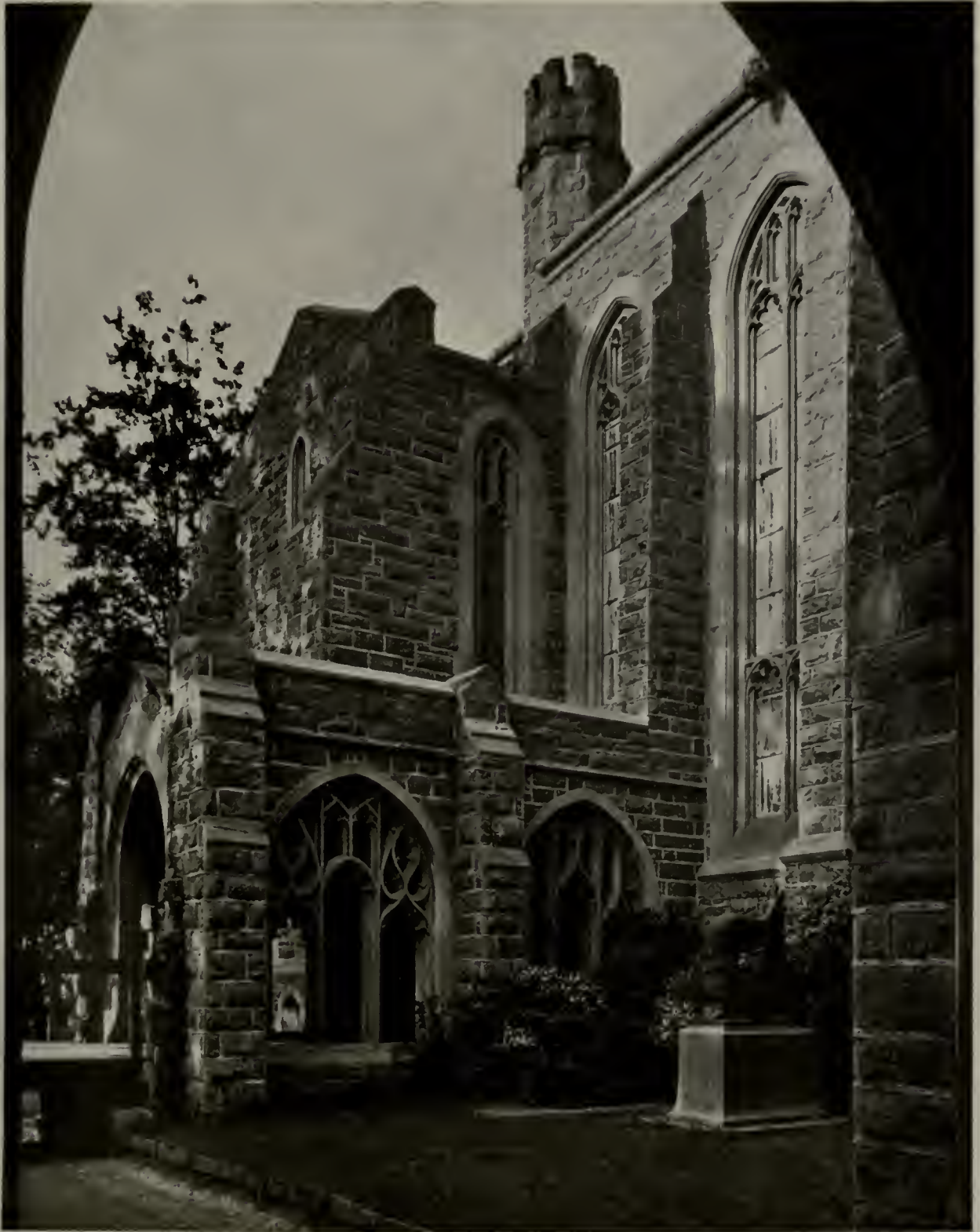
FROM A DRAWING BY JOHN VINCENT



Warren & Wetmore, Architects

PROPOSED MEMORIAL FOR THE SEVENTY-SEVENTH DIVISION A. E. F., NEW YORK

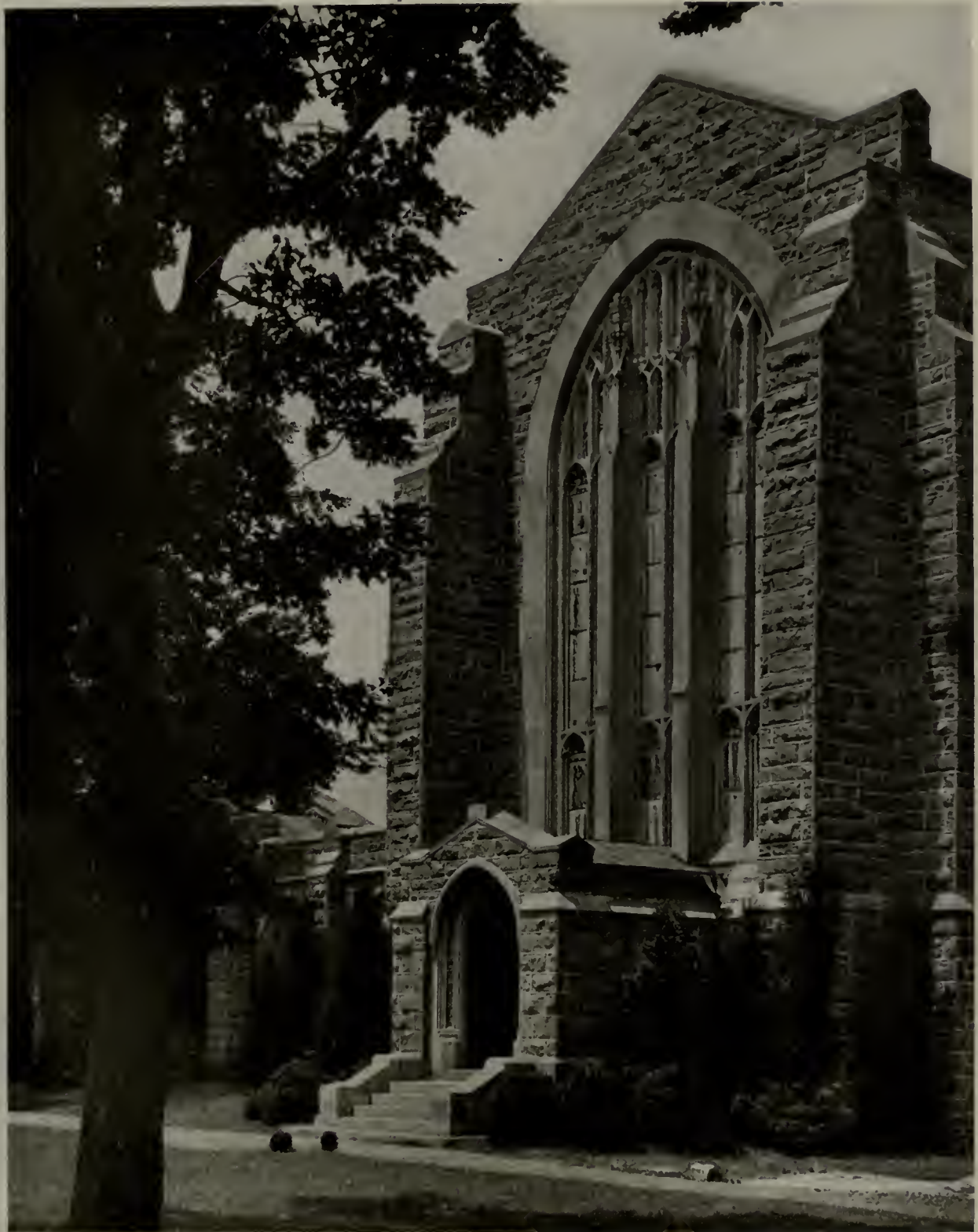
FROM A DRAWING BY JOHN VINCENT



A PORTION OF THE CHAPEL WITH THE BRONZE FIGURE "SACRIFICE" AT THE RIGHT
THE WASHINGTON MEMORIAL CHAPEL, VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS

[The main body of the page contains extremely faint and illegible text, likely bleed-through from the reverse side of the document. The text is too light to transcribe accurately.]



ENTRANCE FRONT

THE WASHINGTON MEMORIAL CHAPEL, VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS





INTERIOR

THE WASHINGTON MEMORIAL CHAPEL, VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS



CHOIR

THE WASHINGTON MEMORIAL CHAPEL, VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS





DETAIL OF CHOIR

THE WASHINGTON MEMORIAL CHAPEL, VALLEY FORGE, PA.

ZANTZINGER, BORIE & MEDARY, ARCHITECTS

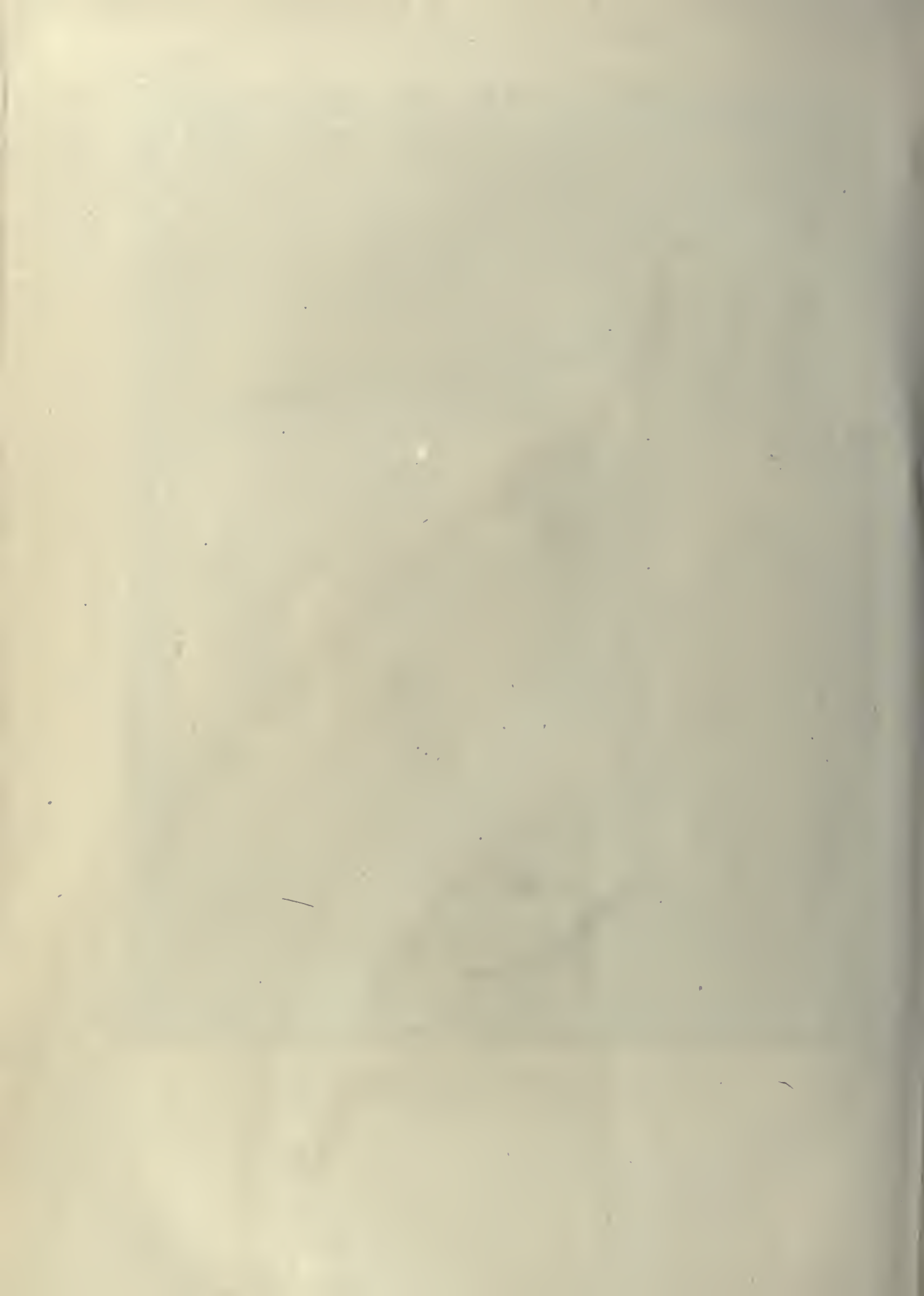




GENERAL VIEW

BUILDING FOR THE TRENTON BANKING CO., TRENTON, N. J.

DENNISON & HIRONS, ARCHITECTS





BANKING ROOM

BUILDING FOR THE TRENTON BANKING CO., TRENTON, N. J.

