

THE AMERICAN ARCHITECT

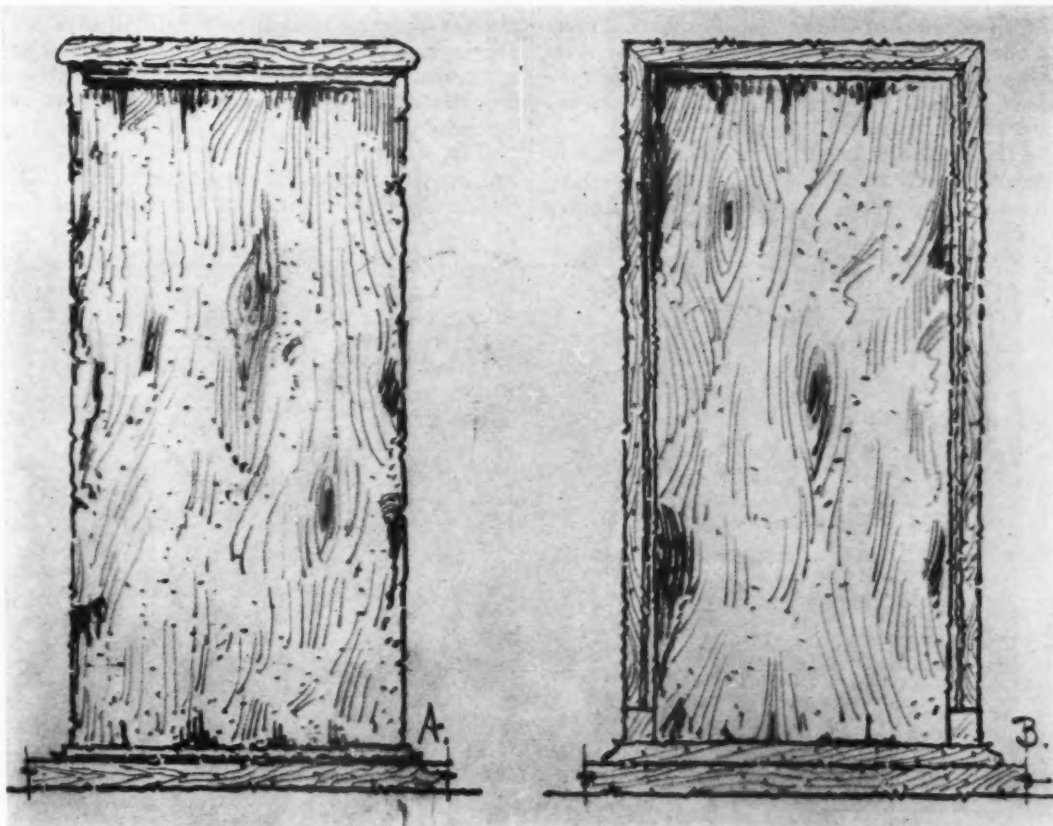
FOUNDED 1876

OLD ENGLISH BENCH-ENDS

By THOMAS E. O'DONNELL, A. I. A., ASSISTANT PROFESSOR OF ARCHITECTURE,
UNIVERSITY OF ILLINOIS

WE are so accustomed to the use of seats or pews in our modern churches that most of us assume that such edifices have always been so equipped. A study of the history and development of the early church shows, however, that the practice of seating

the worshippers in churches is a comparatively modern one. In the early church it was the custom of the congregation to stand, when not kneeling, during divine service, a custom which still prevails in most Eastern churches even today.



EARLY TYPE BENCH-END. PLAIN OAK PLANK SET INTO FLOOR RAIL, HAVING A SIMPLE MOULDED CAP

SIMILAR TYPE BENCH-END, BUT HAVING THE MOULDING CARRIED ACROSS THE TOP AND DOWN THE SIDES

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But in the West, especially in England, there seems to have been a demand for seats in churches as early as the twelfth or thirteenth century. In the very early churches there were no wooden fittings. The altar was of stone and a stone seat or bench was provided for the clergy. As for the worshippers, no seats were provided except a stone ledge or bench along the base of the walls of the side aisles, which served primarily for the aged and infirm. Similar benches were sometimes provided around the base of the piers of the arcaded naves.

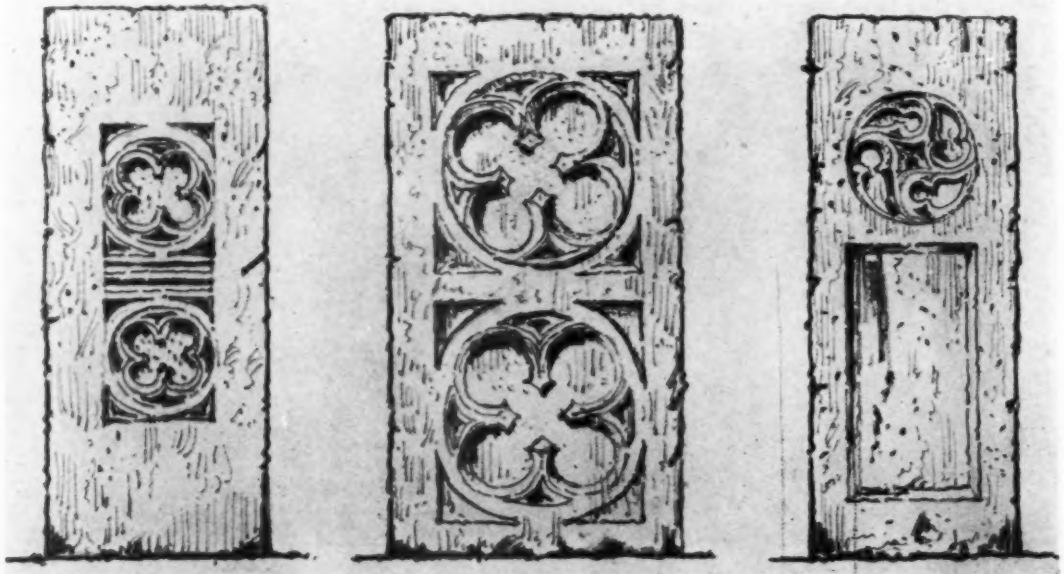
Just when wooden seats or pews were first used in churches it would be most difficult to determine, but during the fourteenth and fifteenth centuries numerous references are found in the records of English churches pertaining to the matter of making and repairing of seats or pews.

Serious controversies arose in many of the early churches as to whether it was proper for worshippers to be seated. Centuries of church tradition did not favor the then new idea of providing seats for all worshippers. Consequently the practice was one of slow growth. At first only a small number of seats were provided, and often those were put in at the expense of the families who were to use them. In some instances they were installed by the church authorities and then sold or rented to users, a practice out of which many unpleasant circumstances evolved and class distinction was created within the church. It was only after a long period that the whole church was fitted with pews.

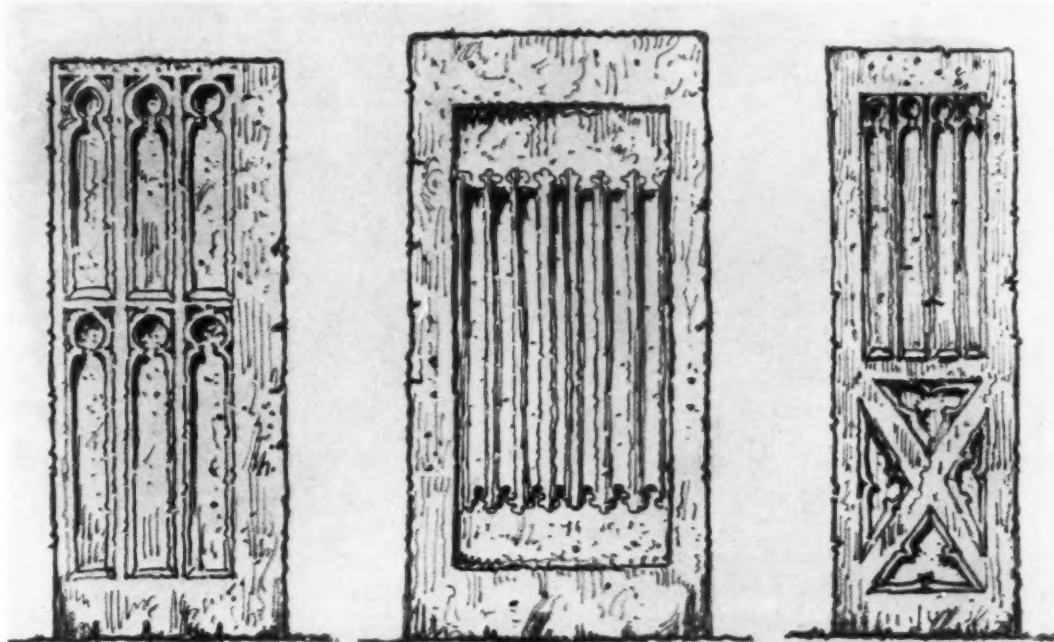
In the early attempts of pew building, especially where they were put in at various times and by various families, there was, obviously, little unity

or harmony, and an unhappy medley must have resulted in many instances. It was not until after a long period of time that there was anything like uniformity in the design and arrangement of pews. And it was a still longer time before a uniform and logical system of pew building was evolved. During this whole transition period countless arrangements had been used, but out of all there seem to have been but two simple, logical schemes that could be considered broadly applicable to all churches, regardless of size: namely, the simple box pews and the bench. Both of these types have been widely used down to the present time; however, the bench seat method seems to have gradually supplanted the box pew. Once the bench method was generally accepted, the craftsmen began to develop the more essential features. A great diversity of treatment is to be found, but the outstanding feature, the one which was given the greatest amount of attention, was the bench-end, upon which the English craftsman lavished his highest skill. Carved bench-ends have come to be considered an integral part of every English church, and are the prototype for most of the pews in the churches in our country, for we have pretty generally accepted the English method of church seating; and we may well study the fine old carved bench-ends in English churches for inspiration in our modern work. There is a great wealth of English examples of bench-ends still existing today to which the designer may turn for suggestions.

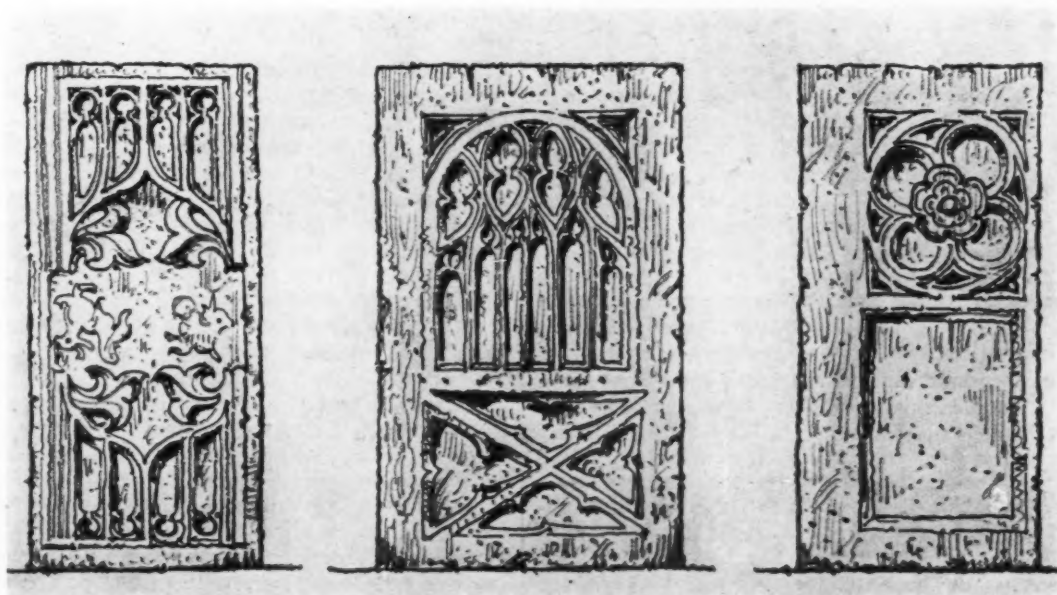
The earliest of the English church pews or benches were very plain, simple and massive. They were nearly always made of native oak, of finest



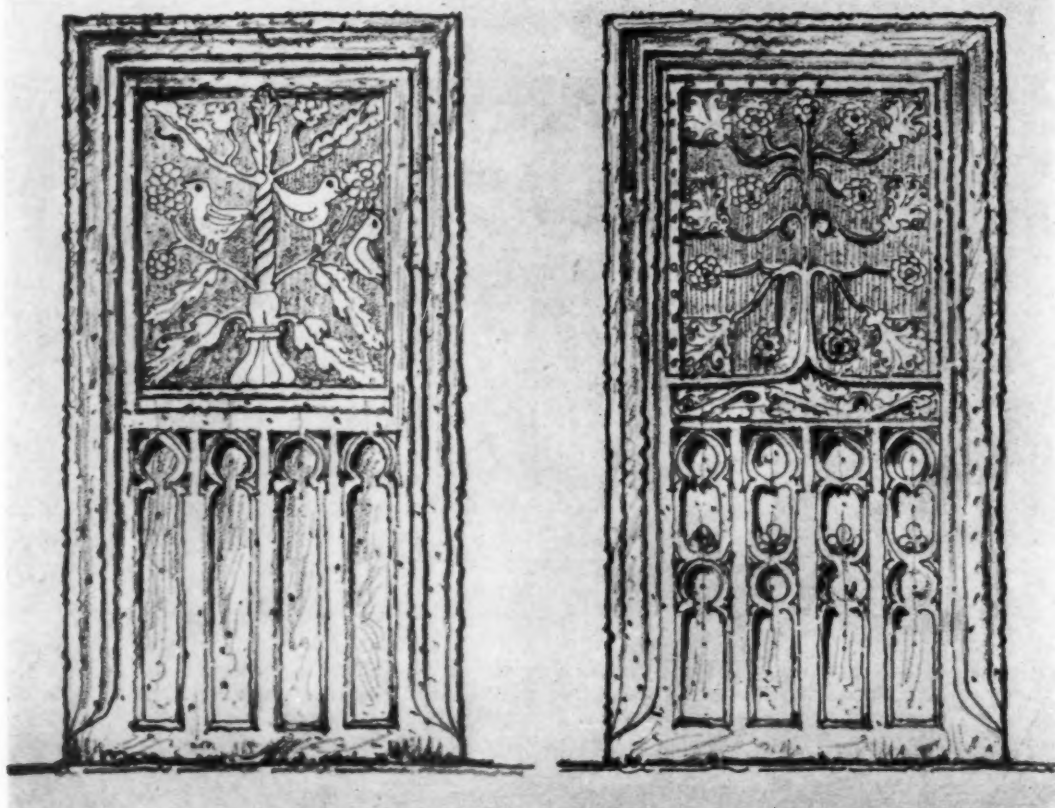
SIMPLE HEAVY OAK SLAB BENCH-END. NO MOULDING, BUT INSTEAD, ORNAMENTED WITH SOME SIMPLE CARVED PANELS. EARLY GOTHIC DECORATIVE MOTIFS INDICATE EARLY DATE. RELATIVELY SMALL AMOUNT OF CARVING



SLAB BENCH-ENDS OF A LITTLE LATER DATE. GOTHIC DETAILS OF A LATER PERIOD. VERTICAL LINES PREDOMINATING. DURING THIS PERIOD THE CARVING BECAME MORE IMPORTANT, AND OCCUPIED A LARGE PART OF THE FACE OF THE BENCH-END



FURTHER EXAMPLES OF SLAB BENCH-ENDS. THE OUTER EDGES NOT MOULDED. A GREAT VARIETY OF CARVING. GREAT NUMBERS OF THESE MAY BE FOUND IN PLACE IN ENGLISH CHURCHES TODAY



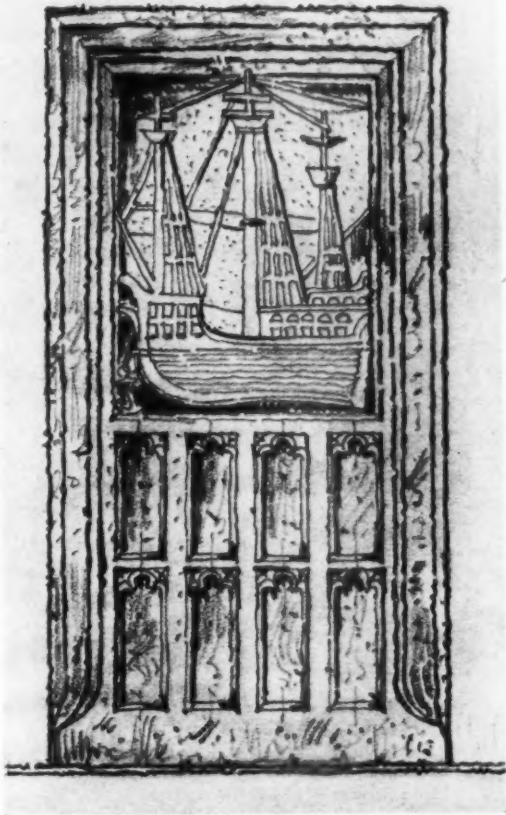
HIGHLY DECORATIVE TYPE. HERE THE OAK BENCH-END IS FRAMED WITH A MOULDING, AND THE PANEL IS COMPLETELY FILLED WITH CARVING. BY VARYING THE MOTIFS IN THE PANELS, MONOTONY OF EFFECT WAS AVOIDED. EACH BENCH-END HAVING SPECIAL INTEREST. EXAMPLES FROM THE BISHOP LYDEARD CHURCH, SOMERSET

quality which was plentiful and reasonably cheap in England during that period. This oak ages with a beautiful color and texture, and lends itself readily to carving. The ends of the benches, which faced upon the aisle, quite early became a logical place for carved ornament. This soon became a tradition, one which has left us a rich heritage in fine wood carving.

The bench-end seems to have literally invited the carver to try his hand. There was no limit to the designs he might make on them. There is reason to believe that wood carving in churches, an art that in time found expression in many other elements of church furnishings, made its beginning here. The earliest examples of bench-ends were naturally very plain, usually with a simple moulded cap at the top. The next step was to carry the moulding around the three sides. At first the panel thus enclosed was left plain, but in time this became the logical place for carving. The majority of carved bench-ends, of the early period, seem to have been rectangular in form. In some few instances, however, the top was made with a curve to represent a chair arm; but this form did not lend itself well

to a bench-end that was to be carved effectively. The most pleasing variation from the simple rectangular bench-end was that in which the end standard was extended upward into some terminating motif. These took various forms, the most pleasing and the most used being the so-called "Poppy-Head" design. The term poppy as used here is a misnomer, for the most common kind of poppy-head is that of a three lobed type evidently inspired by the fleur-de-lis. Although this form is very common, yet they were worked in such an infinite variety of ways that they never lack vitality or interest.

The accompanying illustrations taken from old English sketch books and similar sources are intended to show some of the simpler types that have been preserved to us and which are most valuable because of the inspiration they offer us for modern work. Modern church furniture is too often of a nondescript character, crudely plain, of poor proportions and lacking in refinement. The designer of modern churches and church furniture will find it well worth his time to make a careful study of the best of the old English church furnishings, for no



AN UNUSUALLY INTERESTING EXAMPLE OF MOULDED AND CARVED BENCH-END. THE CONVENTIONAL SHIP DESIGN IS NOT OFTEN MET WITH IN BENCH-ENDS. THIS ALSO IS FROM BISHOP LYDEARD CHURCH, SOMERSET

matter how simple or unpretentious the church, it may, at least, be given distinction by providing pews with beautifully carved bench-ends.

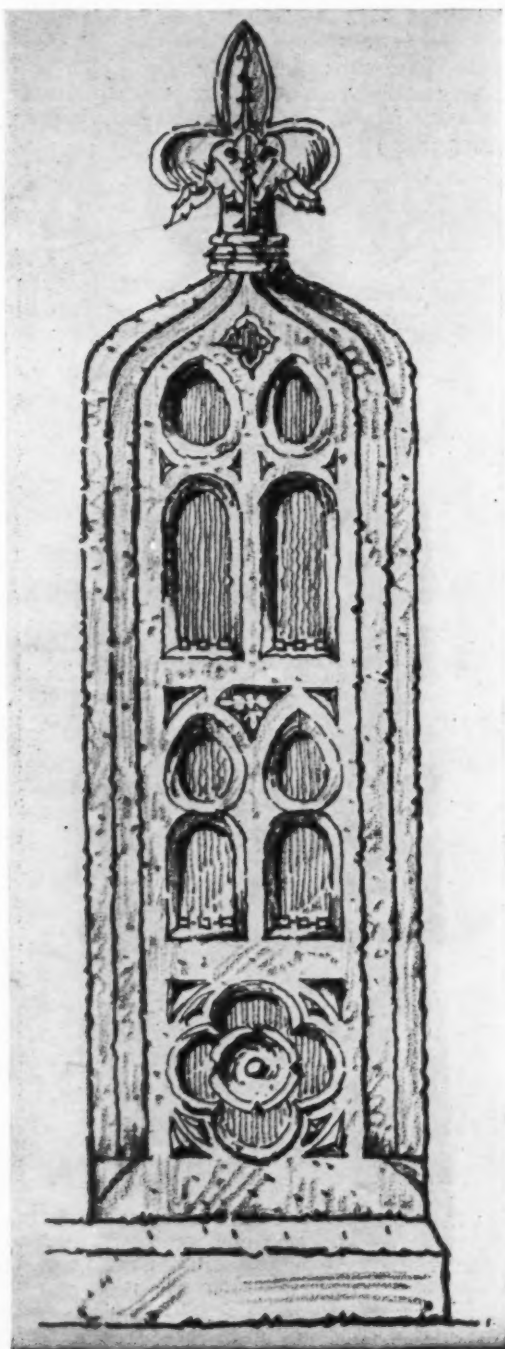
(EDITOR'S NOTE—Professor O'Donnell sent us the foregoing article with the information that he had had occasion recently to make quite a study of the use of carved bench-ends in old English churches. Searching through many old English Sketch Books, he found some very interesting examples and details, from which he made his own sketches. He wrote this article from notes taken from the old sketch

books and other contemporary sources, and selected for illustrations those sketches that he thought would be of greater interest to American architects. They trace, we think, in a very interesting manner, the progress made in the development of ornamental bench-ends.)

