

THE ARCHITECTURAL RECORD

Published Monthly by F. W. DODGE CORPORATION, 115-119 W. 40th St., New York
 Truman S. Morgan, *President* Sanford D. Stockton, Jr., *Secretary* Howard J. Barringer, *Treasurer*

VOLUME 63

MAY, 1928

NUMBER 5

ARTICLES

- | | | |
|-----------------------------------------------------------------|------------------------------------------|-----|
| Eliel Saarinen | | |
| | <i>By Donnell Tilghman</i> | 393 |
| The Baskin Building, Chicago | | |
| | <i>Holabird & Roche, Architects</i> | 403 |
| National City Bank of New York | | |
| | <i>Walker & Gillette, Architects</i> | |
| | <i>By Matlack Price</i> | 406 |
| On the Design of Types | | |
| | <i>By Frederic W. Goudy</i> | 441 |
| Architectural Training in America | | |
| | <i>By John V. Van Pelt</i> | 446 |
| Modern Architecture. II. The New Pioneers. | | |
| | <i>By Henry-Russell Hitchcock, Jr.</i> | 453 |
| Exhibition of French Decorative Art | | |
| | <i>By Ely J. Kahn</i> | 462 |
| In the Cause of Architecture. IV. The Meaning of Materials—Wood | | |
| | <i>By Frank Lloyd Wright</i> | 481 |

PLATES

- | | | |
|-------------------------------------------------------------|---------------------------------------------|---------|
| Good Samaritan Window, St. Mark's Church, New Canaan, Conn. | <i>Frontispiece</i> | |
| | <i>D. Putnam Brinley, Craftsman</i> | |
| Bank of Italy, Ocean Beach, San Diego, California | | |
| | <i>William Templeton Johnson, Architect</i> | 409-411 |
| National City Bank of New York, New York City | | |
| | <i>Walker & Gillette, Architects</i> | 413-427 |
| The State Bank and Trust Co., New York City | | |
| | <i>Dennison & Hiron, Architects</i> | 429-431 |

PLATES — Continued

- | | | |
|-------------------------------------------------------------------------------------------|--------------------------------------|---------|
| Dime Savings Bank, Waterbury, Conn. | | |
| | <i>York & Sawyer, Architects</i> | 433-439 |
| Measured Drawings of Early American Architecture—Peyton Randolph House, Williamsburg, Va. | | 473-480 |

ALLIED ARTS AND CRAFTSMANSHIP

- | | | |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------|
| Selected Examples of Interior Decoration from the Exhibition of French Decorative Art at Lord & Taylor's, New York | | |
| | <i>Buchman & Kahn, Consulting Architects</i> | 461-468 |

NOTES AND COMMENTS

- | | | |
|-----------------------------------------------------|-------------------------|-----|
| A Modern Problem in Architectural Education | | |
| | <i>By Herbert Croly</i> | 469 |
| The Octagon Group | | |
| | <i>By Glenn Brown</i> | 470 |
| Restoring An Old Half-Timbered House, York, England | | |
| | <i>By J. E. Reid</i> | 471 |

THE ARCHITECT'S LIBRARY

- | | | |
|------------------------------------------------------------------|-------------------------------------------------|-----|
| Benedetto Croce | | |
| <i>Autobiography translated by R. G. Collingwood</i> | | |
| | <i>Review by Arthur W. Colton</i> | 489 |
| Maya Cities. | <i>Thomas Gann</i> | |
| | <i>Review by James C. Bardin</i> | 490 |
| List of New Books on Architecture and the Allied Arts | | |
| | <i>Pauline V. Fullerton</i> | 492 |
| Foreign Periodicals | | |
| | <i>Reviewed by Henry-Russell Hitchcock, Jr.</i> | 494 |
| For Index to Announcements, see Page 146 of Advertising Section. | | |

M. A. MIKKELSEN, *Editor*

A. LAWRENCE KOCHER, *Associate Editor*

Contributing Editors: F. Chouteau Brown, Glenn Brown, Herbert Croly, Henry-Russell Hitchcock, Jr., Fiske Kimball, A. N. Rebori, Leon V. Solon

J. A. OAKLEY, *Business Manager*

Yearly Subscription: United States, Insular Possessions and Cuba, \$3.00; Canada, \$3.60; Foreign, \$4.00. Single Copy, 35c. Member, AUDIT BUREAU OF CIRCULATIONS and ASSOCIATED BUSINESS PAPERS, INC. Copyright, 1928, by F. W. DODGE CORPORATION. All rights reserved.

Entered as second class matter May 22, 1902, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Printed in U. S. A.



*It Leaves a Hole Every Time—

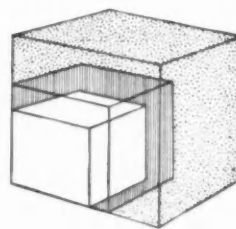
(Concerning the Porous Nature of Concrete)

WHEN you leave a glass of water standing, the level slowly falls by evaporation. If you leave it long enough, the water will disappear entirely and the glass will be empty—containing nothing but air.

Now, when the water used to mix cement, sand, and gravel into concrete dries out of the mass, all of the little spaces occupied by the water are left empty just like the glass and, in like manner, where there was once water, there will now be air.

You can't prevent water from evaporating, so your concrete simply must be filled with a great many of these tiny pockets of air. These we call pores. They are always present in concrete—you can neither prevent their formation nor destroy them once they are formed. In other words, concrete is always porous and to resist water and weather, it must be waterproofed through and through.

Here at the Truscon Laboratories we have studied all the conditions under which concrete is used and have developed the only thorough and practical method of combating porosity. With Truscon Waterproofing Paste Concentrated, we waterproof internally—that is, through the whole mass once and for all. This method of waterproofing is known as "integral waterproofing" because it is permanently a part of the concrete's structure and will protect it for all time. This is, furthermore, a method proved by time in countless fine concrete constructions throughout the country. The use of Truscon Waterproofing Paste Concentrated is simple and economical and the results are positive.



Vertically shaded portion represents amount of water in a cubic yard of concrete when mixed. White area represents amount of water that becomes a permanent part of concrete. The difference is the extent of porosity.

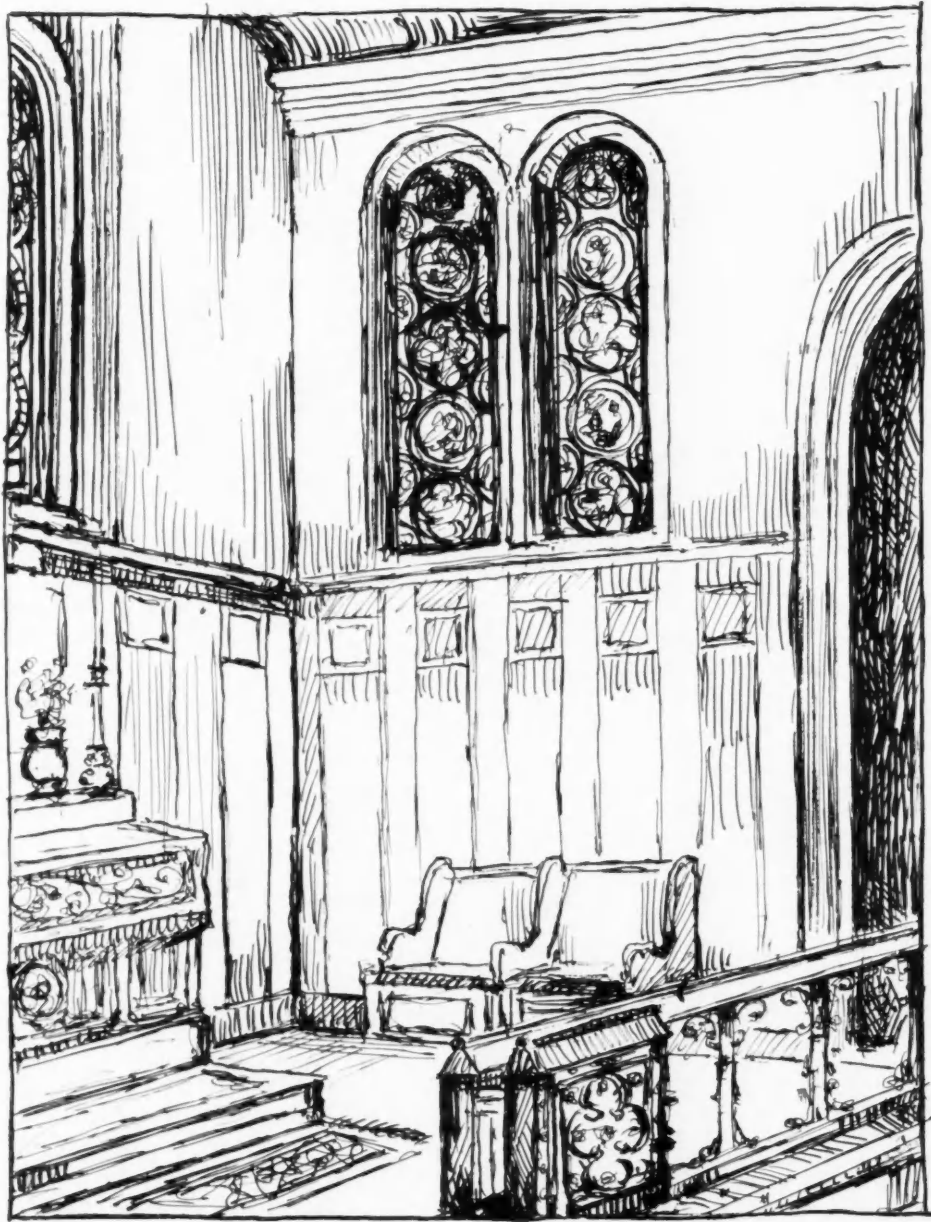
★ This is No. 1 of a series of non-technical explanations prepared by R.A. Plumb, General Director of The Truscon Laboratories, on the necessity for integrally waterproofing all concrete used in building.

General Director of
THE TRUSCON LABORATORIES

Write for free data on the practical uses of Truscon Waterproofing Paste Concentrated.

THE TRUSCON LABORATORIES = = DETROIT, MICHIGAN
OFFICES IN ALL PRINCIPAL CITIES • • FOREIGN TRADE DIVISION, NEW YORK

TRUSCON Waterproofing Paste CONCENTRATED



SANCTUARY OF ST. MARK'S CHURCH, NEW CANAAN, CONN.
 SHOWING THE ARCHITECTURAL SETTING OF THE GOOD SAMARITAN WINDOW
 DESIGNED BY D. PUTNAM BRINLEY

The window is executed in the spirit of the French Glass of the thirteenth and fourteenth centuries. The parable taken from the Gospel is told in the eight large medallions while in the half circles that connect the large medallions with the border is told the story of Harold Paget, a good Samaritan of the community in which he lived.

(See reverse side for reproduction in color)



GOOD SAMARITAN WINDOW
ST. MARK'S CHURCH, NEW CANAAN, CONN.
D. PUTNAM BRINLEY
STAINED GLASS CRAFTSMAN
(For architectural setting, see reverse side)

THE ARCHITECTURAL RECORD

AN ILLUSTRATED MONTHLY MAGAZINE OF
ARCHITECTURE & THE ALLIED
ARTS & CRAFTS



VOLUME 63

MAY 1928

NUMBER 5

ELIEL SAARINEN

BY DONNELL TILGHMAN

IF THERE is today any one man who by his genius gives promise of an international attitude in architecture and in his creations actually exemplifies it, that man is Eliel Saarinen. Though a Finn by birth and training, and though until recently, by his own confession, uninterested in American architecture, he was able to create, in the Chicago Tribune Competition, a design that was heralded as a notable contribution to modern architecture. While based on the same fundamental conceptions that had marked his previous work in his native land, and which in their very essence were universal architectural verities, this design proclaimed, far better than our own designers had been able to do, those ideals and aspirations that we were quick to recognize as American. A man who, years ahead of his time, can utter age-old architectural truths in the new and until then untried language of America, is truly a genius.

Eliel Saarinen was born in Finland in 1873. From the beginning of his career as an architect he was associated with that small but ever increasing group who were struggling to free themselves from the bonds of precedents that were moribund and out of step with modern life. Today we look

back, with well justified shudders, at many of those so very earnest efforts of the exponents of "l'art nouveau" to find the logical path in architecture. But as we look back over Saarinen's work, we find from the very beginning a sanity and restraint, and an unflinching intelligence and good taste that fit him to be looked up to as a great leader of this school.

Unfortunately his completed works in Finland, as well as his unconstructed designs, are practically unknown in America. Space will allow of only the briefest mention of the more important. His own dwelling, the National Museum at Helsingfors, on which he collaborated with other architects, the town halls of Lahti, Joensuu, and Reval. Finally what is perhaps the best known to us of his work abroad, the station at Helsingfors, a design created in the forms that have become familiar to us since Saarinen has moved to this country.

In addition, there are plans for the Royal Palace at Sofia, the League of Nations Palace, the Parliament buildings of Finland, and great projects in city planning. Those who are fortunate enough to have seen his drawings for the Tribune competition, knowing that all rendering was done by

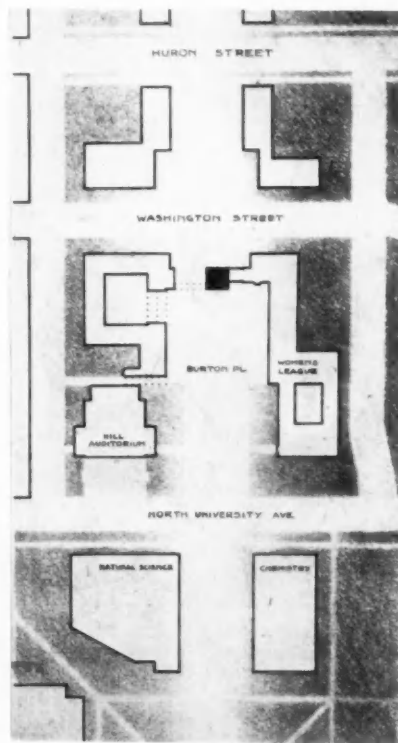
his own hand, have some conception of his power for work. His scheme for Canberra, which was awarded second place, was not only conceived and studied, but was also executed in the incredibly short period of nineteen days. The plans for Helsingfors include an immense model, complete to small details, executed by Mrs. Saarinen, who makes most of her husband's models.

In city planning, Saarinen thinks in terms that are refreshing to the American who has lived too long in cities of right angles, and among vastly impressive but uninspiring vistas down unending straight streets. Combining a thorough study of traffic, circulation, and distribution of population with that accidental quality in plan which gives such charm to the large cities of the old world, he arrives at a plan that is thoroughly scientific, and whose focal points have far more accent than perfect symmetry and the use of cross axes and parallel lines can give. What a vast relief these plans for Helsingfors are—variety, interest, unexpected vistas and wide approaches, and yet there are no points for which we can predict traffic congestion.

In his ideas for American city planning, Saarinen stresses the point that we should conceive our cities in terms of the skyscraper and in definite relation to this type of building. "The skyscraper problem is a problem not only when the individual structure is under consideration; it has its influence, naturally, on the whole city picture." Heretofore we have been too involved with European principles of plan, and have forced the high building into

forms and dimensions foreign to it. The tendency, he feels, should be towards verticality, with "the top so formed that the logical construction can be followed by the eye in all the different parts of the building clear up to the highest pinnacle, not only from a longer distance, but also at close range. A skyscraper will not remain freestanding forever, but will be surrounded by other buildings of similar height, and it must consequently be looked at from a slight distance."

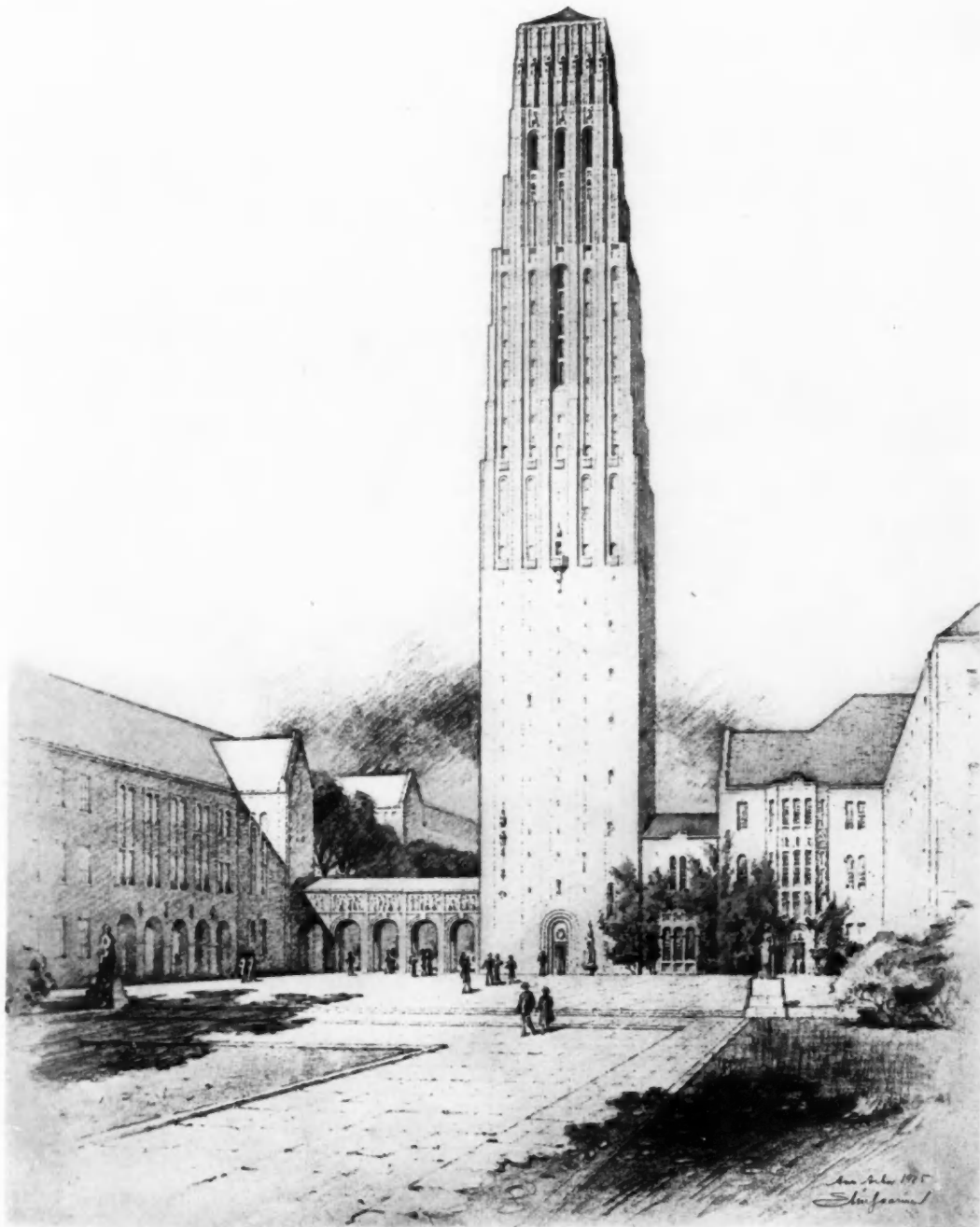
As regards the use of precedent, Saarinen illustrates his views by a very apt metaphor. A study of Greek and Latin is essential to the fullest comprehension and the flexible use of modern tongues. But we do not use these dead languages in our daily life. Nor should we build in the exact forms of a dead style. The Gothic form in the skyscraper is purely transitory. The new architecture must create a new form that is essentially its own, and in working towards this end we have "the most interesting problem offered by the building art of our time. This is not a problem for the individual architect. The problem and its solution is in the air. It is a problem fit



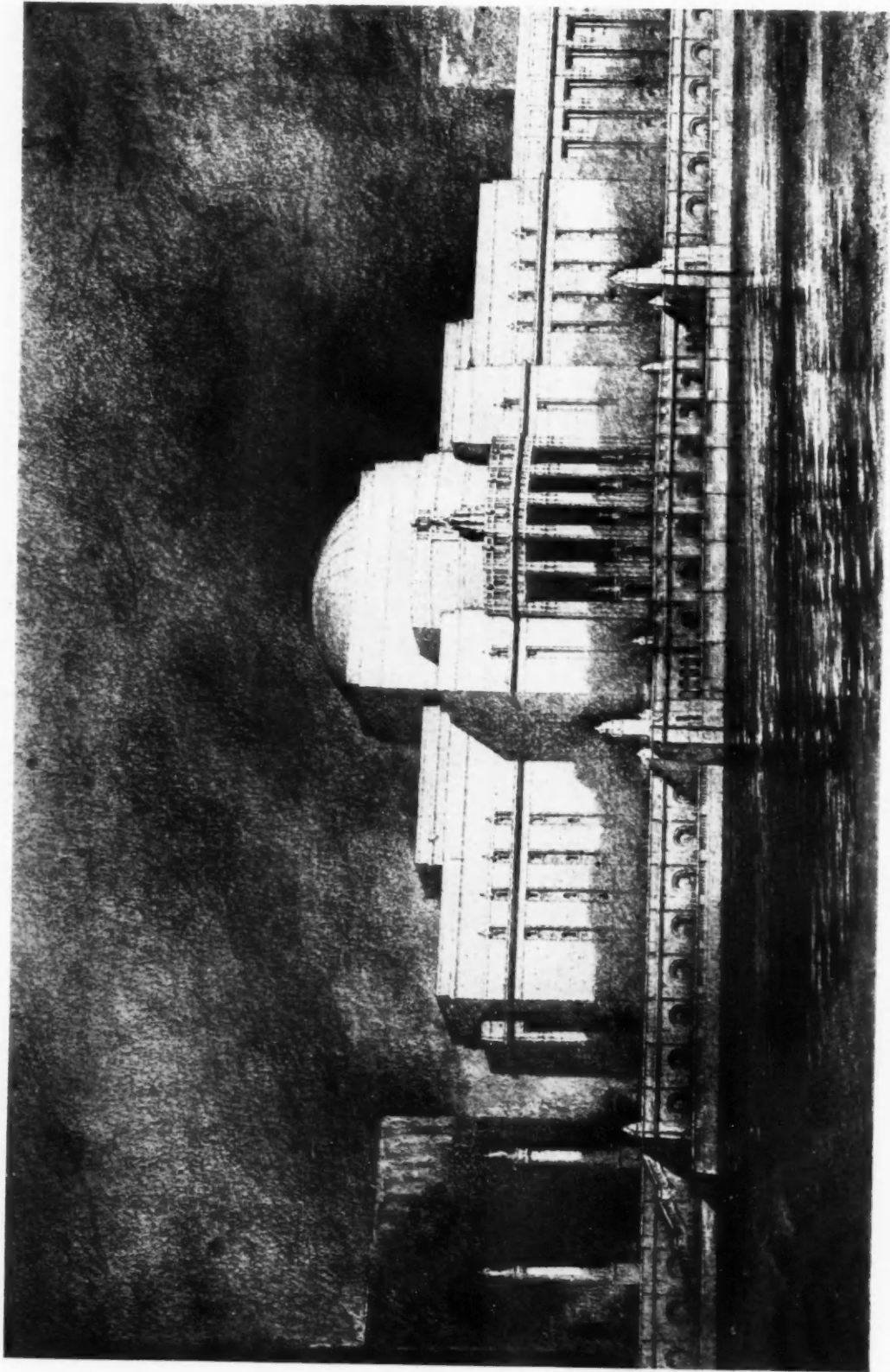
PLAN SHOWING LOCATION OF PROPOSED BURTON MEMORIAL TOWER

for a whole epoch of culture."