DENNISON & HIRONS, ARCHITECTS





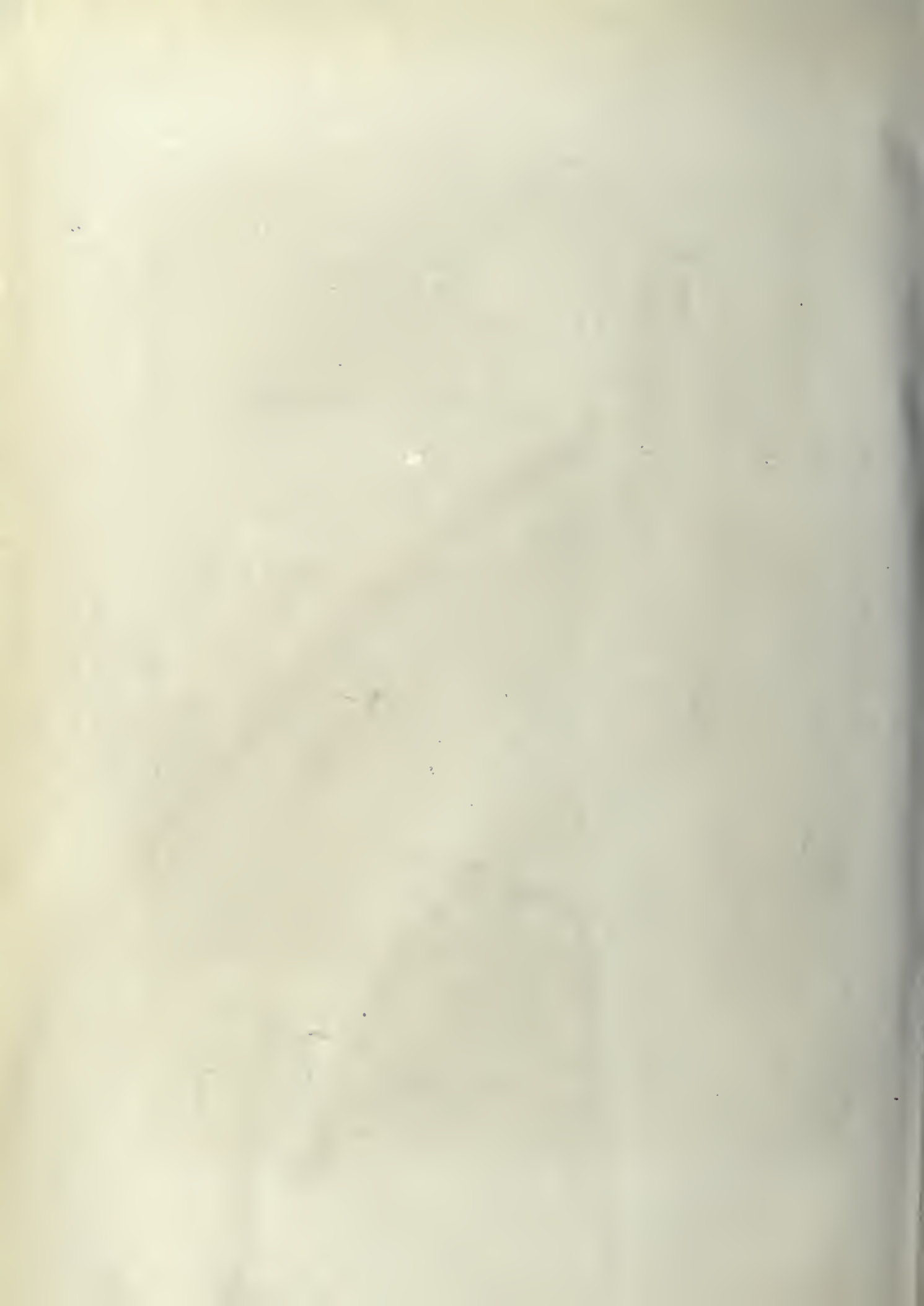
BOARD-ROOM

BUILDING FOR THE TRENTON BANKING CO., TRENTON, N. J.

DENNISON & HIRONS, ARCHITECTS



DETAIL OF ENTRANCE, NORTH FRONT
HOUSE FOR J. A. BURDEN, ESQ., SYOSSET, L. I.
DELANO & ALDRICH, ARCHITECTS





LOGGIA

HOUSE FOR J. A. BURDEN, ESQ., SYOSSET, L. I.

DELANO & ALDRICH, ARCHITECTS



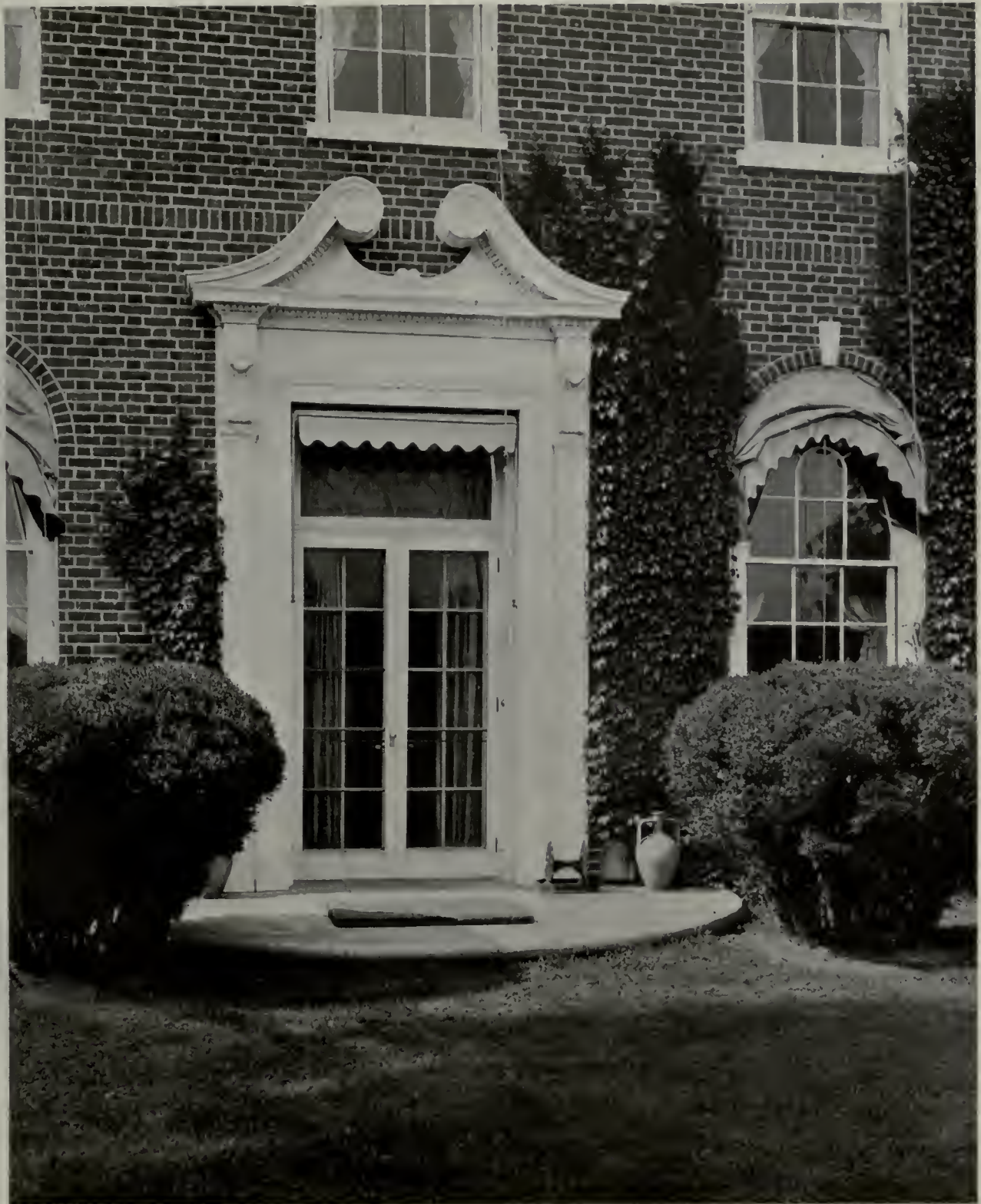


SOUTH FRONT

HOUSE FOR J. A. BURDEN, ESQ., SYOSSET, L. I.

DELANO & ALDRICH, ARCHITECTS





ENTRANCE, SOUTH FRONT

HOUSE FOR J. A. BURDEN, ESQ., SYOSSET, L. I.

DELANO & ALDRICH, ARCHITECTS



SUPERINTENDENT'S COTTAGE

FARM BUILDINGS FOR GLENN STEWART, ESQ., LOCUST VALLEY, L. I.

ALFRED HOPKINS, ARCHITECT, CHARLES S. KEEFE, ASSOCIATE



MILL ON THE FARM OF H. G. HASKELL, ESQ., COSSART, PA.
ALFRED HOPKINS, ARCHITECT, CHARLES S. KEEFE, ASSOCIATE



DETAIL

HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.

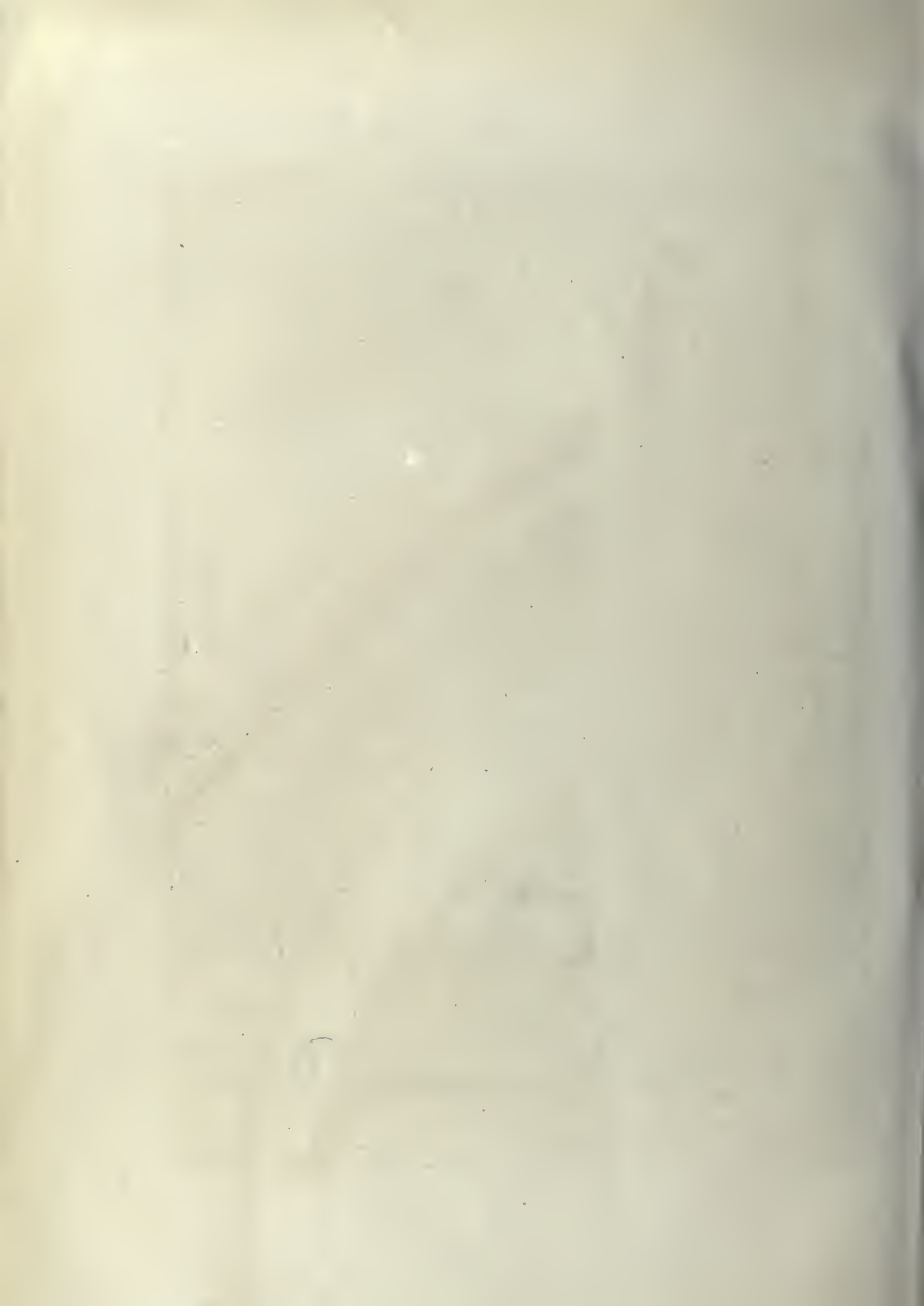
HISS & WEEKES, ARCHITECTS



DETAIL

HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.