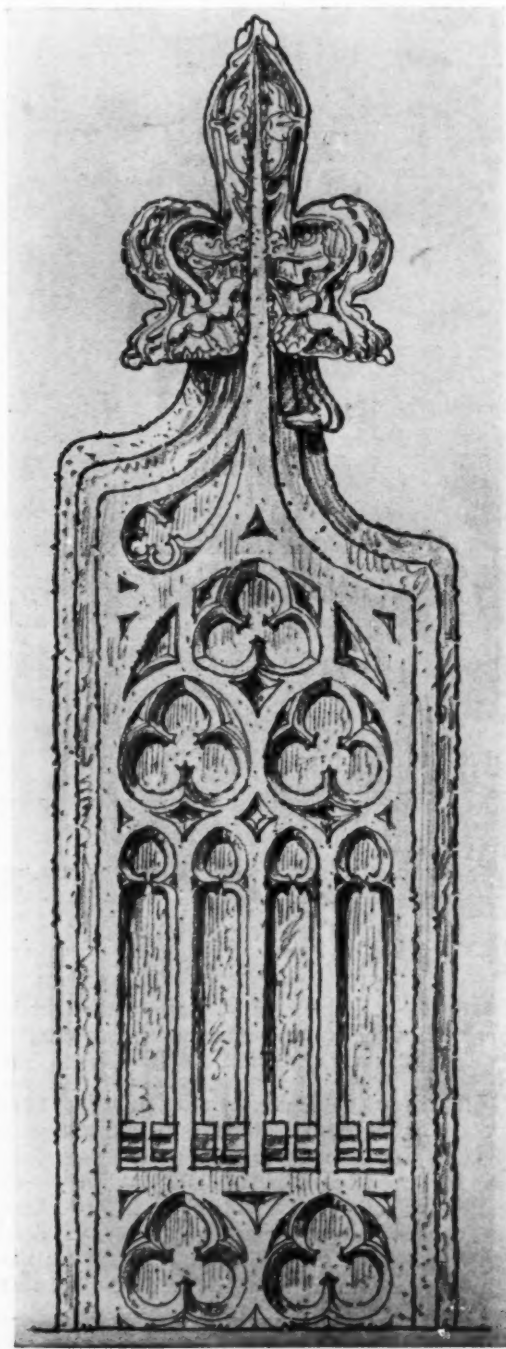


A VERY ELABORATELY CARVED BENCH-END FROM THE CHURCH OF ST. CATHERINE, CORNWALL. PRACTICALLY THE ENTIRE SURFACE, EVEN THE EDGES, IS GIVEN OVER TO CARVING





EXAMPLE OF "POPPY-HEAD" TYPE OF BENCH-END, TYPICAL OF THE PERIOD, FROM CHURCH OF ALL SAINTS, NORTHANTS



UPPER PORTION OF A "POPPY-HEAD" TYPE OF BENCH-END, PREDOMINATING IN THE LATTER PART OF THE MEDIAEVAL PERIOD

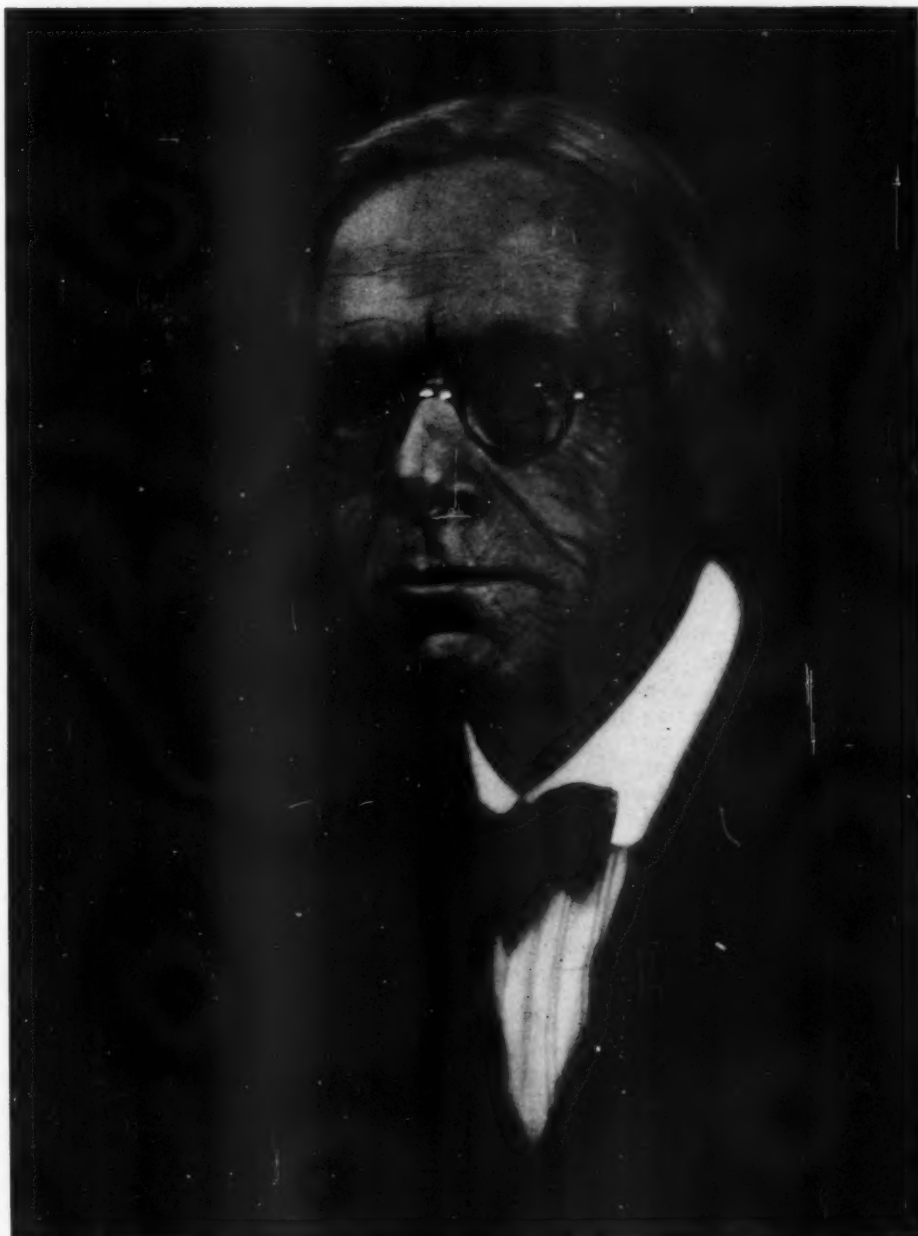


Photo by Gillies

WILLIAM HENRY CROCKER,
1856—1928

WILLIAM HENRY CROCKER

1856—1928

IT is with a deep sense of sorrow and loss that we announce the death of William Henry Crocker, Editor of THE AMERICAN ARCHITECT. He died in the Orange General Hospital, Orlando, Florida, on Monday, October 22nd, following an automobile accident on Thursday, October 18th, in Clermont, Florida, in which he suffered a fractured skull. He is survived by his wife, Charity, and son, Frederick Speer Crocker.

Mr. Crocker first became associated with this journal in 1905 as a professional photographer. His natural artistic ability and pleasing literary style led to his appointment as associate editor in 1910. Seven years later he was promoted to the position of Editor-in-Chief, which position he held until the time of his death. During the past year poor health made it necessary for him to live in the South where he could escape the rigors of the northern climate, but his interest and activity in architectural affairs continued.

Mr. Crocker was born in New York City on August 25th, 1856, the son of William Henry and Eliza Richardson Crocker. He received his early education in the public and private schools of the city and later entered the College of the City of New York. Before finishing his college course, however, he answered the call of the sea and entered the United States Navy as a midshipman. At eighteen he was third mate of a sky-sail clipper. During his life in the sailing ships of that day, he rounded Cape Horn three times and circled the globe twice. His sea yarns, with which he often regaled his friends in later years, were full of interest, and several of his intimates had pleaded with him to put the story of his sailing days in book form. It was during a trip around the world, while his ship was anchored in Chinese waters, that a cannon exploded while a salute was being fired and so injured his hearing that he was forced to retire from sea duty.

Returning to civil life, Mr. Crocker had a most

interesting and diversified experience. As an accountant with the Phelps Dodge Company, he was brought into commercial activities and was for some years identified with the work of that firm and with the Seth Thomas Clock Company.

Mr. Crocker was married in 1881, and for many years made his home in Montclair, New Jersey, where he took an active part in civic and athletic affairs and was a member of the old Montclair Cycle Club. He was admitted to membership in the Salmagundi Club of New York in 1899, and for some years was the club's financial officer. He was also a member of the National Press Club of Washington.

Under the instruction of Robert Bonnoh and Charles Rosen, he developed a talent for landscape painting and spent much of his time at the easel. Many of his paintings received favorable comment at the exhibitions of the Salmagundi Club.

During his association with THE AMERICAN ARCHITECT, Mr. Crocker became widely known among members of the architectural profession throughout the country and was a familiar figure at the annual conventions of The American Institute of Architects during the last twenty years. His every effort and thought was devoted to elevating the standards and principles of good architecture, and his influence in this direction was broad and far-reaching. In appreciation of this service, he was made an Honorary Associate Member of the New York Chapter of The American Institute of Architects.

Mr. Crocker endeared himself to a host of friends, among whom were some of the most prominent architects and painters in this country. His delightful personality was appreciated by all with whom he came in contact, and he will be sadly missed by the profession and by the journal through which he gave expression to his knowledge and ability.

Oct. 23, 1928.

It is with extreme sorrow that I learned of the death of my good friend William H. Crocker. I take this occasion to extend my deepest sympathy to Mrs. Crocker and to Mr. Crocker's associates on THE AMERICAN ARCHITECT. I may be able to send you some words as to Mr. Crocker's value to the profession and loss it has sustained in his passing.

IRVING K. POND.

Oct. 23, 1928.

I am so distressed to hear of the death of Mr. Crocker. We hope it may be some consolation to you to know that he is deeply mourned by architects all over the country. He was ever ready to do what he could to advance the cause of architecture. He was proud of our achievements and it was his lifelong aim to bring our best accomplishments before the world.

As a man he was kindly and loving. We appreciate what a keen loss his death must be to you.

GEORGE OAKLEY TOTEN, JR.

Oct. 23, 1928.

I was greatly shocked to find your note announcing the death of Mr. Crocker.

He was a man of such vital energy that it is difficult to think of his ever arriving at a stopping point. We can but envy such a life full of achievement and active interest up to the very end, with many more years than the allotted time given to most men. He had a mind that was always young, ready for new ideas at all times. The architectural profession owes him a great deal and will deeply sense his loss.

Faithfully yours,

HARVEY WILEY CORBETT.

LEAVES FROM A EUROPEAN SKETCH BOOK

DETAILS, DOORWAYS AND DIVERS DABS OF DATA

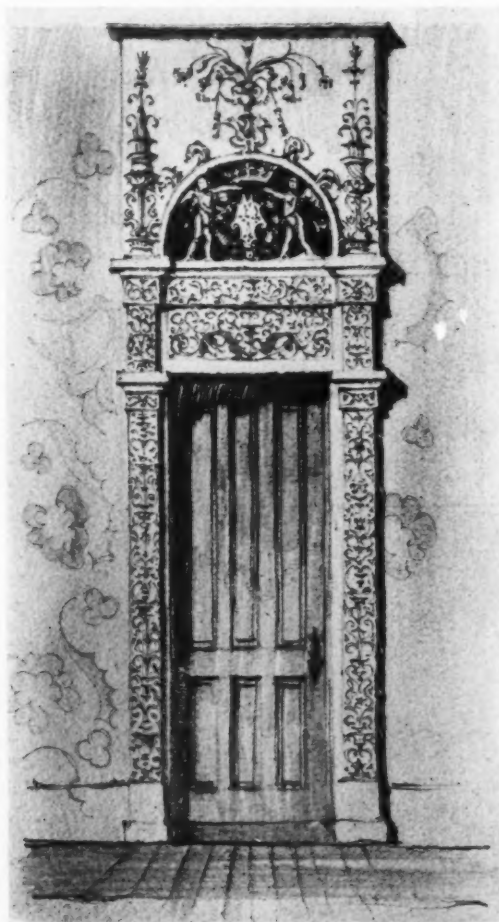
By SAMUEL CHAMBERLAIN

A GROUP OF SKETCHES OF OLD EUROPEAN SUBJECTS WHICH, BOTH IN THEIR RENDERING AND IN THEIR DESIGN, POSSESS UNUSUAL ARCHITECTURAL INTEREST. WHILE THEY ARE ALL CHARACTERISTIC OF SOME ONE OF THE OLD HISTORIC STYLES OR PERIODS, THEY MAY SERVE AS INSPIRATION TO DESIGNERS EVEN IN THESE MODERN TIMES.



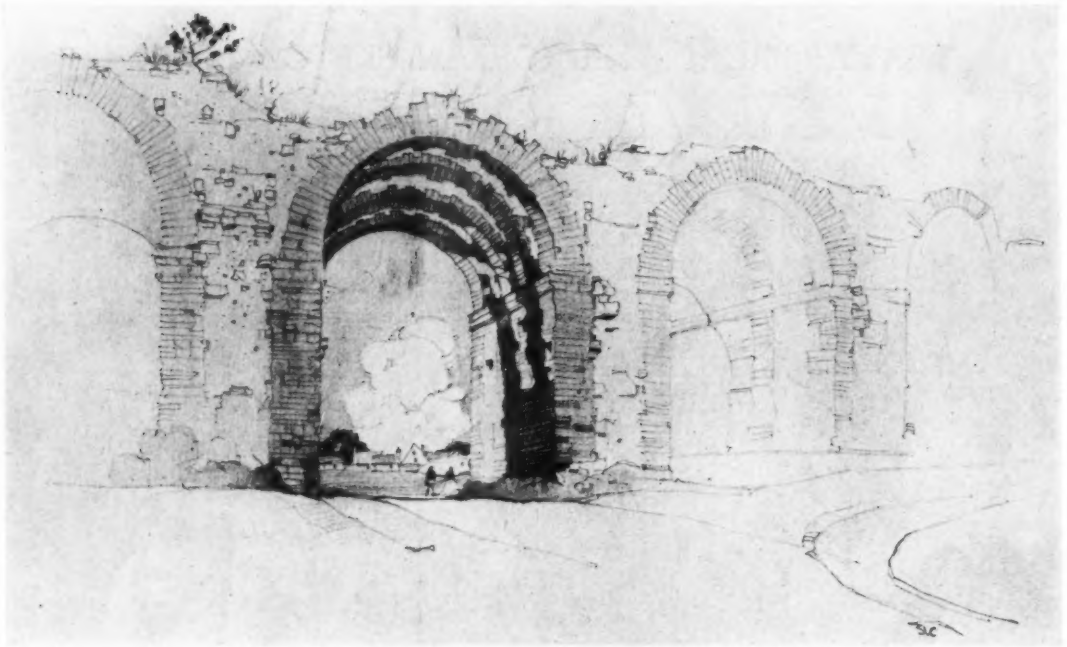
DOORWAY IN PALAZZO VECCHIO, FLORENCE, ITALY

THIS SUBTLE AND DELIGHTFUL BIT OF BRONZE AND STONE IS TOO WELL KNOWN TO CALL FOR ANY LABORED CAPTION WRITING



DOORWAY IN THE CHATEAU DE BLOIS, FRANCE

THE CONTRAST BETWEEN THIS SENSITIVE DOOR AND THE BLATANT WALL COVERING WHICH FRAMES IT IS SOMETHING ONE WISHES TO FORGET BUT CANNOT



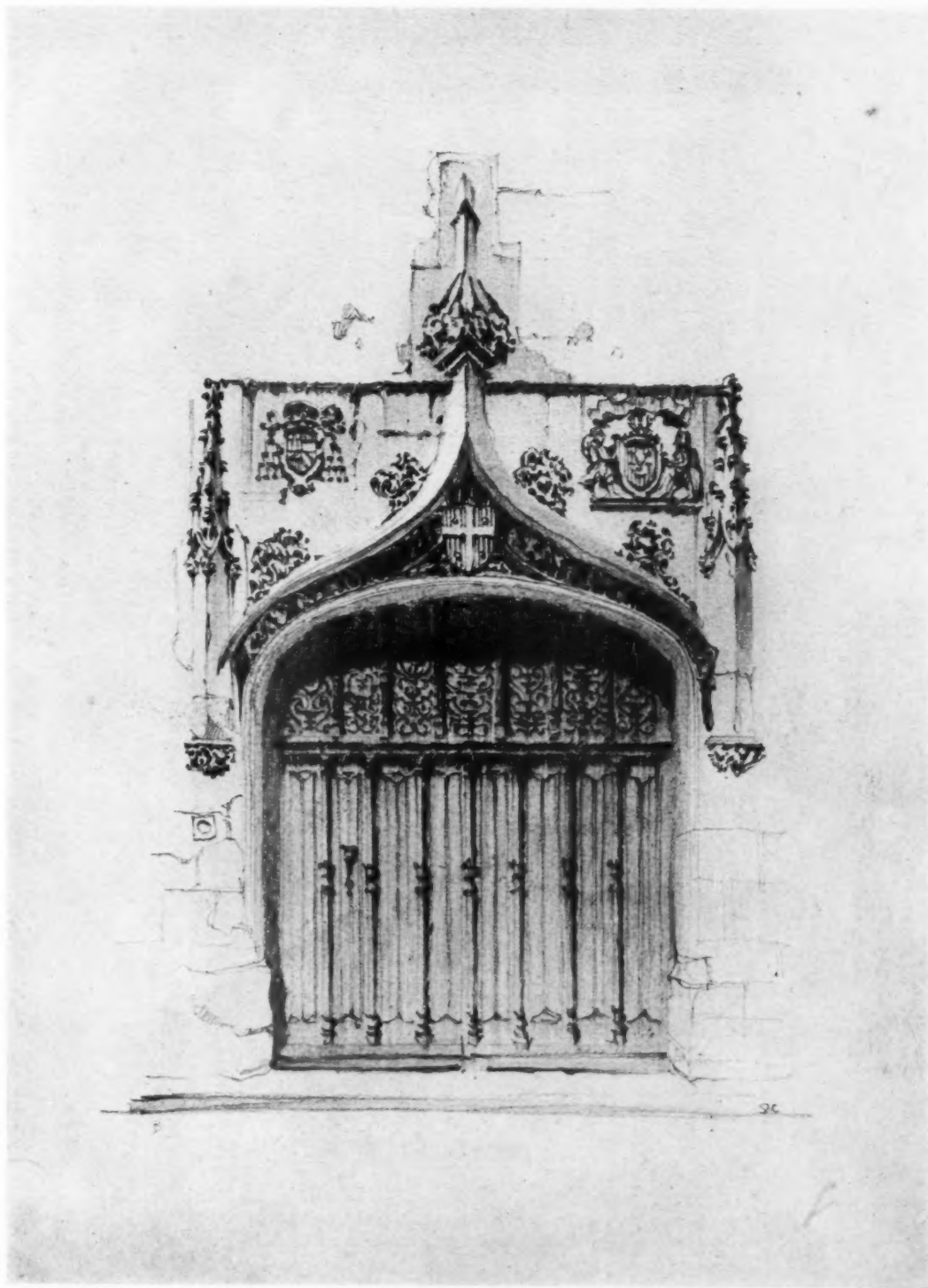
THE AQUEDUCT—MAINTENON

CONCEIVED BY AN AMBITIOUS LOUIS, THIS VAST HURDLE OF MASONRY RAN FOR MILES, BUT SINCE ITS COMPLETION NEVER CARRIED A CUPFUL OF WATER, ITS CONSTRUCTION HAVING BEEN ABANDONED. THE FACING HAS BEEN TORN AWAY WHEREVER POSSIBLE BY BUILDERS WHO WERE NOT SLOW TO PERCEIVE THIS SHORT CUT TO THE STONE QUARRY. MOST OF THE REMAINS OF THE AQUEDUCT ARE CONTAINED WITHIN THE SYLVAN PRECINCTS OF THE CHATEAU DE MAINTENON



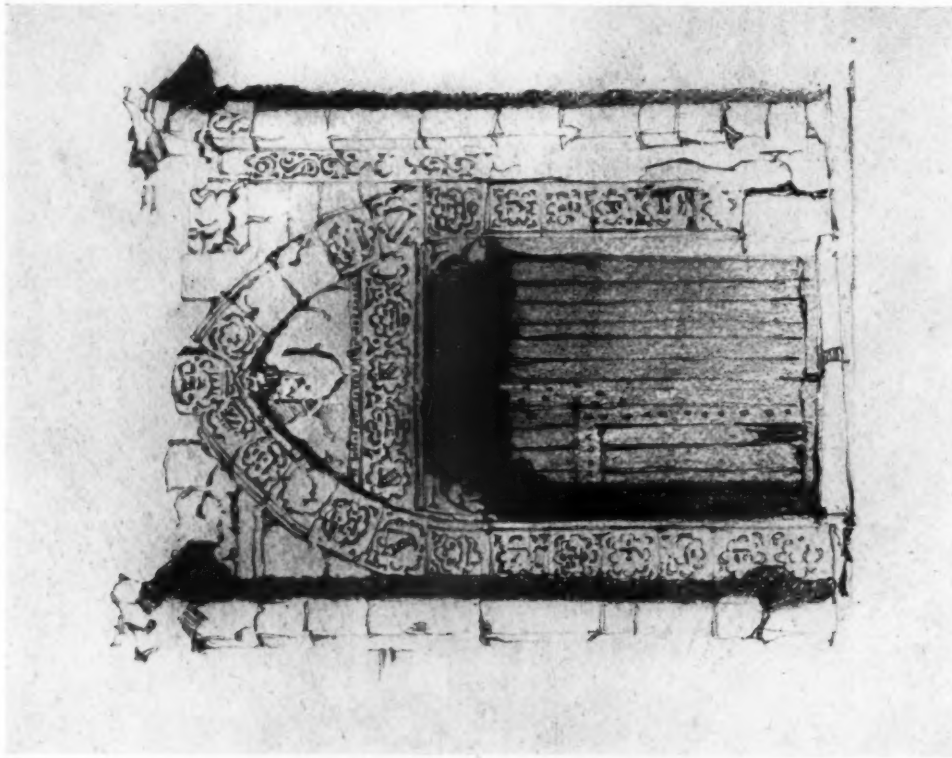
THE CHURCH OF ST.-JEAN—CHATEAUDUN

ONE OF THE MOST RESTFUL, UNTROUBLED CORNERS IMAGINABLE IS HERE. THE SIMPLE OLD CHURCH IS IN ITS DESIGN LITTLE DIFFERENT FROM A THOUSAND OTHERS, SILENTLY NESTLING IN THE VALLEY BELOW THE WARLIKE BULK OF THE OLD CHATEAU

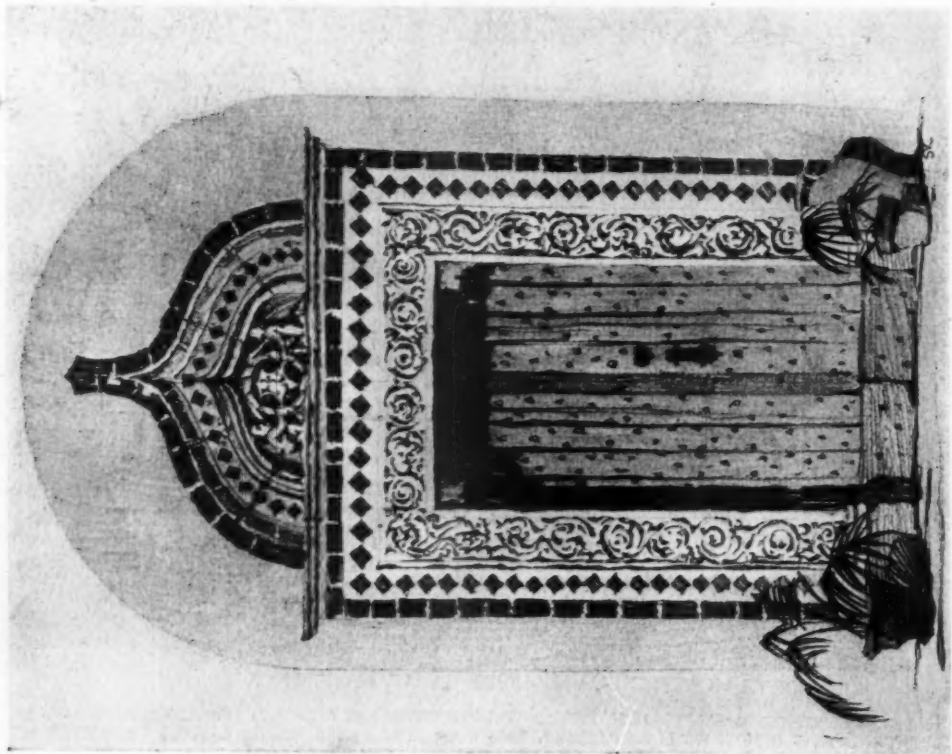


PORTE MONSEIGNEUR MILLIERE, BEAUVAIS, FRANCE

IN THIS FINE EXAMPLE OF INFORMAL FRENCH GOTHIC THE EFFECT OF THE DETAIL IS SYMMETRICAL, ALTHOUGH THE CORRESPONDING SPOTS DIFFER WIDELY IN DESIGN. THE DOOR ITSELF IS A MAGNIFICENTLY PRESERVED BIT OF CARVED OAK



DOORWAY OF THE CASA DEL TALLER DEL MORO, TOLEDO, SPAIN
TIME HAS EATEN AWAY THE FRESHNESS OF THE MOORISH DETAIL OF THIS DOORWAY
AND THE SUN HAS BAKED THE STONE A BURNING ORANGE. THIS FRAGMENT IS FROM
ONE OF THE FEW RUINED BUILDINGS STANDING IN TOLEDO. THE PRESENT WOODEN
DOOR IS A SLIPSHOD SUBSTITUTE



DOORWAY OF THE CONVENT SANTA MARIA DE GESU-TAORMINA, SICILY
A BLACK LAVA STONE FROM MOUNT ETNA HAS BEEN SET IN CREAM WHITE MARBLE
WITH THIS DECIDEDLY DECORATIVE EFFECT. TAORMINA'S ARCHITECTURAL TREASURES
ARE ONLY EXCEEDED IN NUMBER BY ITS WATERLESS HOTELS AND ITS FUSSY
OLD LADY WATER-COLORISTS

HIPPOCH MEMORIAL CHAPEL

ARTHUR WOLTERSDORF, *Architect*

ON the highest knoll in Green Ridge Cemetery, west of Chicago in DuPage County, stands Hippach Memorial Chapel, erected by Louis A. Hippach in memory of his parents. From a base of dressed gray granite rise the walls of Massachusetts seam face granite trimmed with Colorado Yule white marble. The roof is of vari-colored and graduated slates. The tower on the front serves in the ground story as porte-cochère. Above this is the organ chamber and above the organ chamber the belfry. Extending forward from this tower is a cascade of quiet waters in which is reflected a bronze urn, five and one-half feet high, that in its sculptures depicts the story of Life. The urn is finished in burnished gold. Its practical purpose is the housing of such documents and pictures as are ordinarily placed in a corner stone. At the rear of the Chapel under a marble arch are the graves of the venerable couple to whose memory this Chapel is erected. This spot is encircled with cedars, and a granite hermes within the enclosure looks down on the headstones.