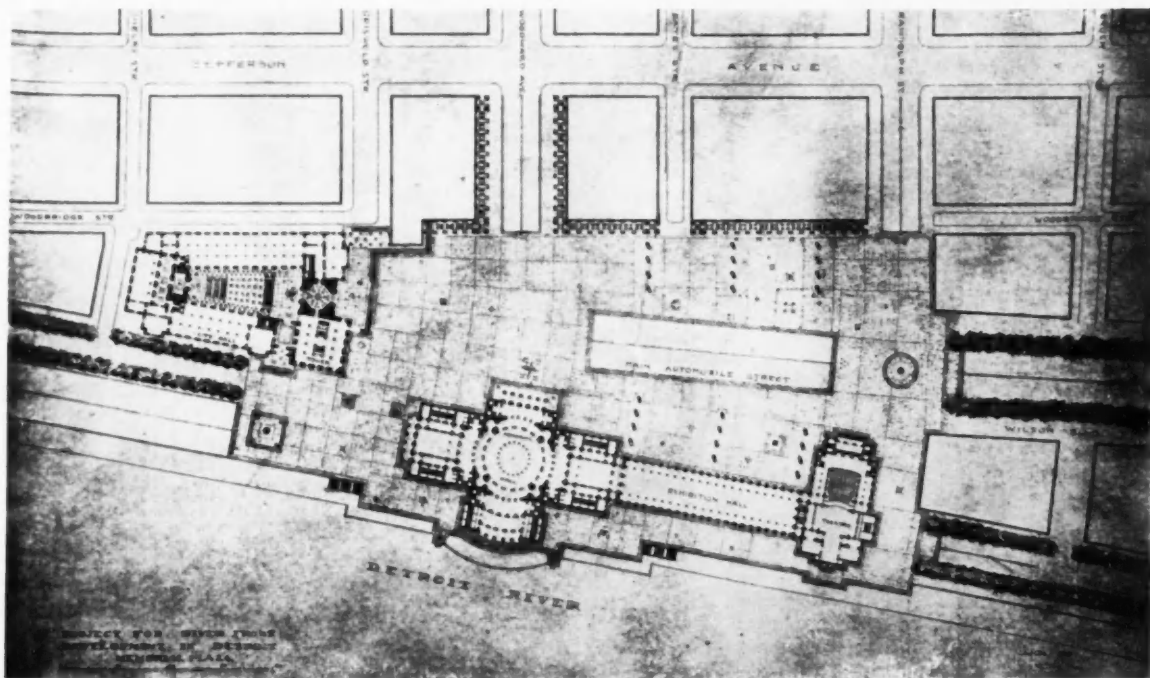
The most vital characteristic of Saarinen's work is his feeling for material and logical construction. This undoubtedly has its basis in the fact that in his education he worked at times as a practical builder, as a bricklayer and carpenter. He exemplifies the craftsman-architect in his love and understanding of texture. In the Chicago Tribune design, his immediate grasp of the spirit of steel construction for the tall



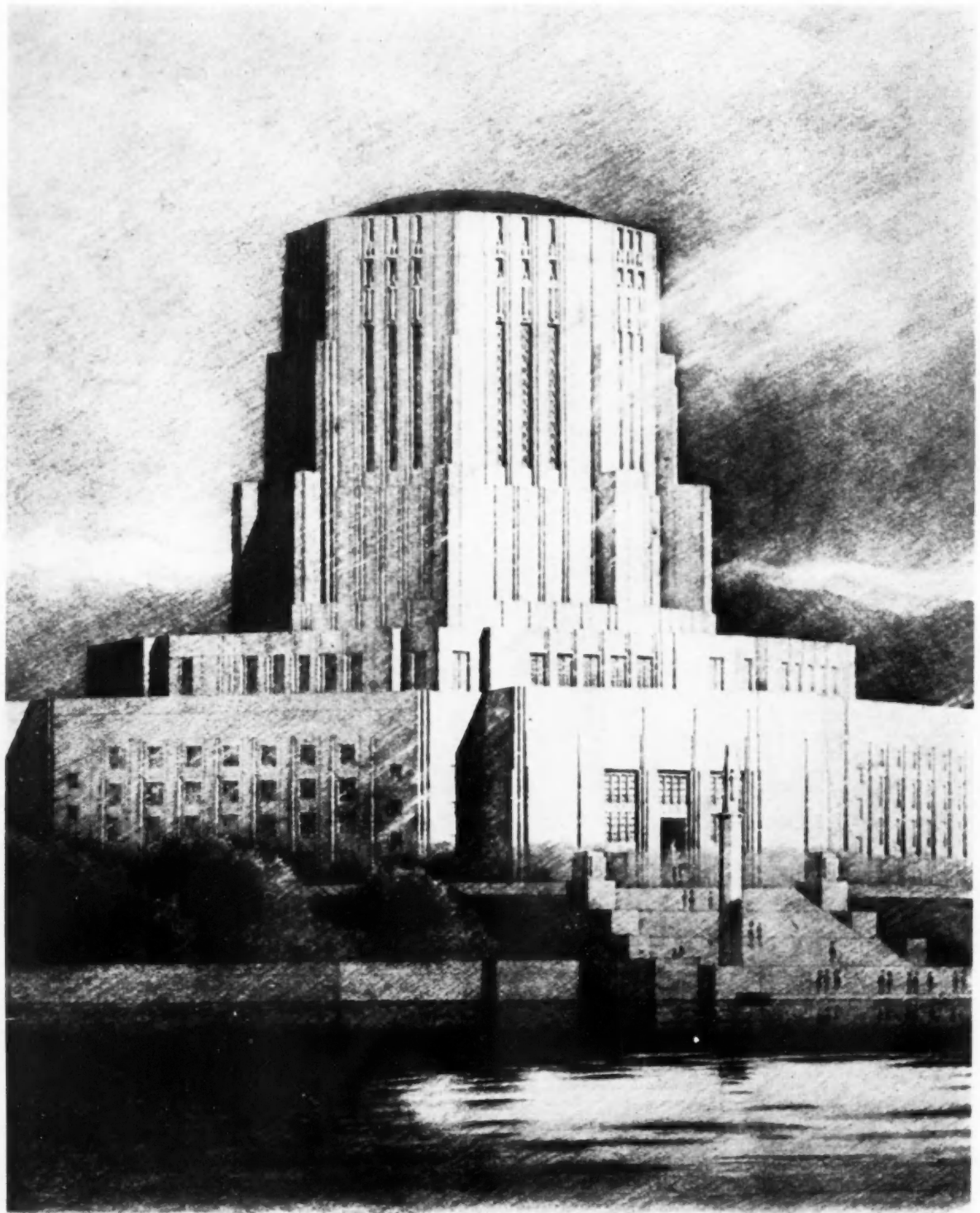
✓ DESIGN FOR PROPOSED BURTON MEMORIAL TOWER,
UNIVERSITY OF MICHIGAN
ELIEL SAARINEN, ARCHITECT



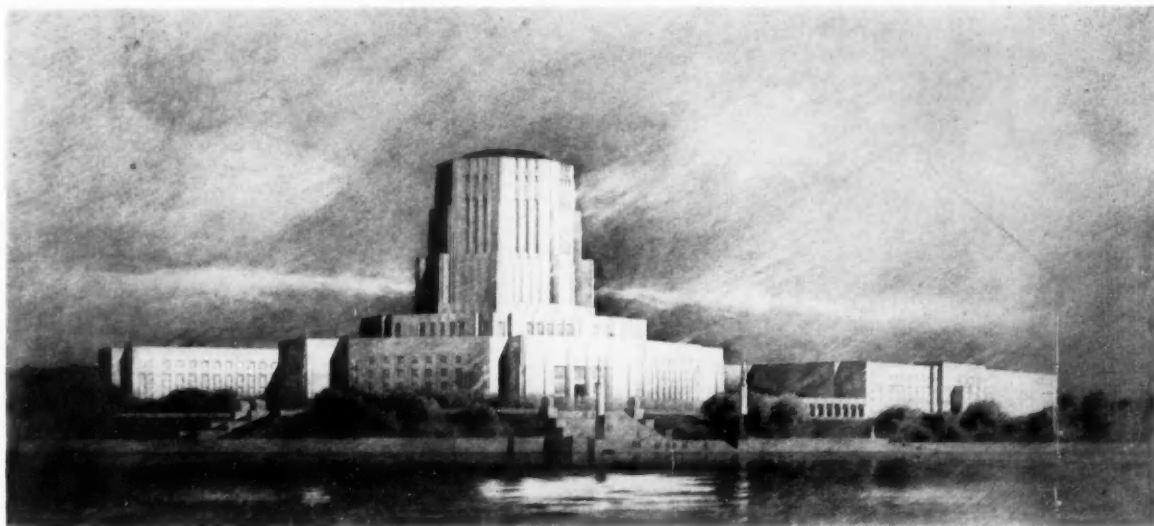
DETAIL, PROJECT FOR RIVER FRONT DEVELOPMENT, DETROIT
ELIEL SAARINEN, ARCHITECT



PROJECT FOR RIVER FRONT DEVELOPMENT, DETROIT
ELIEL SAARINEN, ARCHITECT



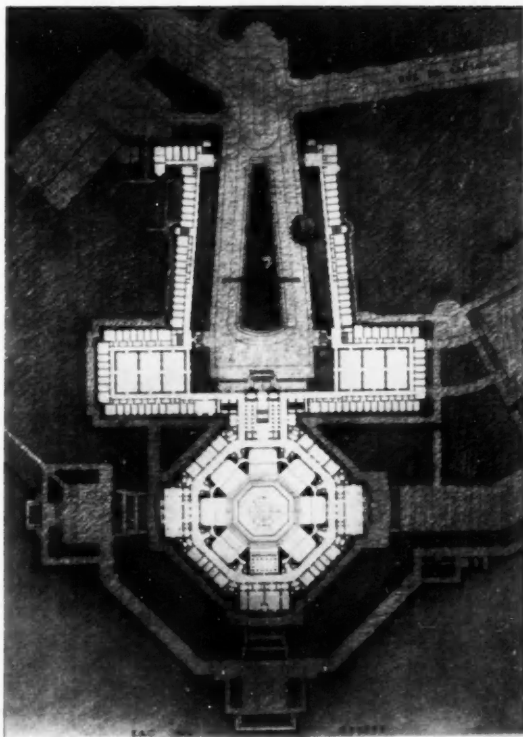
DETAIL, COMPETITION DRAWING FOR PALACE OF THE LEAGUE OF NATIONS
ELIEL SAARINEN, ARCHITECT



COMPETITION DRAWING AND PLAN (BELOW) FOR PALACE OF THE LEAGUE OF NATIONS
EILIF SAARENSEN, ARCHITECT

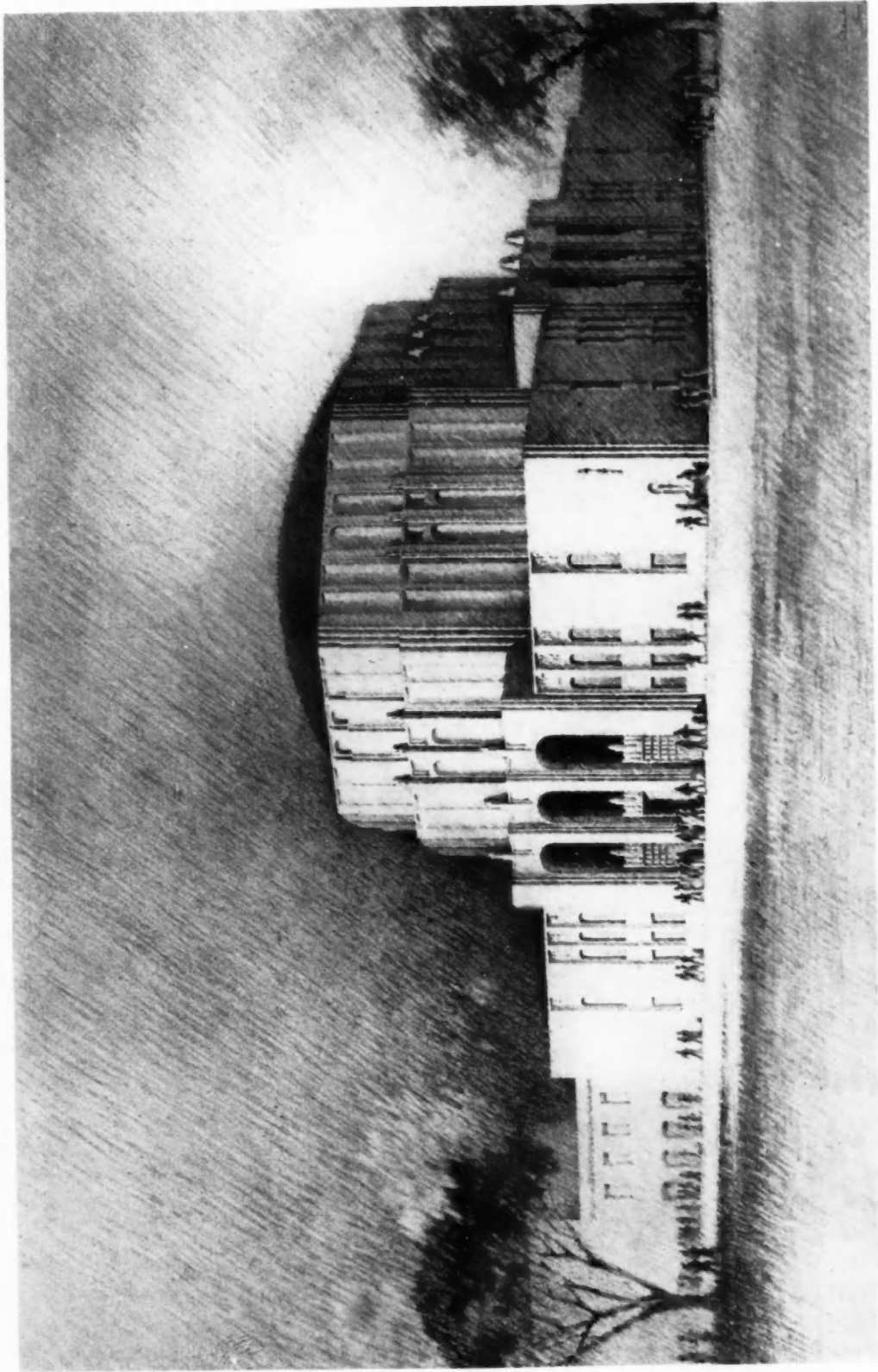
building is little short of astounding. As a writer pointed out at the time, he designed in steel forms covered by masonry, whereas our architects had worked in masonry stiffened by steel.

After the Tribune Building competition, Saarinen came to this country to accept a professorship in the Architectural School of the University of Michigan. His recent connection with the Cranbrook School as architect is giving even wider range to his abilities, and promises still more opportunity to influence American design. The Cranbrook school, magnificently endowed by Mr. George G. Booth of Detroit, gives full play to Saarinen's powers as the craftsman-architect. Established with his family in a studio at Cranbrook,

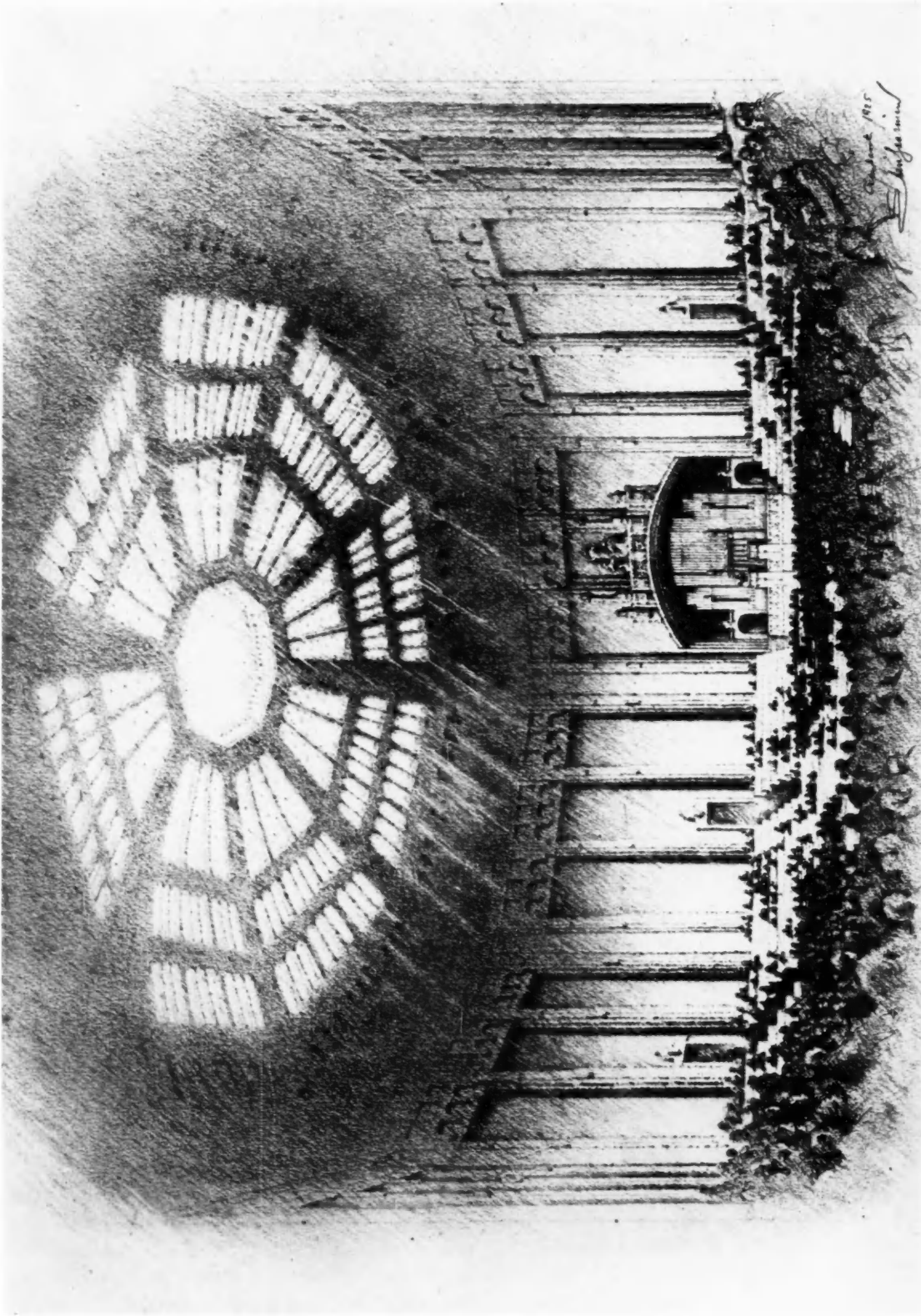


he is assisted by Geza Maroti, the sculptor painter of Budapest, in the creation of buildings for the school. The young men who study under him will eventually contribute to the design. Here we have the prospect of a school which, under Saarinen's influence, will teach a new appreciation for craftsmanship in architecture, a feeling for material, truthful construction, and above all, a real alliance between architecture and the allied arts.

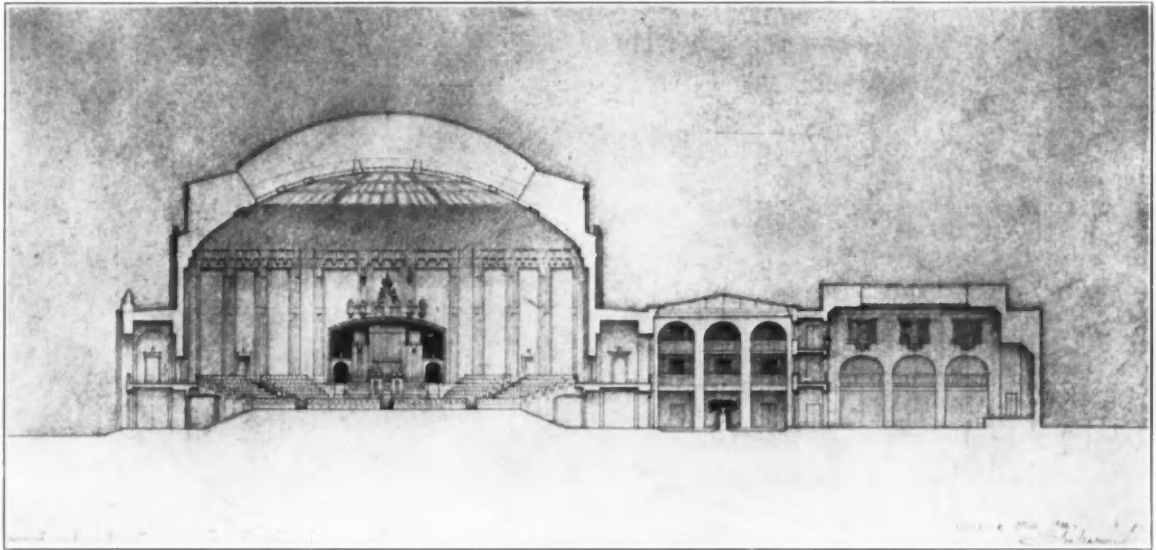
Already Saarinen, through the second prize design for the Tribune tower, has had enormous influence on our architecture. He pointed the way, and gave the most artistic solution to the problem set by modern conditions. It remains to be seen whether the influence of



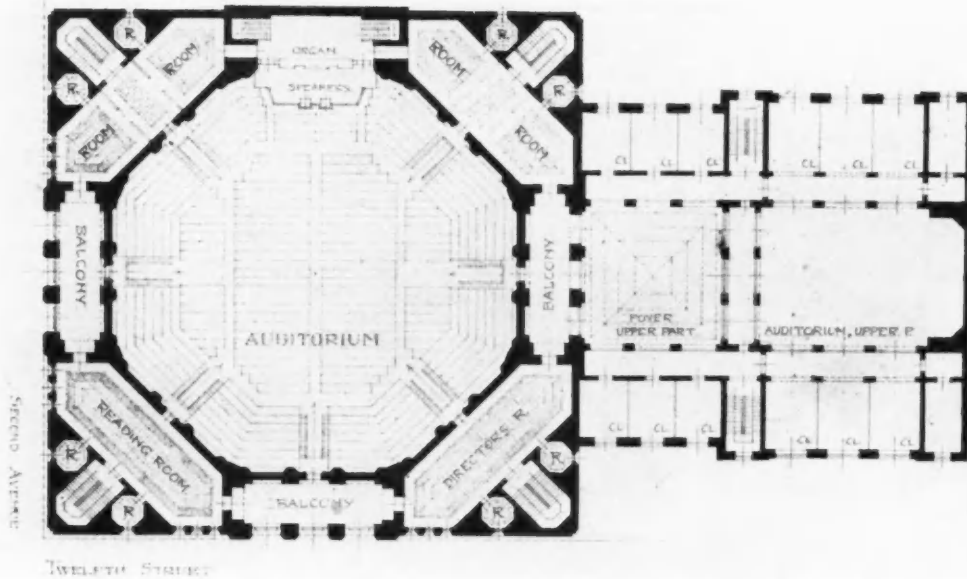
4- COMPETITION DRAWING, CHRISTIAN SCIENCE CHURCH, MINNEAPOLIS, MINN.
ELIEL SAARINEN, ARCHITECT



COMPETITION DRAWING, INTERIOR OF CHRISTIAN SCIENCE CHURCH, MINNEAPOLIS, MINN.
ELIEL SAARINEN, ARCHITECT



SECTION THROUGH BUILDING

SECTION AND PLAN OF PROPOSED CHRISTIAN SCIENCE CHURCH,
MINNEAPOLIS, MINN.

ELIEL SAARINEN, ARCHITECT

this design and other creative efforts by Saarinen can produce a lasting impression on an age which everywhere is turning to a general adoption of modernist forms. As a brilliant designer who combines a striv-

ing for characteristic functional expression with an attitude of independence of historic forms, Eliel Saarinen stands quite alone. In style he belongs to no country but rather to the spirit of the times.

THE BASKIN BUILDING, CHICAGO

HOLABIRD & ROCHE, ARCHITECTS

THE BASKIN BUILDING recently erected on State Street, Chicago, is primarily designed to give expression of use as a retail store for the display and sale of men's clothing manufactured by a nationally known and well advertised concern. In this regard it will be observed that the ornamental features comprise many units which have become more or less familiar as peculiar to the advertising of the concern and as far as possible their general characteristics have been retained.