HISS & WEEKES, ARCHITECTS





DINING ROOM

HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.
HISS & WEEKES, ARCHITECTS





WEST VERANDA

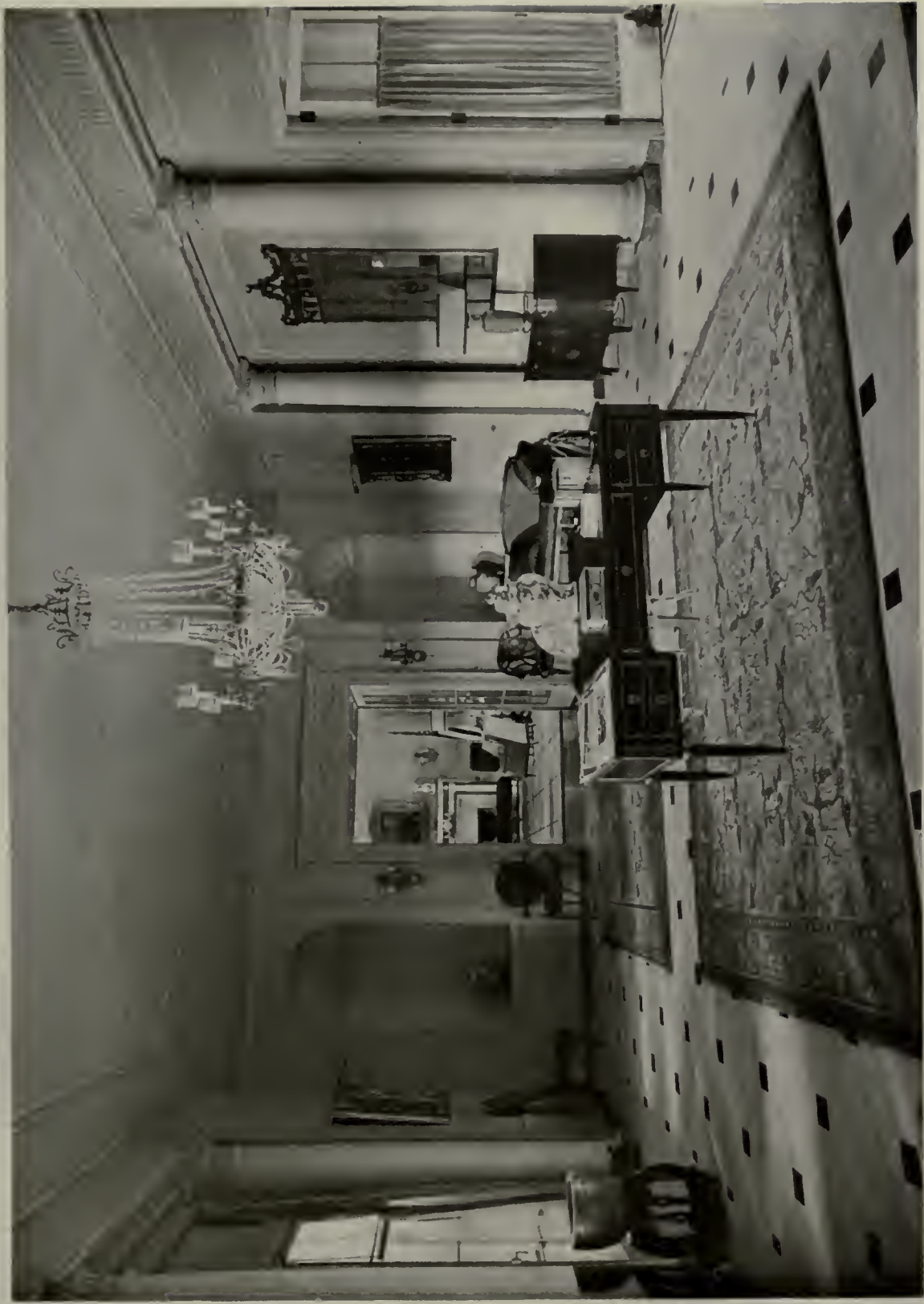
HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.

HISS & WEEKES, ARCHITECTS



VIEW THROUGH HALL FROM GALLERY
HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.

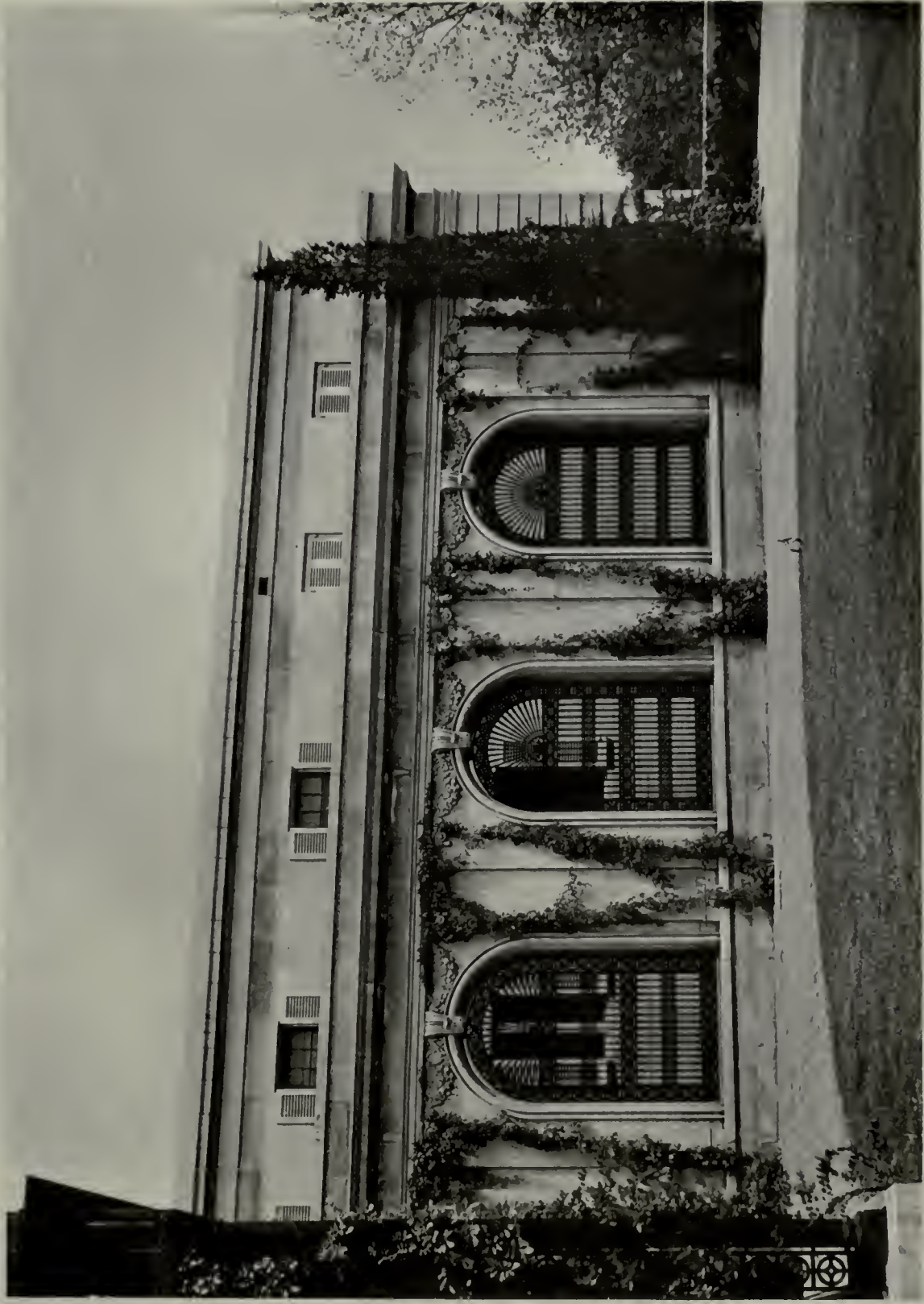
HISS & WEEKES, ARCHITECTS



GALLERY

HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.

HISS & WEEKES, ARCHITECTS



ARCHITECTURAL SCREEN IN FRONT OF KITCHEN WING
HOUSE FOR MR. B. F. JONES, JR., SEWICKLEY, PA.
HISS & WEEKES, ARCHITECTS



DINING ROOM

STUDIO OF PRINCE PIERRE TROUBETZKOY, NEW YORK



A PAINTER'S STUDIO IN THE HOTEL DES ARTISTES, NEW YORK

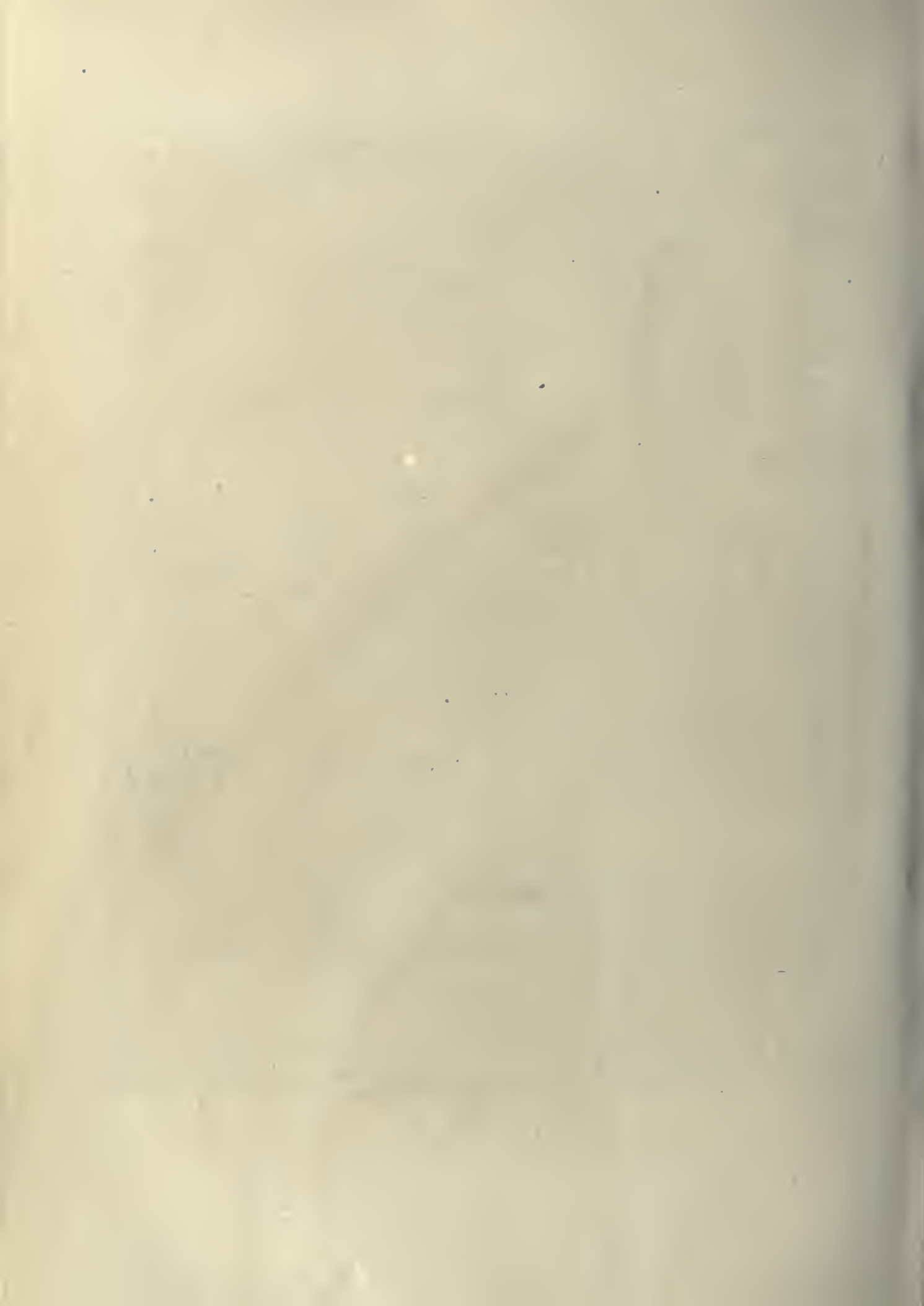




ENTRANCE GATE

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS





THE LIVING ROOM WING FROM THE SOUTH-EAST
RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS



JUNCTION OF LIVING ROOM WING AND MAIN BUILDING
RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS



THE MAIN ENTRANCE

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



THE BREAKFAST ROOM WING
RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS



THE LIBRARY WING

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



THE LIBRARY WING

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



THE MAIN HALL

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



DINING ROOM

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



LIBRARY

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



THE LIVING ROOM

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.
CROSS & CROSS, ARCHITECTS



FIREPLACE IN THE LIVING ROOM

RESIDENCE FOR CHARLES H. SABIN, ESQ., SOUTHAMPTON, L. I.

CROSS & CROSS, ARCHITECTS



THE UPPER LEVEL FROM THE WEST

FARM GROUP FOR CHARLES M. SCHWAB, ESQ., LORETTO, PA.

MURPHY & DANA, ARCHITECTS. CHARLES WELLFORD LEAVITT, LANDSCAPE ENGINEER



FARMER'S COTTAGE

FARM GROUP FOR CHARLES M. SCHWAB, ESQ., LORETTA, PA.

MURPHY & DANA, ARCHITECTS. CHARLES WELLFORD LEAVITT, LANDSCAPE ENGINEER



DETAIL

FARM GROUP FOR CHARLES M. SCHWAB, ESQ., LORETTO, PA.

MURPHY & DANA, ARCHITECTS. CHARLES WELLFORD LEAVITT, LANDSCAPE ENGINEER



WAGON SHED

FARM GROUP FOR CHARLES M. SCHWAB, ESQ., LORETTO, PA.

MURPHY & DANA, ARCHITECTS. CHARLES WELLFORD LEAVITT, LANDSCAPE ENGINEER



THE SPRING HOUSE

FARM GROUP FOR CHARLES M. SCHWAB, ESQ., LORETTO, PA.

MURPHY & DANA, ARCHITECTS. CHARLES WELLFORD LEAVITT, LANDSCAPE ENGINEER



ENTRANCE ARCHWAY FROM THE COURT
HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



VIEW ACROSS THE COURT
HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.
JAMES W. O'CONNOR, ARCHITECT



DETAIL OF RIDING ACADEMY
HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.
JAMES W. O'CONNOR, ARCHITECT



LIVING ROOM WING

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



WEST PORCH

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



DINING ROOM

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



ALCOVE OF DINING ROOM

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



ROOM IN OLD PORTION OF HOUSE (ROOM No. 4)
HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.
JAMES W. O'CONNOR, ARCHITECT



VIEW FROM SITTING ROOM INTO ROOM OVER ENTRANCE ARCHWAY, SECOND FLOOR

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



HALL ADJOINING ENTRANCE ARCHWAY

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



LIVING ROOM

HOUSE FOR W. R. GRACE, ESQ., WESTBURY, L. I.