The portal, or entrance doors set in splayed mar-

ble walls six feet back from the porte-cochère, gives access to a vestibule the walls of which are sheathed in gold luster tile, and flanking this vestibule are robing room and stair hall. From the vestibule doors an aisle seven feet wide leads to the altar, whose background is a wall of tile with a memorial tablet in gold mosaic. The piers flanking the altar niche carry bronze tablets to the departed parents and beyond these to north and south come the plant recesses in the nature of chevets. It is the inner longitudinal chevet walls that are spanned by the marble arch referred to above. The Chapel floor is of burnt clay tile of russet and purple hue. This tile extends over the elevator platform where two closely fitting brass frames make its existence hardly perceptible. There is a tile wainscot ending under the white marble window sill course of pale chocolate hue, perforated in the spaces below the windows for air circulation from the hidden radiators. The art glass windows are confined by marble mullions, frames and quoins. All woodwork is of oak, brown and dull. In the wall surfaces above the window



TOWER FIGURE—"THE PHILOSOPHER"—RICHARD BOCK, SCULPTOR
HIPPOCH MEMORIAL CHAPEL.—ARTHUR WOLTERSDORF, ARCHITECT



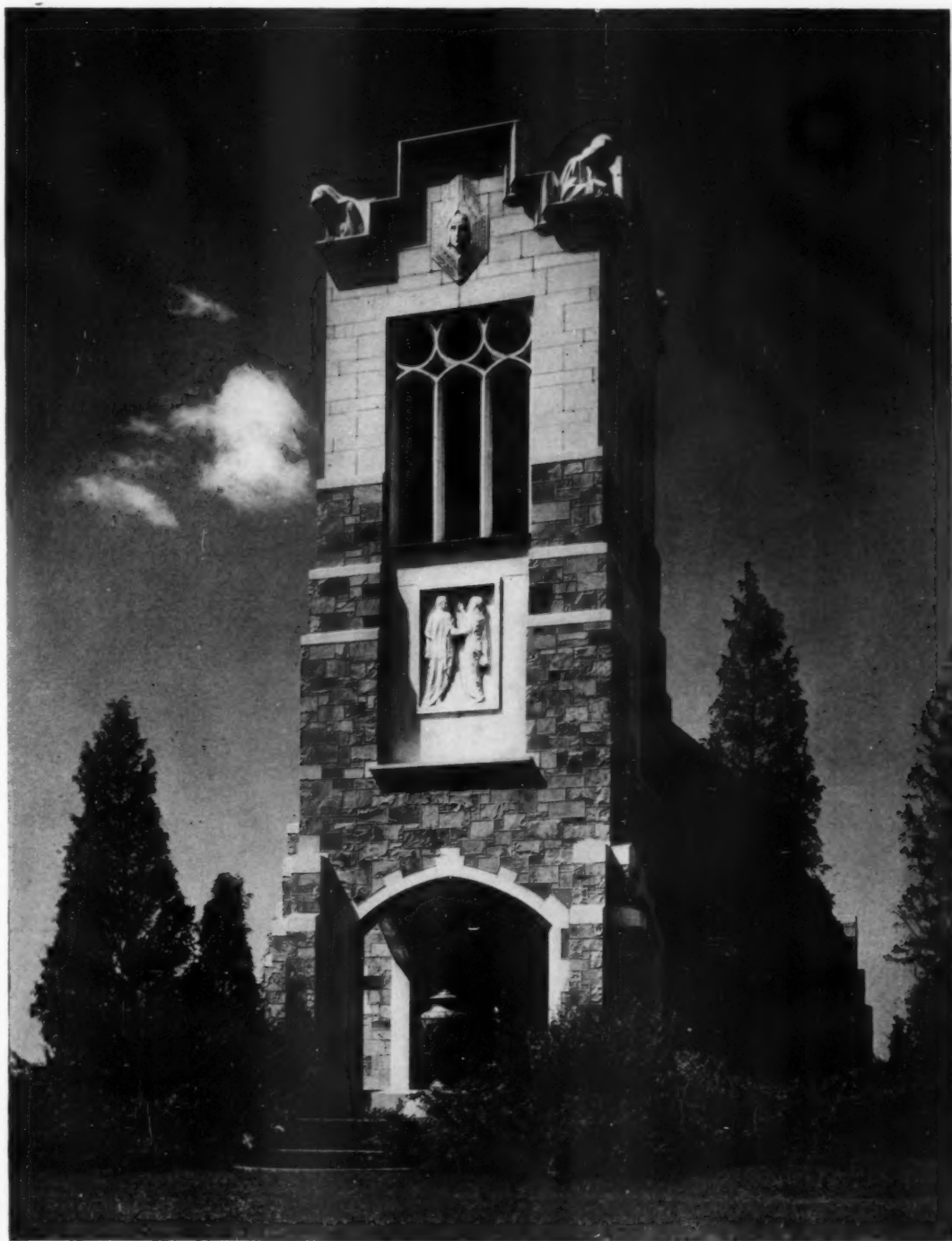
sill, tiles are inserted carrying the emblems of St. Luke, St. John, St. Matthew, St. Mark, Masonic and Jewish emblems. At the rear of the balcony seats occurs a marble arch filled in with the organ screen. Console and chime keyboard are also here.

The ceiling, or, better, roof panels, are divided into eight groups, six panels to a group. Here the mural decoration has depicted milestones in the progress of Christian civilization and the center panel of each group is the portrait of a dominant

religious teacher of his time. Sculptures in carved oak occur under the truss corbels and on the exterior, in white marble, symbolic panels occur over the two porte-cochère arches, a figure panel over the urn arch and crowning the four corners of the tower are figures portraying varying human sentiments looking down on the passing cortège below.

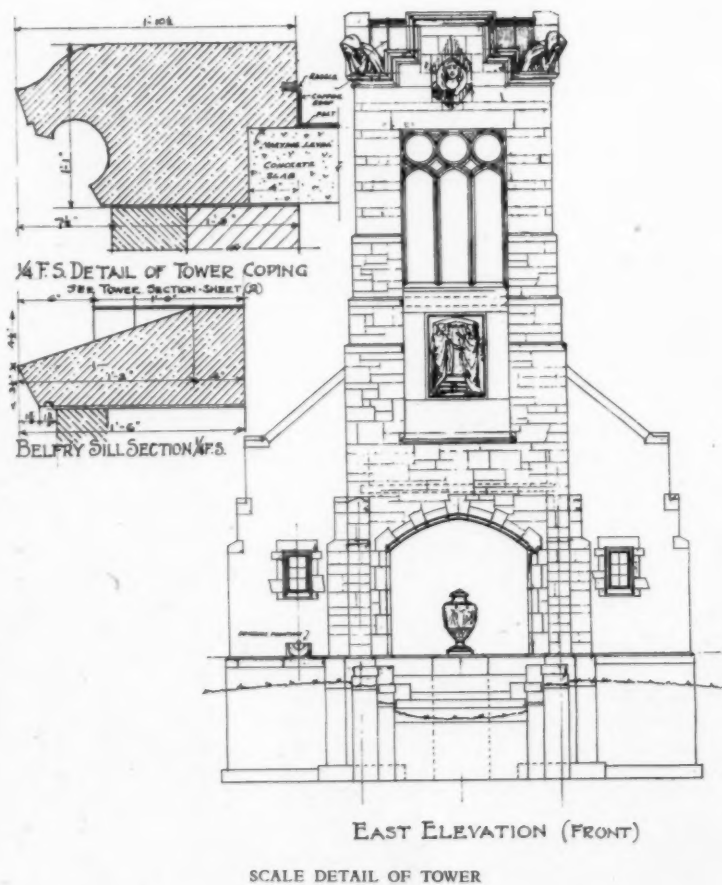
All sculptural work for this building was modeled by Richard Bock. The mural decorations are by George Hamilton Thomas.





HIPPACH MEMORIAL CHAPEL, GREEN RIDGE CEMETERY, DU PAGE CO., ILL.

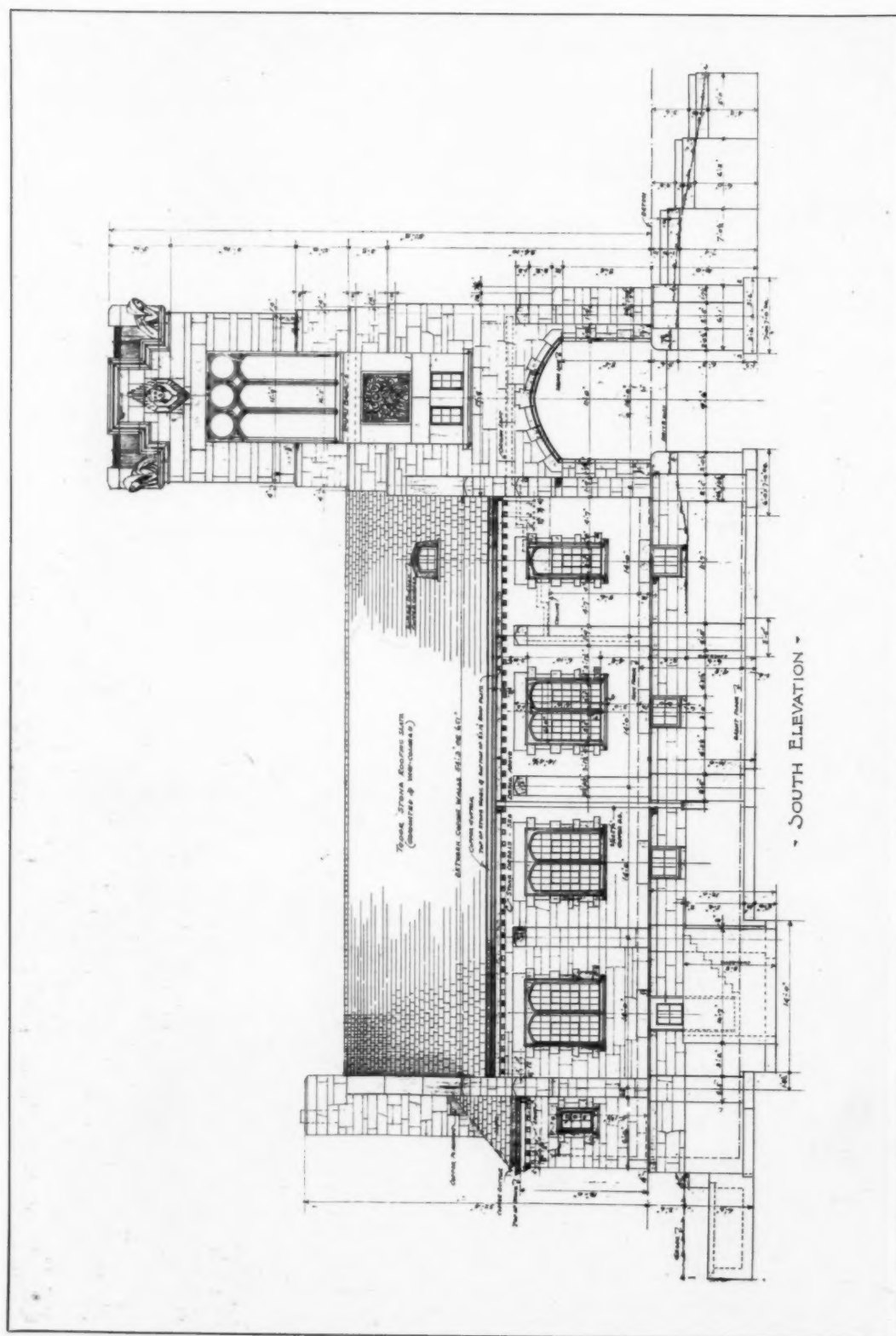
ARTHUR WOLTERS DORF, ARCHITECT



HIPPACH MEMORIAL CHAPEL, GREEN RIDGE CEMETERY, DU PAGE CO., ILL.
ARTHUR WOLTERS DORF, ARCHITECT



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ARTHUR WOLTERS DORF, ARCHITECT

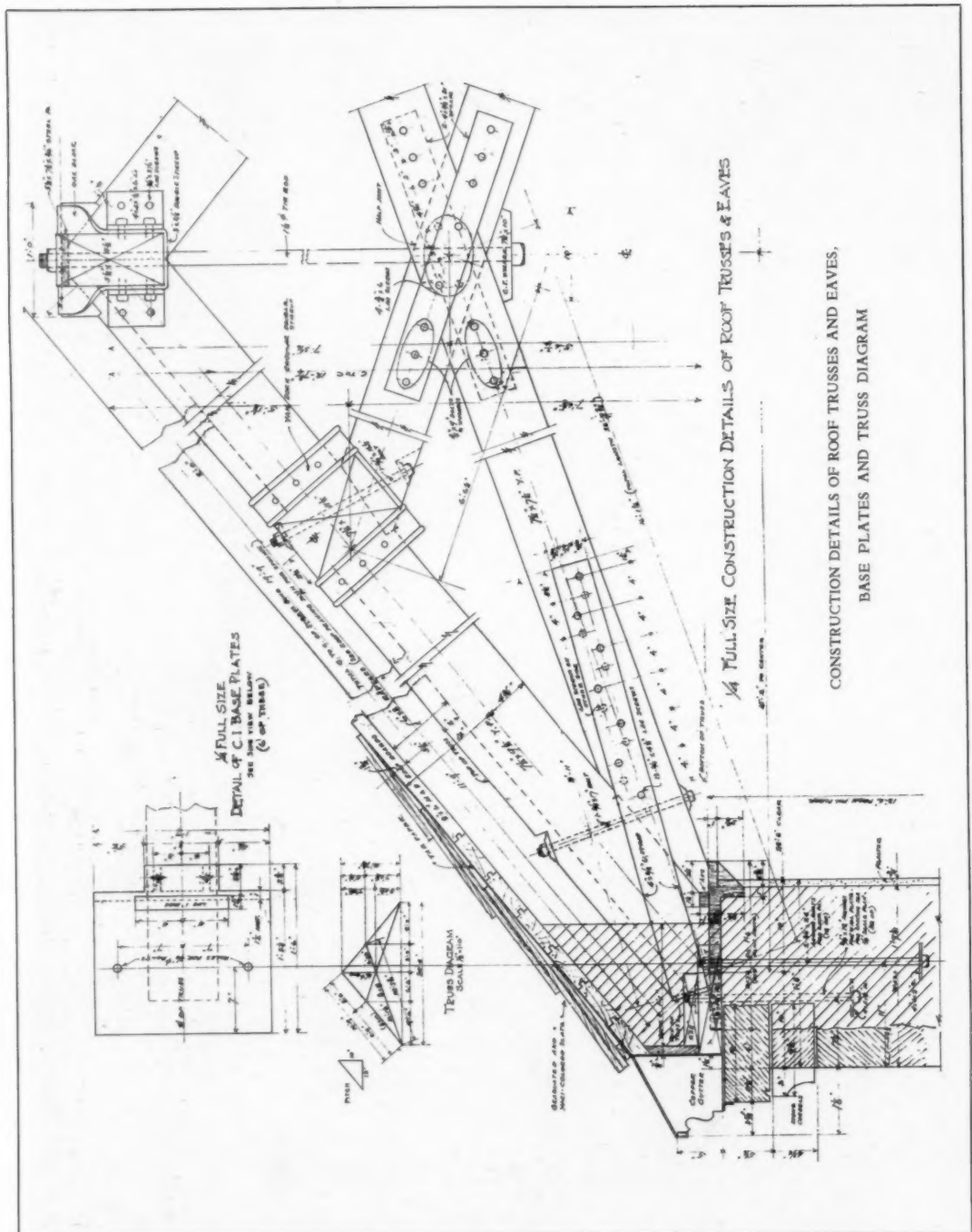


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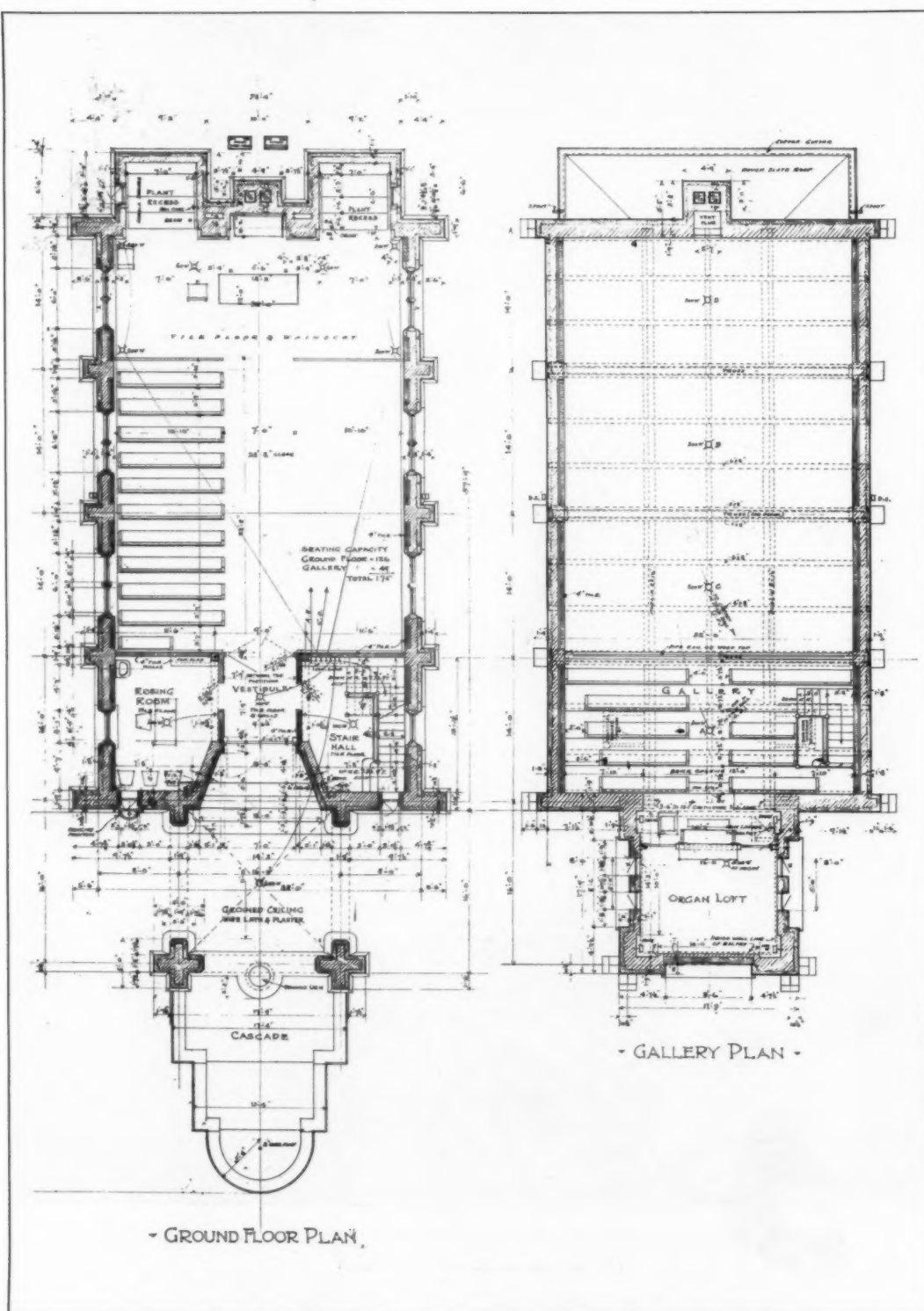
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ARTHUR WOLTERS DORF, ARCHITECT



SAN JACINTO TRUST COMPANY BUILDING, HOUSTON, TEXAS
JOS. W. NORTHROP, ARCHITECT—ALFRED C. BOSSOM, CONSULTING ARCHITECT



SKETCH OF POLYCHROME TILE PANEL OVER MAIN ENTRANCE

SAN JACINTO TRUST COMPANY

DESIGNED for a future height of twenty-two stories, the present building of the San Jacinto Trust Company has itself the appearance of a completed structure. The architect, J. W. Northrop, has planned the building so that its proportions both at twenty-two and at three stories are pleasing. The design is appropriate to the business of the organization; that is, there is no addition of useless decoration, but the effect of dignity and beauty has been achieved rather by simplicity of ornament following the form dictated by common sense and efficiency of arrangement. The larger part of the exterior is to be of light grey and ivory brickwork. The lower stories are faced with various shades of cast stone relieved by occasional ornamental band courses. The principal façade, sixty feet wide, is divided into three bays, the center being slightly recessed for the entranceway. This is the center of interest in the design of the exterior. Above the door is an allegorical panel depicting, in blue-ivory and harmonizing shades of brown tile, Houston's growth from pioneering days to its present commercial supremacy. The doors themselves are of bronze, and the jambs of marble varying in color from pinkish orange to warm grey. Surrounding the whole entranceway is a rich molding of ivory-colored terra cotta. The interior is finished in various grades and shades of marble harmoniously combined; strong contrast is effected by accenting the important structural features with black Belgian marble. In the vestibule are, on the right, the stairs, and on the left, the elevators, both carrying out the prevailing scheme of marble, relieved by bronze elevator doors. Bronze is used also in the impressive gates which lead to the main banking room. The public space in this room, 67 by 23 feet, has a flooring of large checks of pink and grey marble. About half of the room on the two sides and rear is lined with tellers' cages, the marble die of which extends to the front of the bank in the form of a railing. The walls are of soft shades of cast travertine above a wainscot of paneled American walnut. The ceiling is in soft blues and ivory with certain details accented in gold leaf. Fourteen feet above the floor is the first mezzanine surrounded by a bronze rail; above this, a second mezzanine which is separated from the main room by a grill of ornamental plaster. The offices throughout are paneled in walnut. The ceilings, heavily beamed with rough sawn timbers finished in silver grey, have been treated with an acoustical material that will absorb the noises of typewriters and other machines. Light and air are available on two sides, but ventilation has been supplemented by a forced air system from the top floor to the large vault in the basement.