The first story is faced entirely with black and gold marble, which is returned around the recessed inner display windows and frames the bronze store fronts which are used at this level. This arrangement permits of a pleasing departure from the excessive use of plate glass which is so prevalent along this street. The floor of this recess is patterned in highly ornamental Traitel Terrazzo and the ceiling overlaid with canvas and painted. Both parts contain ornamental features made effective by their use of

decoration expressive of the history and purpose of the store.

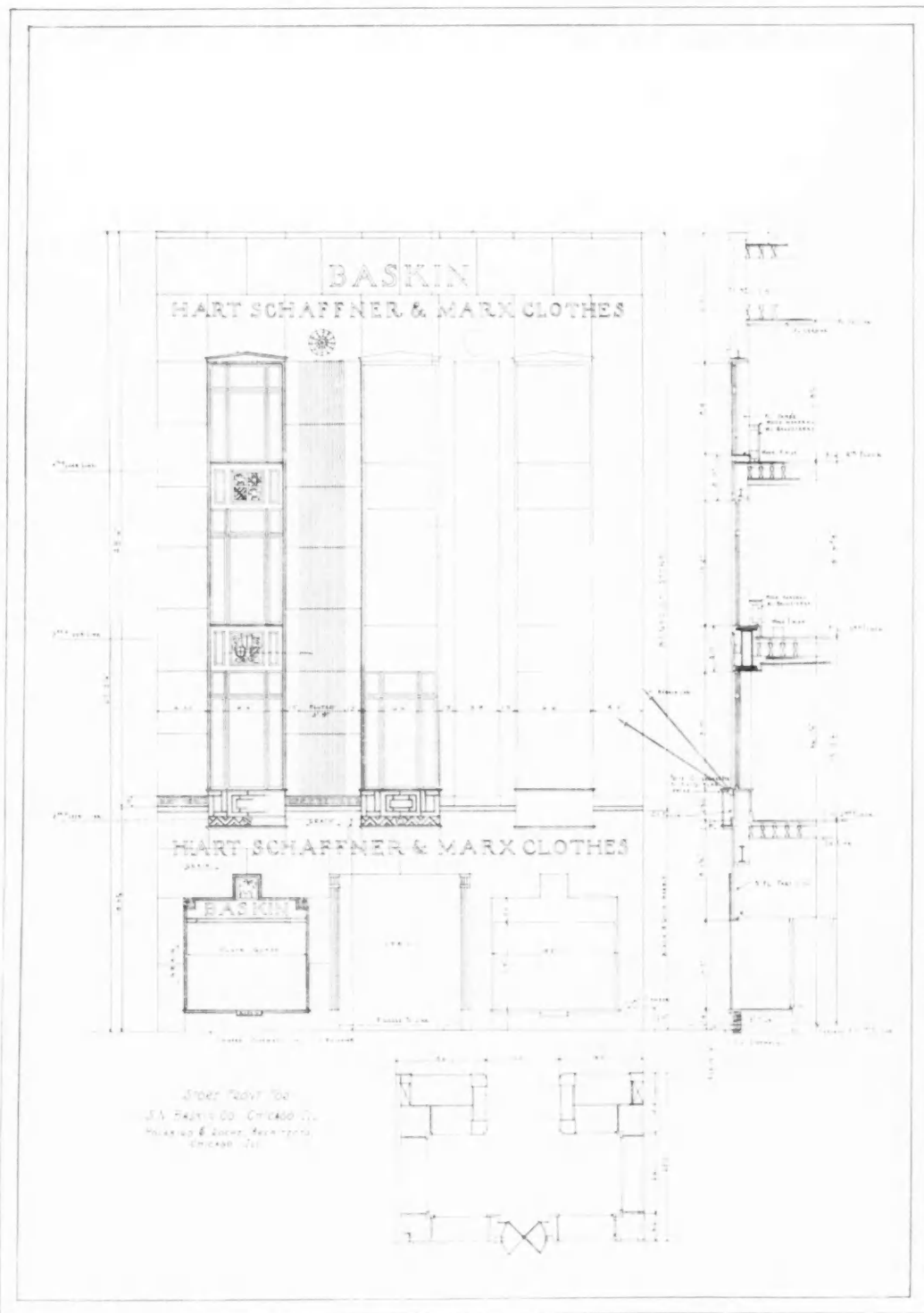
The upper three stories of the building are faced with Benedict Stone in large slabs, enclosing the window frames and spandrels which together with the balconies are of ornamental cast iron.

The operating portions of the windows themselves with ventilating transoms above are built up with solid steel sections. All of the ornamental cast iron is painted in polychrome with the panels in the spandrels at the third and fourth floor levels picked out in bright heraldic coloring. The applied lettering on the exterior is of solid bronze in all cases and where the lettering occurs on the black and gold marble it is surfaced with gold leaf.

The Baskin Building with its freedom from the restraint of tradition stands in contrast with its less business-like neighbors. It exemplifies a progressive tendency in business structures; it is fitted to practical needs and consciously modern.



BASKIN BUILDING, CHICAGO
HOLABIRD & ROCHE, ARCHITECTS



BASKIN BUILDING, CHICAGO
 HOLABIRD & ROCHE, ARCHITECTS



BASKIN BUILDING, CHICAGO
HOLABIRD & ROCHE, ARCHITECTS

NATIONAL CITY BANK OF NEW YORK

WALKER & GILLETTE, ARCHITECTS

BY MATLACK PRICE

OF ALL types of building the bank has almost invariably been conservative, even ultra-conservative, in its treatment. Classical columns, classical architraves, con-

two reasons, to the manner of design which Walker & Gillette have evolved for the National City Bank in its building at Broadway and Canal Street in New York

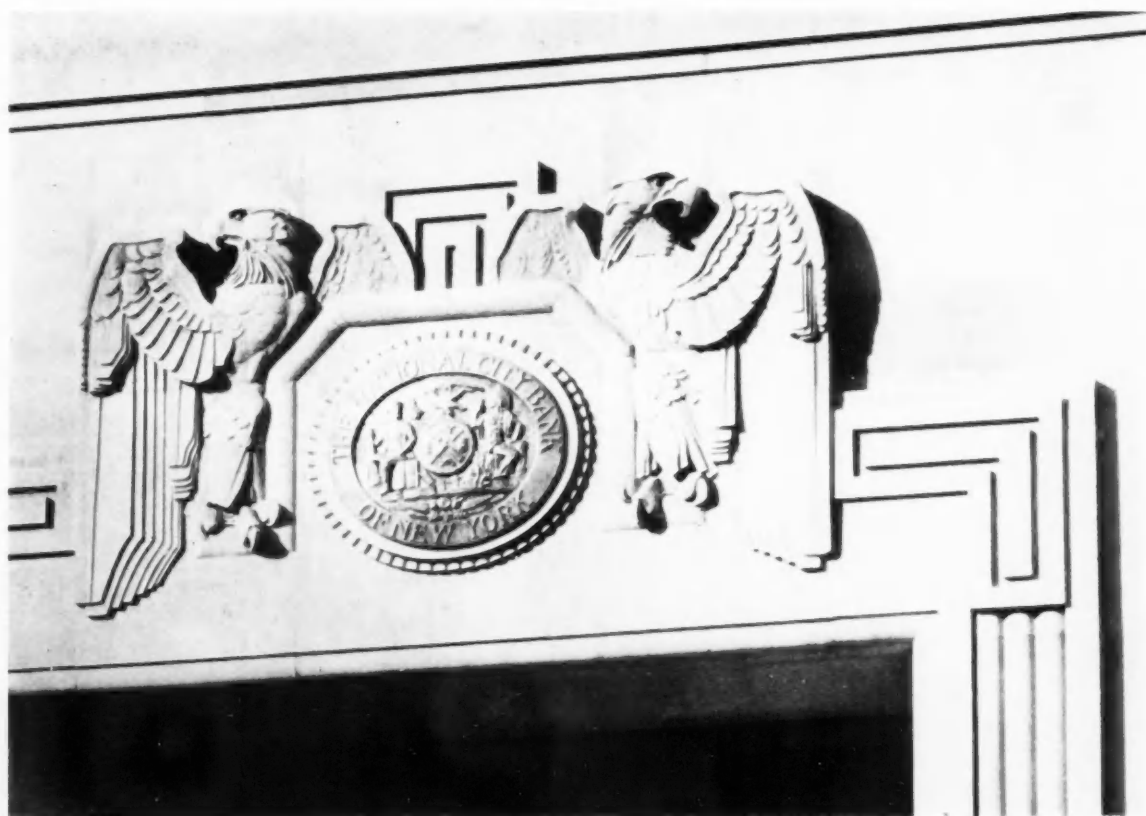


Photo. Fischer

DETAIL OF SCULPTURE
NATIONAL CITY BANK OF NEW YORK
WALKER & GILLETTE, ARCHITECTS

ventional details for doors and grilles—constantly better in detail to be sure, but always conservative. Louis Sullivan did upset the architectural tradition for banks some years ago when he designed the Peoples' Savings and Loan Association in Sidney, Ohio, but nothing came of it.

This year particular interest attaches, for

City. The design may be considered as highly ingenious and adaptable for branch banks widely varied geographically and architecturally whether in the United States or in foreign lands, and this adaptability is apparent both in design and in material.

Columns, it would appear, have long



Photo. Fischer.

ENTRANCE
NATIONAL CITY BANK OF NEW YORK
WALKER & GILLETTE, ARCHITECTS

been thought a necessary architectural part of a bank, something sacrosanct, almost. But now it appears that columns are not necessary at all, and that a bank can look dignified and impressive entirely by virtue of fine proportions and an essentially modern sophistication in detail—or absence of it.

Little detail, indeed, is apparent; a bold (but not too bold) frame around the entrance, a vigorously modelled pair of eagles surmounting it and supporting the bank's seal in bronze. A definitely free treatment of the ironwork about the entrance and on the long Canal Street elevation which splays slightly from the front elevation on Broadway, the bank's name lettered as an integral part of the stonework. And again there are no columns, no pilasters, no mouldings and no architrave or cornice.

Nor is it at all difficult to picture adaptations of this building with all its essential traits, dwelling in harmony with Georgian buildings in England, with modern German buildings in Germany, with the generation ago Beaux-Arts buildings of Latin American capitols or with the latest expressions of modernist architecture in France or Belgium. The architects, in fact, seem to have evolved a manner or a style which is not only universal but ageless. There was a narrow course to steer between keeping, on the one hand, any obvious traits of yesterday and plunging, on the other hand, too far ahead of tomorrow.

The architects' other intention in developing this manner for a far-flung chain of banks in different parts of the world can also be visualized—the intention to com-

mit the design to no specific material. Any kind of stone, terra cotta or stucco would present the same effect and make a National City Bank recognizable anywhere. All of which goes somewhat further than most architectural design attempts to go.

The interior, in its manner, is a counterpart of the exterior. There is an inescapable sense of quiet spaciousness in the great banking room. There is neither an insistence on color nor a lack of it; certainly no sense of bleakness, yet the average person, after he had left the bank, would find it difficult to say what the color was. Height is accentuated by grooved verticals of purple-grey marble. This new design leaves familiar architectural terminology some distance behind, with a need for names to catch up with many new forms. These "verticals" would be pilasters if they had capitals or bases or if they were not flush with the walls, but they are very definitely not pilasters, and are not intended to be. That would have compromised the very essence of this modern expression.

The ceiling, again, is a clean break with the past—low relief plaster in motifs not at all familiar and not at all associated with conventional ceiling decorations, yet essentially decorative in their function.

The fittings are in character with the whole building; tables, black and silver, in a manner neo-neo classic, evolving some way from Pompeian classic, but with more of a new finesse—and all the cashiers' screens and other fittings are done in silver and gunmetal and without any detail at all, as detail is commonly understood in the drafting room.

(For further illustrations see pages 413-427)

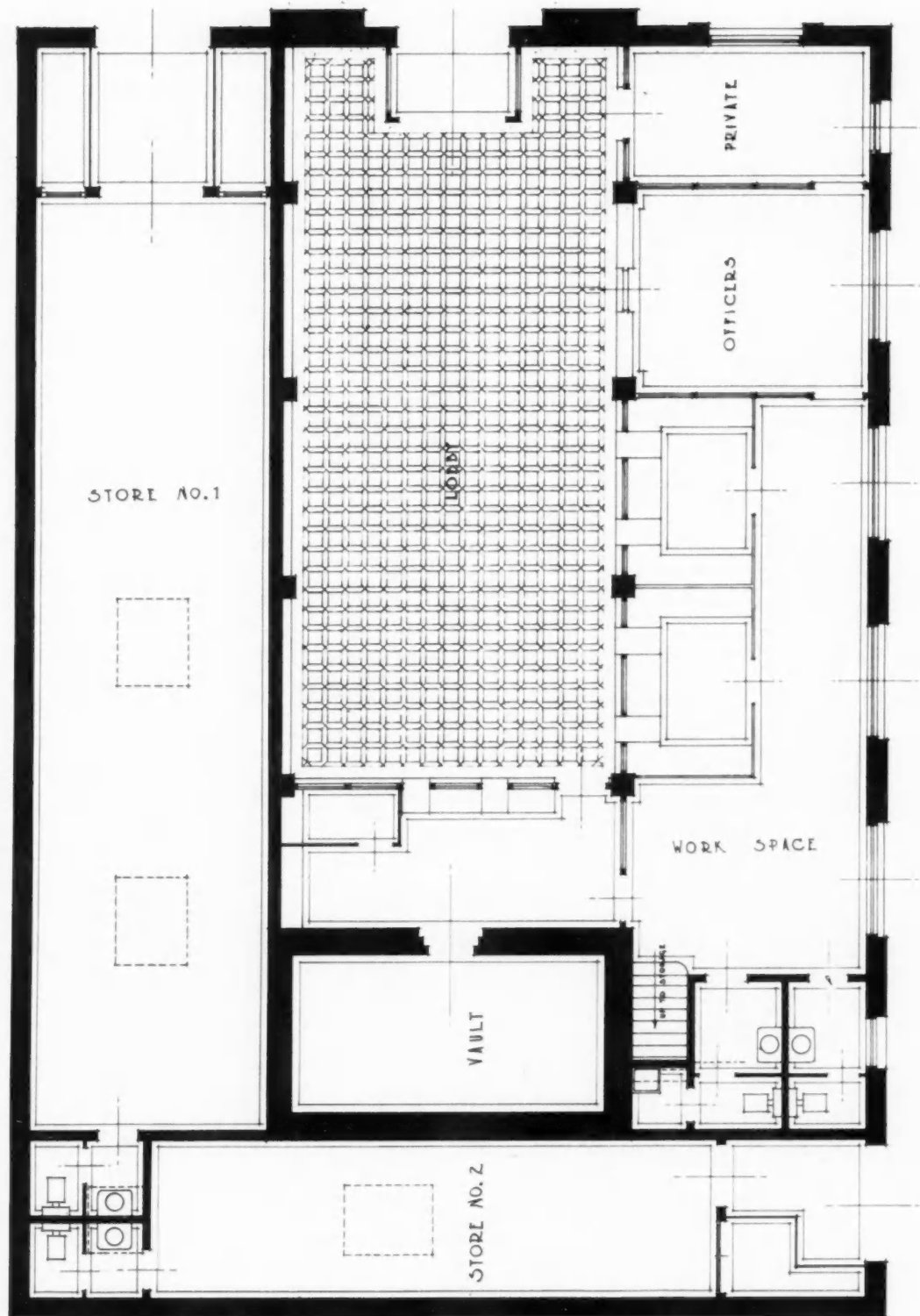


PORTFOLIO
OF
CURRENT ARCHITECTURE



Bank of Italy, Ocean Beach, San Diego, California
(originally built for the Southern Trust and Commerce Bank)
WILLIAM TEMPLETON JOHNSON, ARCHITECT

FEATURING
SMALL BANK ARCHITECTURE



Plan of the Bank of Italy, Ocean Beach, San Diego, California
(originally built for the Southern Trust and Commerce Bank)
WILLIAM TEMPLETON JOHNSON, ARCHITECT



Bank of Italy, Ocean Beach, San Diego, California
(originally built for the Southern Trust and Commerce Bank)
WILLIAM TEMPLETON JOHNSON, ARCHITECT

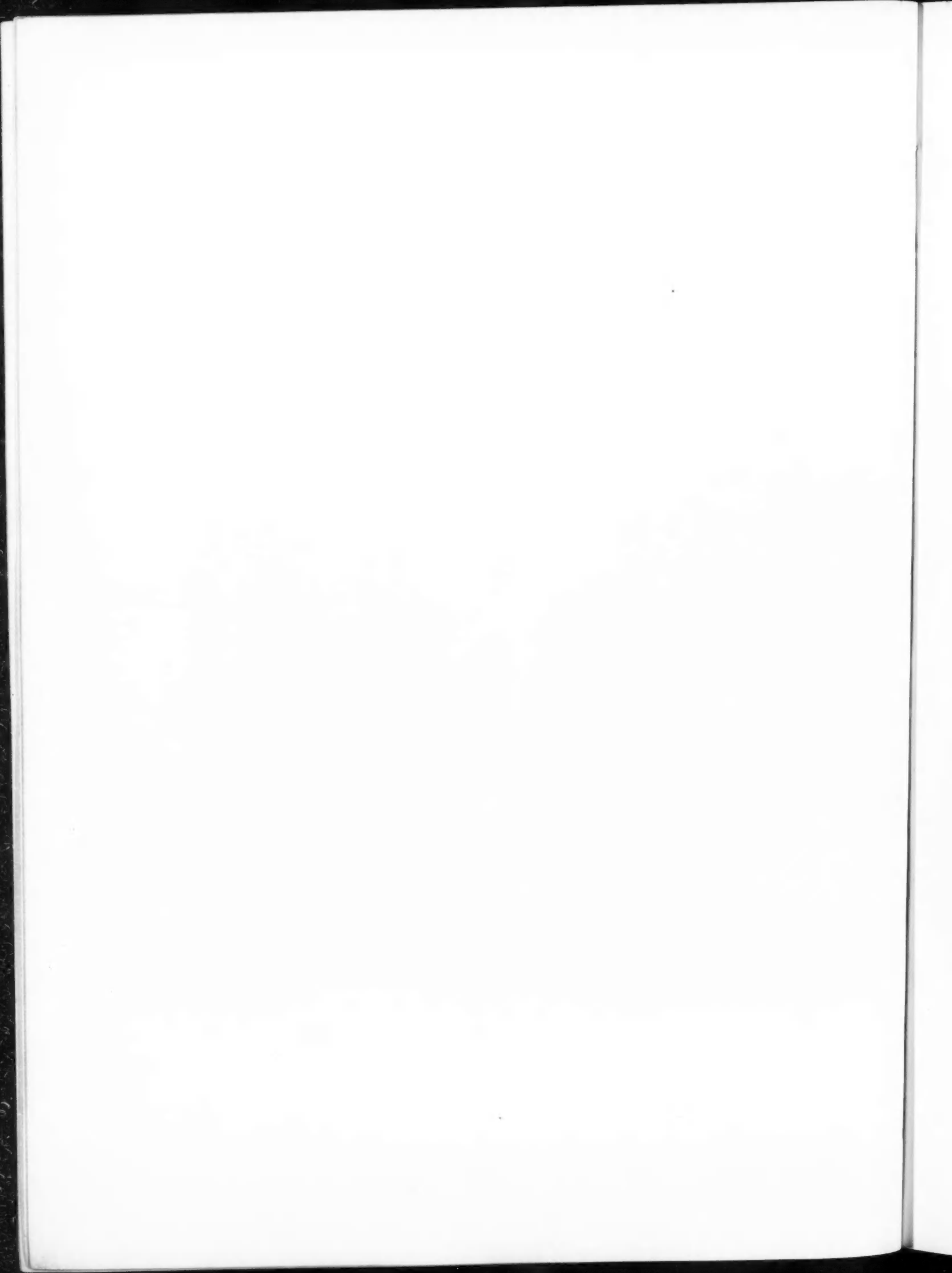
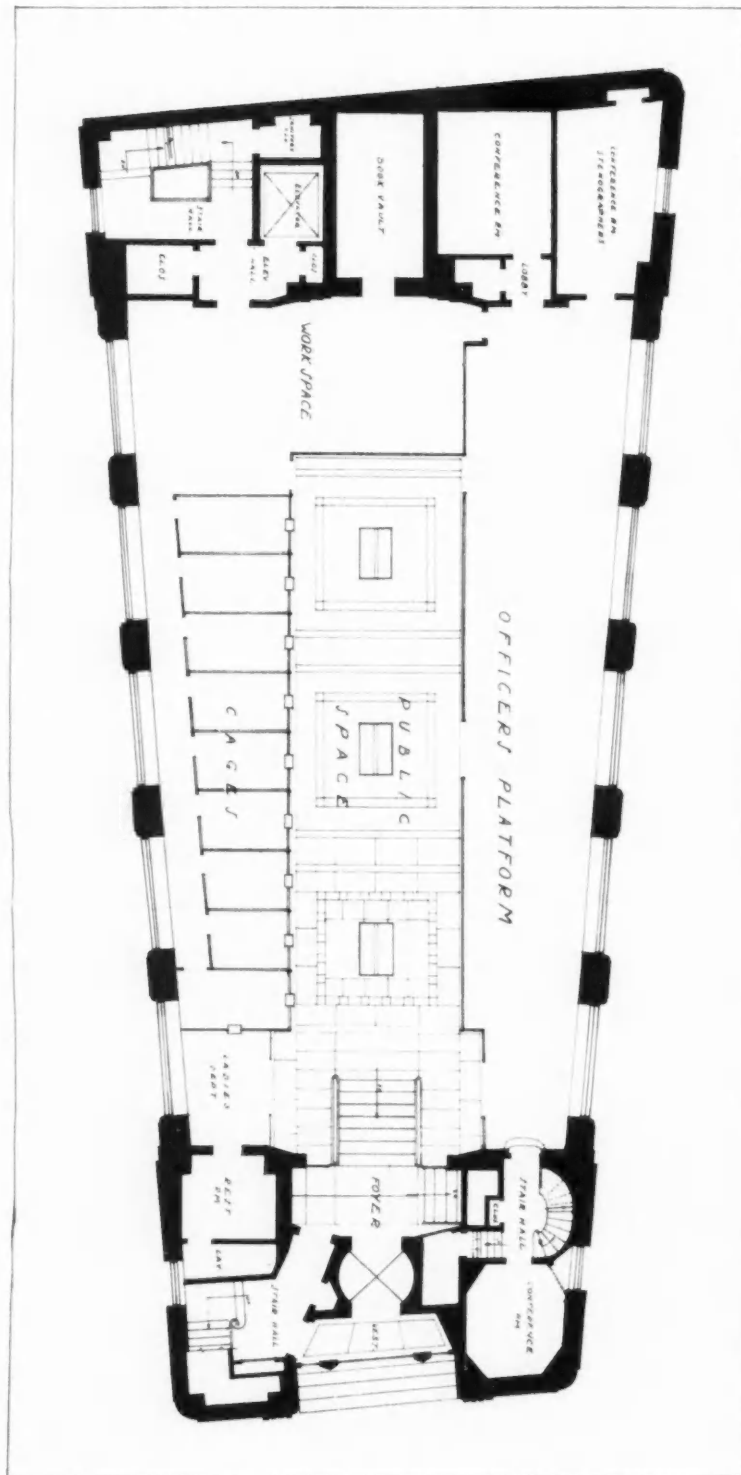