JAMES W. O'CONNOR, ARCHITECT



DETAIL

A STUDIO IN THE HOTEL DES ARTISTES, NEW YORK CITY



DETAIL OF DOORS

A STUDIO IN THE HOTEL DES ARTISTES, NEW YORK CITY



ALCOVE AND BALCONY

A STUDIO IN THE HOTEL DES ARTISTES, NEW YORK CITY



GENERAL VIEW

A STUDIO IN THE HOTEL DES ARTISTES, NEW YORK CITY



FIREPLACE

A STUDIO IN THE HOTEL DES ARTISTES, NEW YORK CITY

THE ARCHITECTURAL REVIEW

PLATE IX, No. 1

OLD FRENCH CHURCHES, PLATE I



ST. ESTÉPHE, CHARENTE



CHURCH AT ST. OMER

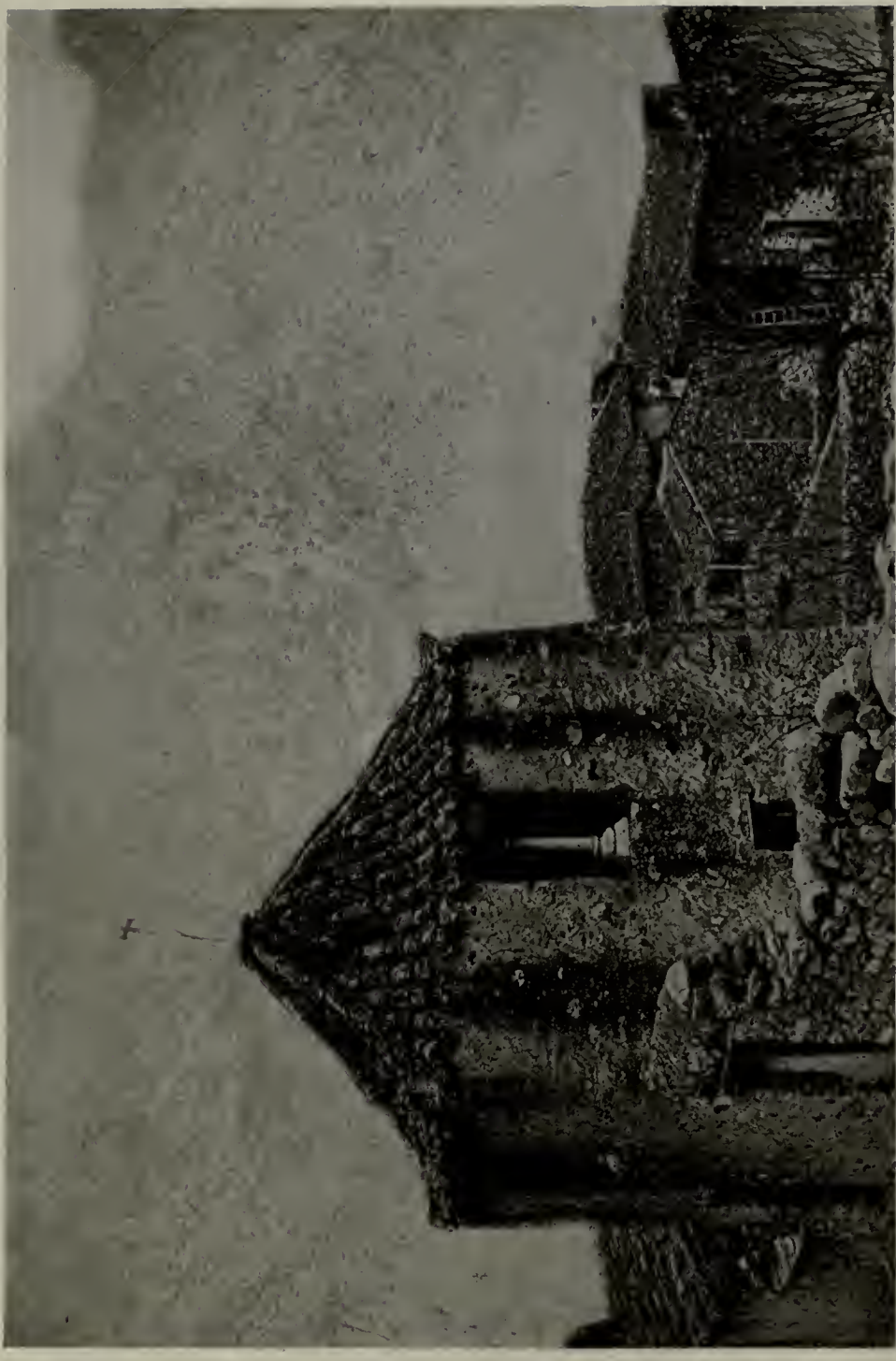


ST. MARTIN DE BOSCHERVILLE

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OLD FRENCH CHURCHES, PLATE IV



CHURCH AT CASTEIL (PYRENEES ORIENTALES)



CHAPEL APSE, USSÉ

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OLD FRENCH CHURCHES, PLATE VI

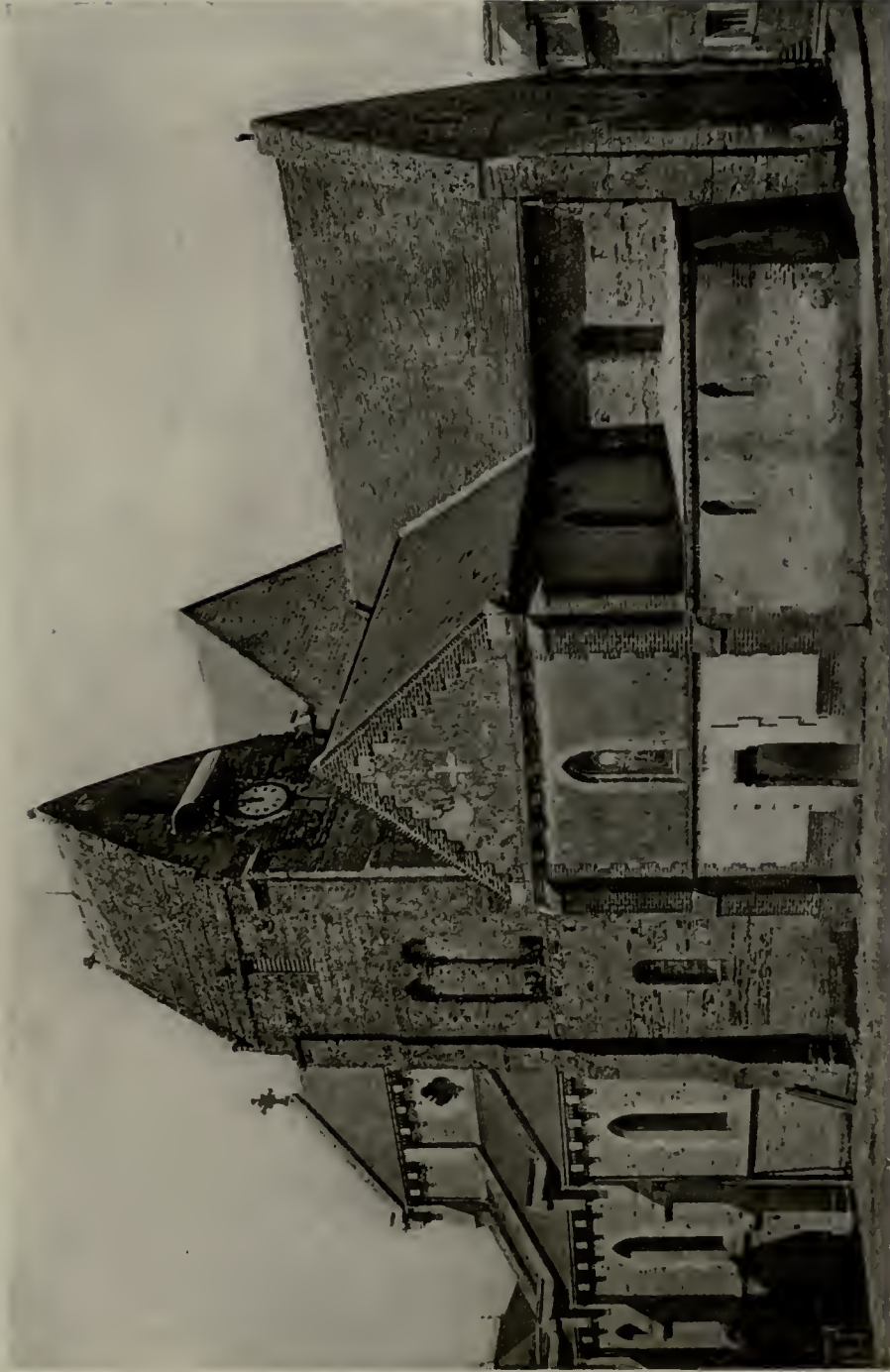


OLD CHURCH OF SAINT MARC, SOUVIGNY

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OLD FRENCH CHURCHES, PLATE VII



OLD CHURCH AT COMPIÈGNE



ABBEY AT FÉCAMP



USSÉ CHATEAU, WEST FACADE OF CHAPEL



PAROCHIAL CHURCH, ANET



CHURCH OF SAINT MARTIN, ARGENTAN



CHURCH AT RY, NORMANDY



INTERIOR OF CHURCH OF ST. MALO AT DINAN



CHURCH AT HONFLEUR

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OLD FRENCH CHURCHES, PLATE XV