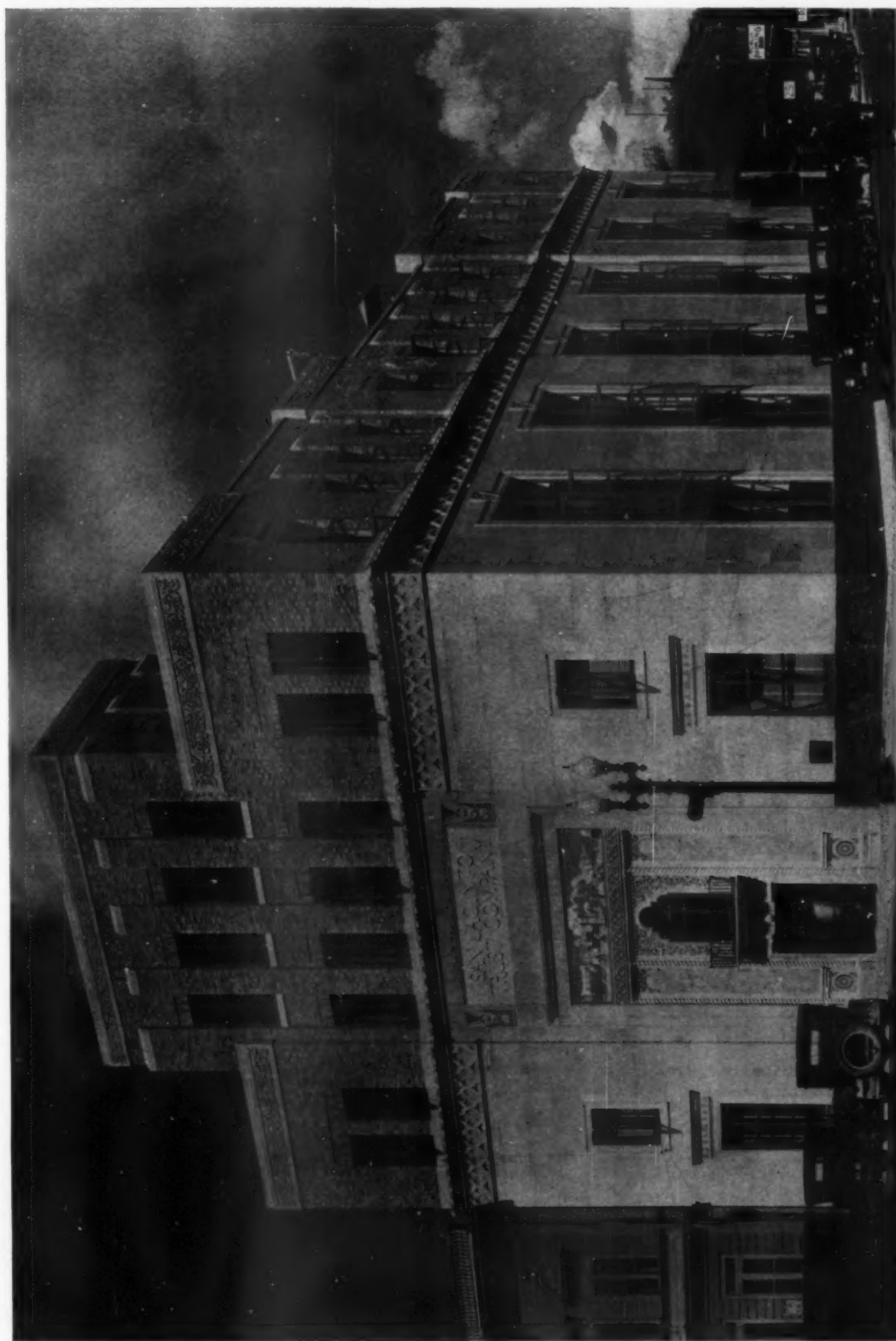
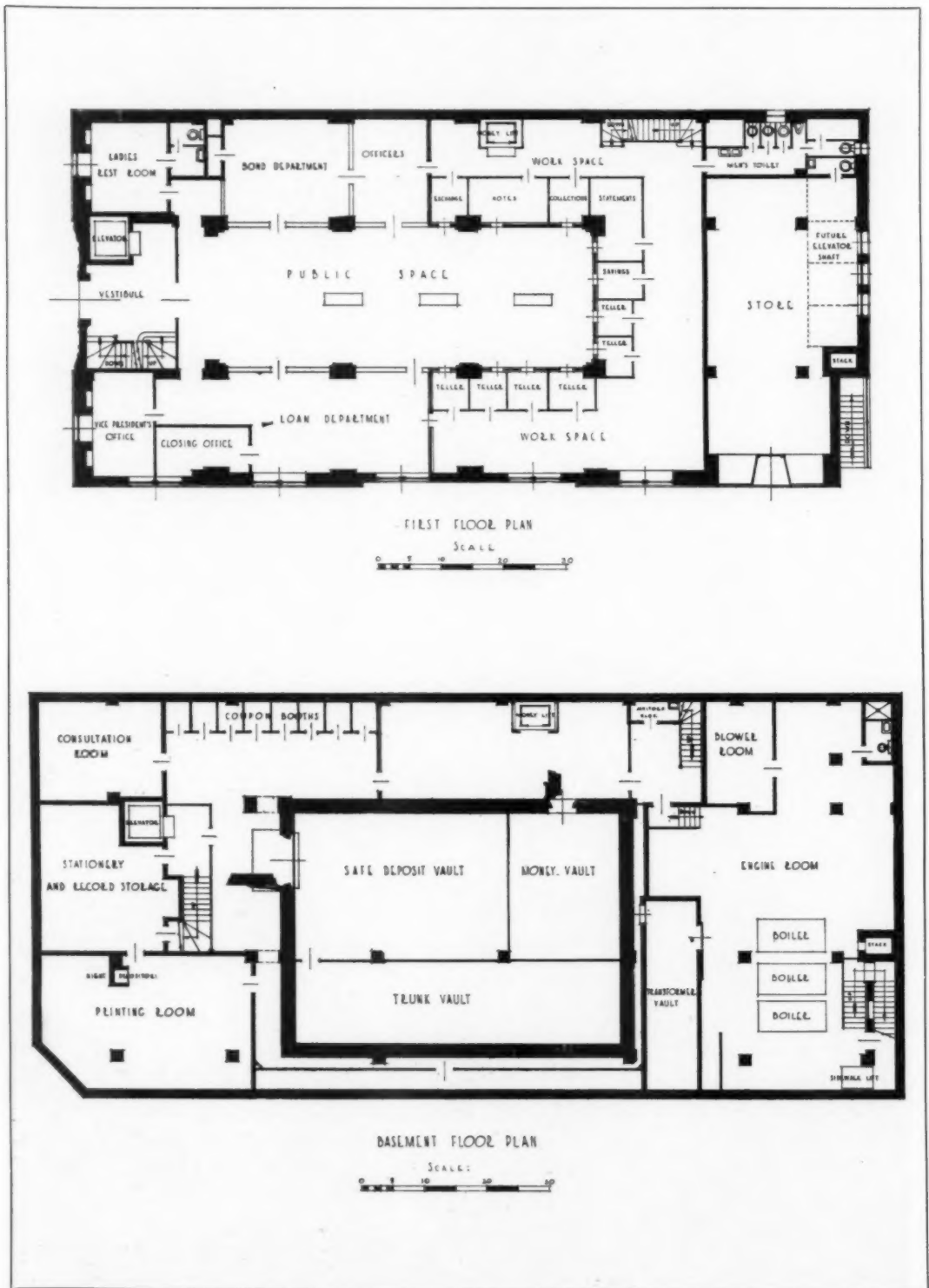


Photo by Calvin W. Hunt

SAN JACINTO TRUST COMPANY BUILDING, HOUSTON, TEXAS
JOS. W. NORTHROP, ARCHITECT—ALFRED C. BOSSOM, CONSULTING ARCHITECT



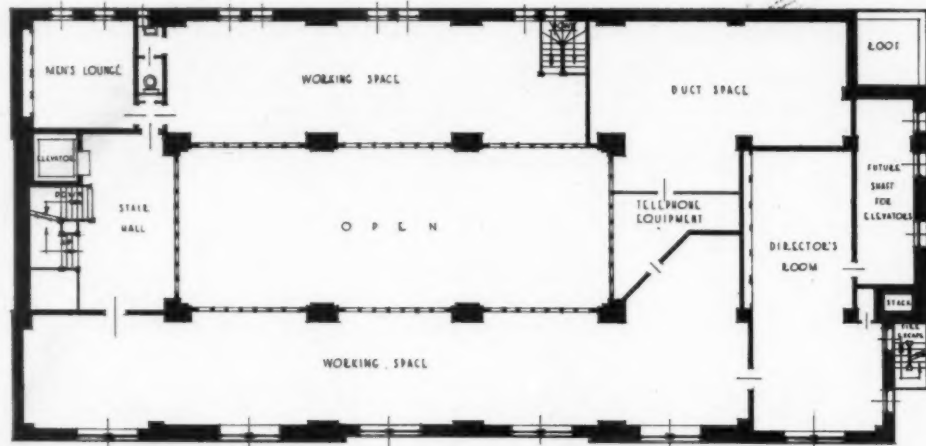
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Photo by Calvin Wheat

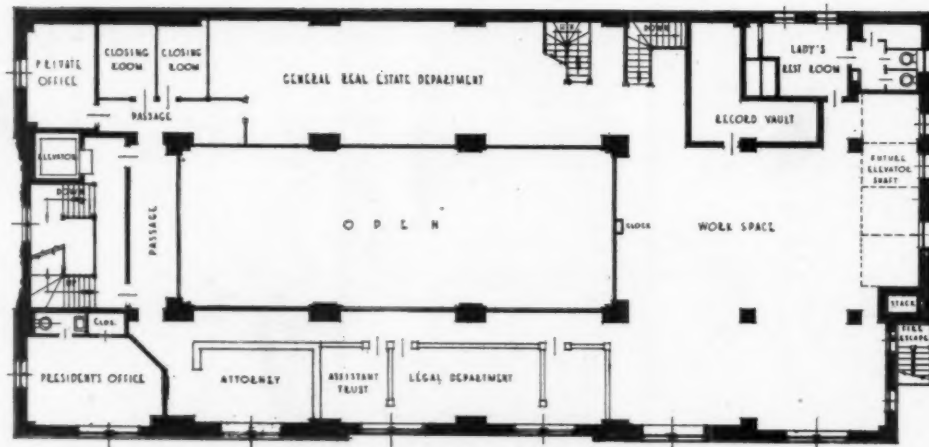
SAN JACINTO TRUST COMPANY BUILDING, HOUSTON, TEXAS

JOS. W. NORTHROP, ARCHITECT—ALFRED C. BOSSOM, CONSULTING ARCHITECT



SECOND MEZZANINE FLOOR PLAN

SCALE:



FIRST MEZZANINE FLOOR PLAN

SCALE

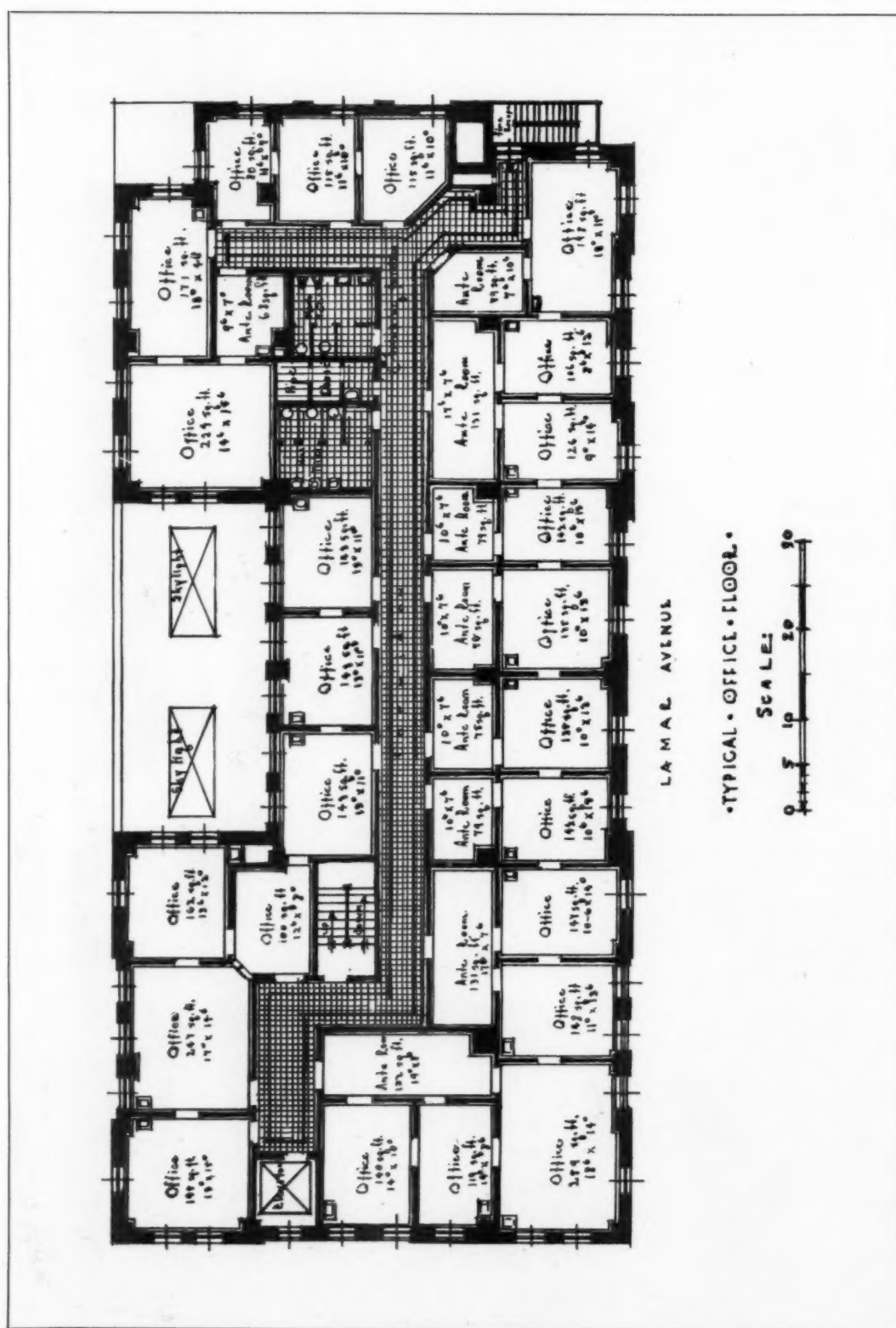


SAN JACINTO TRUST COMPANY BUILDING, HOUSTON, TEXAS
 JOS. W. NORTHROP, ARCHITECT—ALFRED C. BOSSOM, CONSULTING ARCHITECT



Photo by Calvin Wheat

SAN JACINTO TRUST COMPANY BUILDING, HOUSTON, TEXAS
JOS. W. NORTROP, ARCHITECT—ALFRED C. BOSSOM, CONSULTING ARCHITECT



SAN JACINTO TRUST CO. BUILDING, HOUSTON, TEXAS

JOS. W. NORTROP, ARCHITECT—ALFRED C. BOSSOM, CONSULTING ARCHITECT



Photo by Robbins & Baker

UNITED HEBREW TEMPLE, ST. LOUIS, MO.—MARITZ & YOUNG, INC., ARCHITECTS; GABRIEL FERRAND, ASSOCIATE ARCHITECT

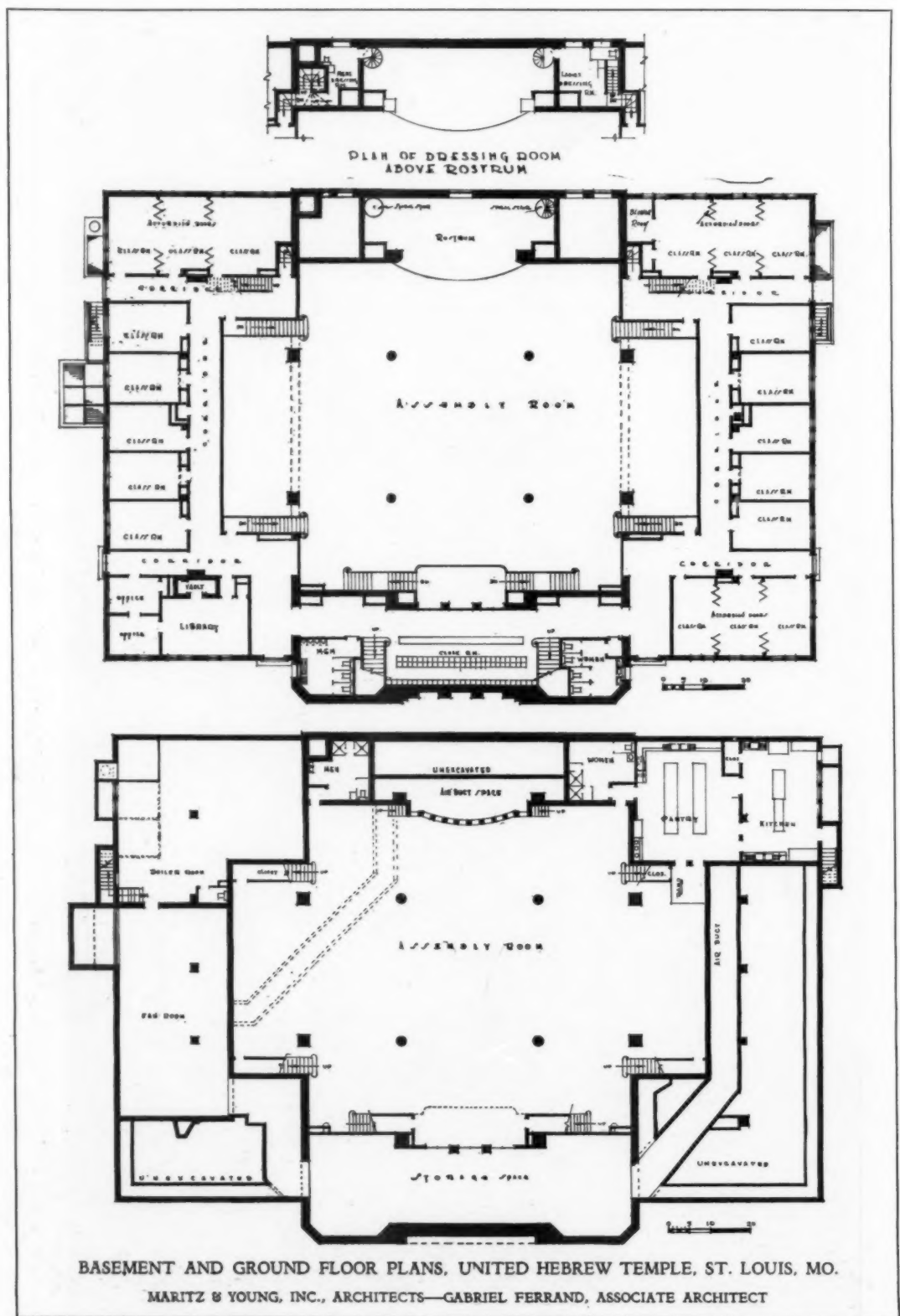
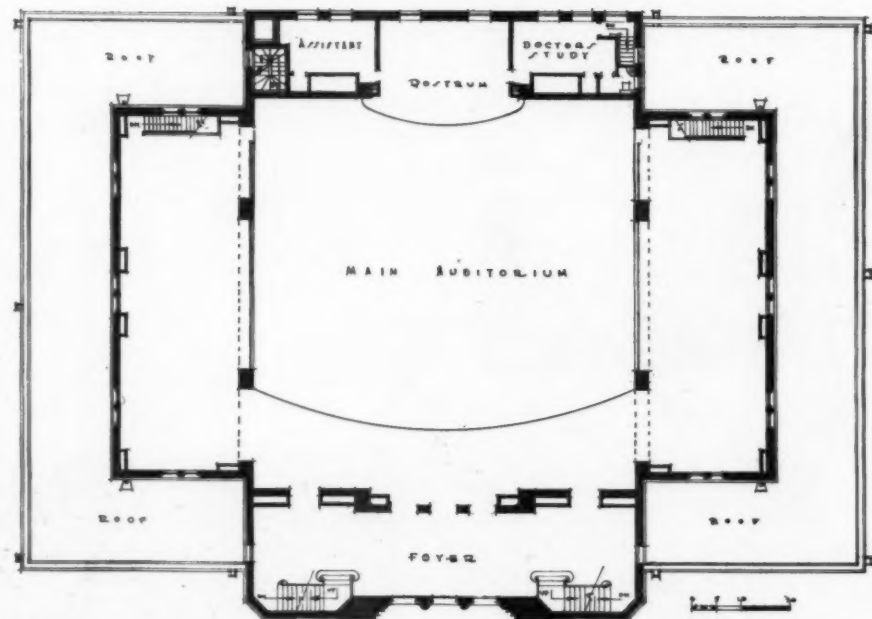
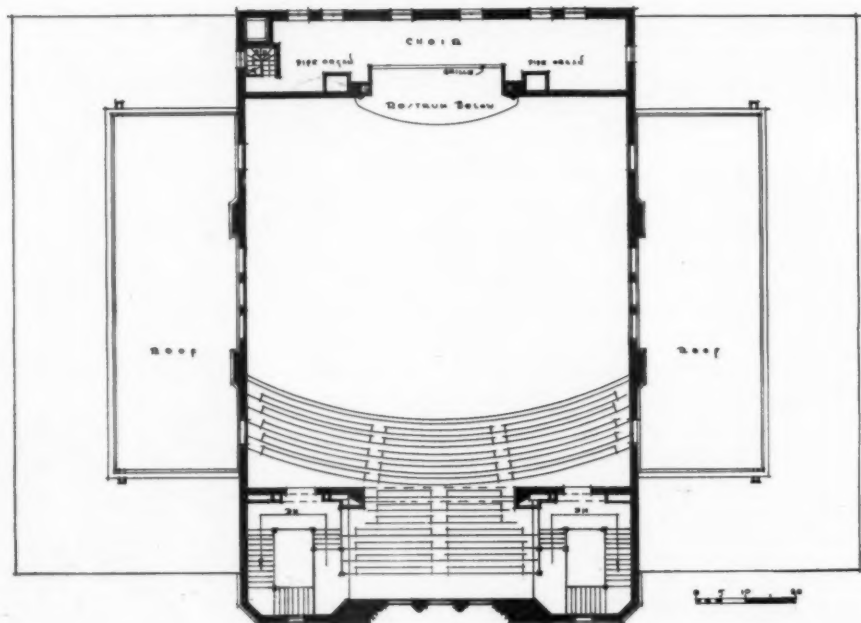




Photo by Robbins & Baker
UNITED HEBREW TEMPLE, ST. LOUIS, MO.—MARITZ & YOUNG, INC., ARCHITECTS; GABRIEL FERRAND, ASSOCIATE ARCHITECT



FIRST FLOOR AND MEZZANINE PLANS, UNITED HEBREW TEMPLE, ST. LOUIS, MO.