Photo Fischer

National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS



Plan of National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS

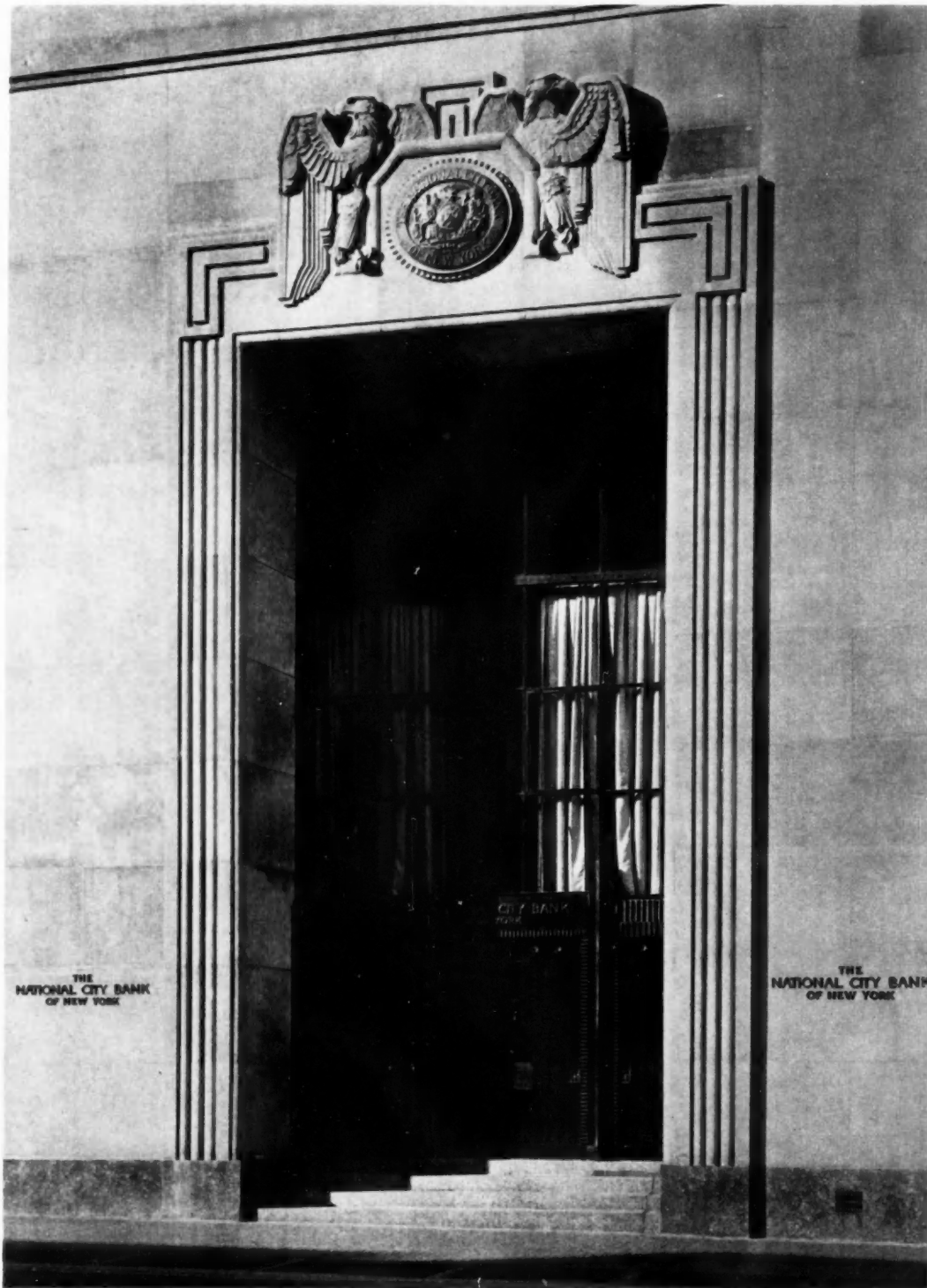


Photo Fischer

Main Entrance, National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS



Photo Fischer

Banking Room, National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS

Faint, illegible text, possibly bleed-through from the reverse side of the page.



Photo Fischer

Banking Room, National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS



Photo Fischer

Front of Banking Room, National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS

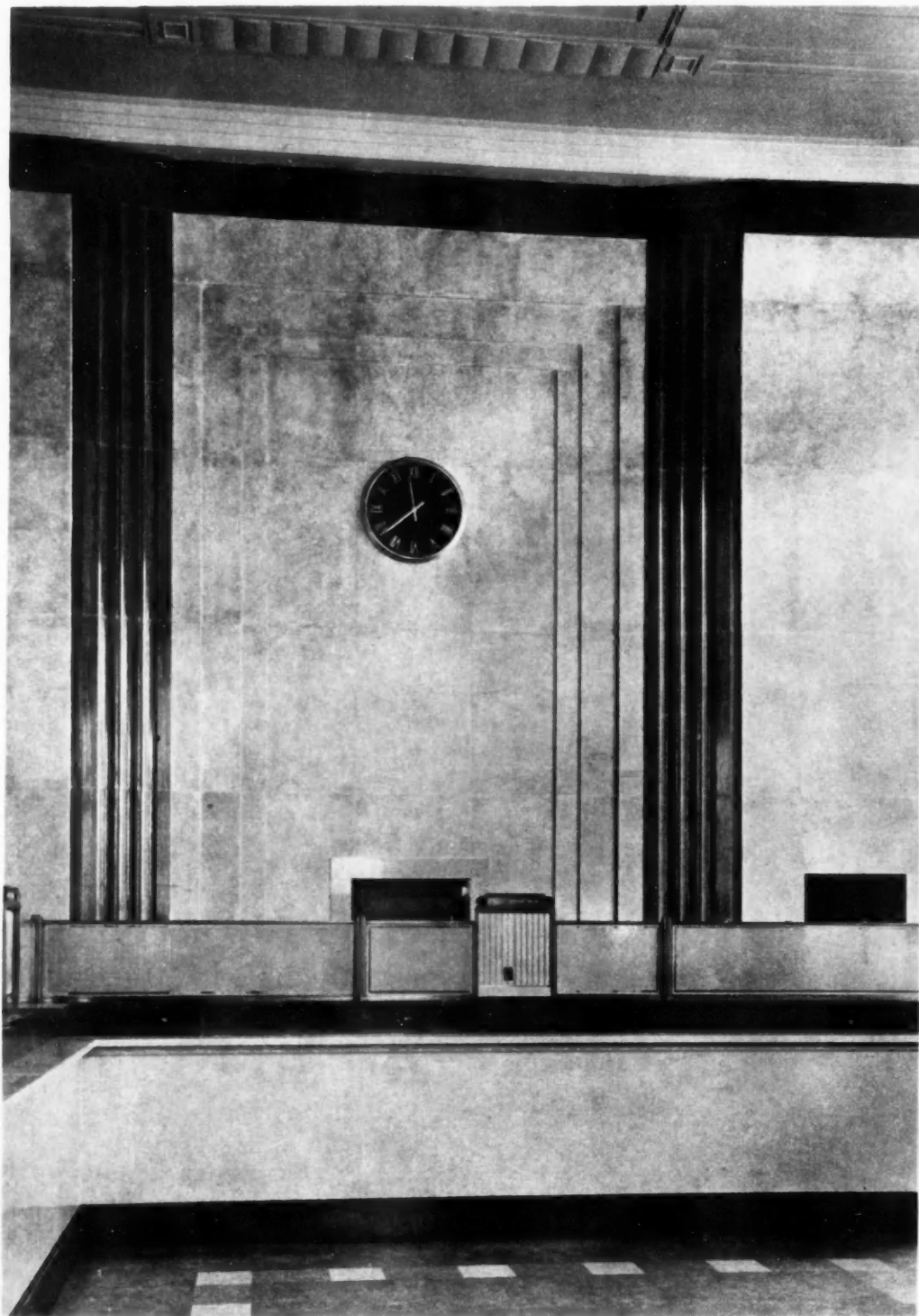


Photo Fischer

Rear of Banking Room, National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS

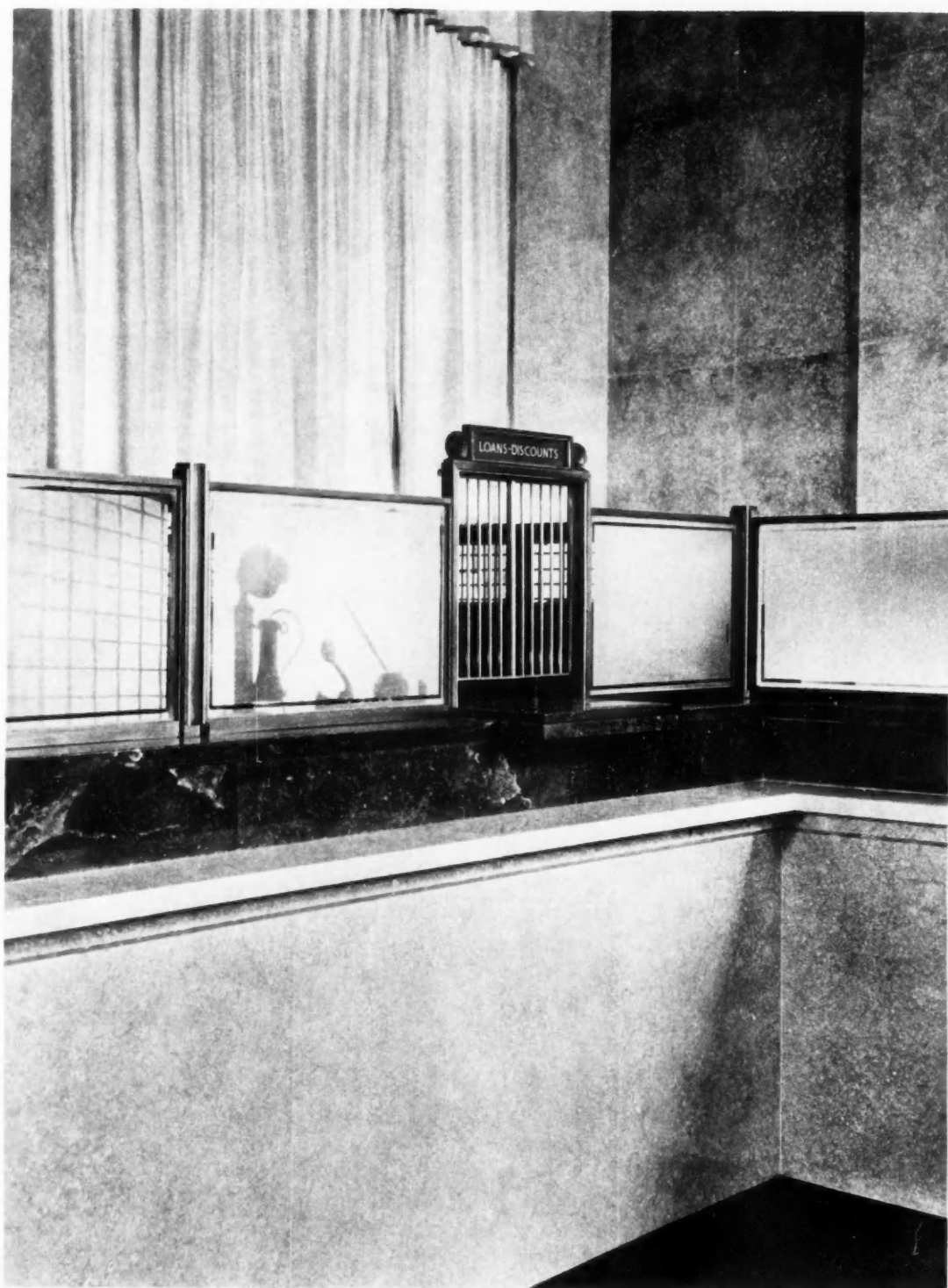


Photo Fischer

Screen Detail, National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS

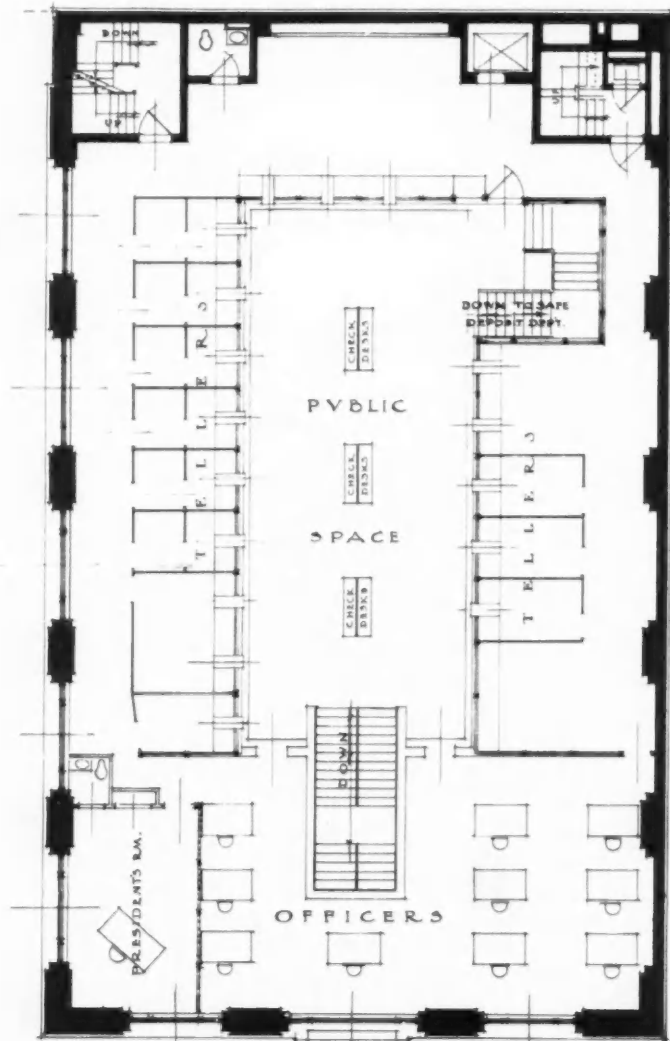


Photo Fischer

Electrolier, National City Bank of New York
Canal Street and Broadway, New York City
WALKER & GILLETTE, ARCHITECTS



The State Bank & Trust Co., of New York City
DENNISON & HIRONS, ARCHITECTS

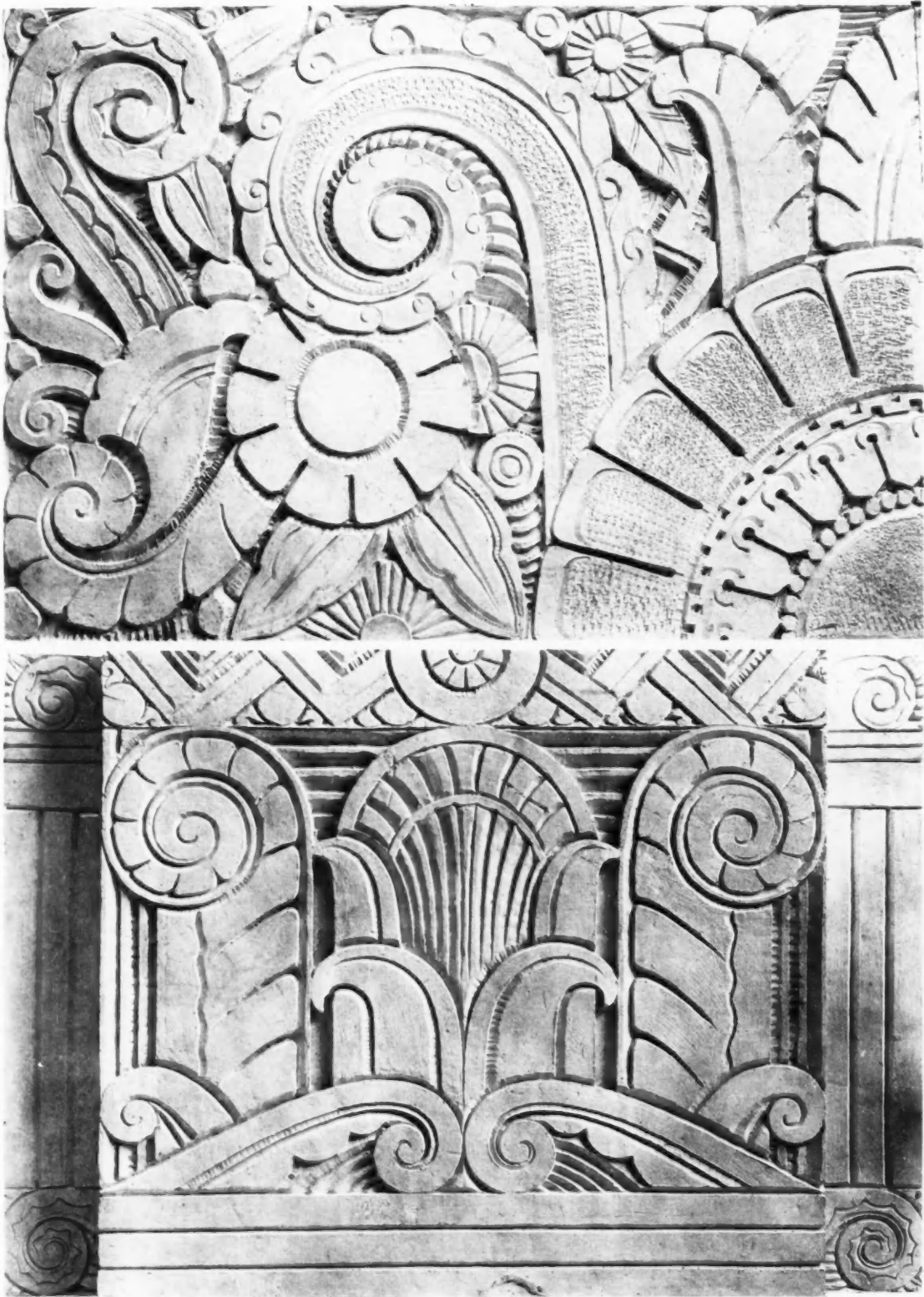


BANKING FLOOR PLAN

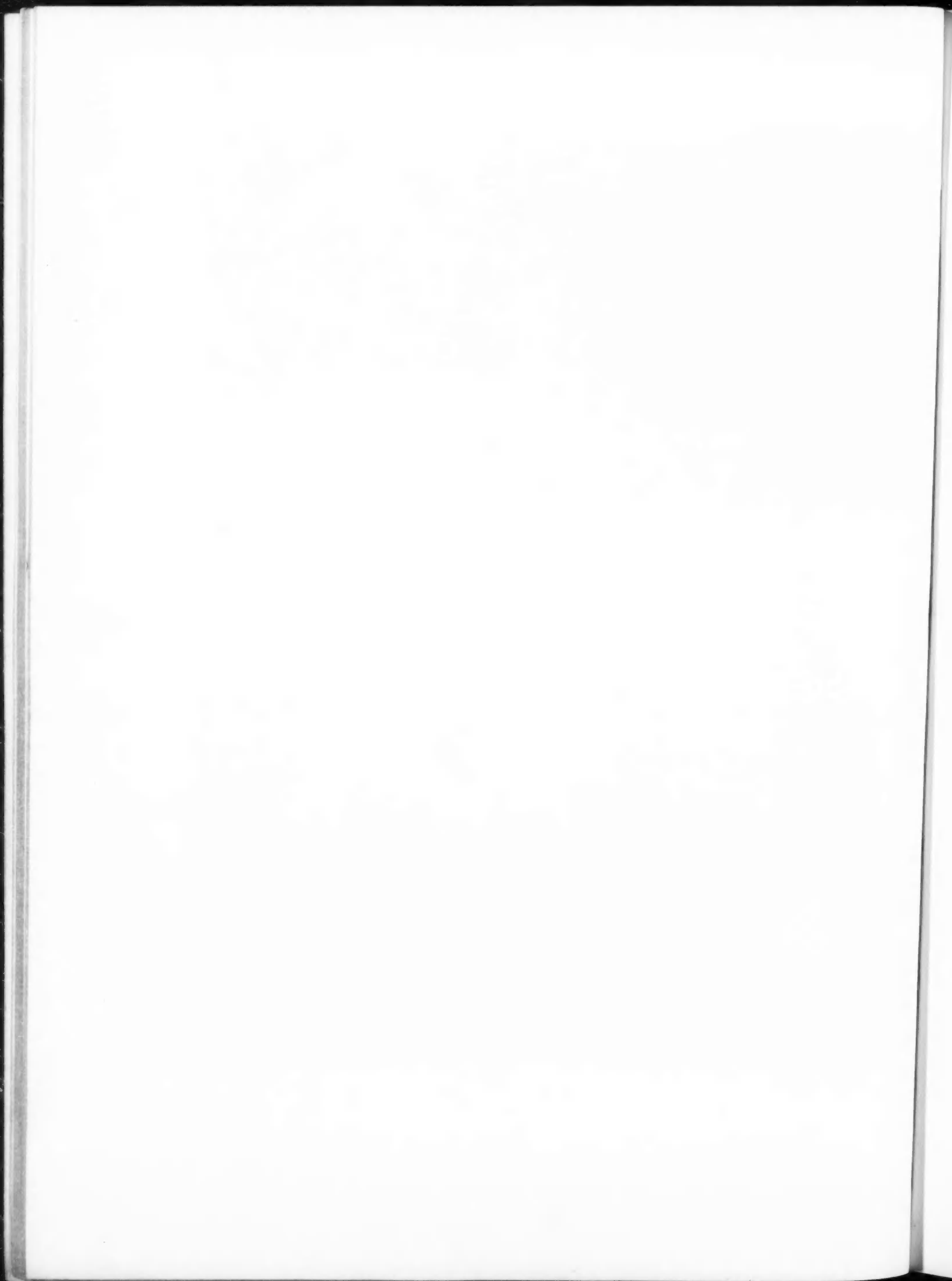
THE STATE BANK & TRVST CO.

NEW YORK CITY.
1/8" = 1 FT.

DENNISON & HIRONS, ARCHTS.
40 EAST 42 ST., N. Y. C.