CHURCH AT ST. WANDRILLE



CHURCH AT VILLERVILLE

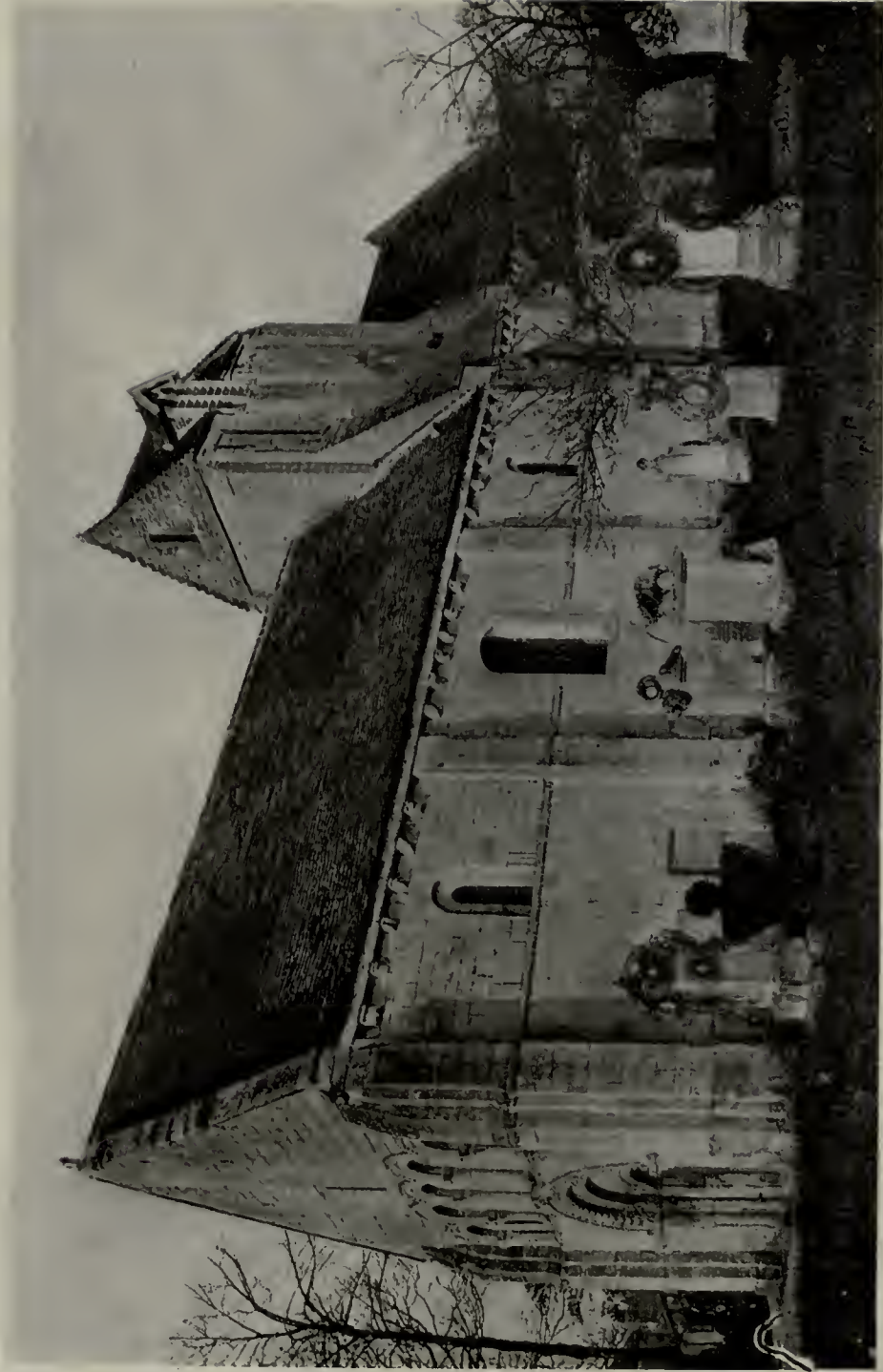


INTERIOR OF CHURCH AT CLÉRY

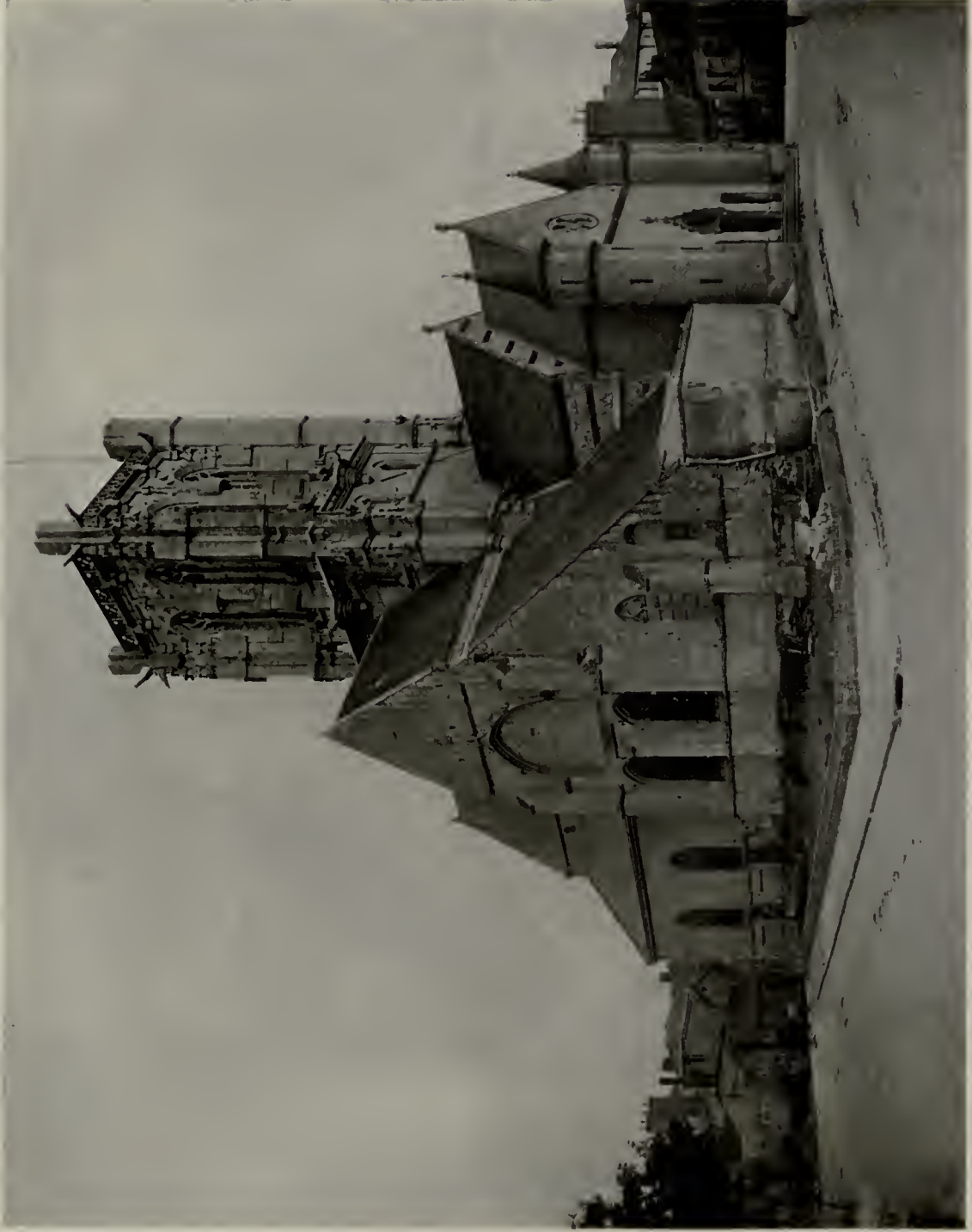




CHURCH AT CUNAUULT



CHURCH AT COLOMBEY-LES-BELLES



CHURCH AT FÉCAMP

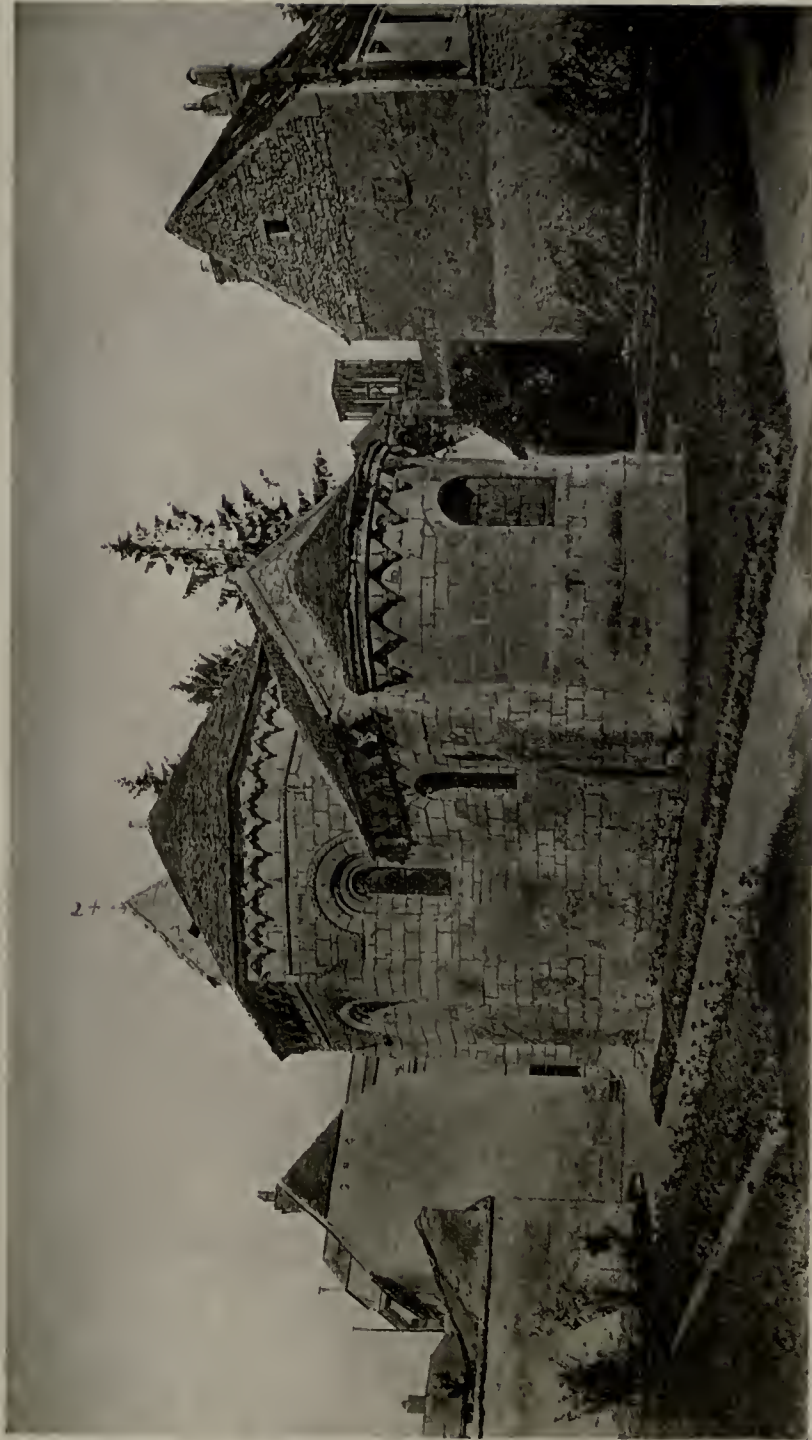


CHURCH AT ARGENTAN

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OLD FRENCH CHURCHES, PLATE XXII