MARITZ & YOUNG, INC., ARCHITECTS—GABRIEL FERRAND, ASSOCIATE ARCHITECT

INTERIOR ARCHITECTURE

THE ARCHITECT AS A CRAFTSMAN

IN a recent issue* of the *AMERICAN ARCHITECT*, there was published an article entitled "The Architect and Industrial Design" by Sir Lawrence Weaver, which dealt with the relation of the architect to the design of products of every day use. The author of that article is the president of the Design and Industrial Association of Great Britain and is tremendously interested in the development of the art quality in the design of industrial products. Sir Lawrence stated that not only does the architect know enough about the nature of design to appreciate the proper influence of materials, but is in touch with every class of society and furthermore, has a



mind nimble enough to react to its impulses. Because, Sir Lawrence says, the architect is the practitioner of the Mistress Art, he is in a commanding position, if he likes, to take a hand in shaping the character of industrial art.

As much as he would like to, the architect seldom finds time to give much consideration to this phase of design. Occasionally, however, we meet an architect who has become so enthusiastic over the relation of art to crafts that he has actually set up his own shop where his designs may be shaped, if not by his own hands, at least, under his personal supervision. Such an architect is more than a mere designer of industrial arts; he is a craftsman, in every sense of the word. As Sir Lawrence stated, the architect fully appreciates the relation of design

to material, and knowing, as a true craftsman does, the methods by which form is given to his designs, his productions set a standard in industrial art which others find it difficult even to approach.

William Waldo Dodge, Jr., is an architect by profession and a craftsman by avocation. His archi-



tectural drafting room is complemented by a workshop in which hand wrought silverware is made. He not only designs the various products, but takes an active part in their production. The building in which his studios and shop are located in Asheville, N. C., is suggestive of the work of an architect who "knows his crafts," as we might say in modern phraseology. The various pieces of hand wrought silver which come out of his shop might be classed as masterpieces of craftsmanship.

Unlike certain designers of industrial products who profess a knowledge of art in industry, claiming to be the originators of "set-back bookcases" and other effects which simulate architectural forms, the designs of Mr. Dodge suggest the art of the real craftsman. Examples of his work in hand-wrought



silver are illustrated herewith and his studio and workshop are pictured on the following pages, from which one may gain an idea of his qualities both as a craftsman and as an architect.

* September 20, 1928.



A CORNER OF THE WORKSHOP
STUDIO OF WILLIAM WALDO DODGE, ARCHITECT AND CRAFTSMAN, ASHEVILLE, N. C.

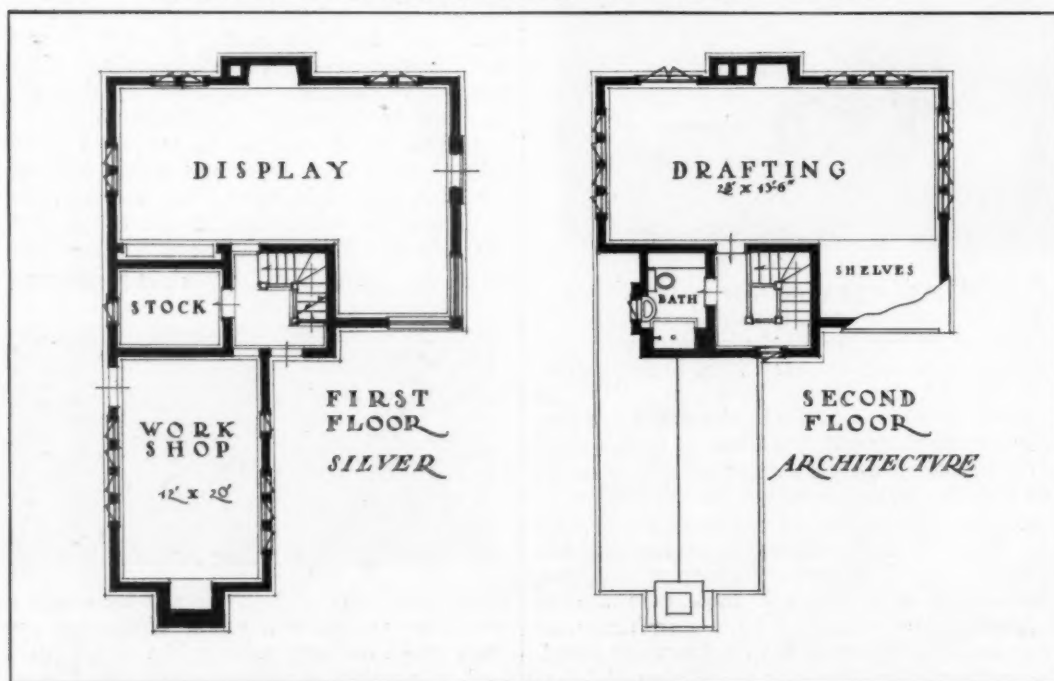




Photo by A. B. Photo Service

STUDIO OF WILLIAM WALDO DODGE, ARCHITECT AND CRAFTSMAN, ASHEVILLE, N. C.
STUCCO IS A WARM TAN, AND BRICKS IN THE NOGGING WERE PICKED FOR APPARENT AGE



Photo by A. B. Photo Service

DISPLAY WINDOW, STUDIO OF WILLIAM WALDO DODGE, ARCHITECT AND CRAFTSMAN, ASHEVILLE, N. C.

SHOWING SOME OF THE HAND WROUGHT SILVER PIECES PRODUCED IN THE WORKSHOP

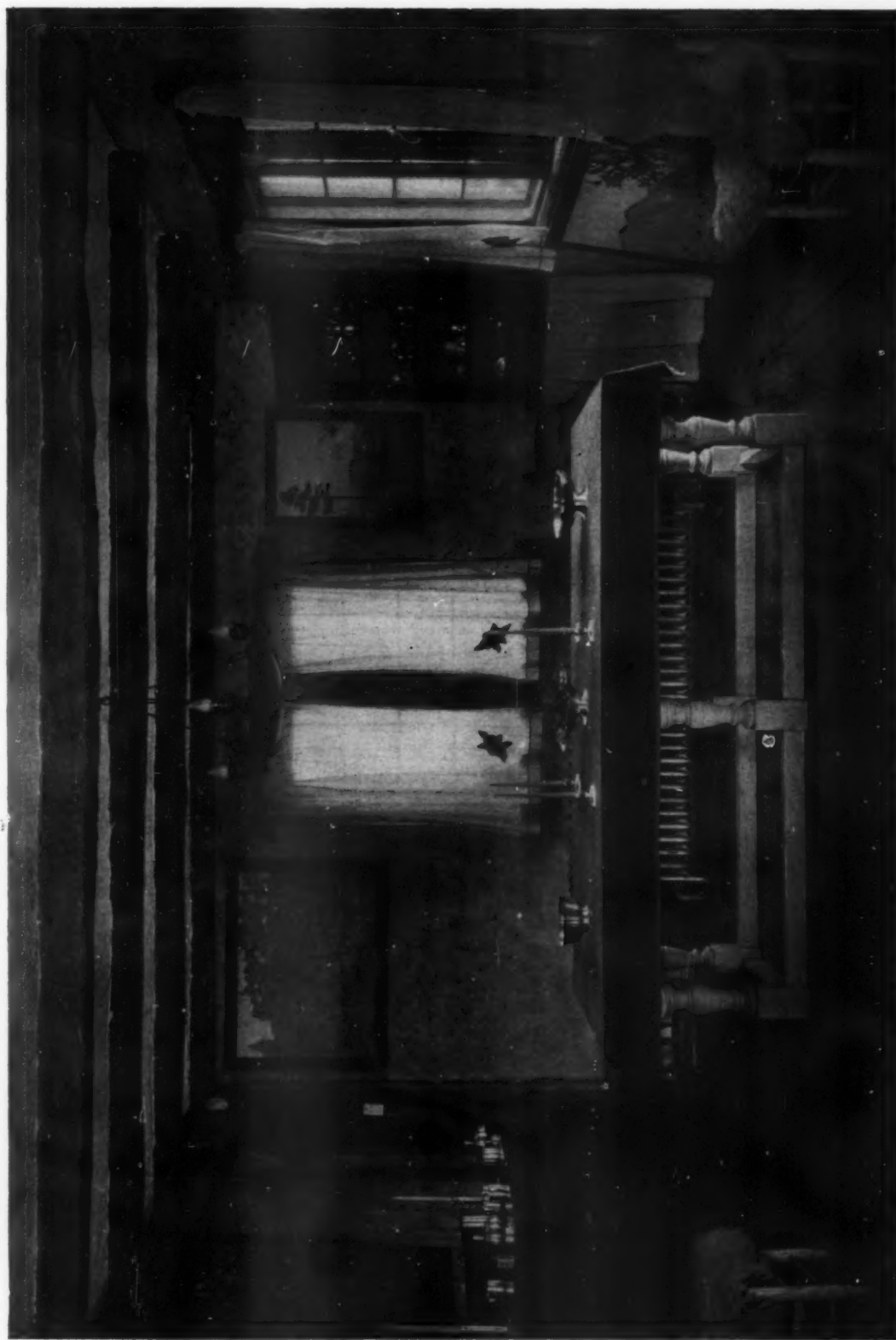


Photo by A. B. Photo Service
 DISPLAY ROOM IN THE STUDIOS OF WILLIAM WALDO DODGE, ARCHITECT AND CRAFTSMAN, ASHEVILLE, N. C.
 CEILING BEAMS ARE OF OLD WHITE OAK AND FLOOR IS OF CAROLINA PINE



Photo by A. B. Photo Service

ENTRANCE DETAIL, STUDIO OF WILLIAM WALDO DODGE,
ARCHITECT AND CRAFTSMAN, ASHEVILLE, N. C.

THE ORNAMENT WAS MODELED BY THE ARCHITECT AND CAST IN A LOCAL SHOP



Photo by A. B. Photo Service

DETAIL, SHOW WINDOW, STUDIO OF WILLIAM WALDO DODGE,
ARCHITECT AND CRAFTSMAN, ASHEVILLE, N. C.
THE WOOD WAS CARVED BY THE ARCHITECT HIMSELF

NECESSITY AT BOTTOM OF THIS MODERN MOVEMENT*

By FRED C. ROTHERMELL

THE creator of the fastest racing motor car in the world, the surgeon who invented the larynx forceps to remove a pin from the throat of a patient without operating, the designer of the twentieth century greyhound of the rails, none of these held a message in the form of art, "modernistic" as they may seem. Yet it now seems that the laboratories of necessity have developed from these same fundamental forms a beauty more consistent and sincere in the expression of finely wrought utility than anything that might have been added for beauty's sake.

The world stands at the dawn of a new tomorrow. Art has flown from the self-conscious atmosphere of the studio and taken refuge in the stark sincerity of the laboratory. A boiler, a dynamo, a coil spring—these are the dynamic themes for the artist today. Scientific abstractions are the mountain peaks of inspiration for the artist of this teeming civilization.

From the mechanical pallettes of the cement mixer and the steel cauldron comes the formulae for a fifty story building. Governed by the laws of physics and structure, it rises into infinite beauty. Retouched with embellishments from a vanished age it becomes a pathetic testimonial to the vulgarisms of insincerity.

Architecture builds for the future. A tower of steel and concrete five hundred feet in the air is no mere gesture for the sake of a passing fad. Structural laws are more salient than art's caprice. Out of the complexities of swarming cities arise the problems of light, air, sanitation, and transportation. The answer to these problems is the towering set-back skyscraper; the architect's monument to the laws of necessity of his age, a monument mystically beautiful, amazing, lifting the beholder to a new plane of thought.

What of the interior of the Tower of Tomorrow? Are we to step from an express elevator that has rushed us up into space for thirty or forty stories in a moment into a carefully created business man's office of the Louis', the Medici's, the Romanoff's? In a hand carved mirror to see reflected the tinsel of a decadent past? A portrait in inconsistency, this—the clothes, manners, mental attitudes of 1928 in a setting of 1728? Steel and concrete, swift soaring beauty belied by the trappings of a costume picture?

From the foundry, mill, and shop are coming the creative materials of this age. These are ours, of our life. Steel, asbestos, cork, glass—all consistent, honest expressions of the chemical fusions which produce them, all legitimate children of the scientific laboratory. These—the artificial pigments and laborious carvings mechanically reproduced

from the mementos of a hand-craft age. In our industrial evolution lies our artistic revolution.

Life, growing more complex, demands, paradoxically, an art that is more abstract. Complex existence can accept only that which expresses the spirit of its time. Here then, is the basic answer to this modern movement in art. It is a physical and material expression of the life of today.

Every movement in art which has graced the pages of man's experience has been labelled as "fad" at its inception. As the years passed the honest elements became fused into a general style that the next generation labelled "period." To the creator has always fallen the thankless job of visioning ahead of his contemporaries. He it is who clings to and fosters the fundamentals that are later accepted as characteristic of the period by a curious, cautious, and critical public, whose curious, cautious and critical faculties are as old and defensive as the first crudely scratched impressions of a buffalo on the wall of a cave of 50,000 years ago. And that buffalo was "modern" in that far age in the same sense that our abstract art is "modern" today. Each is the art, the creative, instinct, expressing itself through the medium of ideas and materials at hand.

To be abstract is to be fundamental. To be fundamental is to be primitive. But the fundamental qualities expressed in the contemporary movement of 1928—or 2028—are the expressions of a highly complex mode of life and thought, which, stripped of nonessentials, is essentially sophisticated. Consequently, it is the sophisticated dress, automobile, chair, lamp, or table that "gets by." The telephone, radio, ultra-violet ray, structures of steel, synthetic foods, and canned soup are contemporaries of sophistication—symbols of the age.

But creative effort, being in the forefront of life, is forever being belaboured by the mob as a "fad." Nevertheless, a ray of light that passes through stone, a chair fitting the curves of the human body within the basic elements of a cube, clothes that conform to the natural movements of modern life, tables that vanish into a wall when their duties are accomplished, engines that function without noise, color harmonies that bring release to a harassed mind—these are no fads.

The cornerstone of modern art is consistency. Some contend that we are living too fast to consider art. Analysis shows that the movement of modern life is a result of art, and that modern art in turn is the result of the complexities of life.

In short, there is no use trying to hoodwink ourselves about "this new modern stuff." It is of our times, it is ourselves and the more we try to escape it the more modern we become.