Detail of Sculpture
The State Bank & Trust Co., of New York City
DENNISON & HIRONS, ARCHITECTS



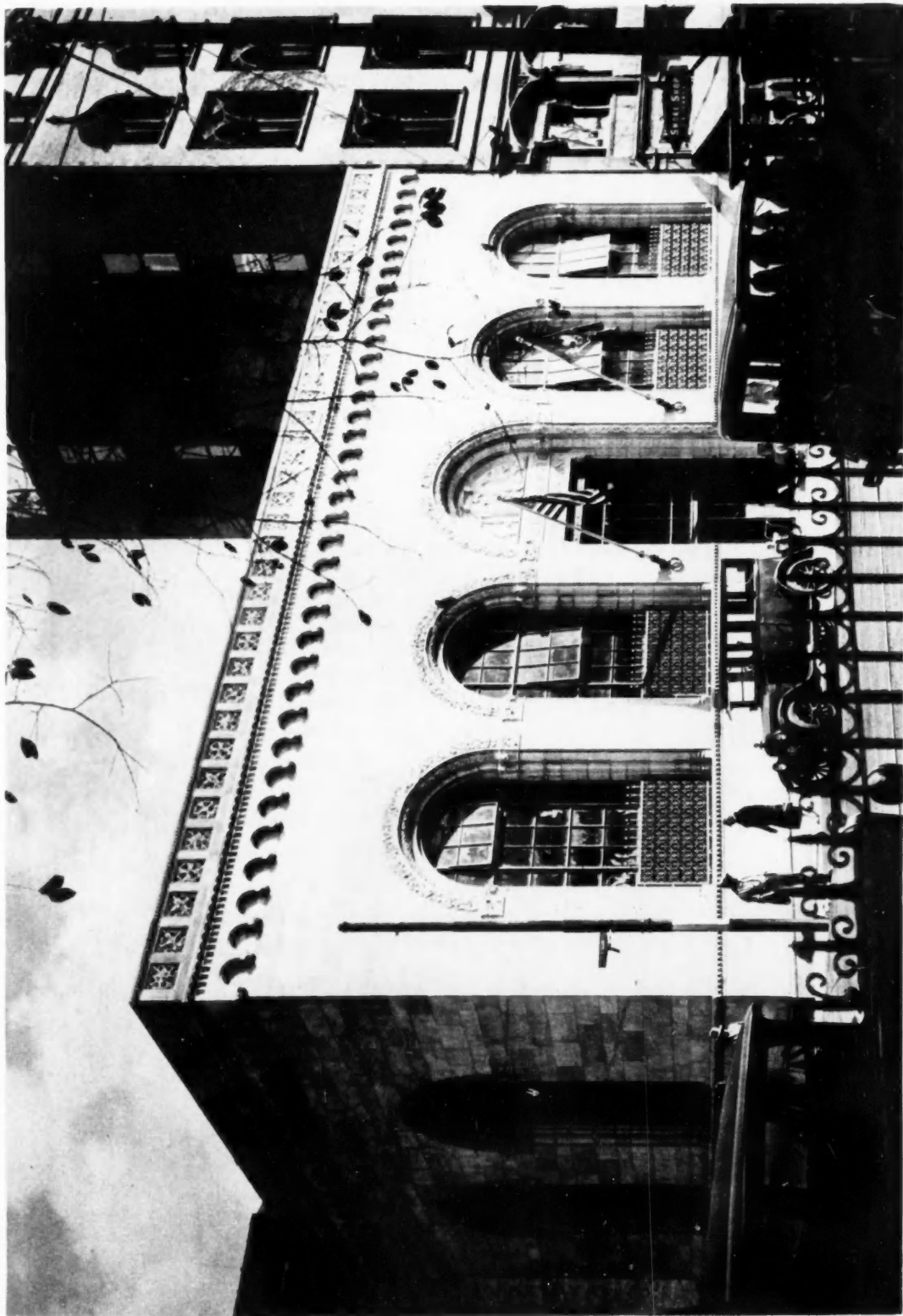


Photo Fischer

Dime Savings Bank, Waterbury, Conn.
YORK & SAWYER, ARCHITECTS



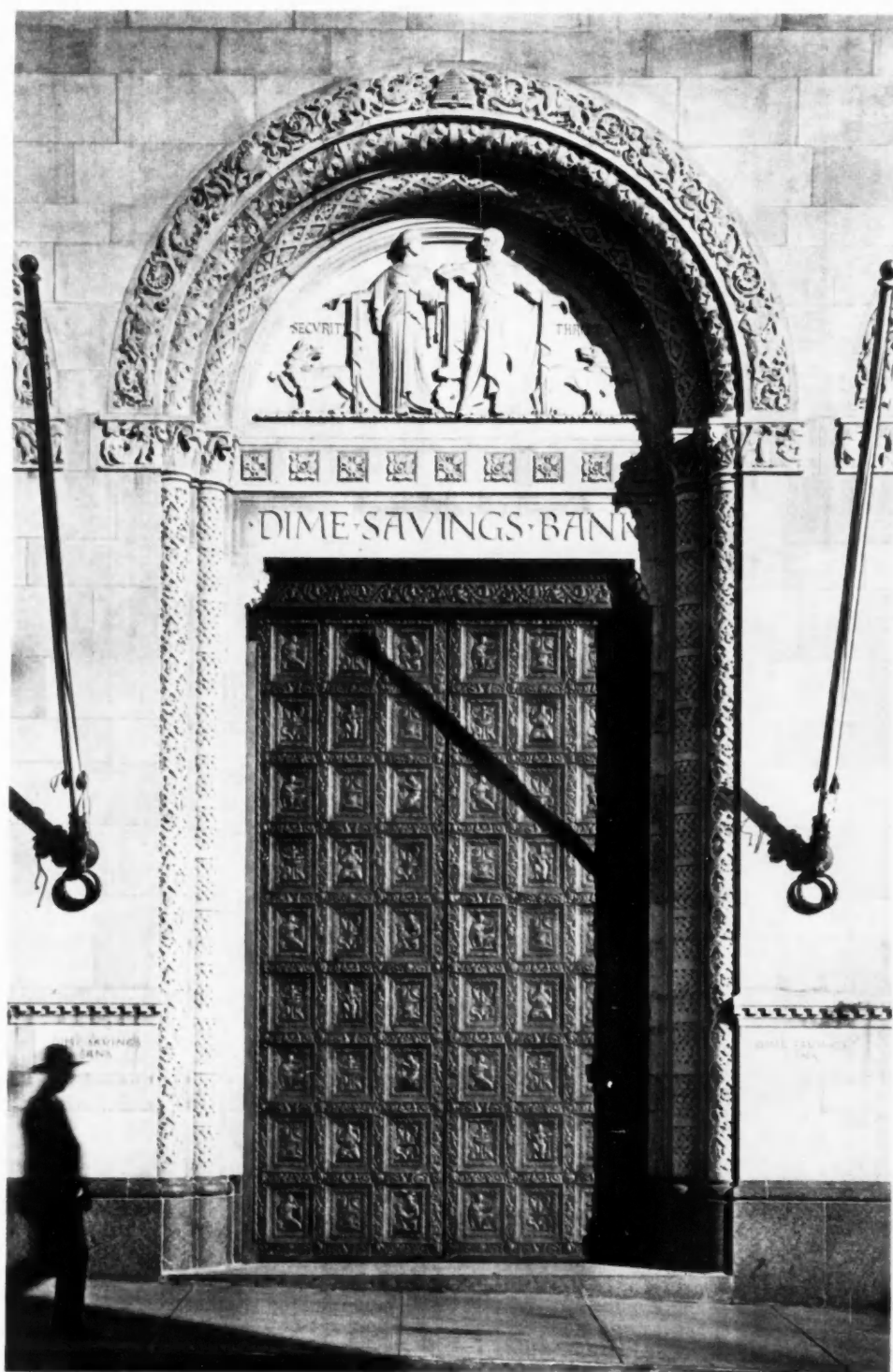


Photo Fischer

Dime Savings Bank, Waterbury, Conn.
YORK & SAWYER, ARCHITECTS

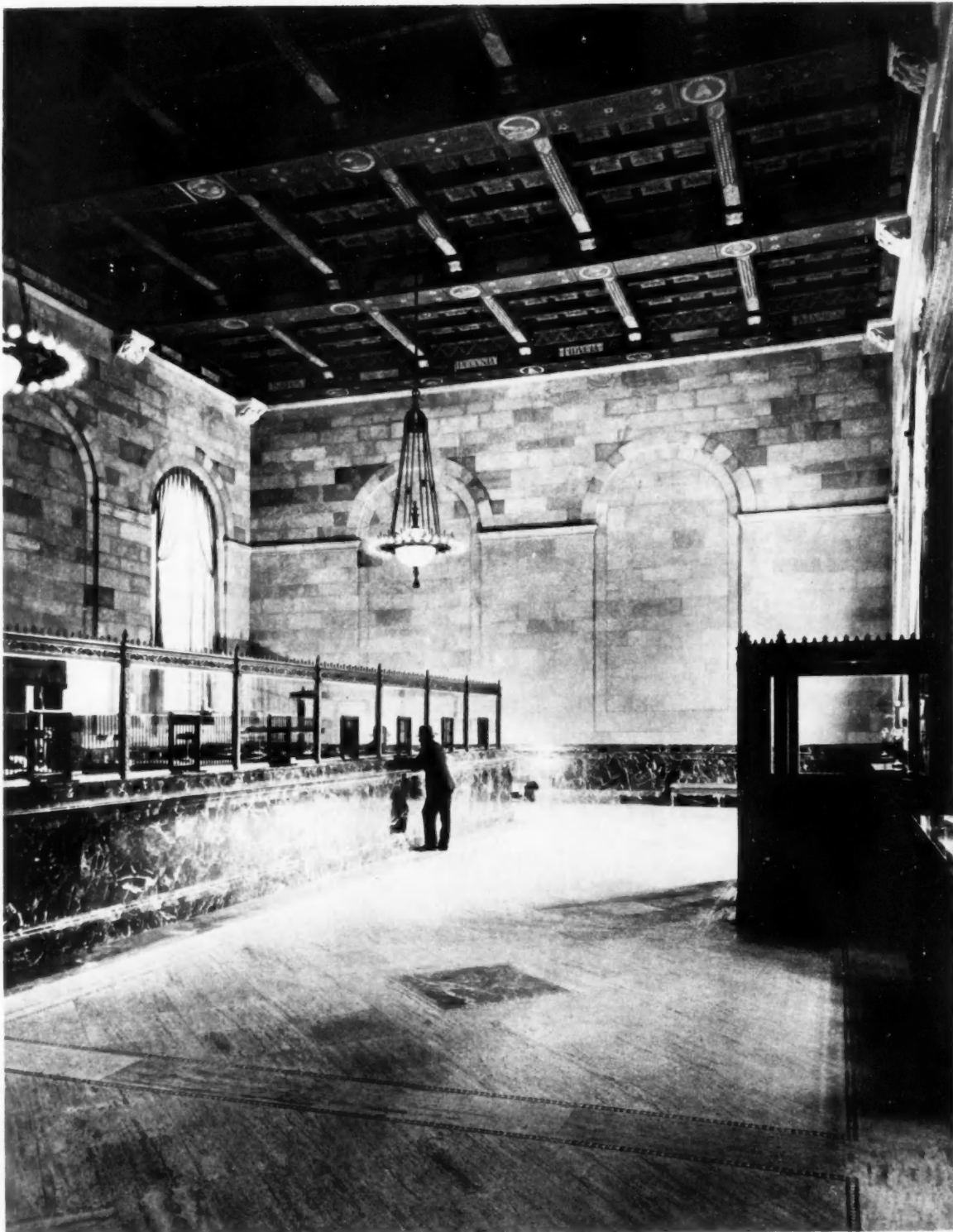


Photo Fischer

Dime Savings Bank, Waterbury, Conn.
YORK & SAWYER, ARCHITECTS



Photo Fischer

Directors' Room
Dime Savings Bank, Waterbury, Conn.
YORK & SAWYER, ARCHITECTS

✓ ON THE DESIGN OF TYPES
WITH SPECIAL REFERENCE TO THE TYPES OF
THE ARCHITECTURAL RECORD

BY FREDERIC W. GOUDY

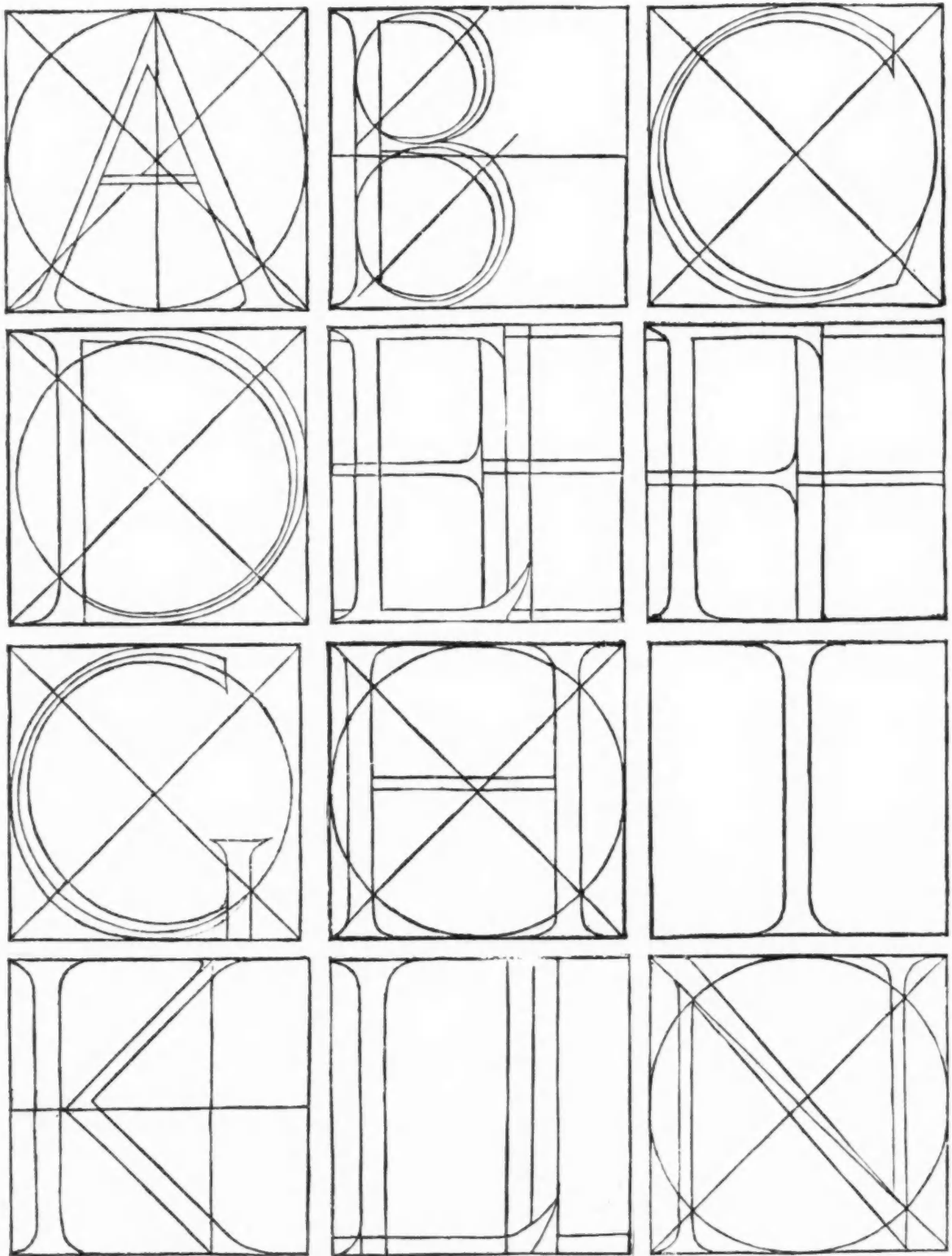
THE GREATER interest in printing and printing types now evident on the part of the public has suggested that the readers of *The Architectural Record* might find it of interest if I attempt, in the following rambling notes, to set down what type design means to me and also somewhat of the genesis of the particular types used in the pages of the current issue of *The Record*.

(A newly discovered treatise on classic letter design printed at Parma by Damianus Moyllus, Circa 1480, Paris—1927.) The experiment brought out several interesting facts. Although the letters of Moyllus certainly demand the respect of artists, architects and typographers, they but fix the proportions, etc., of some early lapidary character and offer little more than sugges-

‘RECORD TITLE,’ A FONT OF MAJUS-
CULES OF CLASSIC FORM DESIGNED,
CUT AND CAST BY MR. GOUDY FOR
·THE ARCHITECTURAL RECORD·
MCMXXVII
A B C D E F G H I J K L M N O P
Q R R S T U V W X Y Z &
: 1 2 3 4 5 6 7 8 9 0 ;

A few years ago, I tried the experiment of making a type-face based upon a rubbing of a few letters from an inscription of the time of the Emperor Hadrian (see illustration on page 443) and it occurred to me to see whether a letter constructed along the lines of the Moyllus reproductions could be used as the basic model for a type-face.

tions for a new type. As letters they are fine, but they remain still mere studies in form and proportion only, the formulations of a scheme that will, of course, enable one to reconstruct and fix the letters of an inscription that long since disappeared and which one can redraw freely within the limitations of his graphic deductions.



FACSIMILES FROM THE ALPHABET CONSTRUCTED BY MOYLLUS (CIRCA 1480)

For a type practically of the same *size* as his drawings, the Moyllus letters served admirably, but to apply them to much reduced sizes for types, many modifications were imperative and in some cases even changes in form to fit them to modern eyes and uses; certain features had to be exaggerated or they would disappear in the

As to the type (Goudy Monotype Garamont) used for the text pages of The Architectural Record, I would like here to set forth authoritatively that much of the critical writing regarding it and its inception is misleading. Its final form is not the result of inspiration or extraordinary genius on my part but merely the result of

ABDEGNRS

LETTERS BASED UPON THE INSCRIPTION AT THE BASE OF THE TRAJAN COLUMN AT ROME

cutting, curves strengthened, stems and hair lines thickened or brought into greater harmony with each other. Architects well know that a vertical line exactly the same thickness as a horizontal does not always give the same impression of thickness in every case. A letter constructed on a geometrical basis takes little account of the optical illusions in which the experienced designer finds those fine and almost imperceptible qualities which mean so much to the appearance of type in the mass, and which vary in nature and degree with

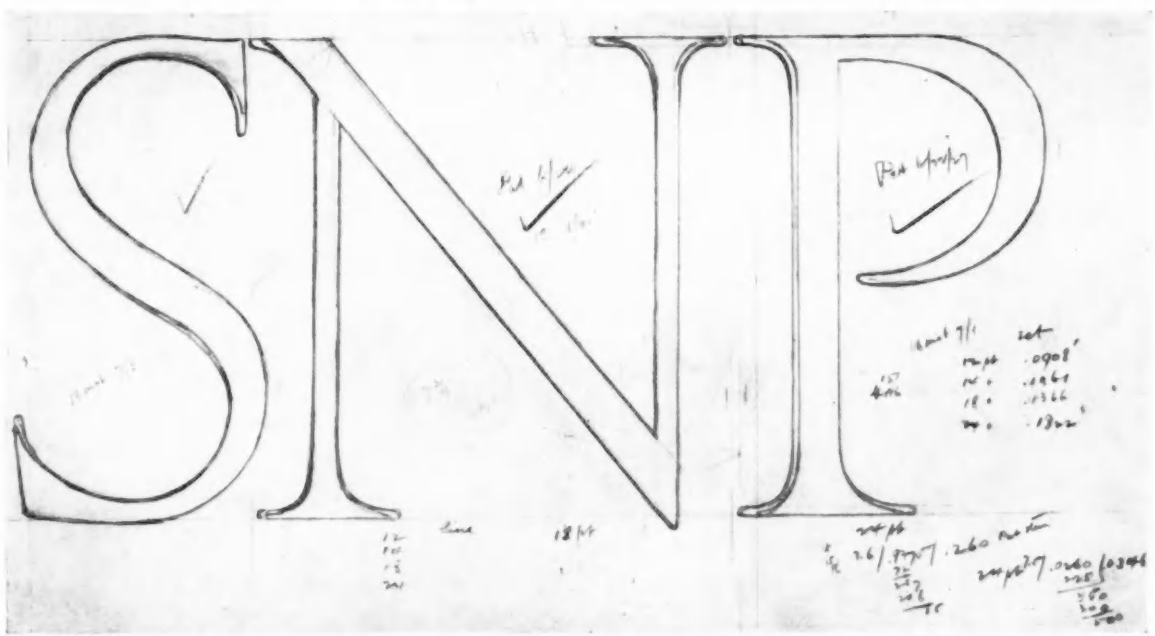
an attempt to reproduce the spirit and form of the type attributed to Claude Garamond (1540). I made no attempt to eliminate the mannerisms or deficiencies of that famous letter, realizing they came not by intention but through the punchcutter's handling, his lack of tools of precision, crude materials, etc., working "by eye" and not by rule. I did, however, find it impossible to eliminate from my drawings the subtle something we call personality—that something made up of items so intangible as practically to be imperceptible when indi-

❖ INSCRIPTIONES LATINÆ ÆTATIS ROMANÆ PER TOTEM ORBEM TERRARUM ANTIQUUM DISPERSARUM

LETTERS BASED UPON AN INSCRIPTION OF THE TIME OF THE EMPEROR HADRIAN

almost every character drawn. Note particularly the "A" taken from Moyllus' treatise—its top coming only to the square in which it is drawn. If reproduced in type *exactly* as indicated, every "A" in a line of letters of the same reduction would seem much less in height than such letters as H, N, E, etc., although measuring exactly the same. The same is true of V, O, Q, C, G, and others.

vidual types are compared, yet clearly manifest when the page as a whole is viewed—items that are the outcome of a mind firmly fixed on the ends aimed for and not merely an exhibition of his skill as a copyist. The qualities of subtleness I couldn't leave out, yet did not *consciously* include in my drawings, are the elements that mark this face as belonging to the present and not to the sixteenth century. Of it, America's



WORKING DRAWING OF RECORD TYPE SHOWING AREA COMPUTATIONS
AND DEVELOPMENT OF LETTER FORMS

Size of letters in original drawing, eight inches in height

greatest typographer has said: "It seems to me one of the most successful reproductions of an early type that any modern designer has yet given us."

Up to this time we have been considering the genesis of the type-faces designed for *The Record*. Reference should here be made to the pioneers in type design who based their studies on Roman inscriptions.

A little more than ten centuries ago a certain monk made a pilgrimage to Rome where he collected some seventy or more lapidary inscriptions which he made into a little book, the first and only study of such inscriptions in the Middle Ages; in fact, it was not until the fourteenth century when the ill-fated Nicola de Rienzi wrote of the wonders of Rome that any other serious study of inscriptions was made.

Rienzi described and deciphered many inscriptions and drew from them the story of the degradation of Roman democracy. His researches inspired others. One—Giovanni Dondi, a friend of Petrarch—wrote of the Trajan column and the splendor of

the inscription it bears. This was in 1375 and begins the series of studies in epigraphy made by Ciriaco, Andrea Mantegna, Felix Felicianus of Verona, and others. But it is Felicianus to whom we are indebted for the first serious attempt to describe accurately the *forms* of inscriptional letters. This he does in a treatise, not only describing their shapes and proportions, but giving as well his deductions as to their construction. He went so far as to point out that he had observed marks of rule and compass still remaining in many cases, and inferred that the letters had been drawn upon a square field variously divided, diagonally, diametrically, etc., in accordance with the particular character cut, as H, O, M, A. He fixed the proportions of the Roman alphabet by giving the thickness of the stems, perfecting the curves, and showing the relations of varying widths with each, and widths to heights, usually as 1 to 8.

Up to this time books in manuscript only had been produced. Scholars assume that the first printed work on the forms of letters

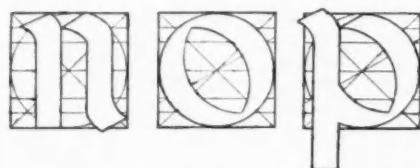


INSCRIPTION AT THE BASE OF THE TRAJAN COLUMN AT ROME, CUT ABOUT A.D. 114

and their construction is found in the "Divina Proportione" by Paciola, printed in 1509. However, a slender volume of an anonymous work on classic letter design in six sheets folded in fours, each leaf printed on one side only but without title, has recently been discovered, the colophon of which would seem to place it some years prior to Paciola's famous treatise. The colophon reads: "Impressum Parme per Damianum Moyllum, Parmensem." Very little is known of this printer, three books only being credited to him with certainty, these printed between the years 1477 and 1483, making the probable date of the volume referred to about 1480.

Art in type design is the spirit the designer puts into the body of his work; it is

the visible evidence of his sincerity, his use of intrinsically right principles in the making of things. Art harmonizes his work with nature. His designs should be more than drawings of letters or mere abstract arrangements of line and form; they should seem to have grown naturally into being—well-defined and vividly alive, clear, elegant, strong—nothing in them loose or vague, no finesse of design but all quiet, inevitable, and great-minded. What, then, is the great desideratum in the production of a new type? Is it not that the forms which he depicts should bring to his perceptions some reminder of their origin, of the beauty and freshness of the necessity that created them, some message of the relation of art to practical life?



From a Writing Book of the Fifteenth Century

ARCHITECTURAL TRAINING IN AMERICA

BY JOHN V. VAN PELT

I
AT DIFFERENT times in the past, architects have been trained in many ways. Any discussion of their training in the United States today must take into consideration the methods which other cultures have used in preparing the designers of buildings for their work. During the Middle Ages there were no schools of architecture. As with painting, sculpture and the crafts, young men were apprenticed to masters of the art or trade. Sometimes they were called pupils and several of them worked together under one master, but there was no counterpart of the organized school of today. This tradition still exists in modified form. A large proportion of modern draftsmen and some architects have acquired their skill through work in an office, usually supplemented by travel and study of erected buildings. The method has produced architects of great ability, in latter days as well as in the past. Bertram Goodhue and Louis Ayres are its most brilliant modern examples.