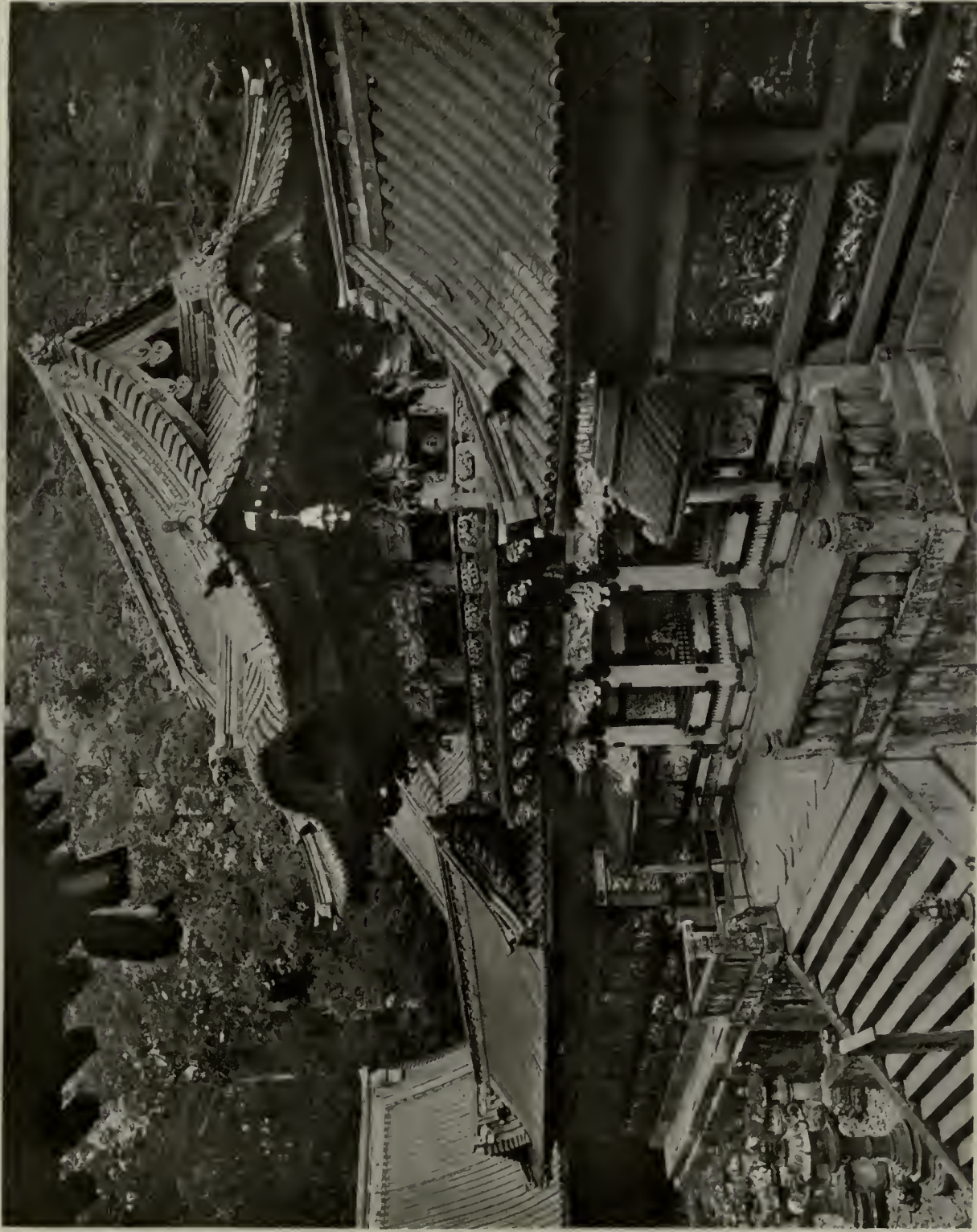
THE OLD CHAPEL OF THE TEMPLARS AT LAON



CHURCH AT LOCHES



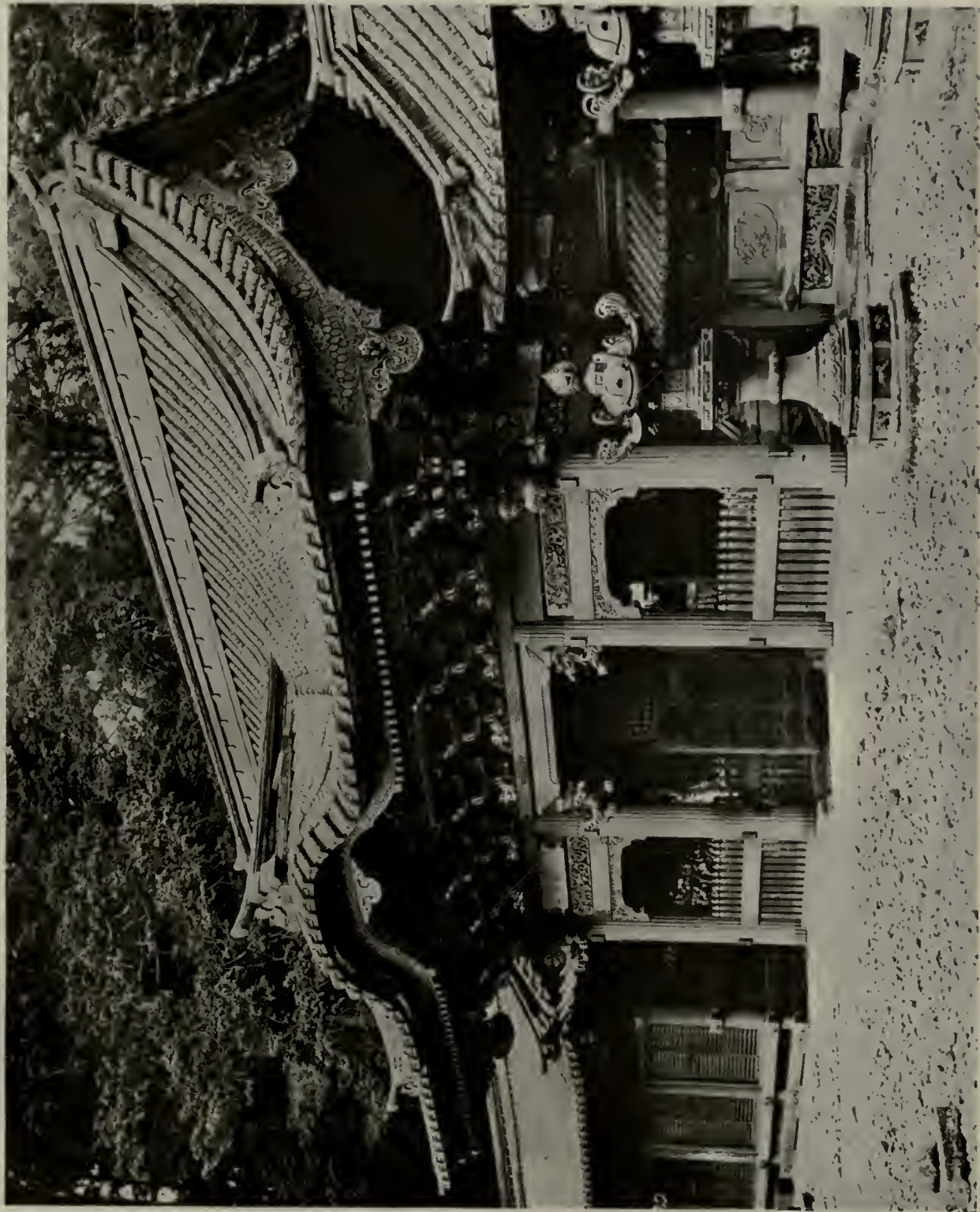
OAK SCREEN IN CHURCH AT LAMBADET



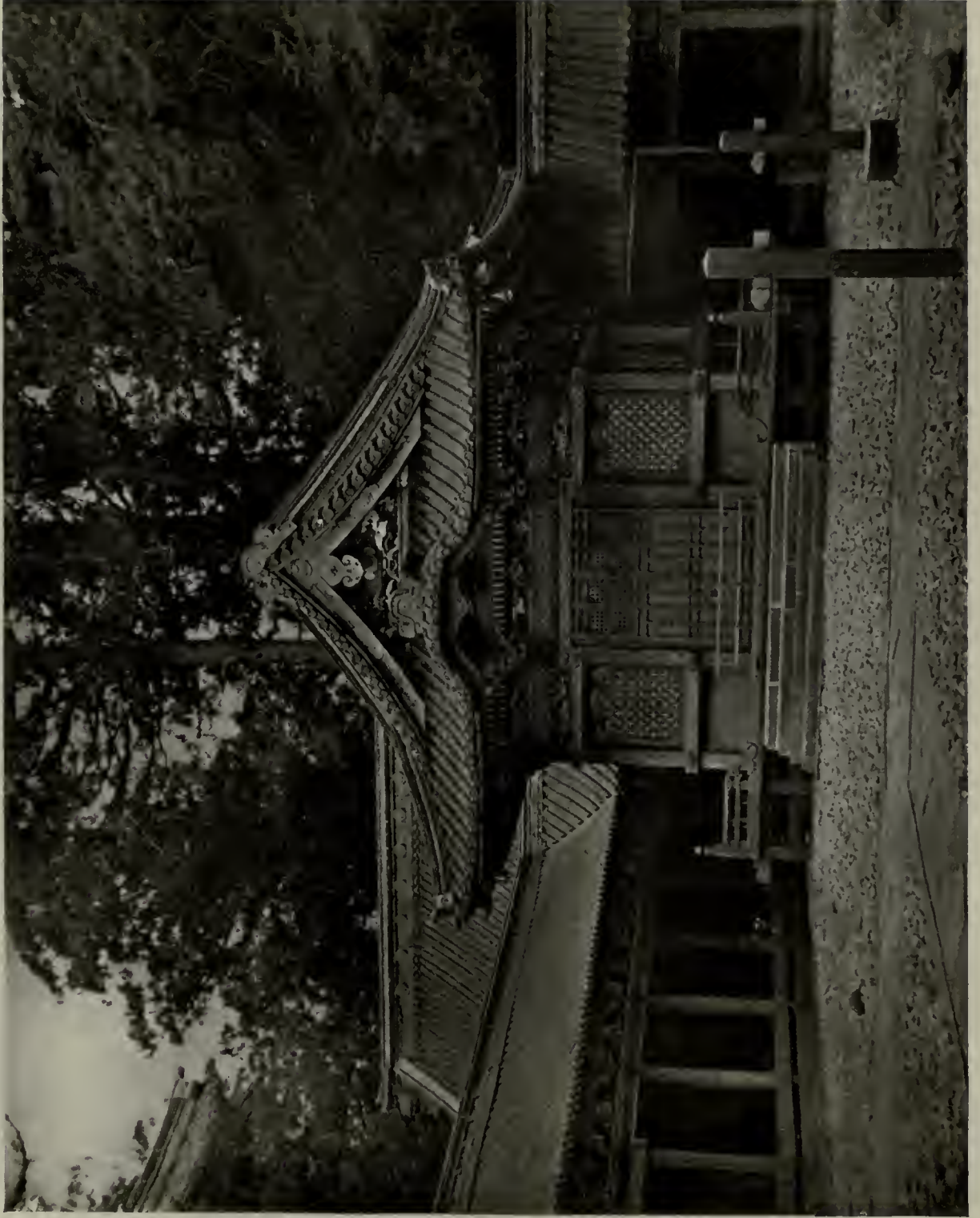
NIKKO TEMPLE



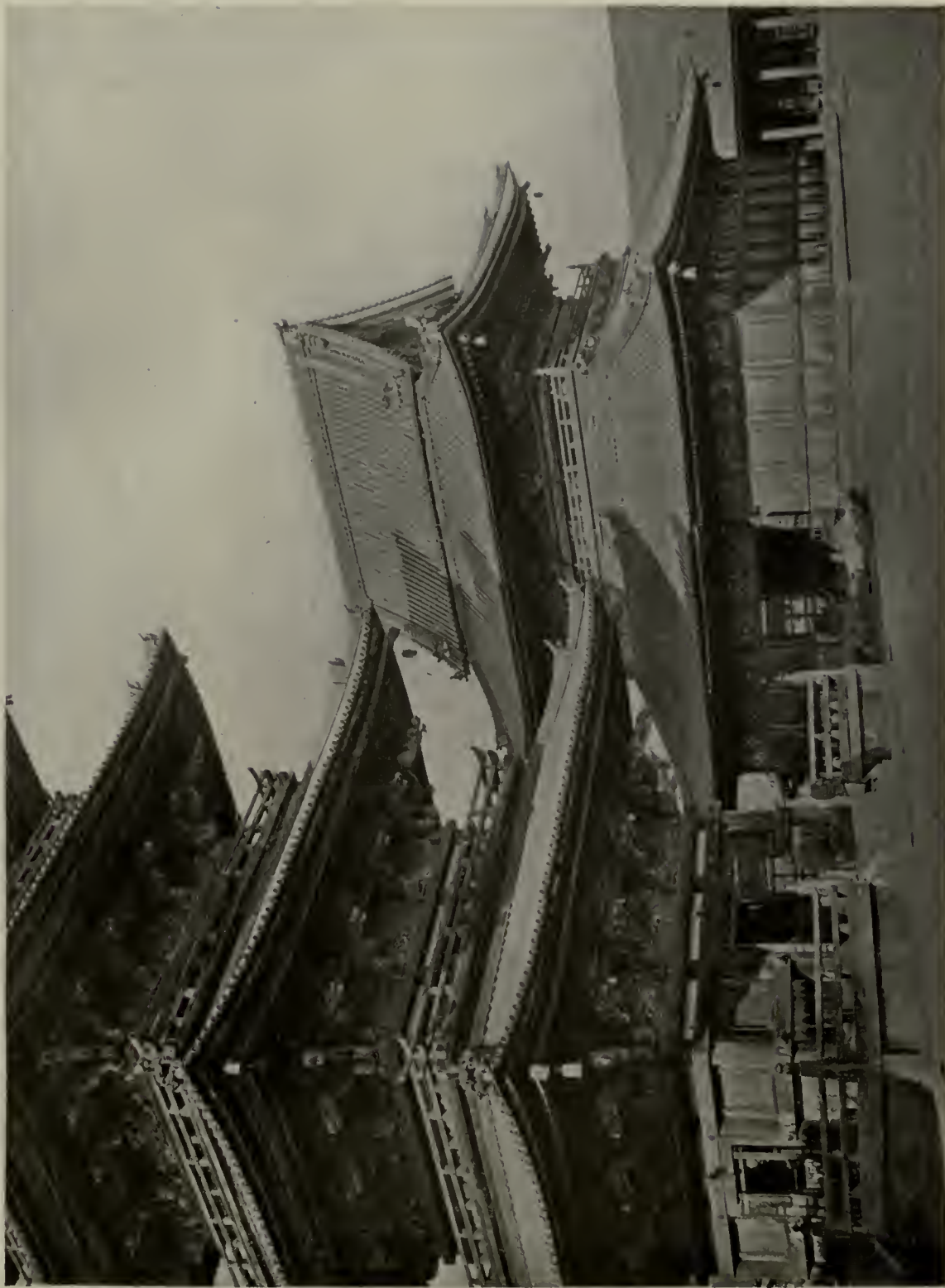
KENCHOJI TEMPLE, KAMAKURA