*Reprinted from *The Decorative Furnisher*

EUROPEAN SKYSCRAPERS

A GROUP OF PHOTOGRAPHS OF
CERTAIN BUILDINGS THAT ARE SAID TO BE THE
TALLEST IN THE SEVERAL COUNTRIES



Photo by Ewing Galloway

KING'S TOWER, OFFICE BUILDING, STOCKHOLM, SWEDEN



Photo by Ewing Galloway

CONSIDERED A TALL BUILDING IN ENGLAND
THE EAGLE, STAR & BRITISH DOMINION INSURANCE COMPANY, LONDON

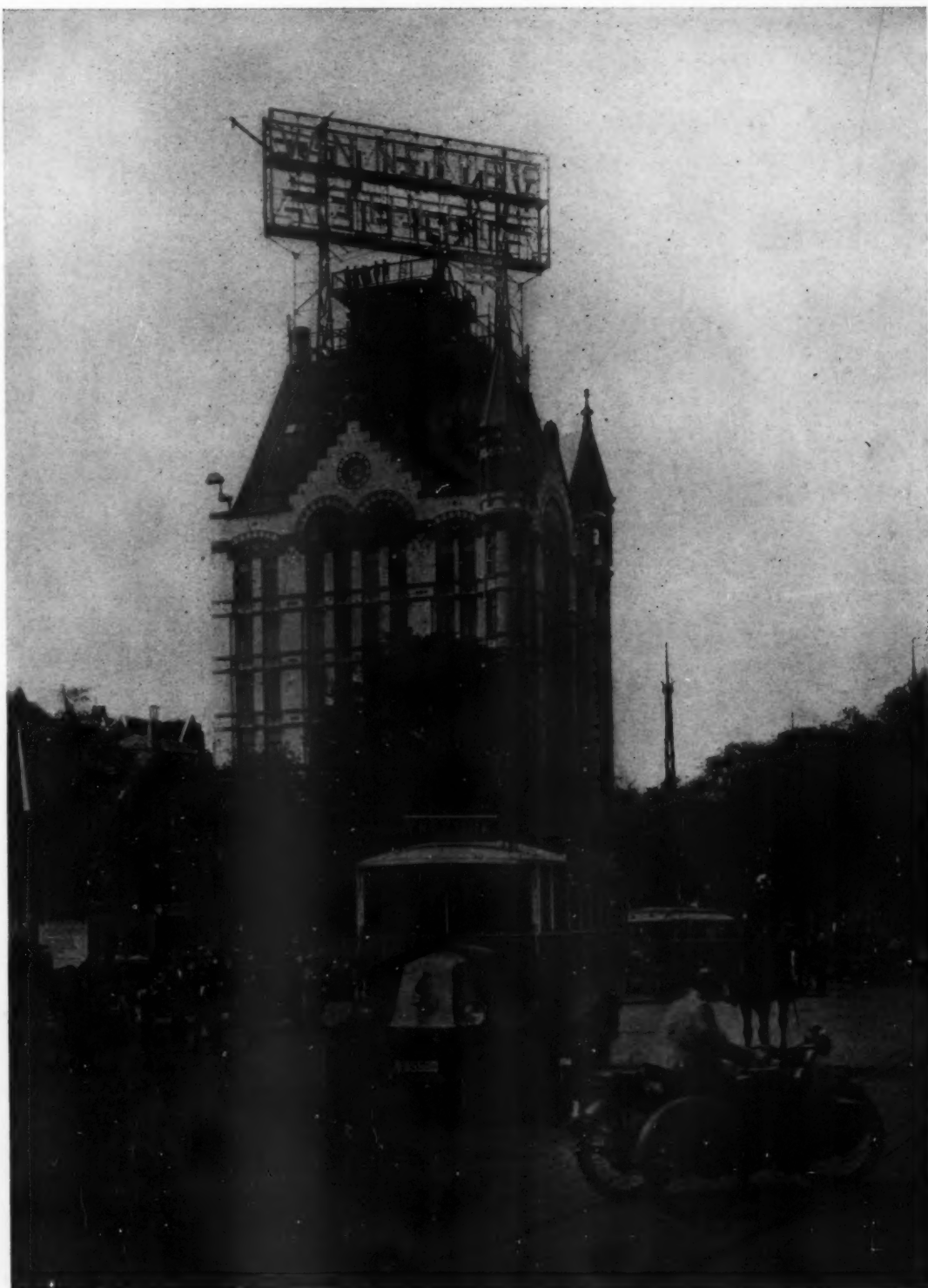


Photo by Ewing Galloway

A SKYSCRAPER IN HOLLAND
AN APARTMENT HOUSE IN ROTTERDAM

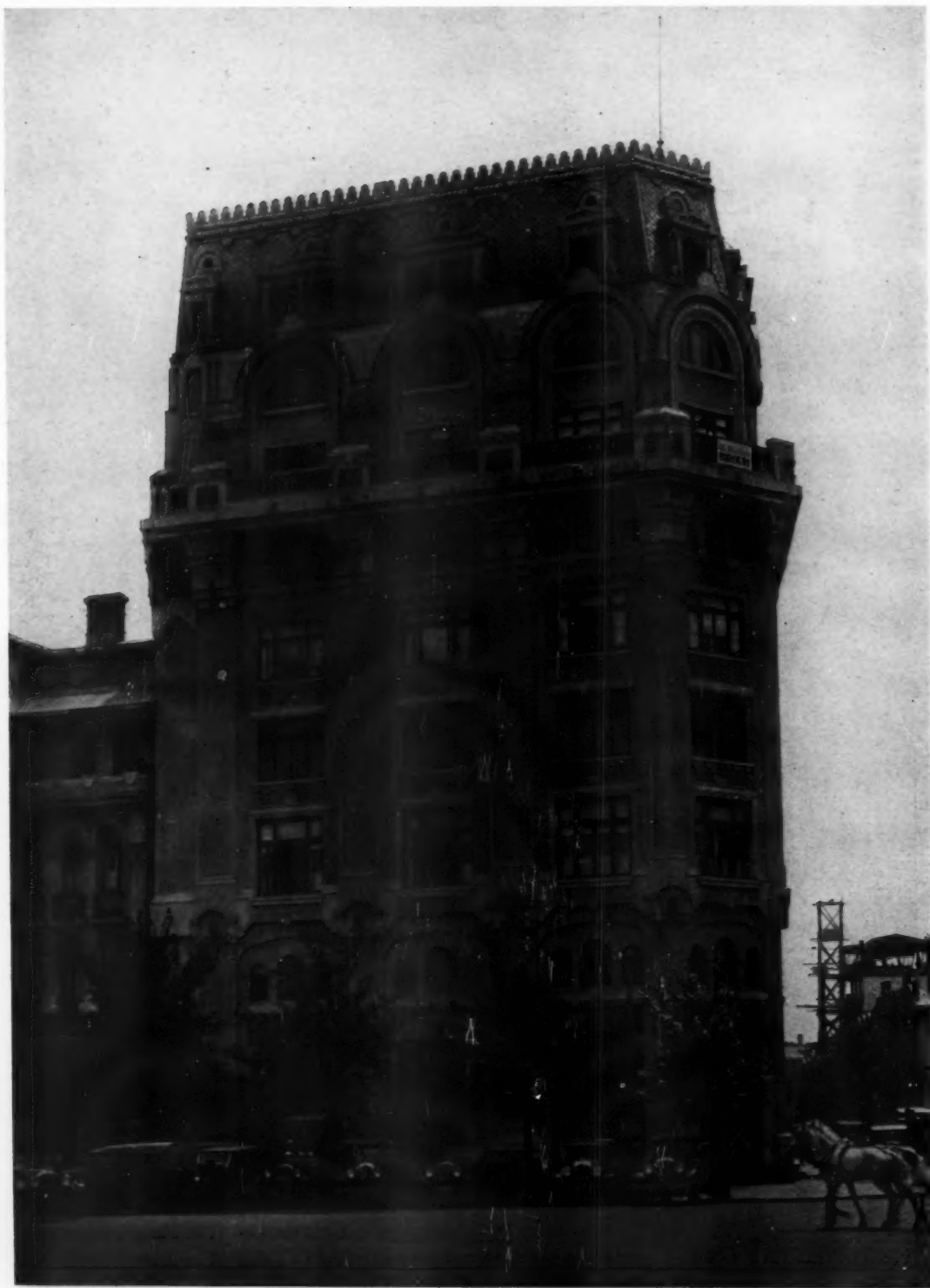


Photo by Ewing Galloway

REPUTED TO BE THE TALLEST BUILDING IN ROUMANIA
AN OFFICE BUILDING IN BUCHAREST



Photo by Ewing Galloway

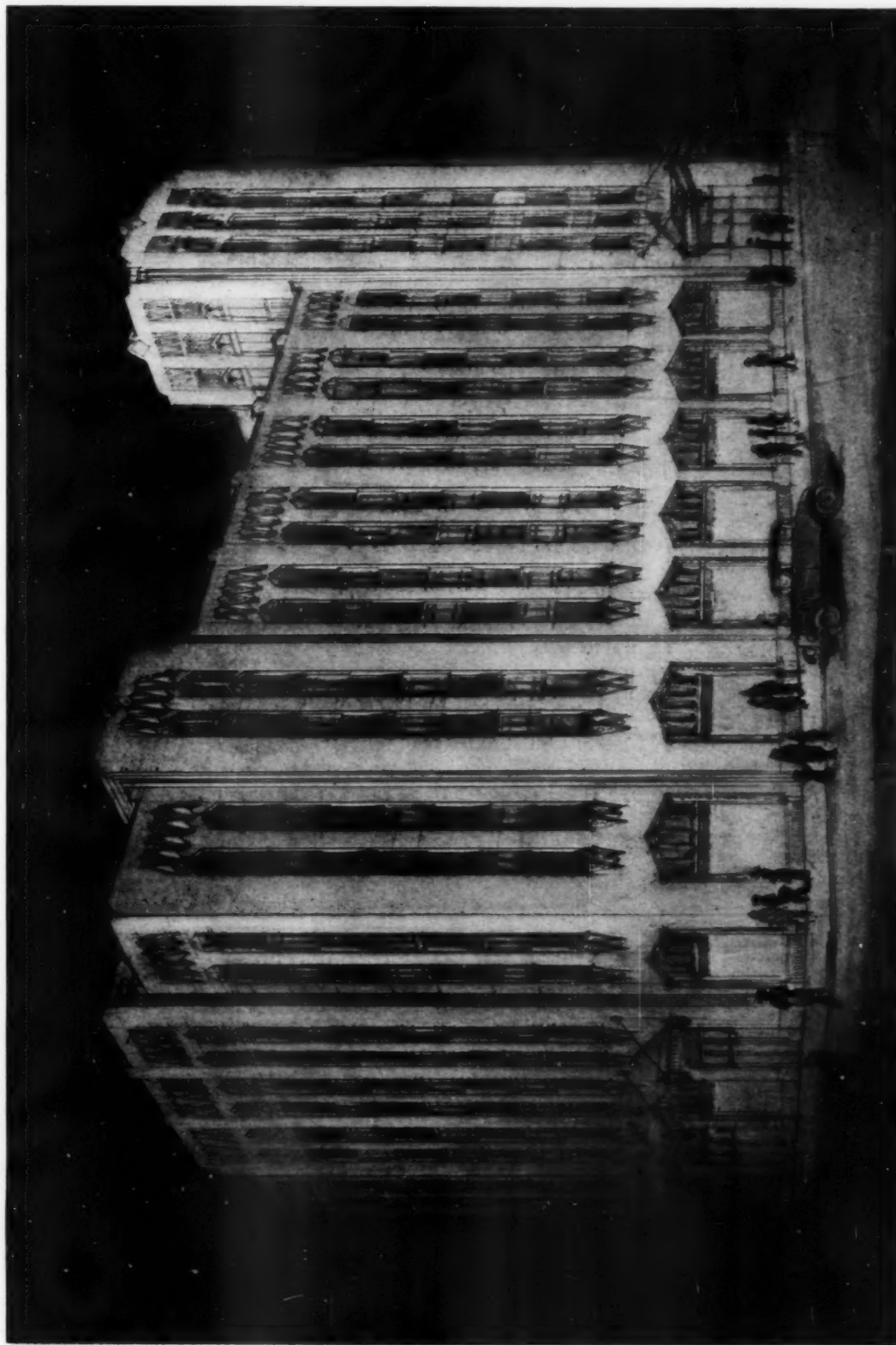
THE LARGEST AND TALLEST BUSINESS BUILDING IN GERMANY

"CHILE HOUSE" IN HAMBURG



Photo by Ewing Gallenay

MODERN SKYSCRAPER APARTMENTS ON THE SITE OF AN OLD FORT IN PARIS



OFFICE BUILDING, PUBLIC SERVICE COMPANY OF OKLAHOMA, TULSA, OKLA.—A. M. ATKINSON, ARCHITECT

MODERN SKYSCRAPER APARTMENTS ON THE SITE OF AN OLD FORT IN PARIS

[illegible]

BROWNING-WARREN BANK AND OFFICE BUILDING, WASHINGTON, D. C.
ROBERT F. BERESFORD, ARCHITECT



BROWNING-WARREN BANK AND OFFICE BUILDING, WASHINGTON, D. C.

ROBERT F. BERESFORD, ARCHITECT



OFFICE BUILDING, SOUTHERN CALIFORNIA EDISON CO., LOS ANGELES, CALIF.
ALLISON & ALLISON, ARCHITECTS



ENGINEERING AND CONSTRUCTION



THE EXPERIENCE OF BUILDINGS

SOME OF THE EXIGENCIES OF MODERN ARCHITECTURAL PRACTICE

By ARTHUR T. NORTH, A. I. A.

ARCHITECTURE and construction, like every other thing that concerns human beings, are responding to the modern tempo. This tempo is the result of the generative agency of commerce—the significant causation in this area. Commerce, collectively, consists of the trinal elements of production, transportation and merchandising. Transportation is the most important of these elements because without it production and merchandising would be limited to the capacity of the individual.

Transportation, very properly, includes the interchange of knowledge as well as that of material things. The result is that with rapid and dependable water, land and air transportation and the telegraph and radio transmission, the world is becoming increasingly smaller and united. These conditions have had their positive effect on architecture, evidenced in many of its phases.

Time was when architects designed and constructed a finished structure intended to serve for all time. Increased commerce required larger and better buildings, and its concomitant of increased wealth made them possible. Expansion in all things became the accepted order and it is a contingency for which provision must be made.

The modern system of skeleton frame construction removed the eight to ten story height limitation of the bearing wall construction. The practical surety of expansion and increased land values resulted in many buildings being erected with foundations and columns designed to support future added stories. Another reason for this practice in many cities was the expectation that laws limiting building heights would be amended to extend them. These changes gradually developed until all limits of height were removed, subject to certain collateral conditions found in the later forms of zoning laws.

An interesting example of the exigencies of modern architectural practice is found in the Kansas City Administration and Equipment Building of the Southwestern Bell Telephone Company, Kan-

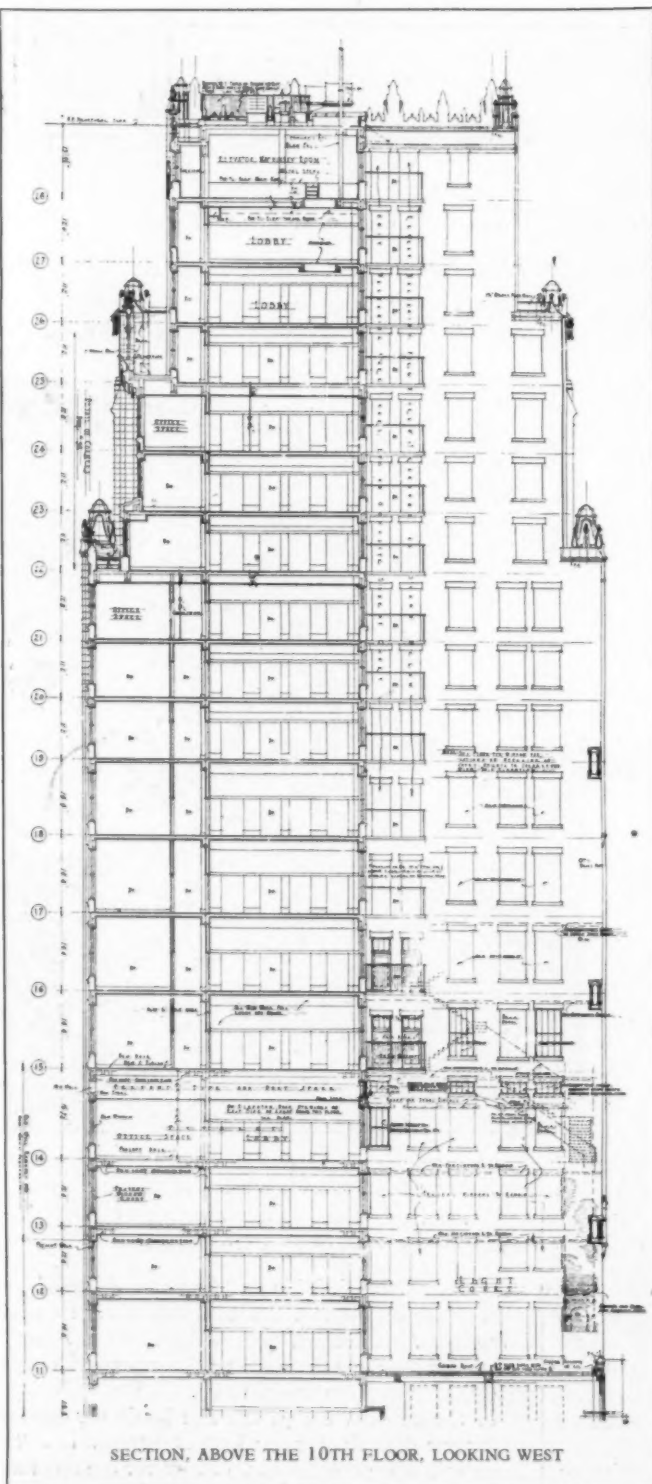


KANSAS CITY ADMINISTRATION AND EQUIPMENT BUILDING.
SOUTHWESTERN BELL TELEPHONE CO., KANSAS CITY, MO.

HOIT, PRICE & BARNES, ARCHITECTS
I. R. TIMLIN, ASSOCIATE ARCHITECT

sas City, Missouri. This building was designed by Hoit, Price & Barnes, Architects, and I. R. Timlin, Associate Architect. It was designed as a twenty story structure of which fourteen stories and a pipe gallery were constructed in 1919.

In the original design the live loads per square foot were 400 lb. for the battery rooms, 175 lb. for certain equipment floors, 150 lb. for the remaining equipment floors up to and including the eleventh floor and 75 lb. for the twelfth and floors above. These heavy live loads naturally required a



comparatively heavy floor construction. The estimated live loads for equipment were not equalled, as shown by a survey of the actual conditions.

When the headquarters of the Company for western Missouri and Kansas were established in Kansas City it was found that this building as originally planned would not provide sufficient floor area and to provide the required space necessitated adding more stories.

In the study of the problem, seven distinct designs were developed. The final and most pleasing design was the most practical from the engineering standpoint and furnished the greatest usable floor area per unit of volume. Of the seven schemes developed the ratio of usable floor area to cubic foot volume varied from 1:18.3 to 1:16.75 in the final design. In this design the contemplated structure was twenty-eight stories high instead of the twenty stories originally designed. The added stories were fourteen in number instead of six, a gain of 133 1/3 per cent.

Two factors were instrumental in securing these results. Some time before the building was completed (1928) the Kansas City Building Code was amended to include the Standard Specification of the American Institute of Steel Construction thus increasing the permissible fibre stresses in steel for flexure to 18,000 lb. and the maximum stress in columns to 15,000 lb. per square inch. A recently developed light weight concrete was used for the floor and roof slabs and fireproofing. This concrete is made in the usual manner except that the coarse aggregate is a crushed, vitrified, burned shale. Concrete so made weighs 100 lb. per cubic foot while limestone concrete weighs 150 lb. per cubic foot. This made a saving in dead weight of 33 1/3 per cent. The concrete developed an ultimate crushing strength of 2,400 lb. per square inch.

The adoption of a 50 lb. per square foot live load for all the new floors (except three where 125 lb. was used) made possible the use of a two-way solid floor slab construction which was of a lighter type than had been allowed for in the original calculations. This with the light weight concrete before described made a material

reduction in the live and dead loads.

It was found that the limit of height for the exterior columns would be twenty-four stories with the light weight construction and that the interior columns could safely support thirty stories. To equalize the difference, set-backs were introduced at the twenty-second and twenty-fifth floors. The set-backs transferred a portion of the exterior wall load to the first row of interior columns, thus equalizing the loads on the exterior and interior columns. A minor gain in dead load was made by backing up the terra cotta faced walls with Haydite concrete brick.

Analysis of the loading on all columns showed that the stresses developed in the lowest tier of all columns exceeded the original calculations very slightly and were well within the limits allowed by good practice.

Wind bracing entered the problem principally because of the greater proportionate height of the wings of the building on both sides of the rear light court. It was found to be necessary to brace these wings together across the outer end of the court at the thirteenth, sixteenth and nineteenth floor levels. These wind bracing trusses were encased in concrete and faced with terra cotta. It was also found necessary to reinforce four of the interior columns through the fourteenth story and pipe gallery to resist the increased wind stresses. The reinforcement consisted of a new concrete encasement reinforced with 12 1¼" bars and heavy hooping extending from the thirteenth to the sixteenth floors.

A fine example of architectural amenity is found in the treatment of the west or alley elevation of the building. This façade assumes the importance of a street façade for the reason that it faces the heart of the down-town retail district and will always stand high above any future buildings erected to the westward.

The Kansas City zoning or-



KANSAS CITY ADMINISTRATION AND EQUIPMENT BUILDING,
SOUTHWESTERN BELL TELEPHONE CO., KANSAS CITY, MO.



22ND FLOOR PLAN



19TH FLOOR PLAN

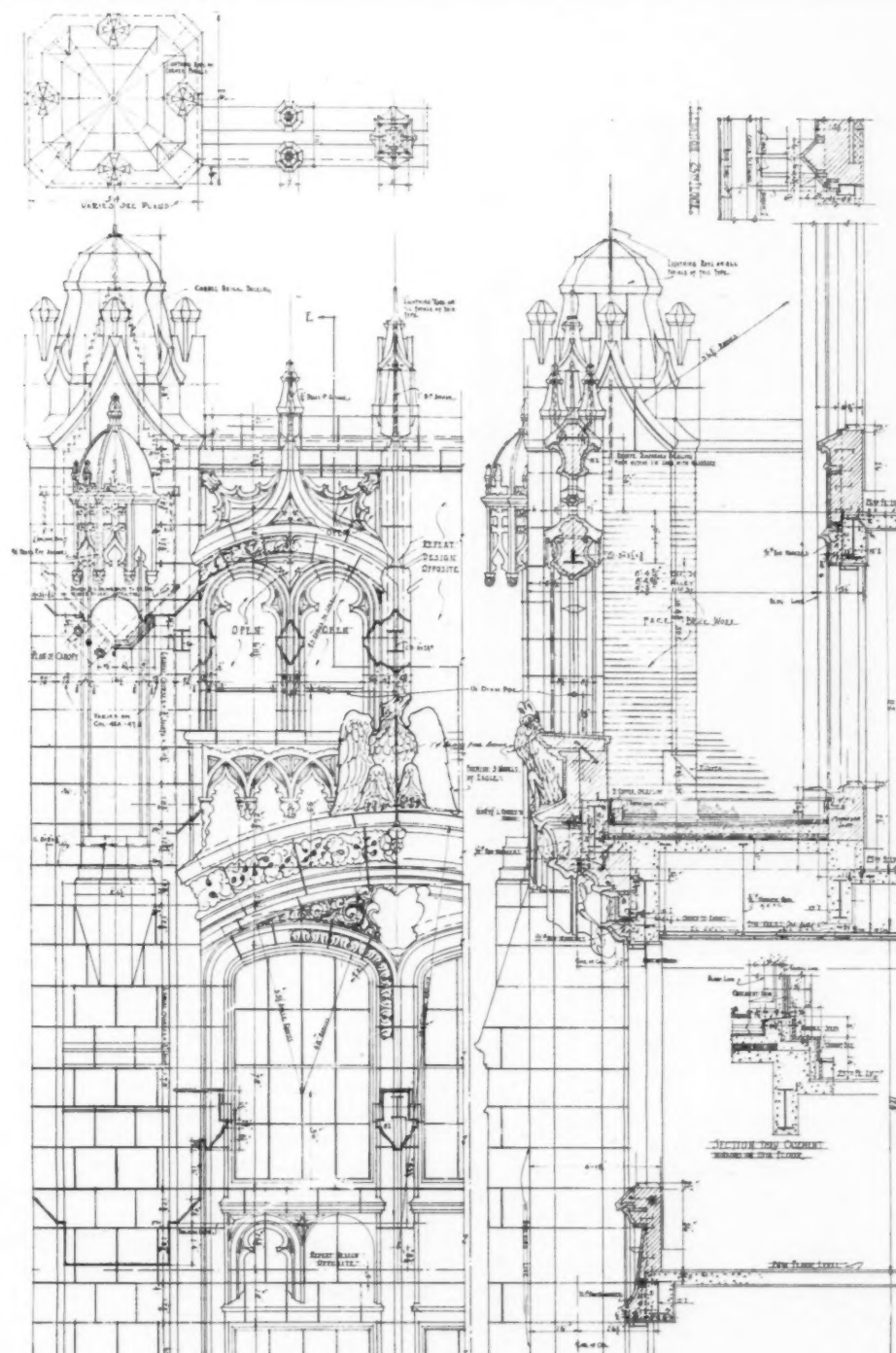


16TH FLOOR PLAN

FLOOR PLANS

KANSAS CITY ADMINISTRATION
AND EQUIPMENT BUILDING
SOUTHWESTERN BELL TELEPHONE CO.
KANSAS CITY, MO.

HOIT, PRICE & BARNES, ARCHITECTS
I. R. TIMLIN, ASSOCIATE ARCHITECT



DETAILS OF ELEVENTH STREET SPANDRELS
KANSAS CITY ADMINISTRATION AND EQUIPMENT BUILDING, SOUTHWESTERN
BELL TELEPHONE CO., KANSAS CITY, MO.

HOIT, PRICE & BARNES, ARCHITECTS; I. R. TIMLIN, ASSOCIATE ARCHITECT



KANSAS CITY ADMINISTRATION AND EQUIPMENT BUILDING,
SOUTHWESTERN BELL TELEPHONE CO., KANSAS CITY, MO.

distance has established the height of future buildings as 180'-0" from grade to the first set-back. As the first set-back of the Telephone Building is at the twenty-second floor, the upper portions will always stand forward of and above any future buildings and it was decided to treat the west elevation as a street façade above the 180'-0" level.

Another interesting and important factor was considered in designing the completion of this building. The columns erected in 1919 for a twenty-story building were designed in conformity with the existing Building Code. The new Code limiting the maximum compressive stress to 15,000 pounds per square inch was the basis for designing the additional stories. The increased loads on the existing columns would cause in them a certain elastic compression.

In a structure built to its full height in a continuous operation, the steel frame and the floor construction ordinarily are built sufficiently in advance of the enclosing walls to cause much of the

normal compression to take place before the walls are constructed. The "green" masonry is capable also of compression. In this case there was no possibility of the terra cotta facing of the lower stories taking up the added compression and the expansion occurring in hot weather, without serious damage to the facing.

A careful calculation disclosed the fact that the dead load only of the new stories would cause an elastic compression of 0.46 inches in the lower fourteen stories.

To allow for this compression, horizontal expansion joints were cut all around the building at each alternate floor (at the floors where the column splices were located) just beneath the steel shelf-angles which support the facing. It was found that these joints could be cut as narrow as one-half inch by the use of small power drills. The joints were filled with a permanently elastic cement.

Experience has shown that buildings which stand very much above their surroundings and have projecting parts such as finials are not infrequently damaged by lightning. The original building was struck on several occasions, shattering the tops of the finials. This building is now protected against lightning damage by platinum tipped bronze air terminals projecting through the tops of all the higher finials at the setback levels and around the top. These air terminals are fully grounded to the steel frame by brass pipes and copper cables.

It is interesting to note in this connection certain provisions made for lightning protection in the recently constructed thirty-four story Warwick Hotel, Sixth Avenue and Fifty-fourth Street, New York City, George B. Post and Sons, Architects. A central tower on this building has a copper roof and finial some 440 feet above the ground. The finial and roof are connected and as an additional precaution the copper finial and the structural steel frame is connected with a copper "rail bond." The rail bond has a tapered copper pin on the end which was driven to a perfect contact in a hole drilled through the steel member. The copper pin was threaded and a copper nut maintains a permanent and perfect contact. The steel and copper adjacent to this joining was thoroughly cleaned, lacquered and varnished to prevent corrosion. This building has been struck by lightning twice without damage or annoyance to the occupants.

The experience of the Kansas City Administration and Equipment Building of the Southwestern Telephone Company and of Hoit, Price & Barnes, Architects and I. R. Timlin, Associated Architect, is not unusual. In every growing American city there are instances of the vicissitudes of a building's experience. In the same enterprising city a similar experience is recorded.

In 1911 the Argyle Building, Keene & Simpson, Architects, was designed as an eight story, wall-bearing store and office building. The interior

structural frame was made of steel and the reinforced concrete floor slabs designed for a live load of 60 lbs. per square foot. Four stories of the buildings were constructed originally and in 1925 it was decided to complete the structure. The originally planned eight stories were found to be inadequate for the increased demand for office space and two engineering organizations were retained to investigate and report on the project.

It was found that by using steel columns above the exterior masonry wall piers and light weight concrete for the floor slabs and fireproofing, six stories could be constructed instead of the four originally intended. Although the light weight concrete cost \$1.50 per cubic yard more than concrete made of the local aggregates, its light weight resulted in a sufficient saving in the tonnage of structural and reinforcing steel to offset the difference in cost and also to make it possible to add six instead of four stories. Some changes were made in certain footings.

It might appear to be unseemly to refer to architects as "lightning change artists" but circumstances often compel them to assume that role. An instance of making radical changes in a building under construction is found in the National Broadcasting Company Building recently erected at Fifth Avenue and Fifty-fifth Street, New York City, Bethlehem Engineering Corporation, Architects.

This is a fifteen story structure designed for retail shops on the ground floor, a banking room on the second floor and the floors above for display sales rooms, offices and small manufacturing privileges. At the time when twelve stories of steel work had been erected and the enclosing walls were under construction, the National Broadcasting Company took over all the space on the twelfth floor and above.

To furnish adequate quarters for it, three studios—A, B, and C—were constructed on the thirteenth floor extending through the fourteenth story. In order to construct these studios of the proper size it was necessary to shift the location of two steel columns and remove one column entirely. Studio H on the fifteenth floor extends through the attic to the roof and in it two steel columns were removed. These changes necessitated the strengthening of certain parts of the structural frame to support the rearrangement of columns and girders. These changes were made and the construction of the building proceeded practically without interruption.

One-half of the second floor is occupied by a branch of the Chatham & Phenix National Bank and the balance of the floor by the Knox Hat Company. In the latter space a mezzanine floor was constructed over the entire area. In the banking space a mezzanine floor was constructed in the bays on the north, east and south sides, about 5/9 of the total area. The addition of mezzanine floors is



ARGYLE BUILDING, KANSAS CITY, MO.
KEENE & SIMPSON, ARCHITECTS

quite common and easily made in buildings of this type of construction.