As architecture became a more complicated profession (today it is probably the most complicated and far reaching of all the professions) the inadequacy of the apprentice system was apparent. A century or so ago the *École des Beaux-Arts* of Paris began to make its influence felt in France. It was the foremost school of fine arts, particularly of architecture, in the world. It retained an element of the primitive system, in that the students joined studios and so worked under practicing architects; but they worked on problems of which the programs were written by professors in the school, and the solutions were exhibited in competition and judged by a jury composed both of professors and of other architects of repute. Mathematics, drawing, modeling and history also formed a part of the curriculum.

Similar schools sprang up in Germany and Italy, but England clung to the apprentice system until relatively recent years.

In America during the latter half of the last century, schools of architecture began to appear in technical institutions and universities. At first they paid scant attention to composition, and confined their teaching of design chiefly to study of the masterpieces of French Gothic, English Gothic and Italian Renaissance. By degrees their instructors began to realize the weakness in planning, group composition and decorative mass design of the men trained by this system and of the heads of the American architectural schools, and they turned to the *Beaux-Arts* for light and leading. Despradelles was called to the Massachusetts Institute of Technology and Wm. R. Ware remodeled Columbia. In 1897, A. B. Trowbridge was placed in charge at Cornell and through him I was appointed to the chair of design there. Not long after this, at about the time when Mr. Trowbridge resigned and I became Dean of the Cornell College, Paul Cret was induced to come over from Paris and vivify the School of Architecture at the University of Pennsylvania.

In spite, however, of the influence of the *Beaux-Arts*, architectural training in America remained distinctively a product of the American college. Without regard to the fact that some students—often those who go farthest in the end—develop slowly in design, each graduate had to finish in four years. He had to learn so much during his course that the students were worked very hard, eighteen university hours being usual. The curriculum was, perforce, restricted to the purely technical subjects.

Complaints about the narrowness of this method of training architects began to pour in and have their effect. About 1917, the

American Institute of Architects advocated the extension of the period of teaching to five years. Harvard and, later on, other schools made the Bachelor of Arts degree a prerequisite and architecture a post graduate course. As it was evident few Americans would spend eight years in preparing to become architects, a combined course was devised in which mathematics, history and other studies necessary for architecture were counted toward the A. B. degree. Thus, as a sop to Cerberus, two degrees were given to those who took the combined six-year course. As the plea was that students who learned all they knew of architecture in four years lacked culture, I may call the six-year combined course the cultural course.

This brings us to the present time. Those who favor and admit the cultural course seem to feel that the problem is solved. Is it? Are our architectural schools doing as well as they should for their pupils? Are they producing the greatest possible number of well-trained architects? Do the graduates exhibit as much power of continued growth as they should? In my opinion, the problem is not solved. If we are honest we must acknowledge that our schools are only about 60 per cent. efficient.

II

Before examining the reasons for the failure it is necessary to inquire just what an architect is. Many architectural firms are composed of men of varying talents and abilities; a designer (often hired), a constructor (sometimes hired), a business man, and a business promoter. Except in those rare cases when the genius of the designer is generally recognized, no firm can exist without a business getter. Yet a go-getter is obviously not what we mean by the term architect. Again it is equally true that, while an architect assumes grave business responsibilities, he cannot be merely a business man. He is the custodian of his client's purse and morally becomes a thief if he squanders the money in his charge. There

are designers of artistic ability and business incompetence who have no right to practise alone. Many practising architects could build what they build for much less than they force their clients to pay. Still, business ability is only a small part of what the architect should be taught or acquire, and, as in the case of the go-getter, a special course, perhaps a little longer, but still a partial course, would supply the required amount of instruction. The constructor then? Well, to my way of thinking, he should know enough to take charge of drafting the details of construction as well as of carrying out and completing that construction. Here a technical and more protracted training is required, but a specially selected course will supply all that is needed.

What have we left? Merely a designer? A thousand times no! There are too many designers and draftsmen who think themselves architects. There are too many architectural courses that train Christmas card artists. Assuredly the architect is more than that.

If we stop to look at our picture we must conclude that the making of an architect is the making of a many-sided man. Well, it is, and therein lies one reason that our present schools, even the best of them, are faulty.

The reasons for this failure are broadly the following:

- a—Inadequate period of study and improper sequence of courses.
- b—Improper trend in the courses.
- c—Poor teachers.
- d—Poor material for students.

III

a—*Period of study and sequence of courses*—When American universities began to develop the study of architecture they seemed curiously unaware of the magnitude of the problem. They still are.

They thought they were fashioning their courses on the illustrious Beaux-Arts model. But, as we have seen, the American college

was a four-year affair, and it was tackling the impossible problem of trying to polish off these youths in that time. If this were not done, the number of students would fall away and the trustees would ask for the resignation of the staff. Trustees gauge the ability of a faculty by increase or reduction in the number of its students. They seldom understand that if the faculty raises the standard and decreases the number of students it may be doing better work.

Perhaps a few questions will sufficiently indicate arguments I would advance against the four-year course.

How many of its graduates can work out a correct Latin inscription? No matter perhaps—they can ask some one else. Well, how many have learned enough French or Italian to study with full profit in the countries that contain the greatest masterpieces of their art? How many can read the description that accompanies the plates in French architectural books? What do they know about literature in general, outside of what they have picked up or have been told in high school?

How many, even though they have attended lectures on the history of art during their course, can attribute to their proper school the paintings they may come across in a gallery abroad, in the Metropolitan Museum of Art in New York or at a picture dealer's where they may have accompanied a trusting client?

How many know what was happening in France or Italy when Henry VIII severed his connection with the Church of Rome? A knowledge of general history is valuable to an architect, if only to fix the interrelation and development of architectural styles, their passage from one country to another and the changes they underwent during their translation.

This, however, is not the worst part of the depressing picture. In addition to its narrow scope the great evil of the four-year course is that for at least two years design is crowded aside by other technical requi-

sites, mathematics, architectural history and the like, so that a student can devote relatively little time to his major subject before the junior year.

A similar defect exists in the combined course. Cultural subjects occupy the whole of the first year, sometimes of two years, and crowd aside design in the third, the result being that the student has only three years for concentration on the vital task of becoming an expert in his most essential activity.

As a matter of fact, the average student needs six years of intensive study of design, beginning with at least a whole afternoon every day in the earliest years instead of one or two two-hour or three-hour periods a week. He should start young, say at seventeen, while his mind is plastic and when the muscles of hand and eye can readily develop co-ordination. He should have drawn before that.

IV

b—*The trends of our courses.*—In design, for the last fifty years, there have been many fashions. When McKim, Mead and White, Hunt, and Cram carried on the apprentice system, the men whom they trained naturally took over the favorite style of the master. The Beaux-Arts was responsible for a certain amount of French neo-classic with a Mansard roof that Mansard never would have built. It was also responsible for much that was really beautiful; for the W. K. Vanderbilt house, such lovely façades as that of the Burden House on Ninety-first Street, New York, the Pan-American Building in Washington and, directly or indirectly, through Columbia, the Massachusetts Institute of Technology, Cornell and Pennsylvania, for a great deal of what such men as John Russell Pope, Harvey Wiley Corbett, William Adams Delano, Chester Aldrich, Benjamin Wistar Morris and many others have given us.

The danger at the Beaux-Arts was, and is, since the War more than in the past,

that interest in and reward for ability of representation may supersede ability of real architectural expression, that an irrational, illogical or even mediocre design well drawn and "rendered" may be rated higher than a sensible or beautiful design poorly presented. The competitions of the Beaux-Arts Institute of Design, in New York, have done more to develop student design than any other one agency in the country. Most of the architectural schools send drawings and in them can be seen what they are doing for the young men entrusted to their care. Much of the work is able. Some of the schools send only the work of post-graduate students and permit it to be assumed that the designs are the work of *bona fide* undergraduates. However, that does not affect the intrinsic instructiveness of the work. What does affect it is a tendency of some of our American schools to try for success in the competitions by a meretricious presentation, when the competitor and his critic have been either too inefficient or too careless to develop a logical, sound and well-composed building which really solved the program. I remember two charming elevations, each having a slender tower, whose duty in plan was to cover an assembly hall that should have accommodated a large concourse of persons, and I also remember many plans so filled with the bright colors of an oriental rug that the inadequate solution of the fundamental requirements of the building passed unnoticed. The jury was too human. It reached out for the pretty picture. That kind of teaching develops renderers, not architects. It is a dangerous pitfall.

In a few of our schools, less now than formerly, there exists the custom of teaching architects mathematics, descriptive geometry, stereotomy, mechanics, strength of materials, construction, heating and ventilating and even perspective, in the department of engineering. In the economy of university custom it is desirable to make one hand wash the other, and at first glance

this appears to be a desirable application of the principle. But saving ceases to be economy when the work is not performed properly. It seems impossible for mathematicians and engineers to teach structural subjects and mathematics in the way architects should learn them. When mathematicians teach calculus, they make it too involved and waste valuable time and effort. In descriptive geometry it is important that the architectural student visualize each problem. I have almost come to the conclusion that no engineer can visualize anything. Architects need more thorough theoretical teaching of strength of materials and less intensive application than engineers, with more problems of architectural design carried out in the engineering. To ask an engineer to teach an architect perspective is futile.

Seventy-five years ago scant attention was given to teaching architecture; but schools of engineering had been founded and as the needs of architectural education were recognized, these schools instituted courses in architectural design. Later, as the feeling for architecture as a fine art increased, teachers realized that design in plan and elevation is the really difficult subject to master, and that the structural subjects, if properly propounded, can be assimilated successfully in two years or so. Consequently the progressive institutions gave to architecture an individual corporate existence. Still more recently some few institutions have gone farther and have begun to develop from architecture into a school of fine arts. There are older schools of fine arts, but only lately has architecture in those schools begun to be a factor of importance. I believe that architects develop best in the company of painters and sculptors. In any event, experience has proved that a department of engineering is not a place for one of architecture and it is safe to say that at the present time no school of architecture so hampered ranks among the first.

It should be clearly understood that this does not refer to such institutions as the Massachusetts Institute of Technology or the Carnegie Institute, where the departments of architecture are separate from the engineering departments.

V

c—*Inadequate instruction.*—In a minority of our schools of architecture (and they are among the best) the director or man at the head has been a practising architect of recognized ability. In only a few is he of sufficient skill as a designer to give really good criticisms in design. In most of them he is merely an executive professor with so little real knowledge of architecture that he cannot formulate a fully effective course. No one of the trustees of these institutions would place an incompetent clerk in charge of his business. Yet they do it with a college. Of course, lack of funds usually hampers institutions of learning and no man of the calibre required to head a college of architecture could afford to take the post for five or seven thousand dollars a year unless he had private means. A good draftsman earns five thousand dollars a year.

In design, the same lack of funds hampers seriously. In New York and its vicinity it is possible to induce critics of ability who are also practising, to take charge of this most important subject. At Pennsylvania, Cret has criticized and has practised; in California, John Galen Howard did likewise, and Despradelles practised to some extent in Boston while he gave the first great impetus to the Massachusetts Institute of Technology.

Institutions in other locations, unless they can find men with a fondness for teaching, no family, or a fortune, have to depend upon teachers of lesser ability or French critics. The French are clever, but they usually substitute excellence in the drawing for excellence in the building. Modern French architecture is not as vigorous and as successful as modern American

architecture. Why? The reason is the same. In France, first studies are fine, subsequent plans and elevations are composed with masterly skill. There the French architect excels. When the work is pushed beyond this point, details are likely to be out of scale, not well proportioned, ornament is overdone and the whole appears vulgar and in poor taste. The Gare d'Orléans is an example. It is beautifully composed, but no American of acknowledged ability could have made such grievous mistakes of scale.

More serious than the problem of obtaining good chief critics, is that of obtaining sufficiently able critics of the earlier student work. It is evident that a designer of only average ability cannot handle the advanced classes. But neither can he handle the lower ones. In some ways it is more important to give the first and second year students really sound criticism than their elders. The latter can sift the advice given them, separate the chaff from the wheat. The former, perforce, must swallow it whole. I remember pitifully blundering criticisms recounted to me by younger students. It was impossible to tell them that their own first study may have been better than the instructor's solution. That such instructors can persist in a large number of our American schools is another argument for my contention that the director of the school should himself be a critic of ability and have built good buildings on his own account. The trouble is that too many directors are unable to estimate properly the work of their critics.

At Columbia instead of allotting the advanced students to the abler critics, and the beginners to the younger, the two classes are mixed up in the big drafting room. Every individual case is handled by an older and a younger critic together, who criticize each drawing, as much as possible at the same time (this to avoid cross purposes), the stronger critic defining the trend and the younger helping the student to interpret difficult points.

Thus each student, be he old or young, receives advice of the same quality. That advice, itself, is better, for the critics discuss questionable points, proving anew that two heads are better than one. It may seem that this system might dispense with the younger critics. That is not a fact, for it is possible to cover the ground more rapidly if the younger critic can return or be left temporarily behind, to sketch out a difficult corner in greater detail. He takes the place of the *ancien* in a Paris studio.

VI

d—*Students without ability.*—A review of architectural education should not be closed without a word about the students themselves. An art is not a thing that just anybody can learn. I am willing to agree that the business member of a firm, the man in charge of construction, and the getter, should all have the cultural courses and at least a smattering of design and mathematics; and that draftsmen should have plenty of design and at least a smattering of culture; but these could all, in my opinion, be special students and not clog the wheels of progress for those who are sufficiently endowed and who are willing and able to become real architects.

There are too many architects as it is. There are too few draftsmen. Very often the draftsman makes more money than the architect. The average draftsman makes considerably more than the average teacher on the staff of a university.

To criticize a drawing takes time, fifteen or twenty minutes, if done carefully. After four, five, six, seven criticisms, the critic's mind becomes numbed and he can no longer visualize the problem lucidly. Thus the undesirable student really takes something important away from the promising student.

The only reason for not cutting out all the men whose work falls below a given standard is that a few develop slowly in design. It even happens every now and then that a pupil who eventually shows

real genius appears a dud in the beginning. Nevertheless, careful weeding in all our schools is indispensable to the obtaining of better results.

VII

To sum up: If the education of the average young man who wants to become a fully rounded architect is only about 60 per cent. effective, what changes should be made?

The course should be a six-year course or, better, a course of indeterminate length, based on an average of six years of development in design. The degree should be given for real proficiency, not length of the time of study. It should not be a combined course which attempts to give two degrees. It should be one course with properly selected cultural subjects, each study specially adapted to the development of a well-rounded architect and taught by experts in that subject, who understand such a student's peculiar requirements. Design (including mechanical drawing, which can be learned as well in the orders and simple compositions as in making meaningless squares, lines and circles) should begin *when the student enters the university* and should occupy 50 per cent. of his working hours from the first. If high school preparation permitted, the student should have studied and should pass an entrance examination in mechanical drawing and the classic orders, before being allowed to matriculate as a candidate for a degree.

In teaching design, better instructors should handle the lower classes. If the *patron* is French, the director should take care that designs which would be excellent if built, are not displaced by designs which only look well in the drawings.

If American art is to progress, a more conscientious expression of American needs and a more honest use of materials should replace the habits and fashions of the past. There is the key to the treasure house where may be found the future masterpieces of American architecture.



ENTRANCE TO THE RESIDENCE OF M. JEAN LURÇAT, CITÉ SEURAT, PARIS
ANDRÉ LURÇAT, ARCHITECT

✓ MODERN ARCHITECTURE

II. THE NEW PIONEERS

BY HENRY-RUSSELL HITCHCOCK, JR.

WHEREAS in America there is almost complete harmony of principle among architects, in Europe there is a sharp division into two camps. To the humanistic camp of the New Traditionalists, the colleagues and followers of Wright, Hoffmann, Berlage and Perret a previous article was devoted. There remains the more difficult task of discussing those modern architects who stand opposed. If I have called them, accepting perhaps too much their own estimate of themselves, the New Pioneers, it is because I at least believe that in Europe, Traditionalism old or new is already wearing itself out. This is now hardly more than predictable in America where except for Wright the New Tradition has hardly been practised. The manner of the New Pioneers may not be that which is destined to supersede the New Tradition, but at present no other young architectural movement has developed so brilliantly; even integral Expressionism (if a movement in the figure arts may be admitted to have an exact parallel in architecture) has remained within the New Tradition on the whole, and is at any rate somewhat past the height of its popularity. But in calling these younger men Pioneers I have also wished to indicate that even though the future may be theirs, they have today but made a beginning, hewn a first path away from the settlement of the Traditionalist where today much fine work is still done and will undoubtedly for some years continue to be done.

Some account must be given of when and where these New Pioneers set out and whither they are bound before we can discuss the few but exceedingly interesting and stimulating works they have to offer.

These works are based on principles which, curiously enough, have not been taken account of in the theory of American contemporary architecture although well known in the practice of contemporary engineering. Naturally both in practice and in theory the roots of this new manner are to be found in the immediately antecedent manner of the New Traditionalists. Indeed Oud, one of the greatest of the New Pioneers, writing in 1925 a tribute to Wright in the Wendingen Monograph, implies that the New Pioneers fulfil the demands of Wright as a theoretician better than those who follow him more directly and even perhaps better than Wright himself, whose talent is too broad to be tied even by his own theories (which appear to me at least to be in advance of much of his practice). In Oud's own work, indeed, as late as 1920 there is no very great differentiation from that universal modern Dutch style of the Amsterdam school following the tradition of Berlage. So also we find Le Corbusier, perhaps the best known of the New Pioneers, working as late as 1916 in a manner like that of Perret, in whose office he had been trained. As late as 1925, when his theory was fully developed, he was still able to give the highest praise to Perret's church, Notre Dame du Raincy, a building still completely in the New Tradition and which must seem to most observers sharply opposed to the work and theories of the New Pioneers. Gropius also, the head of the Bauhaus Institut at Dessau in Germany, is little different from others of the best German architects of that day in his beautiful factories done just before the War. The problem, rather than any theories is consciously worked out, making these build-

ings like many others of the same sort, already monuments of the unborn manner of the New Pioneers; quite as much were they exceptional monuments in the New Tradition. Indeed many factories in Europe built by New Traditionalists admirably fill the programmes of the New Pioneers.

As a conscious movement that of the New Pioneers is not to be found formulated until after the War, nor does it appear fully developed and divested of traces of the surrounding romanticism before 1922. The year of the Exposition of Paris, 1925, which displayed the conquest of Europe by the New Traditionalists, is really the first year in which the existence of a younger rival movement was at all realized. In that year appeared Le Corbusier's *Vers une Architecture*, lately translated as *Towards a New Architecture*, and the first of the *Bauhausbücher* of Gropius devoted to *Internationale Architektur*. It is difficult therefore

in writing of the New Pioneers to treat them exactly as I have done the New Traditionalists. So great a body of work have the latter already produced over a considerable period of years that one can base a discussion merely on that work and all but entirely to disregard such theoretical writing as has helped to propagate and explain it.

But so far the New Pioneers are few in number; they have been at work but a short time; their buildings are limited to certain types, especially factories and workers'

housing developments, while the New Traditionalists have produced buildings of almost all conceivable types. It is then not quite fair to their potential importance merely to treat them as they might be treated on the basis of a general view of contemporary European architecture, as the builders of a few buildings which do not fall within the manner of the New Tradition-

alists. It is necessary to consider somewhat their theory at least in its general outlines, since on the basis of that theory one is perhaps justified in believing that they represent a far more living architecture than that of the New Traditionalists. And the fact that that theory owes something to the cubism of the years after 1910 and even something to the post-War French literary movements of Dada and Surréalisme, need not lead us to believe that it is in its essence a borrowed theory or that it stands or falls by the movements in

other arts with which it has been associated.

The New Pioneers insist that tradition must not restrain architecture from taking advantage of the latest engineering possibilities. Although they consider engineering as providing the raw materials of architecture and not merely the frame on which architecture is to be hung, engineering is not for them, any more than in the Gothic period, the whole of architecture. Architecture should take the utmost advantage of reinforced concrete construction and of



DETAIL, WORKMEN'S DWELLINGS WITH SHOPS,
HOOK OF HOLLAND
J. J. P. OUD, ARCHITECT

metal and glass, and it should stress rather than hide those solutions of practical problems which modern engineering has provided. Thus their theory is in part but a negative reaction to the romanticism and reminiscence of the New Tradition, at the same time that it represents a complete and fundamental renewal of the relations between architecture and engineering that were in force in the great epochs of architectural engineering in the past. Negative also is their attitude toward the sort of ornament in which the New Tradition has peculiarly delighted. Ornament in the sense of decoration is to the New Pioneers as inessential to architecture as it is to engineering. More—such ornament is out of keeping with the clarity of the contemporary spirit and tends to obscure the virtues of good architecture as much as it may hide the vices of bad.

But their theory even as regards ornament is far from being merely negative or destructive, although in certain works of the New Pioneers it may seem that the mere purification of the earlier manner from extraneous elements not demanded by engineering, and the ascetic avoidance of ornament, in the sense of all purely "architectural" features, decorative materials and textures, and representational or reminiscent detail, is all that has been attained. And of such buildings particularly, Mr. Lewis Mumford's complaint of "puritan acerbity" is perhaps justified. But even Puritanism was not wholly a negative matter, however much contemporary critics may treat it as such, and its negations were often but a means to clear the way for great affirmations, as Gilbert Seldes has shown with regard even to Jonathan Edwards. So in the theory of the New Pioneers the purification of the New Tradition, important as it is, is not an end in itself; it is the means of clearing the way for the affirmation of what they conceive to be truly "Architecture." And what they conceive to be truly "Architecture" is not anything at first

sight very novel since to their conception of "Architecture" at least lip-service has always been paid.

Architecture for the New Pioneers is the disposition of masses, volumes, and surfaces in geometrically significant forms according to the creative inspiration of the designer, and the treatment of these volumes and surfaces in such a way as to emphasize and not to detract from their significance. In a general way this definition holds for all "Architecture": but for the New Pioneers it is specifically, literally and especially true. Hence the use of the materials recommended by engineering becomes not merely a purification of the New Tradition but a great positive step in advance since the new materials permit far greater freedom and boldness in design than do traditional materials and do not distract by their texture or craftsmanship from the surfaces and volumes as integral wholes, which more than any of their predecessors they seek as the most purely and essentially architectural values with the fullest and clearest consciousness of what they are doing: where the past worked by intuition, they prefer as far as may be possible to work by intelligence. So also the refusal to use decorative ornament becomes a positive means toward the end of great architecture since such ornament interferes even at its best with the simplicity that makes surface and volume forcefully intelligible as wholes. Yet at the same time they seek for occasional and necessary use a pure ornament in the spirit of the machine. Moreover the value of standardization which engineering has offered as a solution of many other human problems is accepted by the New Pioneers as a further means of creating order and a further liberation of the spirit, both of creator and the beholder, from subservience to parts.