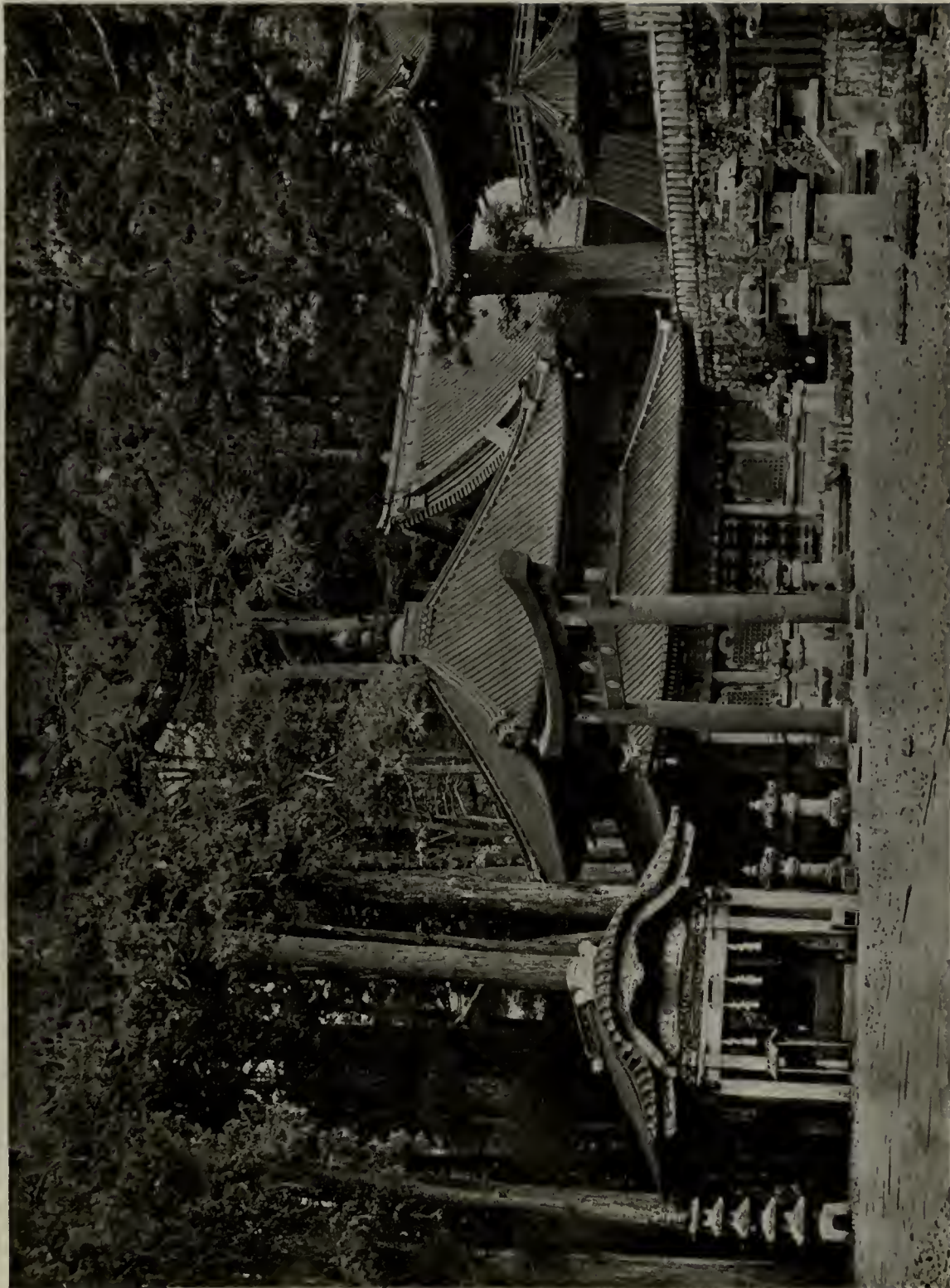
ZOJOJI TEMPLE



ZOJOJI TEMPLE



HORYUJI TEMPLE



NIKKO TEMPLE

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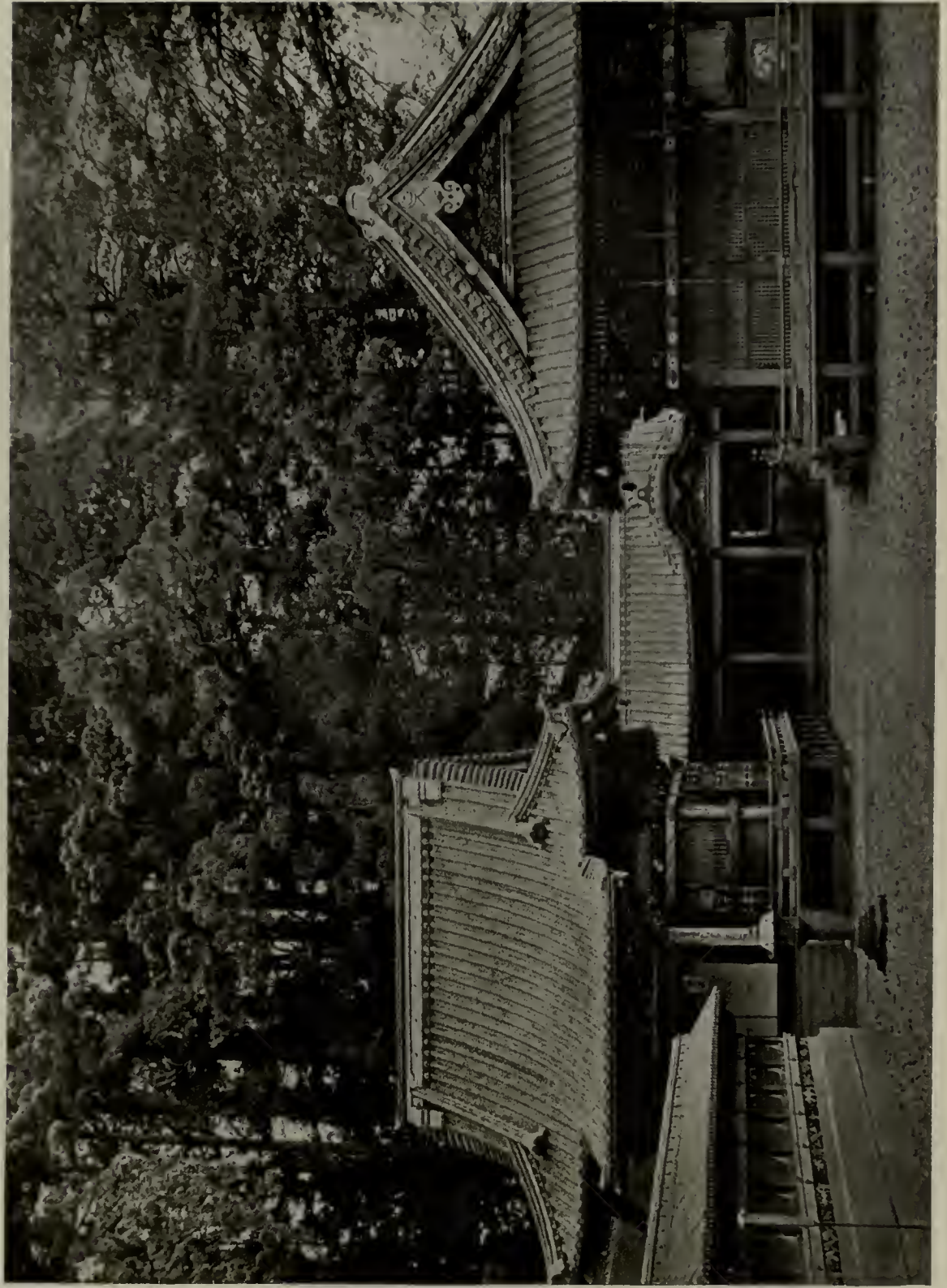
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TEMPLES OF JAPAN, PLATE VII