These three instances illustrate but a few of the many changes that are made in buildings during their existence. They present problems that tax the ingenuity of the architect and engineer and it can be said that they have developed great facility in attaining the maximum of possibilities.

The mutations of a building's experience and the measures or expedients used to adjust them to new conditions are a new phase of architectural practice. It is a contingency that is passing from the domain of possibility to that of certainty. In other words, can the architect practicing in a growing community foresee the eventualities that may accrue to the buildings he designs?

It is a problem of great economic importance to design so that the value of the building, which is fixed only in terms of net income, may be maintained or increased. If this is accepted as a legitimate component of architectural service, its consideration must be coincident with the inception of the project.

Accepting this as a phase of architecture, it is necessary to ascertain the basis. It is evident that the prime factor is structural rather than architectural, considered in the commonly accepted differentiation of the two terms. That being the true basis, then the construction must be of such a nature that it can be modified at will and always within the limitations of accepted engineering procedure.

Architecture will naturally follow structure.

There can always be attained a fine harmony between structure and architecture. Whatever may have been the original design prepared by Hoit, Price & Barnes and I. R. Timlin for the Kansas City Administration and Equipment Building of the Southwestern Bell Telephone Company for a twenty story building, its completion as a twenty-eight story building discloses a beautiful and dignified structure which evidences a successful solution of an unusual and difficult problem in which a happy association of architecture and structure has been attained. This instance also emphasizes the

importance to building owners of modern building codes which permit the maximum economical utilization of land with safe and durable buildings.

Analysis and study of all of the various changes that are made after the inception and completion of building projects will lead to their segregation into groups. The structural requirements for each group can be set up and as these are determined, it is entirely possible that a basic structural type will be found that will satisfy all demands in conformity with demonstrated engineering limitations for safe construction.

ANOTHER MODERN EXHIBITION

ANOTHER department store in New York is staging an exhibition of modern art achieved by European and American designers. B. Altman & Company have devoted space practically equal to half a city block to "an exhibition of 20th century taste in the new expression of the arts in home furnishings." Chief interest in the exhibition centers in a group of rooms completely decorated and furnished, designed by French and American artists to interpret twentieth century taste. Several of the American designers whose work is exhibited are new comers in the realm of house decoration and furnishings. Among them we find one who is noted for his magazine illustrations; another whose posters have gained recognition, and a third whose efforts have previously been devoted to stage design. The French artists are familiar to us through other exhibitions of a similar nature in this country. While we are in thorough sympathy with the modern art movement generally and place our stamp of approval on the department stores for their efforts to arouse public interest in its development, we are obliged to say, as we have said before in discussing previous exhibitions of modern art, that much of the work so far achieved lacks logic, and the most that can be said for it is that it is different. Just why certain weird forms which have been used in the design of furniture, for example, can be accepted as being interpretative of 20th century taste, it is hard for us to comprehend. Many of the chairs exhibited in the room ensembles may be decorative, but they certainly do not look comfortable (we were not allowed to do more than look at them) and if they are not, they are not well-designed chairs, in our estimation. But this idea of having one artist design a complete room, including architectural treatment, decorations and furnishings, is bound to develop a greater appreciation on the part of the public of the relationship of the various elements that go to make up the composition of a room. In the design of rooms for purely exhibition purposes, however, the element of structure is lacking, and, without structure, what is architectural and decorative design? It has been the

purpose of the department of Interior Architecture, which is regularly featured in this magazine, to emphasize the fact that in the design of interiors of buildings, as in the design of exteriors, structure is the basis from which design is developed. To our minds, an exhibition which features the architectural treatment of a room, in conjunction with its furnishings, mention should be made of the structural nature of the building in which the room might be incorporated so that its design may suggest its true origin. It is only in developing a design from structure that it becomes logical. And the modern art movement to date, except in a few cases (we have in mind the work of a certain few architects especially), fails because it lacks logic.

VOLUME OF CONSTRUCTION IN SEPTEMBER

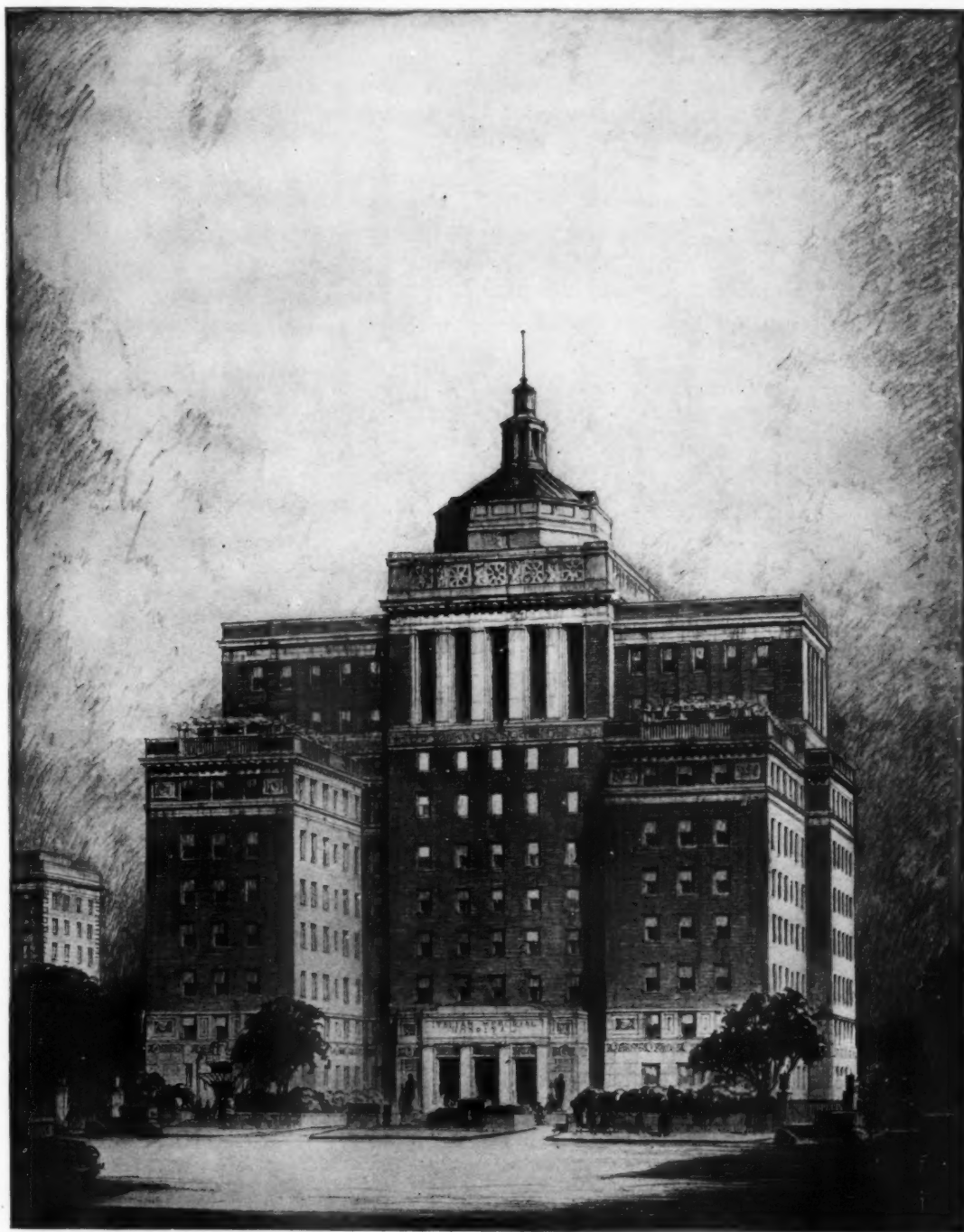
SEPTEMBER witnessed the greatest volume of construction work ever handled in the United States during a single month, according to statistics just compiled by the Associated General Contractors of America. The figures, covering all types of building and based upon shipments of construction materials, show last month's total to be nine per cent greater than the previous high mark, registered last June.

D. A. Garber, Washington, D. C., general manager of the contractors' national organization, states "the enormous activities of recent weeks bring virtual assurance that 1928 will be the greatest building year this country has ever seen."

The total value of construction operations of all types this year is prophesied to be more than eight billion dollars.

AN ARCHITECTURAL EXHIBITION

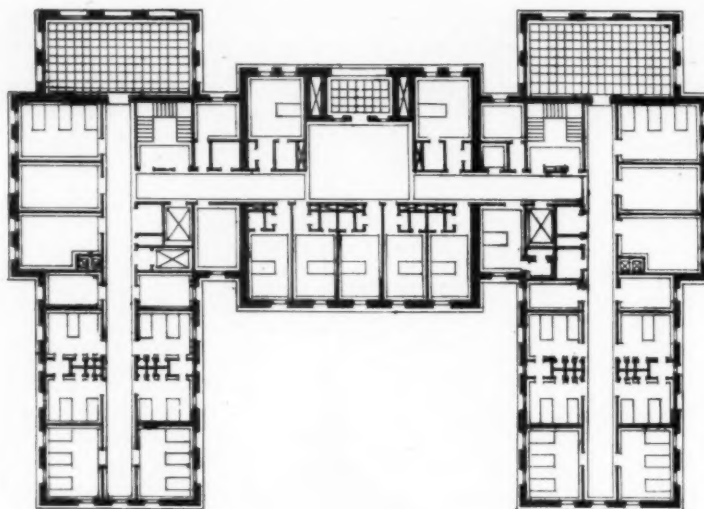
THE thirty-first annual joint exhibition of the Philadelphia Chapter of the American Institute of Architects and the T Square Club of Philadelphia is now on view in the Galleries of the Art Club in that city. The exhibition always attracts considerable attention among those interested in architecture and this year's showing especially should be enthusiastically received.



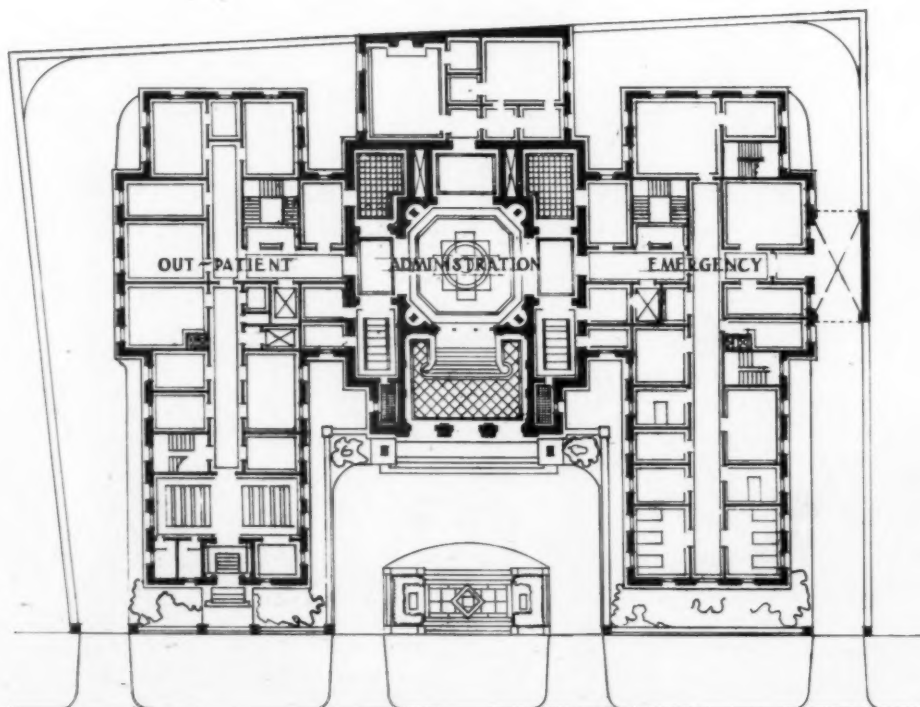
ITALIAN MEMORIAL HOSPITAL, BROOKLYN, N. Y.

LORD & HEWLETT, ARCHITECTS

(From a drawing by Chester B. Price)



PLAN OF TYPICAL FLOOR



PLAN OF FIRST FLOOR

THE BUILDING HAS A FRONTAGE OF APPROXIMATELY 160 FEET

ITALIAN MEMORIAL HOSPITAL, BROOKLYN, N. Y.

LORD & HEWLETT, ARCHITECTS



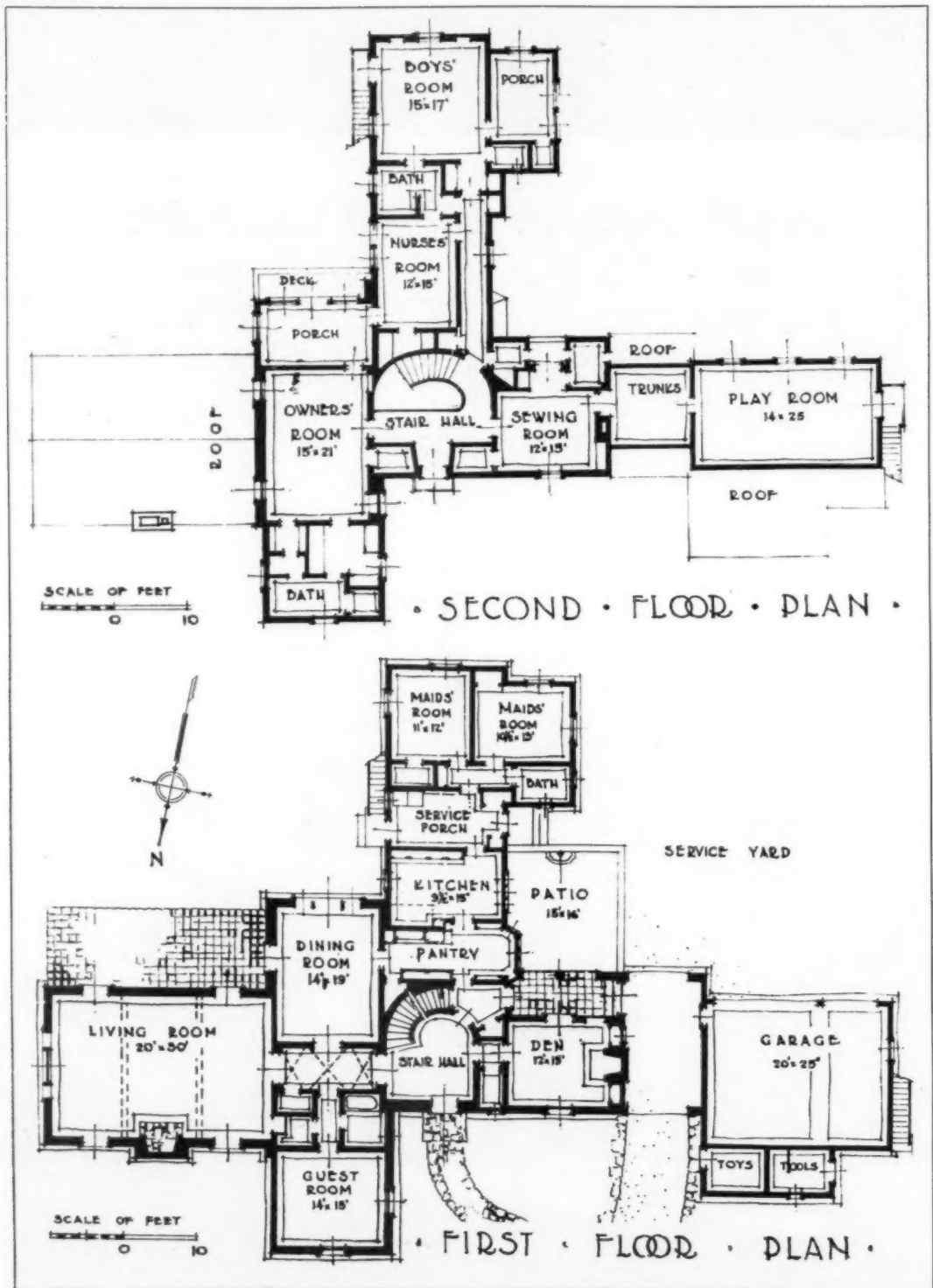
A GROUP OF PHOTOGRAPHS
AND PLANS OF
SIX SMALL HOUSES
IN CALIFORNIA

WITMER & WATSON, Architects



Photo by Haight

HOUSE OF WILLIAM S. WITMER, PASADENA, CAL.
WITMER & WATSON, ARCHITECTS

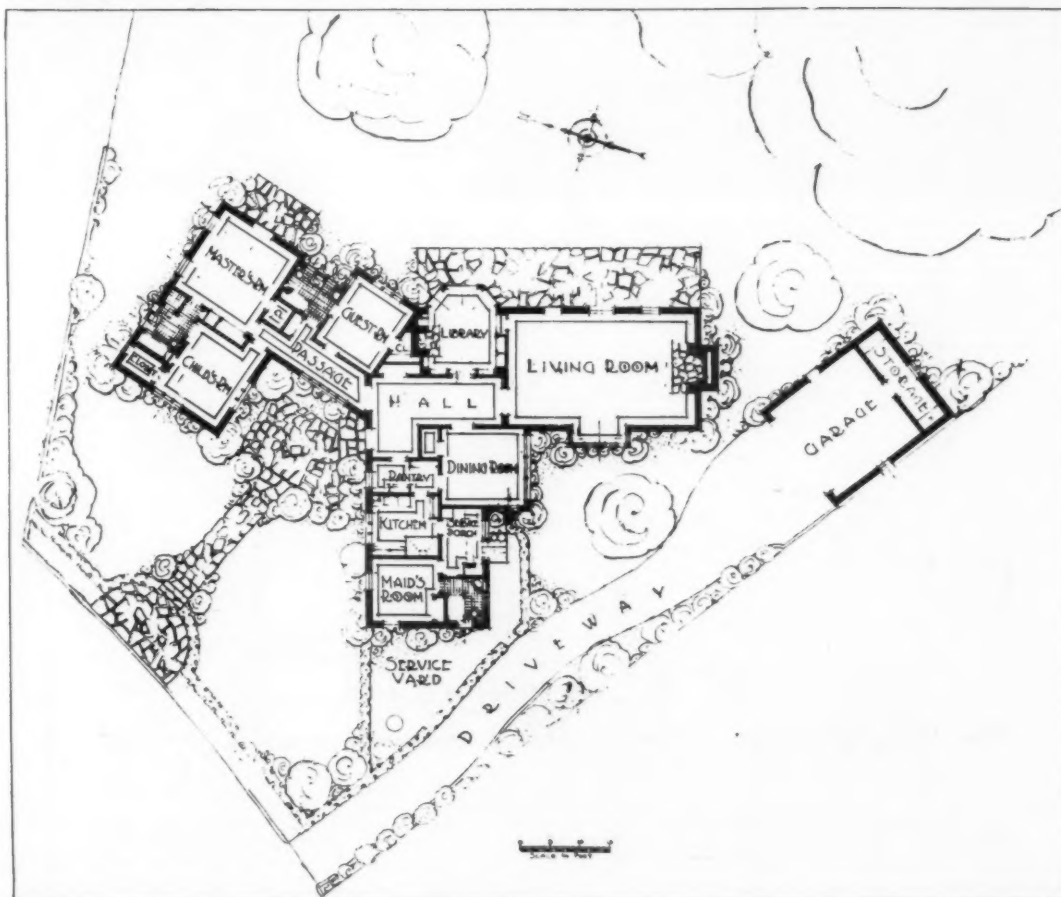


HOUSE OF WILLIAM S. WITMER, PASADENA, CAL.

WITMER & WATSON, ARCHITECTS



Photo by Haight

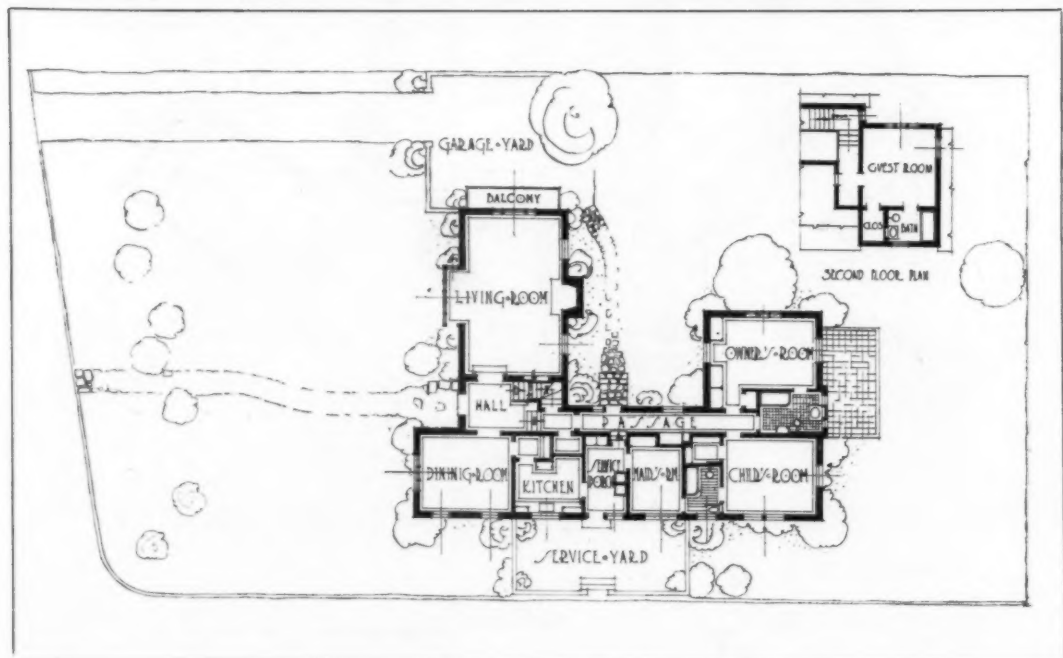


HOUSE OF WILFRED SIMPSON, PASADENA, CAL.