I have called the New Traditionalists humanists because they submit on the one hand to all the human demands of modern comfort and on the other to the perhaps



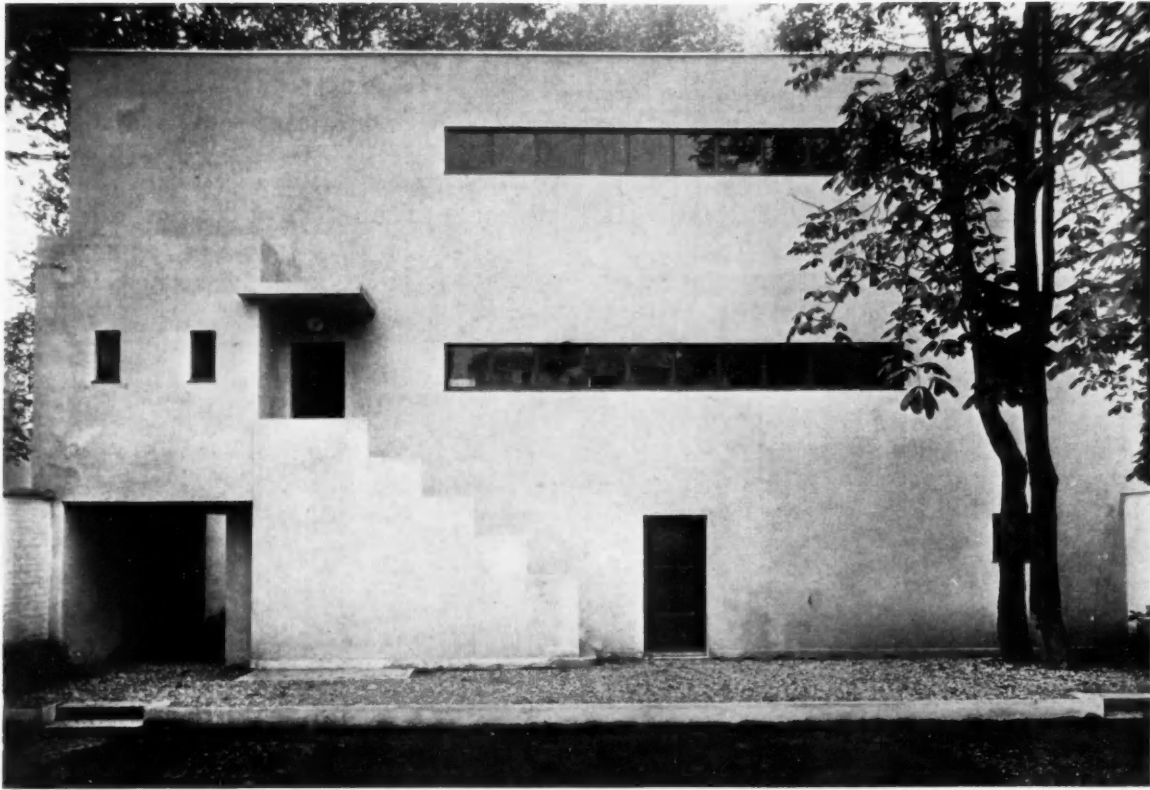
RESIDENCE OF THE SCULPTOR MIESTCHANINOFF, BOULOGNE-SUR-SEINE

LE CORBUSIER & PIERRE JEANNERET, ARCHITECTS

equally human desire for representation in the sense of decorative detail—especially reminiscent detail: what the New Pioneers would call "impure ornament." In this particular sense the New Pioneers are not humanists. Practical necessities are a cult with them, because they feel that art is so separate a matter from mere comfort that it is absurd to consider that art can possibly be permitted to make sacrifices to comfort (as the New Tradition has required very frequently in the practical application of its theories), or that comfort as the Old Traditionalists require should make sacrifices to art. They consider that the practical engineering problem of the *machine à habiter* must be completely and perfectly solved and out of the way before the spiritual—for them the true architectural problem—is even approached. And the spiritual problem is for them so high and so pure a matter, so

eminently worth solution for itself that they are unwilling to obscure the matter by trifling and incidental pandering to the bourgeois taste for representational prettiness, and for reminiscent trophies of culture.

But because they conceive the human being at his highest as capable of appreciating architecture for itself and are aristocratic, even Olympian, rather than democratic, they are not to be considered in any traditional sense inhuman. They are indeed humanists as much as their predecessors; but of the highest common denominator of the human rather than of the average common man of Rousseauistic myth. The New Traditionalists build for the "human, all too human" which at its lowest delights in the great American movie theaters. The New Pioneers build for the universal human, which is the human of Socrates or St. Thomas, of Bach or Goethe or Piero dei



GARDEN FAÇADE (NORTH) OF A PRIVATE RESIDENCE IN VERSAILLES
ANDRÉ LURÇAT, ARCHITECT

Franceschi. Nor are the New Pioneers mechanists because they find in machines something of the purity, something of the austere beauty, they demand in architecture. The New Tradition bowed to the material side of the machine, the New Pioneers rejoice in its spirit, the spirit which finds its finest manifestations in ocean liners, in airplanes, in automobiles. And as all great architecture has expressed consciously or unconsciously the life of its times, they seek to express and to take part in the possible reintegration toward which after the decadence of the nineteenth century our life seems to be moving.

Any attempt to summarize the theory of an architecture such as that of the New Pioneers must suffer from the fact that the fullest demands of the spirit only a few actual monuments can fulfil. Even in Greece only those few monuments which crown

the Akropolis are quite all that the theory of Greek architecture implied, and they were produced only after the standardization of the problem of the temple had permitted generations upon generations of architects to come ever nearer the perfect solution. It need be no surprise then to find that even in the latest and finest works of the leaders the actual building of the New Pioneers still lags behind the conception of the theoreticians. Yet three men at least, Le Corbusier, Oud and Gropius, have in a handful of buildings, succeeded at least in making evident the possibilities of the new manner; and despite the fact that at this date much of the effort of the architects must be devoted to experimentation and that the very engineering which is but the base material of architecture requires the most difficult sort of pioneering, some of the effects of the new manner are evident and

compare more than favorably with the latest or the greatest works of the New Traditionalists. In the work of the recruits to the new manner—and in Germany the more intelligent architects are all showing some tendency to abandon the New Tradition—of course even less of real fulfilment is evident. And since outside of France, Holland, central Europe, and possibly Russia there are no New Pioneers, or none of more than minor importance up to the present, it remains in an analysis by countries only to speak of these.

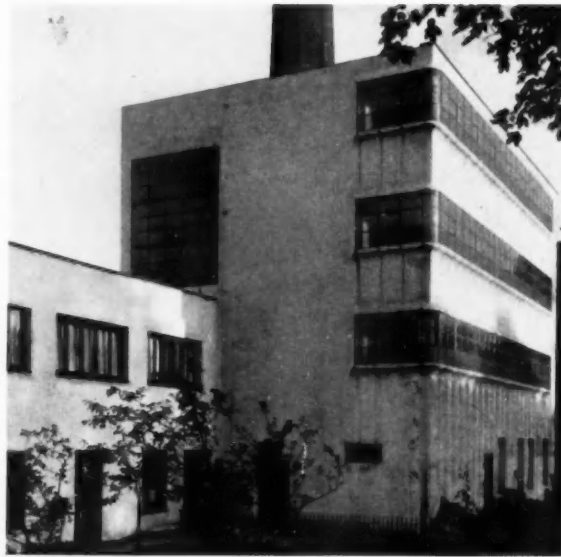
In France the work of André Lurçat follows in importance that of Le Corbusier. Lurçat is far less of a theoretician and also, it seems, less talented than Le Corbusier, and while his work retains only slight traces of the manner of the New Tradition, in his proportions he is so far less experimental and more bound by old principles of design. The same may be said of Guevrèkian and Djo-Bourgeois. Mallet-Stevens has shown in some works considerable skill as a designer but he tends in the majority of his houses (for his Alfa-Romeo Garage is very pure) to compromise with bourgeois taste by the use of ornament and detail of a cubist order. He represents on the whole an unfortunate alliance with the *Rue de la Paix*. Tony Garnier really belongs on the whole, it now appears, to the New Tradition, but his work at one time seemed to be approaching that of the New Pioneers. Certain other architects of no great individual importance have shown a tendency to modify the New Tradition with some of

the effects of the New Pioneers, but merely as a matter of fashion and not from conviction. Yet since Le Corbusier and his partner Jeanneret have chosen, although Swiss, to work in Paris and as they are unquestionably the leaders of the movement, the work in France is the most important.

In Holland the leader of the New Pioneers is J. J. P. Oud, the architect of the City of Rotterdam. His work at its best and latest is quite on a par with that of Le Corbusier. Van der Vlugt and especially Stam, also of Rotterdam, have shown complete freedom from the Amsterdam school, but so far unfortunately have had less chance to build in the newer manner. Rietveld of Utrecht, van Esteren and Leusden have in combination with the cubist painter, Theo van Doesburg, evolved a highly romantic manner in which the engineering of the New

Pioneers is used rather extravagantly. This one may believe is only a temporary and transitional phase. Dudok has shown in his later works at Hilversum some tendency to approach the new manner as indeed have certain others of less genius who are gradually purifying the New Tradition in Holland of excessive romanticism and reminiscence.

In Germany Gropius and his Bauhaus Institut represent the New Pioneers very brilliantly, with less experimentation in design and more in material than Le Corbusier and the other French and Dutch. With the exception of Mies van der Rohe at Berlin the other architects of Germany, while they have been readier as a whole



CERAMIC FACTORY, MEIMERSDORF, WANDSBEK,
GERMANY
KARL SCHNEIDER, ARCHITECT

than those of other countries to accept the new manner, have been unwilling entirely to throw over the old. Especially have even the greatest, such as Erich Mendelsohn in Berlin, found it hard to get the remains of Expressionism out of their work. A very considerable body of contemporary work in Germany belongs broadly to the manner of the New Pioneers but except for that of Gropius and Mies van der Rohe and perhaps May, the architect of the city of Frankfort, very little of it is devoid of extraneous elements.

So also in Austria we find that the architects of the New Tradition have been very ready to be influenced by the New Pioneers but very unwilling to forego in favor of its rigid programmes all the freedom and the prettiness of the other manner. Even Hoffmann in the last year or two has encouraged his pupils to work in the new manner but little that is really whole heartedly new has been done. And the same may on the whole be said of the outlying countries, Hungary, Czechoslovakia and Poland. In them the New Pioneers are represented rather by the projects of the younger men than by executed buildings.

Russia deserves some special mention for in the last few years a great many buildings have been designed there in which the manner of the New Pioneers is brilliantly used. Few of these buildings, however, have been executed and those which have, are still rather influenced by the New Tradition. As to the designs the suspicion remains that they could not be built and they are frequently more startling and brilliant at first glance than sound as architecture: as in our schools of architecture where there is little experience in execution, design has become too much an end in itself.

Assuredly then this survey would show that the manner of the New Pioneers has no such support as that of the New Tradition and even though in the last year or two it has received many converts they have very often had a tendency to compromise with

the older order, whereas the integral theory of the New Pioneers is primarily distinctive in that it is so completely self-sufficient that it does not admit of compromise. For this reason although the number of works being produced in the general manner is increasing, the number of architects who are really New Pioneers is not enlarged by these converts who, as in the case of the Viennese, have only in deference to what they consider a fashion or to economic necessity admitted to their eclectic elements of the new manner and even overbalanced their old manner in its direction.

Despite their considerable achievement the New Pioneers are, therefore, best considered as prophets whom the future will find false or true, and their theory, since for its full achievement it requires mass production, is largely a promise. For it does promise many things most acceptable to the consciously modern man. It promises to glory in the use of engineering in which the most distinctive triumphs of the modern man have lain. It promises buildings which may provide all classes with houses superlatively comfortable and beautiful. It offers against the petty complexity of our busy days a restful simplicity such as "taste" and "refinement" have pursued less conspicuously in America, and the possibility of an expression of our contemporary life such as we can only hope it is deserving, so great and pure is it.

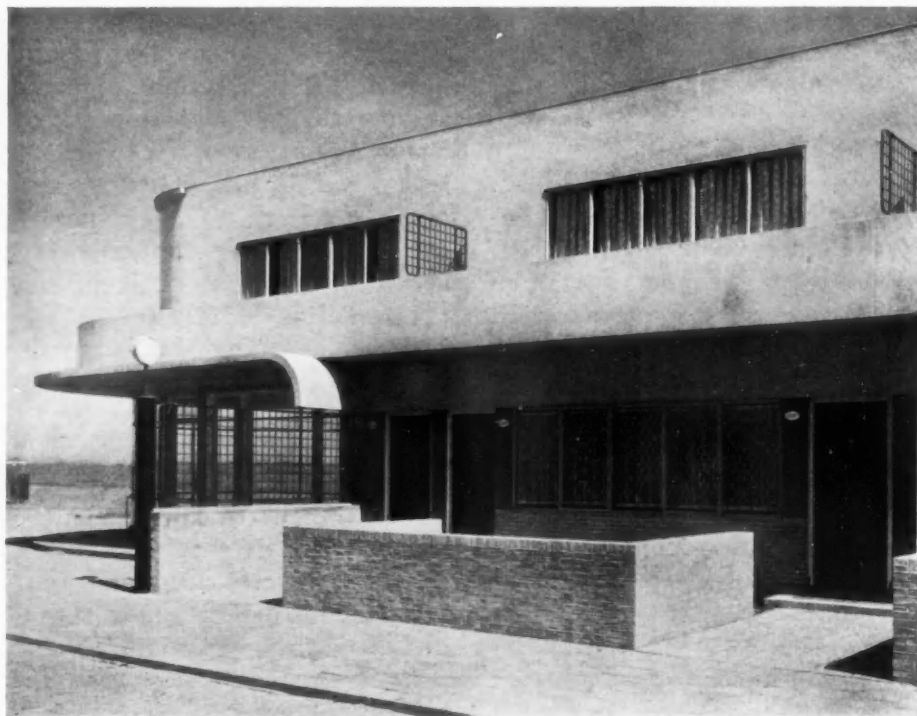
But the keeping of this promise demands sacrifices which the world at large is perhaps not ready to make. Even the leaders find themselves not entirely free to work as they would, since the very materials which are the most practical and modern are often the hardest to obtain. The efforts of an American to obtain old European furniture are as nothing to those of a European to obtain an American electric ventilator or refrigerator; nor can he intellectually or practically take refuge in forged substitutes.

The New Tradition is the easier and per-

haps even still the more satisfactory way of architecture; unless, as I should be inclined to judge, it already has its great achievements behind it. The workers in the New Tradition have a clear road to follow and they have the support of the ideals and buildings of an immense body of co-workers. The New Pioneers work alone and they must find and lay out their own roads. The New Tradition can have, and has the support of the bourgeois as well as the rich, while the New Pioneers are at once ascetic and aristocratic, even though their largest work so far has been done for workers' housing developments. In so far as they have not won contracts merely by the superior efficiency their buildings promise, their clients have had to have much of their own courage, and of their own assurance that the greatness of architecture lies in its most essential qualities and not in decorative ornament.

Yet it is interesting that Le Corbusier's

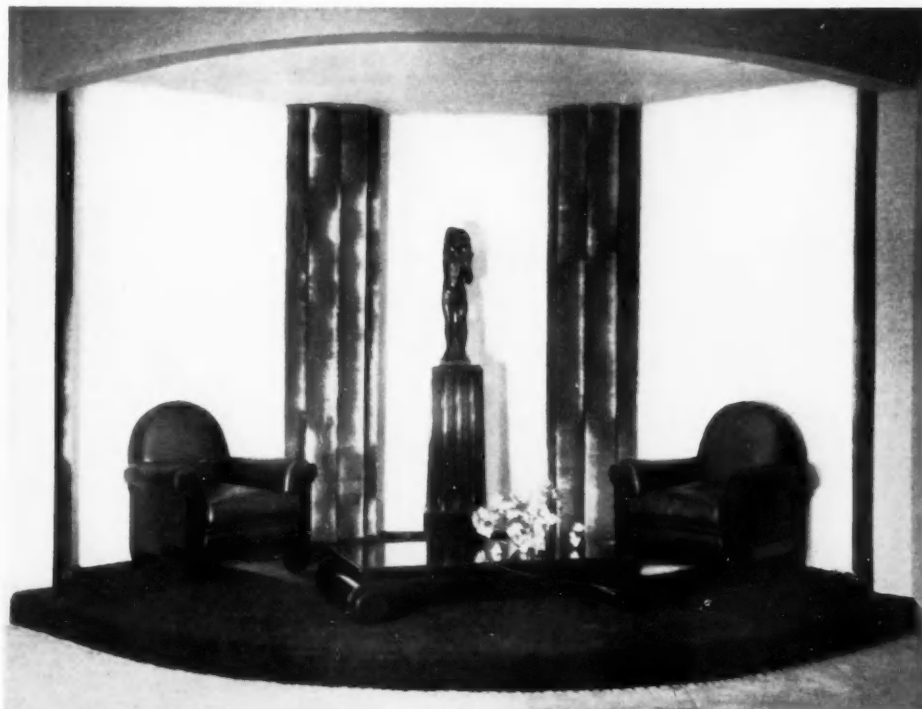
plan for the Palace of the League of Nations was first *ex aequo* in the official competition and esteemed on plan even by the conservative above the Beaux-Arts entrants, even though it is now too late to hope it may be executed. Time alone will show whether the New Pioneers really are to be more than mere pioneers, whether their promise will be kept or whether in a few years they will appear but as a temporary insurgence against the New Tradition. Certainly at this time it does not seem that they will thus disappear and their work today, small proportion though it is of the whole contemporary production in Europe, seems potentially quite as important as that of the New Tradition. In America the development of the consciousness of the possibilities of industrial architecture and the current purification of "taste" should tend, as in Germany, to support the New Pioneers with an increasing number of buildings ever greater and ever more important.



WORKMEN'S DWELLINGS, HOOK OF HOLLAND

J. J. P. OUD, ARCHITECT

ALLIED ARTS
AND
CRAFTSMANSHIP



Photo, Fischer

CORNER OF A LIVING ROOM DESIGNED BY SÜE ET MARE

Featuring
AN EXHIBITION OF FRENCH
DECORATIVE ART

EXHIBITION OF FRENCH DECORATIVE ART

BY ELY J. KAHN

DURING the last few years the department stores in Paris have developed in connection with their furniture and decorating divisions, particular designing units that have produced distinctly interesting results. The cry of commercialism has not prevented these stores from engaging the most able men to direct the general schemes as well as much of the detail of the furniture, fabrics and decorative accessories. Coincidentally certain architects have developed organizations to produce furniture and other details to satisfy a more exacting clientele where price is less important than design and quality of execution. All of these groups have accepted the modern tradition, and as each is influenced by a particular background or temperament the result is varied and good or less good in precise relation to the ability and knowledge of the group.

Lord & Taylor have accepted the responsibility of showing some of the work of these men to explain, if possible, the spirit that is characterizing the effort. Together with these groups of interiors, entirely French in design and execution, Lord & Taylor present a series of rooms

designed and executed under its own direction, also evidencing an attempt to reflect the influences of the day. The control is similar to that of the Paris stores in so far as the designs of the individual pieces were produced under one direction and the work then executed in New York under the same administration.

The contents of these rooms become available to a public that is curious about the more recent mode and will buy if the products appear to be worthy of their interest. From the impression of the first few days of the exposition it is evident that there is a considerable public interest. It is reasonable to assume that the foreign and superficial elements which the enthusiastic critic clutches and over which he is inclined to become furious will vanish as promptly as the serious minded designer approaches the problem from the true angle with the result that he produces designs adaptable to American taste and conditions of to-day. Let it not be forgotten that the primal note of the modern movement is the stimulation of design as against reproduction, and that the value of the design is dependent on the worth of its creator.



Photo, Fischer

MAIN HALL OF EXHIBITION
DESIGNED BY BUCHMAN & KAHN, ARCHITECTS



Photo, Fischer

A LADY'S DRESSING ROOM DESIGNED BY VERA CHOUKIAEFF
EXHIBITION OF FRENCH DECORATIVE ART, LORD & TAYLOR'S, NEW YORK
BUCHMAN & KAHN, CONSULTING ARCHITECTS



Photo, Fischer

TWO OF THE FIVE ROOMS IN THE EXHIBITION'S "MODERN DECORATION" SECTION
DESIGNED BY LORD & TAYLOR

EXHIBITION OF FRENCH DECORATIVE ART
LORD & TAYLOR'S, NEW YORK

BUCHMAN & KAHN, CONSULTING ARCHITECTS



Photo, Fischer

TWO OF THE FIVE ROOMS IN THE EXHIBITION'S "MODERN DECORATION" SECTION
DESIGNED BY LORD & TAYLOR

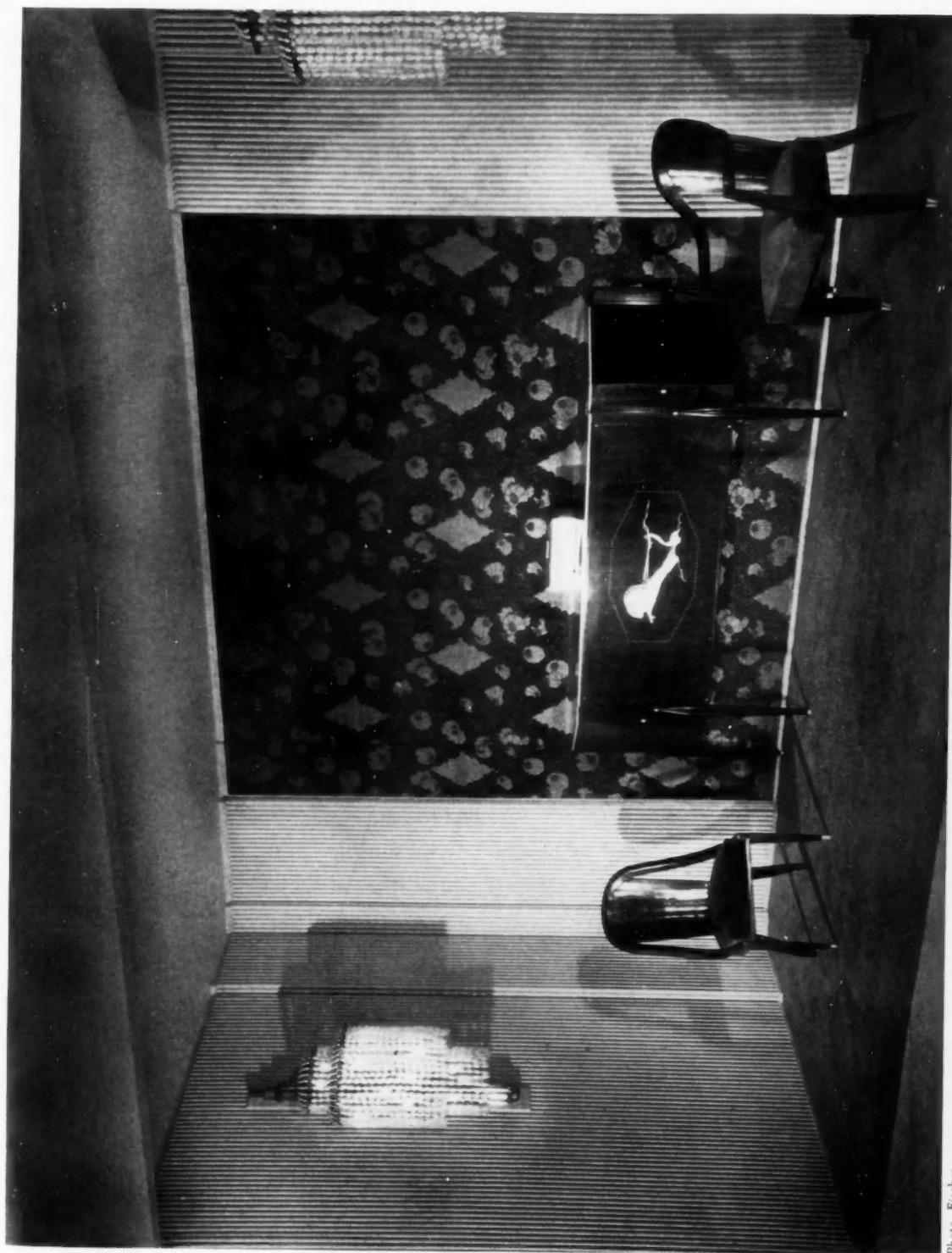
EXHIBITION OF FRENCH DECORATIVE ART
LORD & TAYLOR'S, NEW YORK

BUCHMAN & KAHN, CONSULTING ARCHITECTS



Photo, Fischer

MAIN HALL OF EXHIBITION
EXHIBITION OF FRENCH DECORATIVE ART, LORD & TAYLOR'S, NEW YORK
BUCHMAN & KAHN, CONSULTING ARCHITECTS



Photo, Fischer

ELEMENTS OF A DINING ROOM. DESIGNED BY RUHLMANN
EXHIBITION OF FRENCH DECORATIVE ART, LORD & TAYLOR'S, NEW YORK
BUCHMAN & KAHN, CONSULTING ARCHITECTS



Photo, Fischer

A CORNER OF THE MAIN EXHIBITION HALL



Photo, Fischer

A DINING ROOM IN THE EXHIBITION'S "MODERN DECORATION" SECTION
EXHIBITION OF FRENCH DECORATIVE ART AT
LORD & TAYLOR'S, NEW YORK

BUCHMAN & KAHN, CONSULTING ARCHITECTS

NOTES AND COMMENTS

A MODERN PROBLEM IN ARCHITECTURAL EDUCATION

IT WOULD be well for readers of *The Architectural Record* to pay particular attention to some of the questions about education in America for architects, which are raised by Mr. Van Pelt elsewhere in this issue. The chiefs of the better American architectural schools have good reason to be proud of the quality of their graduates and of the advances which they have made during the last thirty years in coping with the difficult problem of educating their students for architectural practice, but they would be the last to claim that they had satisfactorily solved their problem. They would be the first to insist upon the importance both of a more careful analysis of the nature of their enterprise and of experimentation in some new directions. It is a matter which involves the future progress of architecture in this country. To an increasing extent the architects of American buildings will receive their essential training in American schools.