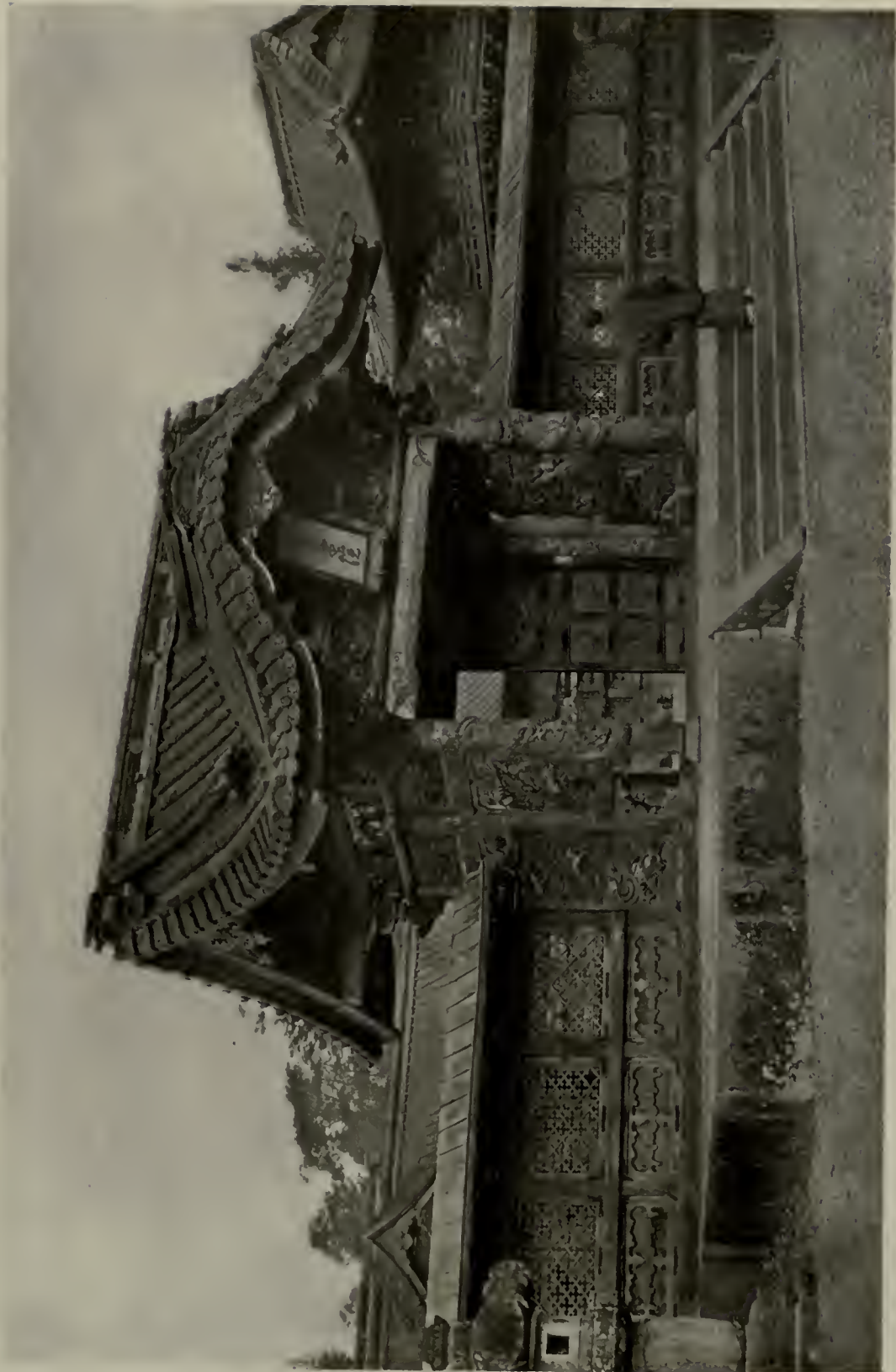
NIKKO TEMPLE



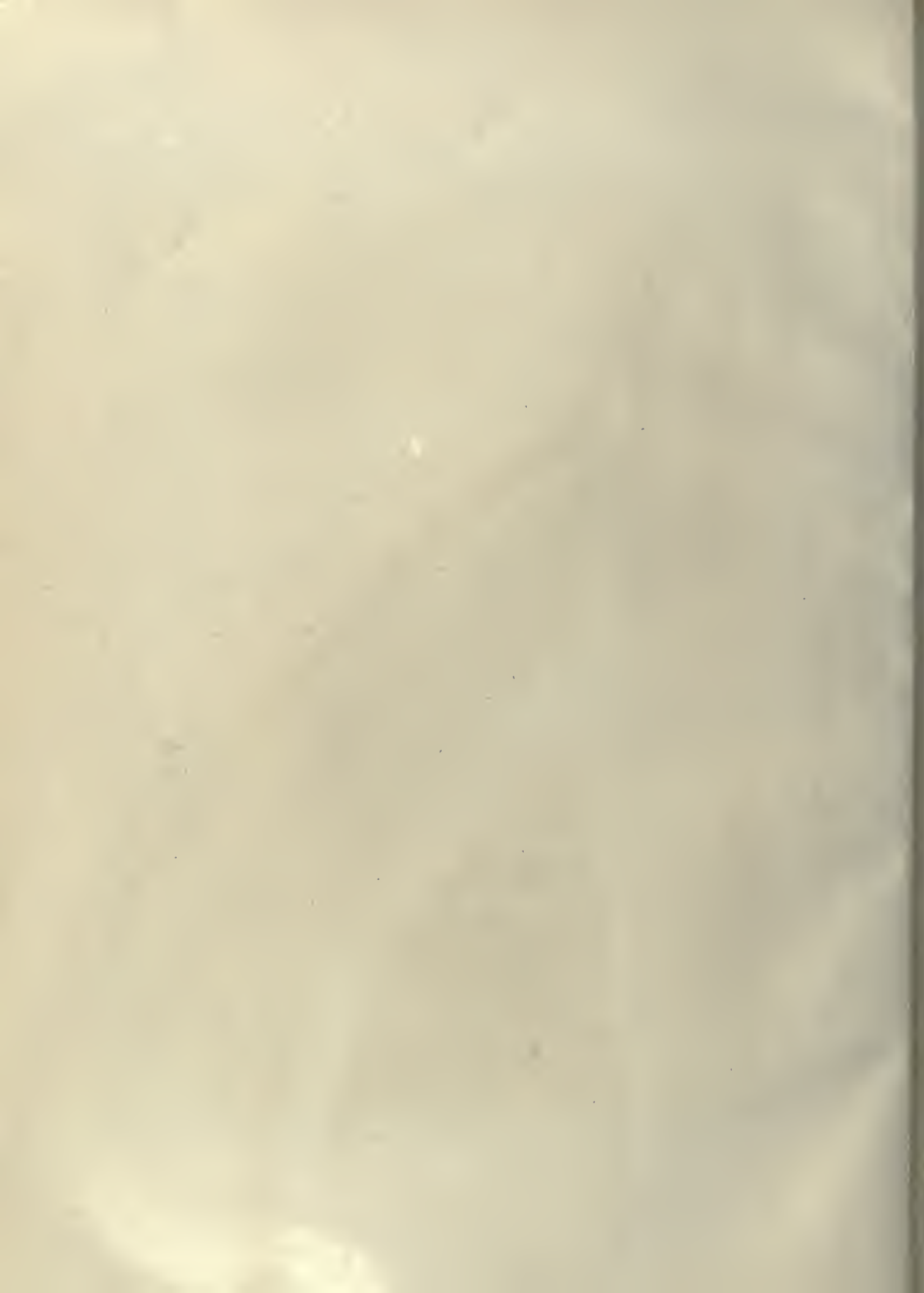


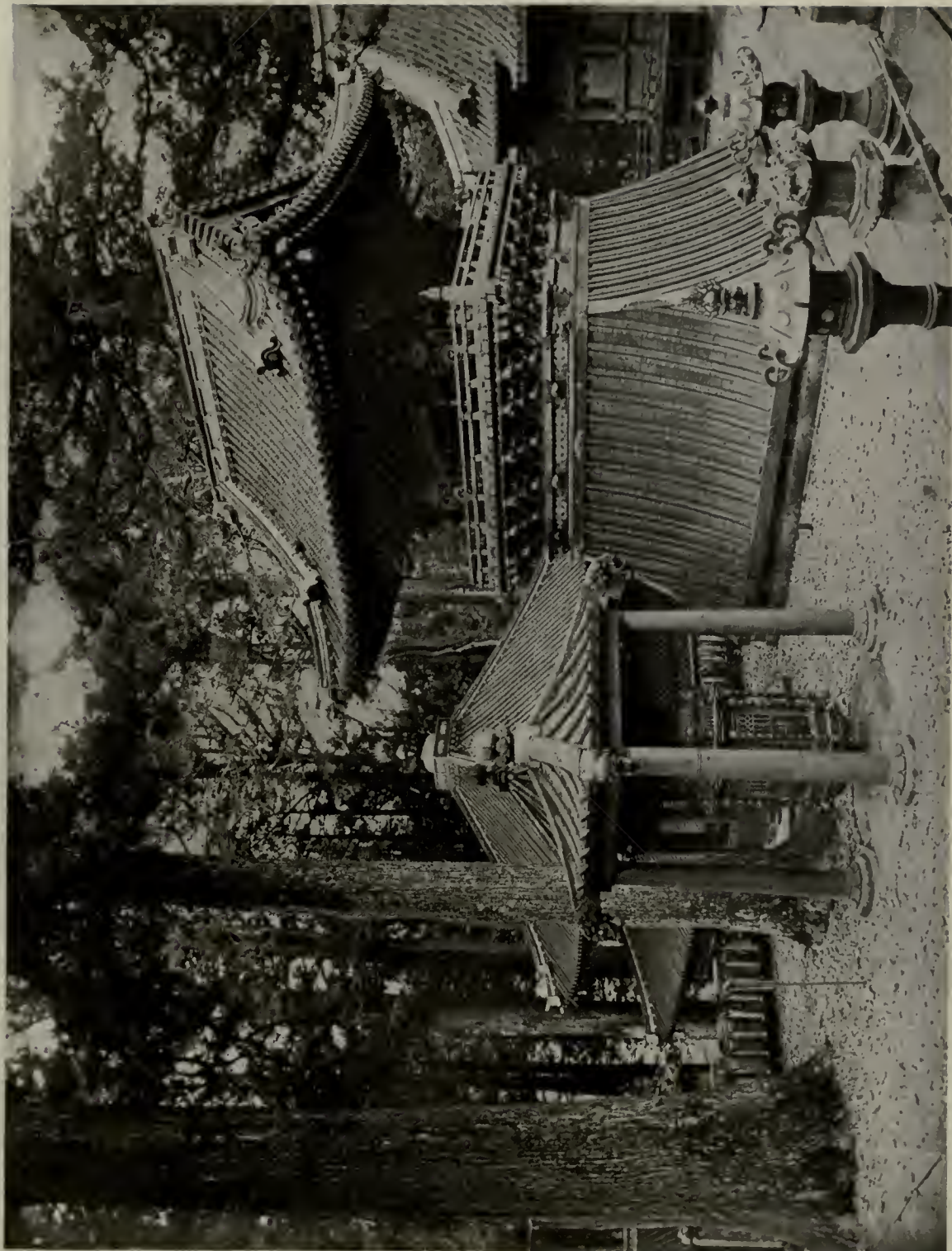
ZOJOJI TEMPLE





ZOJOJI TEMPLE





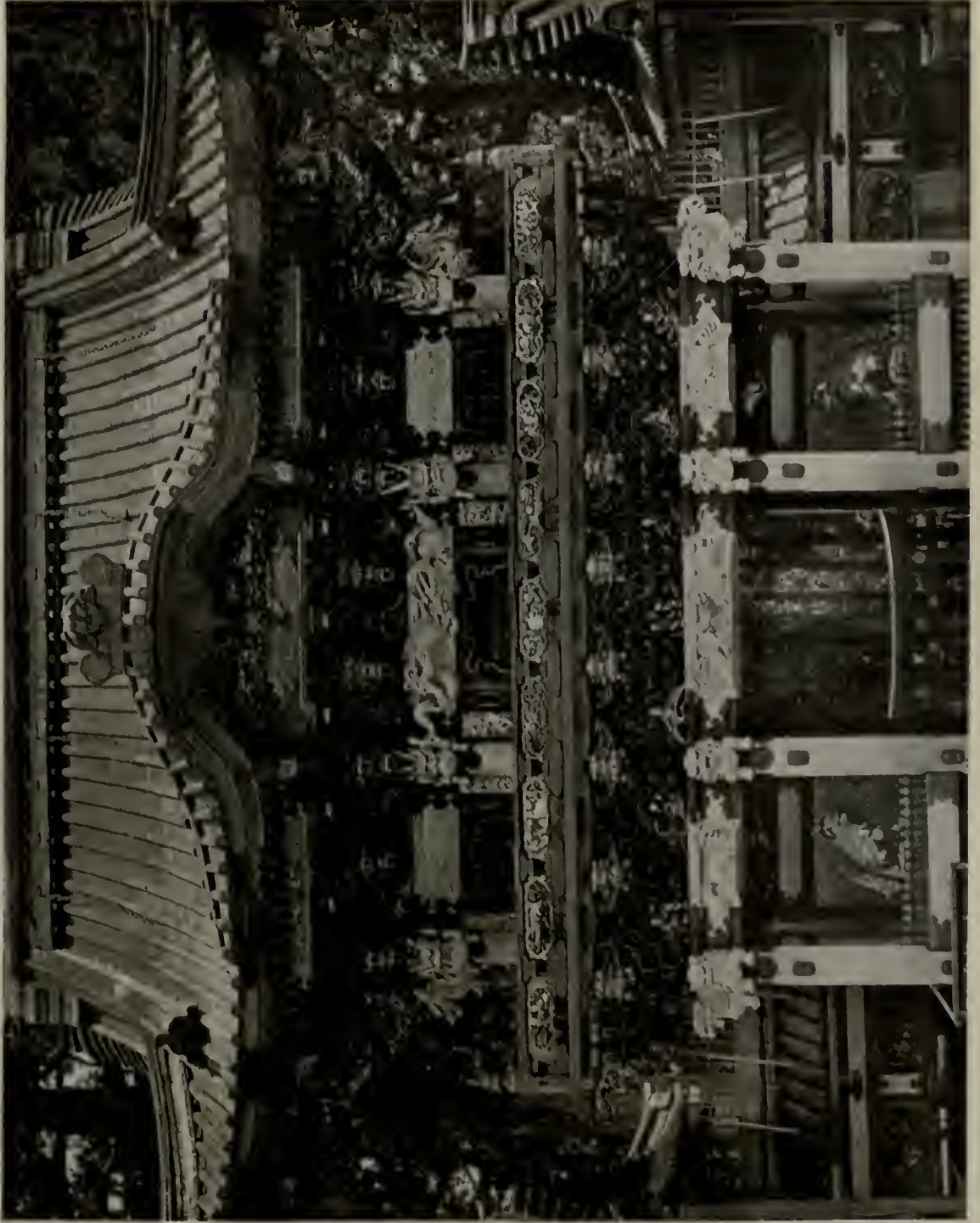
NIKKO TEMPLE



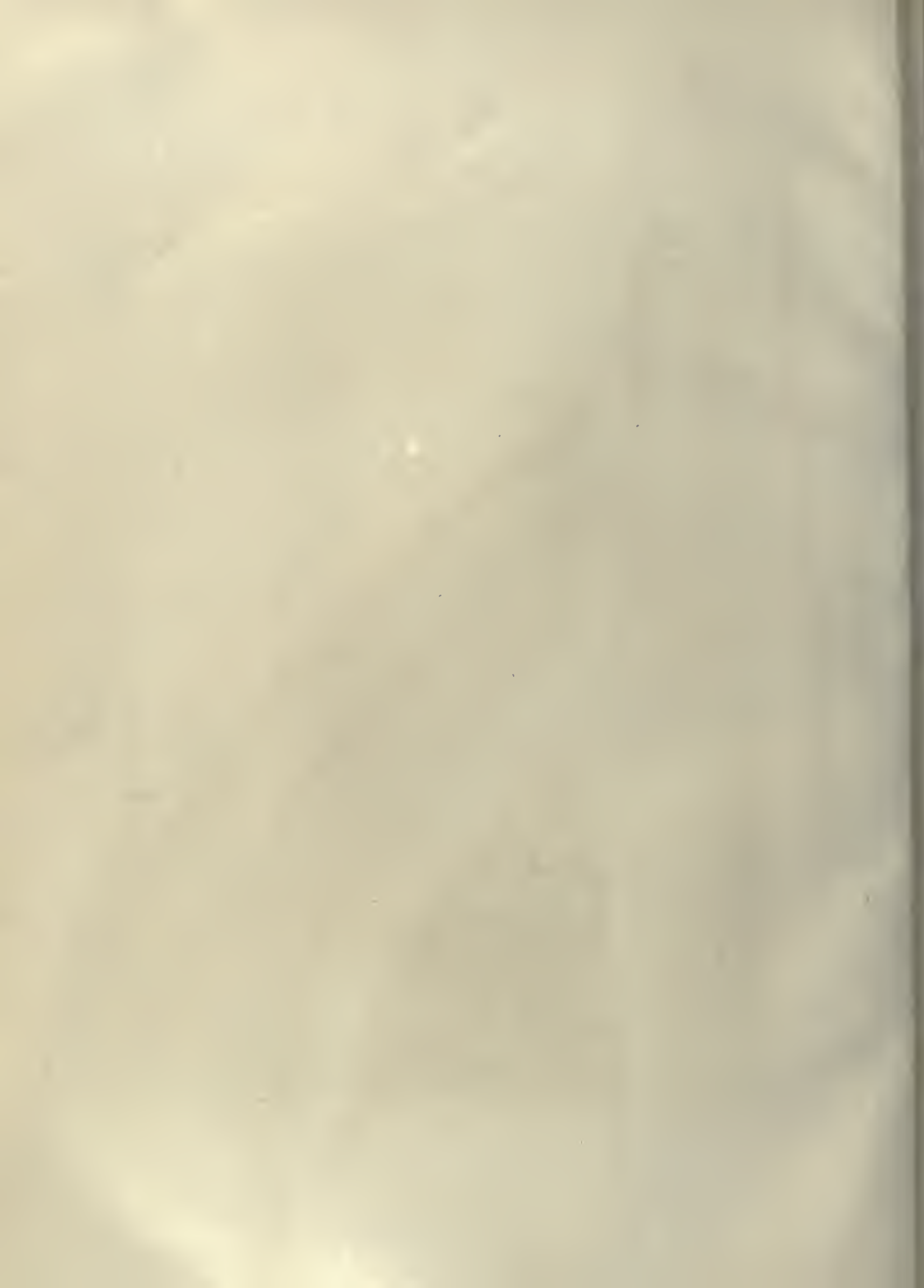
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TEMPLES OF JAPAN, PLATE XI

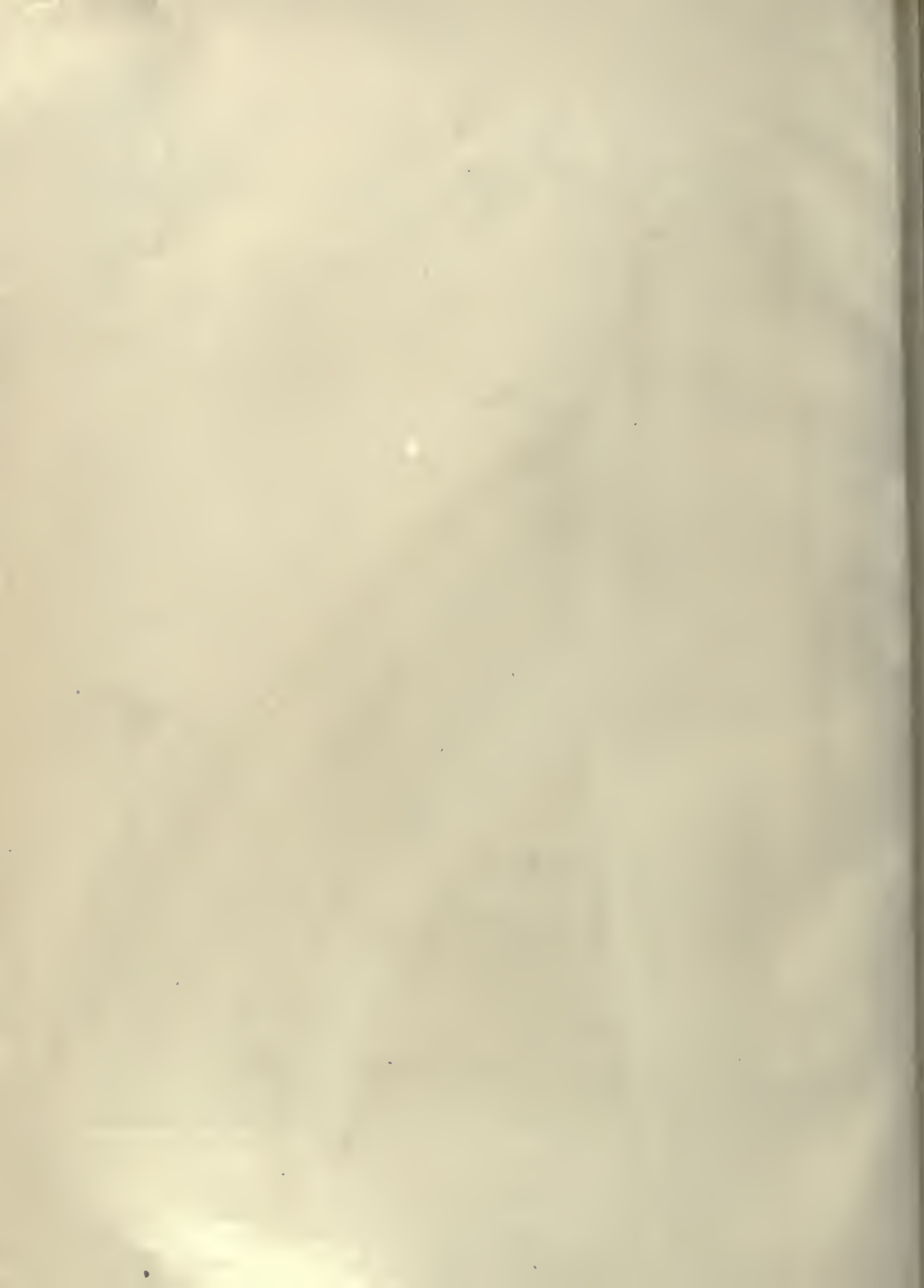


NIKKO TEMPLE





ZOJOJI TEMPLE



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