WITMER & WATSON, ARCHITECTS



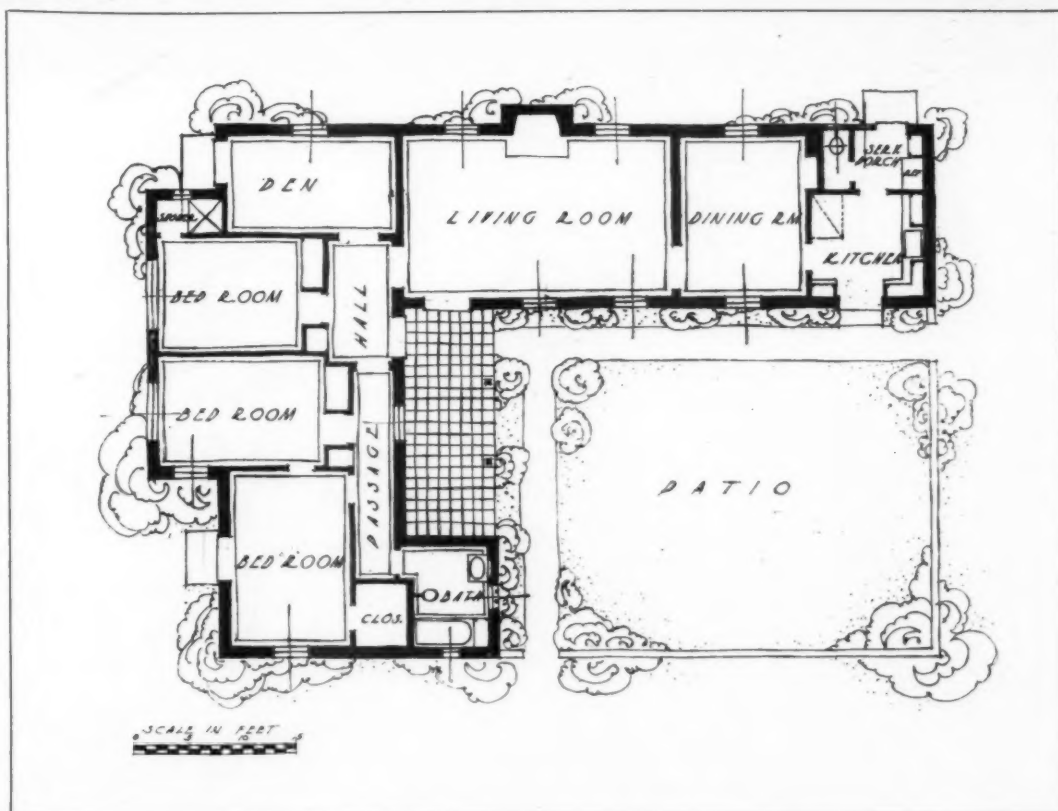
Photo by Haight



HOUSE OF ARCHER F. BARNARD, PASADENA, CAL.
WITMER & WATSON, ARCHITECTS



Photo by Haight

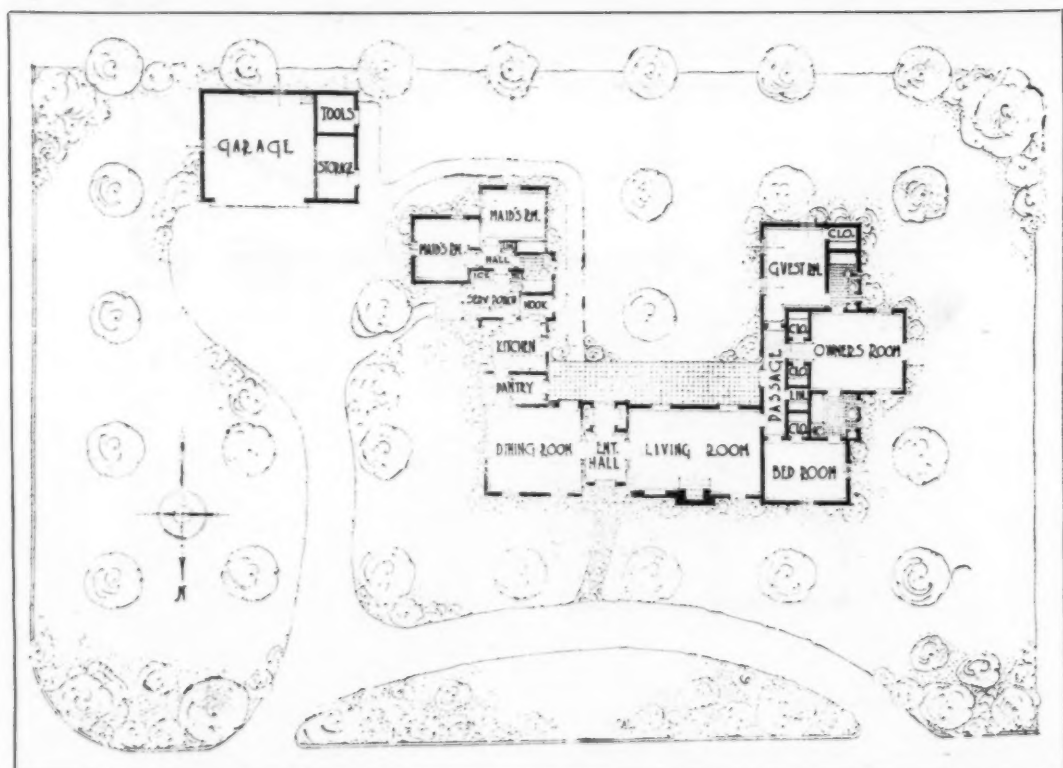


HOUSE OF DR. R. M. MOOSE, SAN BERNARDINO, CAL.

WITMER & WATSON, ARCHITECTS



Photo by Haight

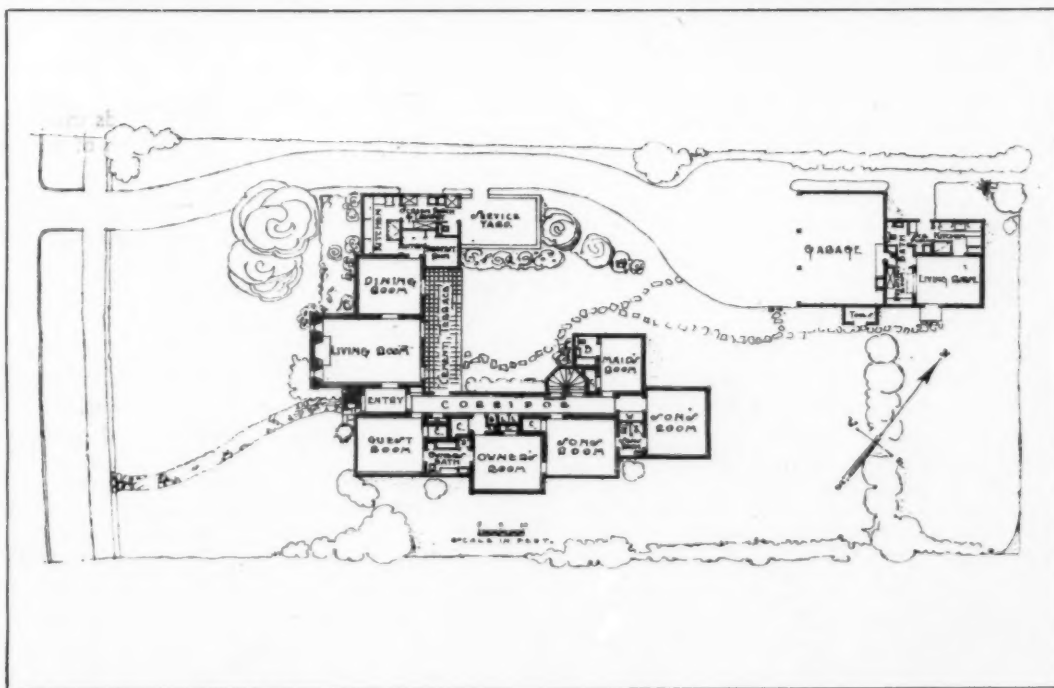


HOUSE OF G. V. BAER, MONTECITO, CAL.

WITMER & WATSON, ARCHITECTS



Photo by Haight



HOUSE OF M. D. ARMISTEAD, BEVERLY HILLS, CAL.

WITMER & WATSON, ARCHITECTS

AMERICAN COMMERCIAL BUILDINGS

THE title of a book just off the press of the Architectural Book Publishing Company, "American Commercial Buildings of Today," so completely describes the contents that it leaves but little for a reviewer to say. We seldom read a "foreword" any more, but the name of R. T. Walker, of Voorhees, Gmelin & Walker, architects, signed to the foreword of the present volume fortunately intrigued us this time. Fortunately, because Mr. Walker tersely brings home in a short paragraph what is after all an outstanding need in the design of our present day commercial buildings. It is worth repeating: "There is without doubt a very definite human need expressed in the commercial building as it exists today. A need for large, efficient and pleasant working space. That it is largely dependent upon the aid of machinery to function properly in no way lessens the truth that its use is fundamentally of a human nature, and that the machine merely represents a tool or instrument of service, transitory by the very fact that it is readily scrapped for any improvement that may be developed. The machine, therefore, must naturally take its place as a means and not as an end to be either desired or attained. It would seem much more necessary to keep in mind that *the science of humanity* is much more important than are the material sciences." We cannot help but feel that Mr. Walker has correctly diagnosed the case of the average commercial building where, undoubtedly, cold, prosaic business has crowded out the sympathetic consideration of the human elements of the problem.

As the title of the book suggests, the buildings illustrated are of recent conception and present an interesting section of the condition of commercial architecture in the United States at the present time.

It is inevitable that a volume dealing with buildings of "today" should be found duplicating some buildings that have been published in the current architectural magazines. But we are reminded that it is after all decidedly useful to have these buildings intelligently grouped and well bound in a book of convenient size. Besides we are surprised to find that a large number of the buildings illustrated had not previously come to our attention.

The author of the book is no less than R. W. Sexton, associate editor of this magazine, who has previously compiled two other books in the series of American Architecture of Today. These, it is recalled, dwelt on the subjects of apartment houses and theatres.

The author has shown good judgment by arranging the volume into five chapters—the Design of Commercial Buildings, Skyscraper Office Buildings, Private Business Buildings, Stores and Shops, and Banks. Each chapter contains a brief introduction to the subject, covering the problem presented in the design of each group. The illustrations include photographs of exteriors and interiors, details,

plans, scale drawings and sketches.* As we pass the last page, No. 309, we are impressed by the vast improvement in the design of commercial buildings that has occurred comparatively recently and that is now taking place. We are also impressed by the fact that we have obtained a lot of book for the money—less than six cents a page—and all material suitable for an architect's working library.

* *American Commercial Buildings of Today*, by R. W. Sexton. Architectural Book Publishing Company, Inc., New York. 309 pages, illustrated, size 9 in. x 12 in. Price \$18.00.

PERSONALS

Lewis E. Welsh, architect, announces the removal of his office from 10 E. 47th Street to 25 W. 45th Street, New York City.

Nathan Harris, formerly of 20 Branford Place, Newark, N. J., announces the formation with Herman M. Sohn of the firm of Harris & Sohn, Architects. They are opening new offices at 58 Park Place, Newark, N. J., and 101 Park Avenue, New York City.

HOWARD H. HAHN DEAD

1928 has been making serious inroads into the architectural profession. The latest death of which we have heard is that of Howard H. Hahn, formerly of Chicago.

ARCHITECT APPOINTED ON FINE ARTS BOARD

AN architect, John Walter Cross, of New York, was appointed recently by President Coolidge a member of the Commission of Fine Arts. Mr. Cross is a graduate of the School of Fine Arts at Yale and was a student in the School of Mines, Columbia University. In 1907 he was graduated from the Ecole Nationale et Speciale des Beaux Arts, Paris. The Fine Arts Commission is composed of seven members chosen for their qualifications as judges of the fine arts. It is their duty to approve the plans of new public buildings in the District of Columbia.

NEW YORK ARCHITECT HONORED BY FRENCH

WE have just learned that Julian Clarence Levi, of New York, chairman of the French traveling fellowship committee of the American Institute of Architects, has been made an Officer of Public Instruction by the French Minister of Education, in recognition of his efforts on that committee.

EXPOSITION OF AMERICAN MODERN ART

THE opening of the exposition of the American Designers' Gallery, previously announced as October 15, has been postponed to November 9, 1928.

TERRA COTTA

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BEAUTY

and

ECONOMY

*I*NVESTMENT return from a building depends to a great extent upon the architectural effect.

Terra Cotta combines opportunity for the most fluent and flexible modeling with an unlimited variety of beautiful colors, and in form and color affords the ideal medium for exterior and interior use.

The moderate cost of Terra Cotta insures maximum value for your investment.

Your request for a list of manufacturers who can estimate upon beautiful and effective buildings in Terra Cotta will have our immediate attention.

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RED CROSS ROLL CALL

THE architectural profession is again this year cooperating with the American Red Cross in its Roll Call appeal which opens annually on Armistice Day. Committees of architects in the various cities have been formed to conduct the campaign among the members of the profession. Aid for ex-service men is still a large part of the Red Cross program, and government officials estimate that the peak of this work will not be reached before 1932. The achievements of the Red Cross in the past on its program of welfare, relief and public health are too well known and appreciated to need further comment.

PUBLICITY FOR ENGINEERS

THE "Journal" of the Boston Society of Civil Engineers, printed in its June, 1928, issue an article by Edward Grossman entitled "Publicity for Engineers." The following extracts have an interesting parallel in the case of architects:

"A good engineer, it is said, should make no noise, but let his works speak for him. This would be good advice to follow in so perfect a place as heaven but in this imperfect world every man must speak for himself."

"The man on the street knows that somewhere in town there are beings who juggle with figures and design structures. He may see one of them once in a while; he never hears them, that is certain. They say nothing, so why should he? Therefore he takes his buildings, bridges, streets, railway, water supply, and other conveniences for granted—and that is that."

"Granted that the engineer should receive publicity—this does not mean cheap talk or buncombe. Publicity does not mean vociferous self-pity. Publicity means only that the engineer obtain the same consideration in the public mind as that to which his profession and his status entitle him."

"Bankers have their financial page, physicians have their health articles. . . ."

"At the present time two methods of publicity should be encouraged—the first is insistence on professional credit, and the second is newspaper publicity."

"Why should not an illustration of a building be captioned 'Blank Building. Jones & Jones, Architects; Smith and Smith, Engineers,' instead of the engineers not being mentioned at all?"

"Press notices must be prepared in accordance with the usual journalistic style, with the news-interest part, not the technical-interest part, foremost. The public grasps personalities and particularities quicker than it does technicalities, and the former have more news value."

"Publicity must not contain propaganda of any sort, and must at all times be dignified and conservative in tone. Engineers are not given to

exuberances and extravagances; therefore their publicity should befit them."

"Publicity, conducted in a dignified manner, will not only serve the public as an educational agency, but will tend to raise the status of the engineering profession as a whole, and will thus benefit all. The results will be worth the effort."

CENTRAL DIVISION OF THE ARCHITECTS SMALL HOUSE SERVICE BUREAU

AT a recent meeting for the purpose of incorporating the Central Division of the Architects Small House Service Bureau, seven directors were elected. Later these directors elected from their number the following officers:

President, Russell Walcott, Chicago, Ill.; Vice-President, Elmo C. Lowe, Evanston, Ill.; Secretary, Allen E. Erickson, Chicago; Treasurer, Carl E. Heimbrodt, Chicago.

Until the completion of the routine of incorporation, Allen E. Erickson will be in charge of the Bureau at 7 West Madison Street, Chicago.

PERSONALS

Thiel & Maddrey, architects, announce the removal of their office from 605 Binz Building to 728 Esperson Building, Houston, Texas.

Angelo Zucco, architect, has moved his office from 4241 Broadway to Room 89, 39 West Adams. Mr. Zucco would appreciate having catalogs from manufacturers sent to the new address.

W. Fred Dolke, Jr., consulting engineer, announces the removal of his office from 1841 Asbury Avenue, Evanston, Ill., to 9 South Clinton Street, Chicago, Ill. He requests that manufacturers of building materials and equipment for industrial buildings send catalogs to the new address.

NEW TOOL MATERIAL IS DEVELOPED

CUTTING a screw thread in a glass rod, boring a smooth hole in a block of concrete, handling porcelain on a lathe, and cutting the hardest of steels—things difficult or even impossible with present-day machine tools—are among the things that can be done easily with a new kind of machine tool material announced by Dr. Samuel L. Hoyt of the Research Laboratory of the General Electric Company at the annual convention of the American Society for Steel Treating, at Philadelphia on October 11. The new material, named Carbology, is composed of tungsten carbide and cobalt, the carbide being extremely hard and the cobalt giving it the necessary strength for cutting tools. Dr. Hoyt stated, however, that the material is not yet ready for commercial applications.

MINWAX TRANSPARENT WATERPROOFINGS WATERPROOF WALLS *and* PREVENT LEAKAGE



RESIDENCE OF MRS. DUDLEY H. MILLS, GLEN HEAD, LONG ISLAND
C. Lullie Weir, Architect, Greatwood, N. Y.

All Exposed Brick Work Waterproofed with Minwax Clear Waterproofing

After this residence was completed, it was evident that the 4" brick veneer walls needed waterproofing to prevent leakage. Two coats of *Minwax Clear Waterproofing* (the proper type for use on *Olde Colonial* kiln run brick used) were applied to the exterior walls, Minwax Pointing Paste also being used where necessary. Results were satisfactory both to architect and owner.

If you want our recommendations for curing leaking walls, send for our Checking List on Exposed Wall Waterproofing. This "Questionnaire" carefully filled out and in our hands will supply us with useful facts upon which to base our recommendations.



Here is a list of our products:

Membrane Waterproofing	Brick and Cement Coating
Foundation Dampproofing	Transparent Waterproofing
Caulking Compounds	Concrete and Terrazzo Floor Finish
Plasterbond Dampproofing	Concrete Floor Paint
Asphalt Products	Wood Finishes and Waxes

Literature on any of these products will be sent upon request

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Please send the following:

- ☐ Circular on the *Minwax Transparent Waterproofings*.
☐ Minwax Checking List on Exposed Wall Waterproofing.

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

MEMOIRS OF THE AMERICAN ACADEMY IN ROME
VOL. VI

Printed in Italy, 1927

VOL. VI of the Memoirs of the American Academy in Rome is an extremely interesting presentation of one phase of the work of this admirable institution. It is a volume of nearly 200 pages, with some excellent colored plates showing how carefully the Academy has studied the Tomb of the Triclinio at Tarquinia, and also a very interesting study of the dance in ancient Greece by Lillian B. Lawler, with some most excellent illustrations of forms and dance taken from the so-called Etruscan vases. Then there is a very careful analysis of the manuscript of Marcanova's "Antiquity" now owned by Robert Garrett of Baltimore, some twenty-five of the plates of this interesting old work being very faithfully reproduced. This volume of the proceedings has practically no architecture as such, except in so far as it relates to the very primitive Tomb, but as an illustration of the decorative spirit of the old Romans and the extent to which they covered their walls with paintings, it offers many suggestions to the architect. There is also a very careful analysis of not only the paintings themselves, but of the pigments and the methods of applying colors. The Academy is certainly to be congratulated on putting out this very interesting and thorough Memoir.

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THE STANDARDS YEAR BOOK

THE STANDARDS YEARBOOK, for 1928, outlines the activities and accomplishments of not only the bureaus and agencies of the Federal Government, including the National Bureau of Standards, but also those of States and municipalities. It also gives a résumé of the standardization work of scientific and technical societies and trade associations. It stresses the international aspects and activities of standardization and also gives charts showing steps through which the national standards are made available to the ultimate users.

To manufacturers, industrial experts, engineers and purchasing agents, officers and agencies connected with standardization, the Standards Year Book will be most valuable. To the average reader it will prove a mine of information on the present status and trend of standardization in all fields of industry, commerce, science and Government, with reference to sources of further information.

The Standards Year Book, 1928, may be had from the Superintendent of Documents, Government Printing Office, Washington, D. C. There are 400 pages and 18 illustrations; bound in buckram, size 6x9 inches; price \$1.00.

LECTURES ON WELDED BUILDINGS

A LECTURE tour covering a large part of the United States is now being made by Professor Frank P. McKibben, consulting structural and bridge engineer. These lectures are illustrated and relate to the application of electric arc welding to the construction of buildings, based on the experience of pioneers in this field.

Professor McKibben's tentative itinerary from this date on is as follows:

- November 8—Des Moines, Iowa—Engineers' Club of Des Moines.
- November 12—Toledo, Ohio—A.I.E.E.
- November 14—St. Louis, Mo.—Engineers' Club of St. Louis.
- November 16—St. Paul, Minn.—A.S.C.E.
- November 19—Duluth, Minn., Duluth Engineers' Club, A.S.C.E.
- November 21—Milwaukee, Wis., A.I.E.E.
- November 22—Madison, Wis., A.I.E.E., A.S.C.E.
- November 23—Columbus, Ohio, A.I.E.E.
- December 3—Syracuse, N. Y., Technology Club of Syracuse, A.S.C.E.
- January 7—Chicago, Ill., Western Society of Engineers, A.S.C.S.; A.I. of Architects; Producers Council; A.W. Society.
- January 9—Kansas City, Mo., Engineers' Club of Kansas City, A.S.C.E., A.I.E.E.
- January 11—Denver, Colo., A.I.E.E., A.S.C.E.
- January 14—Salt Lake City, A.I.E.E.
- January 18—Los Angeles, Calif., American Welding Society, A.S.C.E.; A.I.E.E.; A.I. Architects.
- January 22—Sacramento, Calif., A.S.C.E. Architects and Engineers Club.
- January 23, 24, 25—San Francisco, Calif., A.I.E.E., A.S.C.E.
- January 28—Portland, Oregon, American Welding Society, A.S.C.E., A.I.E.E.
- February 1—Victoria, B. C., Engineering Institute of Canada.
- February 4—Vancouver, B. C., Engineering Institute of Canada, A.I.E.E.
- February 6—Spokane, Wash., Spokane Associated Engineers, A.S.C.E., A.S.M.E., A.I.E.E.
- February 12—Seattle, Wash., A.I.E.E., A.S.C.E., A.S.M.E., A.I.A.
- February 18 or 20—Dallas, Texas, A.I.E.E.
- February 25—New Orleans, La., Louisiana Engineering Society A.S.C.E., A.S.M.E., A.I.A.
- February 27—Birmingham, Alabama.
- March 1—Atlanta, Ga., A.S.M.E., A.S.C.E., A.I.E.E.
- March 4—Chapel Hill, N. C., A. S. C. E., North Carolina Society of Engineers.

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PRODUCERS' COUNCIL MEETING

THE fifth semi-annual meeting of the Producers' Council, affiliated with the American Institute of Architects, will be held at the Hotel Roosevelt, New Orleans, La., on November 13th, 14th and 15th, 1928. Prominent members of the Institute will address the meeting and it is expected to have other speakers on the building situation in the Mississippi Valley and also a talk from a Government engineer on the work of the Mississippi Valley Commission. All members of the Institute are cordially invited to attend the meetings.

THE current issue of *The American Architect*, dedicated to metropolitan Boston, was undertaken to preserve a record of the architectural history of the city and to show the state that has been reached in its development. Within these pages our readers will find a record of old and recent buildings of various types that in all cases have been designed by Boston architects. In writing of Boston, Emerson once said, "This city of Boston has a history. It is not an accident, not a windmill, or a railroad station, or cross-roads tavern, or an army-barracks grown up by time and luck to a place of wealth; but a seat of humanity, of men of principle, obeying a sentiment and marching loyally whither that should lead them; so that its annals are great historical lines, inextricably national; part of the history of political liberty. I do not speak with any fondness, but the language of coldest history, when I say that Boston commands attention as the town which was appointed in the destiny of nations to lead the civilization of North America." Yes, Boston has a history, and an interesting one that is reflected in the architecture of the city in a manner observed in few, if any, American cities.



A traveler upon visiting Boston today, for the first time, must be impressed by the fact that there is a style of architecture in this locality that is distinctive, and that might almost be classed as "Bostonian." Among other so-called "styles," "Colonial" is the



generic term that first comes to our lips to place the architecture peculiar to the formative period of North America. To be accurate, the term "Colonial" should be hyphenated, for there is a marked distinction between the Colonial architecture of New England and that of Pennsylvania, Virginia, the Carolinas, or Louisiana. One might go a step further in hyphenating, and say "Boston-Colonial."

The names of Bulfinch, Smibert, Harrison, Bonner, Benjamin and Richardson are too

well known to students of architecture to require comment or eulogy here. The mere mention of their names recalls memories of the golden age of architecture in America. To the observing, the work of these men and their contemporaries is seen to have played and to be playing today an important part in the architecture of Boston. Yet in spite of the strong influence of tradition, one sees in the most recent buildings a certain freshness of design which indicates that precedent has not been allowed to dominate to the detriment of creative ability.

November 20, 1928.

The Publishers.



Photo by Hanson & Walsh

OLD STATE HOUSE, BOSTON, MASS., 1713

THE AMERICAN ARCHITECT

November 20, 1928