No man who is not himself either a practising architect or who has not participated in the work of educating architects, can have any genuine contribution to make to this discussion, but he may be permitted to indicate certain significant analogies between the most serious problem which faces the architectural schools and the similar problem of the schools which educate members of the other learned or skilled professions. This problem is extremely complicated, and it has many technical aspects, but for the purposes of popular discussion it can be stated in the form of a comparatively simple question. By what means can the special technical training of a lawyer, a physician, an engineer or an architect be united with the kind of intellectual and moral training which fits the technically proficient man for his activities and responsibilities as a human being?

Institutions which have concerned themselves with the higher education have for centuries been trying with more or less success to answer this question, but of late years it has presented itself under a different and perhaps a more difficult aspect. The accepted answer which is embodied in the existing organization of American universities is that professional or technical and general education are two different processes which have to be undergone at different times and places and according to different methods. The student would receive his education in subjects connected with general culture in the school of arts or the college, and after he had graduated from

college and received his bachelor's degree, he would transfer his work to a law, medical or architectural school. No doubt many of these technical and professional schools have accepted students with a wholly insufficient preparatory training, but the error in this case consisted in failing to live up to an acknowledged standard. It was assumed that, if a student took his bachelor's degree before going to a school of law or of architecture, he would have combined an adequate general with an adequate professional education.

It is this assumption which is now being challenged both in practice and in theory. In the first place the school of arts or the college of the typical American university is losing its prestige as a source of human culture. Its curriculum suffers from violent assaults and is being radically modified. Its methods are being questioned. Its privileges are being invaded by special disciplines of one kind or another. Thorough-going skeptics have even raised the question whether the graduates of the great majority of American colleges actually receive any general intellectual and moral training that is worth the time and the effort. There certainly is a great deal of excuse for the effort of the technical and professional schools to get hold of their proposed pupils sooner. They have no reason to attach much importance to the quality of the "culture" which their students receive in the ordinary course of a collegiate training.

Yet at the very time when the college, which has for so long been supposed to purvey general culture, is losing its prestige, those educational directors who are most intelligently interested in professional and technical training are more than ever convinced of the necessity of supplementing their own special disciplines with something corresponding to the more general "culture" which the colleges of arts were supposed to furnish. They are coming to see that the general discipline is much less separable from the special discipline than was formerly supposed. From their point of view it is no longer a question of adding a legal or an architectural training to a mind which has already been familiarized with the best that has been thought and known in the world. It is rather a question of adding something to the mind of a student by general intellectual and moral training which will equip him to be a better lawyer, a better doctor or a better architect.

The something which a sound intellectual and moral training can add is not easy to define, but its nature may be indicated in general as the ability to

envisage professional work not as a special affair but as a whole and in all its relations. In the case of the lawyer, for instance, certain law schools are carefully considering ways and means of educating lawyers who will not be merely learned counsellors and, if necessary, able pleaders, but also men who will be intellectually and morally disposed to see every legal dispute or problem as the part of a complex social situation which requires to be explored and understood as a whole. This disposition to investigate all the relevant facts and to put them together before venturing to state how the relevant legal rule works in any particular instance is now coming to be considered essential to the training of a lawyer by many students of legal education, and they also consider it a disposition which they by their own curriculum and method of teaching can cultivate in the mind of the student. So it is with the architect—only more so. Architecture, as now practised in this country, is a more complicated occupation than the law. As Mr. Van Pelt points out, the architect must know how to plan, to design, to decorate, to landscape-garden, to solve engineering problems, to conduct efficiently huge business operations and finally to keep his office supplied with work. Of course, he cannot practise all these activities with equal efficiency. He will have to hire assistants who are capable of doing some of them for him. But if he hires assistants it is necessary that he should know enough to subordinate the work of these assistants to his own general plan. His mind should be educated to see the problem of particular jobs as wholes and not to let any part of them get out of hand. That is fundamentally the kind of general education which an architect needs, which he will never get from the ordinary college course and which eventually the architectural school itself in coöperation, perhaps, with other agencies, will have to give him.

HERBERT CROLY

THE OCTAGON GROUP

DREAMING of a National Art Center around the Octagon, I made studies for a group of buildings enclosing the old garden, making a hemicycle the dominant central feature with wings extending from it south and west. My imagination pictured all national art associations with offices in the wings and a meeting place in the hemicycle.

Although this scheme aroused considerable attention at the Convention of 1907, the only action was a resolution by John M. Carrère, that Charles F. McKim be asked to collaborate in any further study. I was gratified to think that McKim might take charge. This association, however, was never developed. McKim, when consulted, impressed upon us

the importance of preserving the garden and making the buildings a background.

The Institute, in 1911, purchased two lots north of the Octagon property. On this additional area my dream pictured room for a larger auditorium and better accommodations for a group of art societies—a larger art center where unity of action would secure combined power for the protection and advancement of art, and spread its refining and cultural influence throughout the country. Here the officers could daily coöperate and the members have a meeting hall and exhibition rooms.

The Archaeological Institute of America, The American Federation of Arts and the American Academy in Rome held offices in the Octagon when the lots on the north were purchased. The idea was to house the national societies on the new lots, while the Institute remained in the Octagon. My son Bedford Brown and I, with this end in view, made preliminary studies to incorporate the new purchase in the plan, which was to provide offices, auditorium, exhibition rooms and a library. We remembered the suggestion of McKim, made on the study of 1907, that the garden and its proper background were the important elements in the composition. Our efforts to incorporate the stable in the new scheme under the conditions of the programme, we found futile. After much study we concluded that a recessed niche on the axis of the Octagon in which memorials to great architects might be placed, with wings south and west, having unemphasized windows and enclosing the garden, would give the most satisfactory background. This when viewed from the garden door of the Octagon would allow the longest vista and suggest a garden niche focusing attention on its memorials. This plan was submitted to the convention of 1912 but no steps were taken for further study.

The perspective sketch by Henry Bacon in the brochure of the building committee shows a semi-circular niche, instead of our octagonal one, with similarly treated wings. This sketch indicates how effective and how much a part of the garden such treatment might become.

The dream of combining the offices of all national art associations has been dissipated by the growth of the Institute and other societies. After a lapse of ten years, the matter was again brought up for consideration and it has been a topic of long discussion at every convention since 1922. The sense of these meetings shows that a decided majority desire the retention of the stable and smoke house and wish to cease regarding the Octagon as a utilitarian asset and make it when furnished a typical example of the better class house of 1800. The discussions at the conventions from 1922 to date resulted

in the building committee issuing a brochure in 1927 giving a brief historical outline of the conventions' actions on the subject with illustrations of the various schemes proposed.

Studies between 1921 and 1924 were presented by E. W. Donn, Henry Bacon, Charles A. Platt and George Nimmons. After a study of the above mentioned schemes and the discussions at the conventions, the committee presented in 1926 schemes A and B. Scheme A with modifications called for a central feature on the axis of the Octagon, with wings extending south and west. To fulfil the requirement of the programme they felt it necessary to remove the old stable. The wings were simple two story structures. An entrance was provided at the juncture of the wings on the axis of the Octagon. Scheme B gave an unbalanced treatment placing the Auditorium in the south wing and making the garden lopsided. The unquestioned preference was for scheme A, but a large majority demanded the retention of the old stable and smoke house. To satisfy this forewarned demand for the stable, a scheme was submitted moving and making the stable front the connecting link between the wings on axis. This neither formed a pleasing view from the Octagon nor satisfied the demand to keep the stable on its old site.

The building committee have found their fellow architects most difficult clients. How they are to satisfy their wishes has been sent out as a confidential communication to the members of the committee, so I cannot make use of the material.

The garden niche shown on the plan of 1912 as modified by Henry Bacon's circular niche of 1922 with the old stables as a west wing and duplicated as a south wing, I believe, would make the most satisfactory frame and background for the garden.

GLENN BROWN

RESTORATION OF AN OLD HALF-TIMBERED HOUSE, YORK, ENGLAND

YORK ALWAYS exhales a venerable atmosphere from the past, and though she has parted with a number of half-timbered houses, many of which have been demolished to make room for street improvements, or have been rebuilt on lines in accordance with modern ideas and requirements, she still possesses a rich legacy inherited from the romantic age of Mediaevalism.

This house at the corner of Coney and New Street is a charming example of half-timbered work and sound craftsmanship. For years it was occupied by a stationer, but was purchased recently by a large banking firm. The intention was to demolish it and erect an entirely new building on the site, but owing to the earnest solicitations of a number of lovers of the antique and the archaic, it was preserved and the interior altered to serve the purposes of a modern banking business.

Like a number of other buildings of mediaeval charm, some of which are off the beaten track of the sightseer and remain unknown, its oak framing had been hidden under a coating of plaster. When this was removed, the grandeur of the work was revealed. The architects, Messrs. Brierley & Rutherford, of York, have taken scrupulous care to preserve all the features of

interest of the old building and to restore, as far as possible, the appearance as originally presented. New timber has only been used when absolutely necessary to replace what was decayed or found to be unserviceable. The photographs show how splendidly this has been achieved. The only liberties which appear to have been taken by the architects, are at the ground floor where new windows and a door have been inserted. These are of English oak and are in strict harmony with the feeling of the design. The double herringbone filling



AN OLD HOUSE IN YORK, ENGLAND
RESTORED BY BRIERLEY & RUTHERFORD, ARCHITECTS

below the windows, which is in narrow bricks with wide joints, emphasizes a subdued poetic refinement.

The banking hall is simple, yet deeply suggestive of a desire on the part of the architects to avoid any straining after effect. It is an adaptation of an old melody to a new setting, and the effect is most striking as it is sincere. The cross beams, time worn and roughly hewn and bearing traces of past service, are further strengthened by brackets where they take their bearing from the posts.

Half-timbered buildings were usually constructed on the same principle, but there are variations in different towns. There were the usual horizontal beams into which uprights were tenoned and pinned, the interstices between the uprights being filled in with wattle and daub. Stout storey posts, shouldered into a bracket at the head, were fixed to carry important timbers. Bracing pieces, sometimes doubly strutted, were inserted to concentrate the loads at certain points. On top of the beams, the floor joists took their bearing, and were projected or overhung. In this way, each storey was carried up.

It has been stated that the reason why the upper floors projected over the lower, was to protect the fabric from the elements, as well to shelter the wayfarer. It also has been suggested that the overhanging superstructure made it more convenient for the

householder to dispose of slops from the upper windows on to the street below where the "kennel," an open drain, ran in the centre of the road. Whatever the reason, it must be admitted that the overhang imparts a charm to half-timbered work which would be absolutely out of place in any other method of construction.

We now come to the important question why most of the half-timbered fronts are found to be plastered over. It must be admitted that it arose from economy. The maintenance of buildings of this class must have exceeded that of any other. In times past, when the elements had been frustrated again and again in their work of destruction, a time would come when patching up was as unavailing as it was unsightly, so the simplest expedient was to plaster the whole face over, including all timbers, and thus preclude the weather entering in between the uprights and the filling. A striking result would be obtained at first, but in our day, it looks decidedly commonplace. It is interesting to note that on some stucco work, imitation timbers have been painted so as to reproduce the reality of the work behind. This shows very clearly that owners, whilst finding it necessary to cover up the work, were reluctant to lose the sight of it altogether.

J. E. REID



INTERIOR OF AN OLD HOUSE IN YORK, ENGLAND, NOW
CONVERTED INTO A BANK

BRIERLEY & RUTHERFORD, ARCHITECTS

MEASURED DRAWINGS

EARLY AMERICAN ARCHITECTURE



PEYTON RANDOLPH HOUSE
WILLIAMSBURG, VIRGINIA

HOME OF
PEYTON RANDOLPH

ATTORNEY-GENERAL OF VIRGINIA

SPEAKER OF THE

HOUSE OF BURGESSES

FIRST PRESIDENT OF THE

CONTINENTAL CONGRESS.

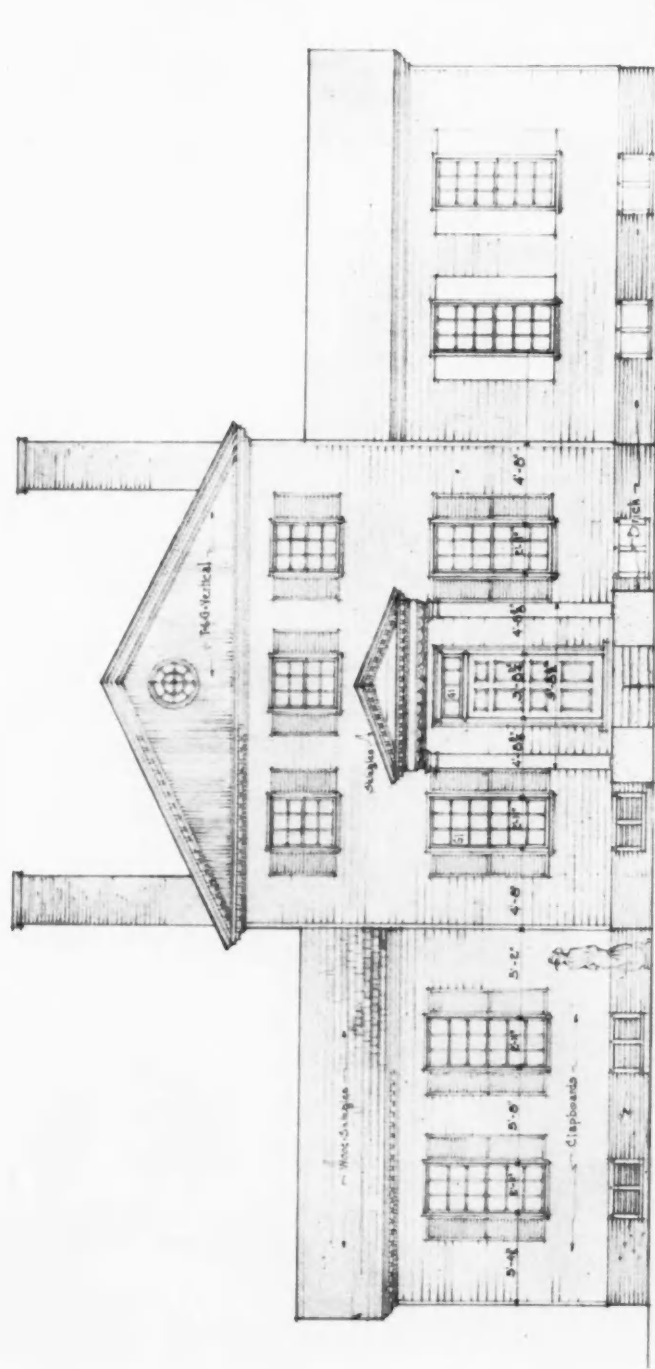
BORN 1722, DIED 1775



PEYTON RANDOLPH HOUSE
WILLIAMSBURG, VIRGINIA

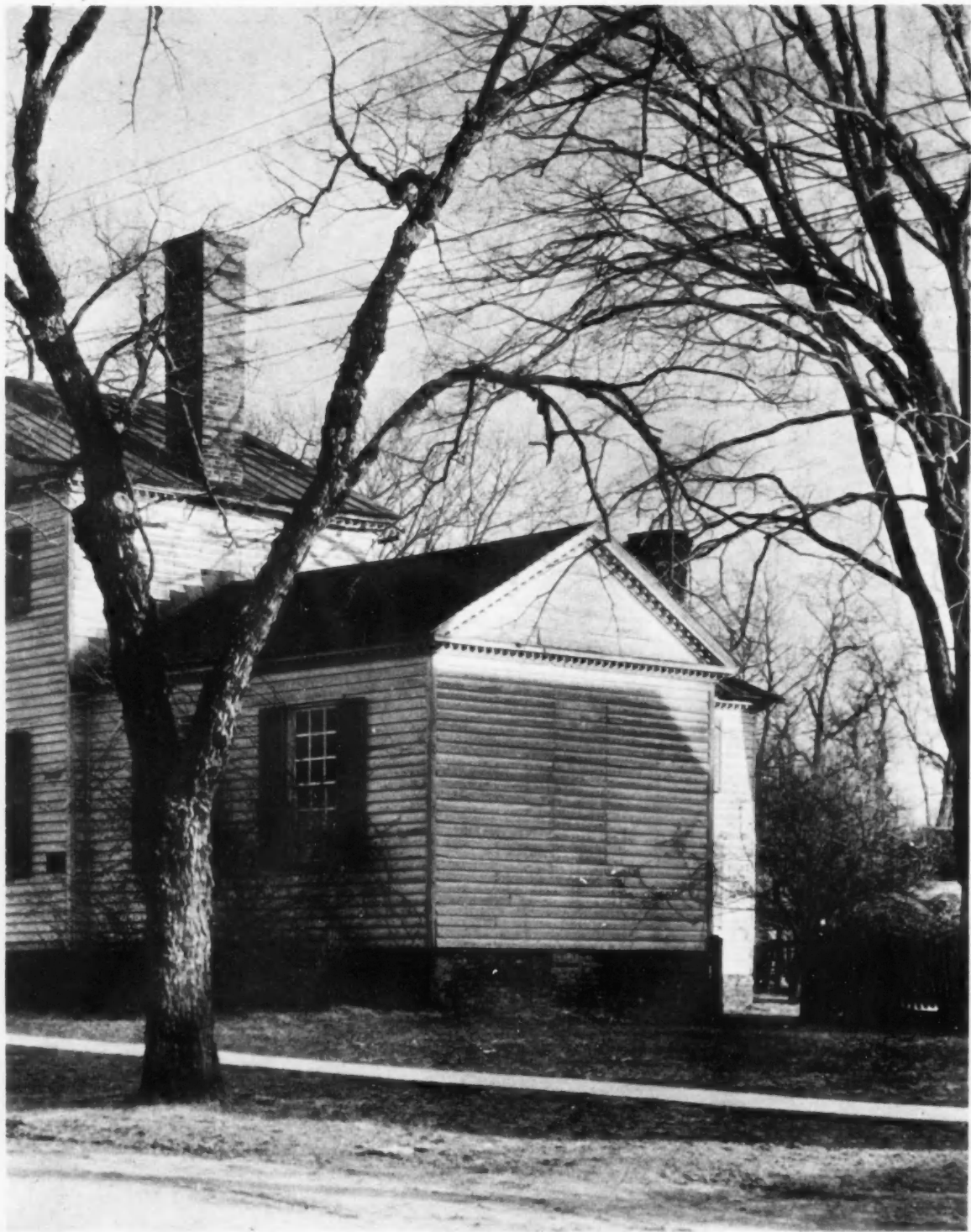
ARCHITECTURAL RECORD SERIES.
EARLY AMERICAN ARCHITECTURE

PEYTON RANOLDPH HOUSE
WILLIAMSBURG VIRGINIA
Prior To 1775



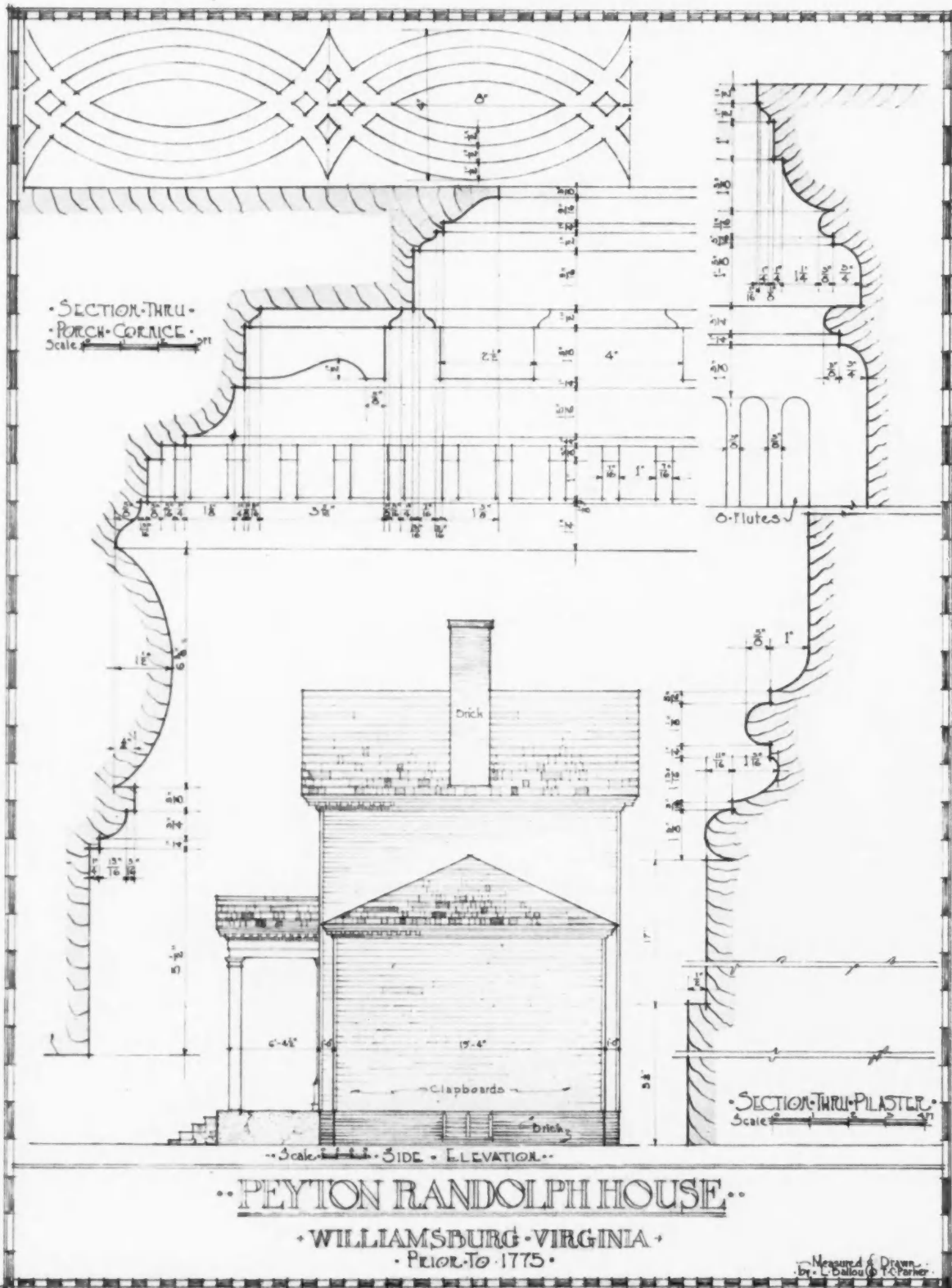
FRONT ELEVATION
Scale: 1/4" = 1'-0"

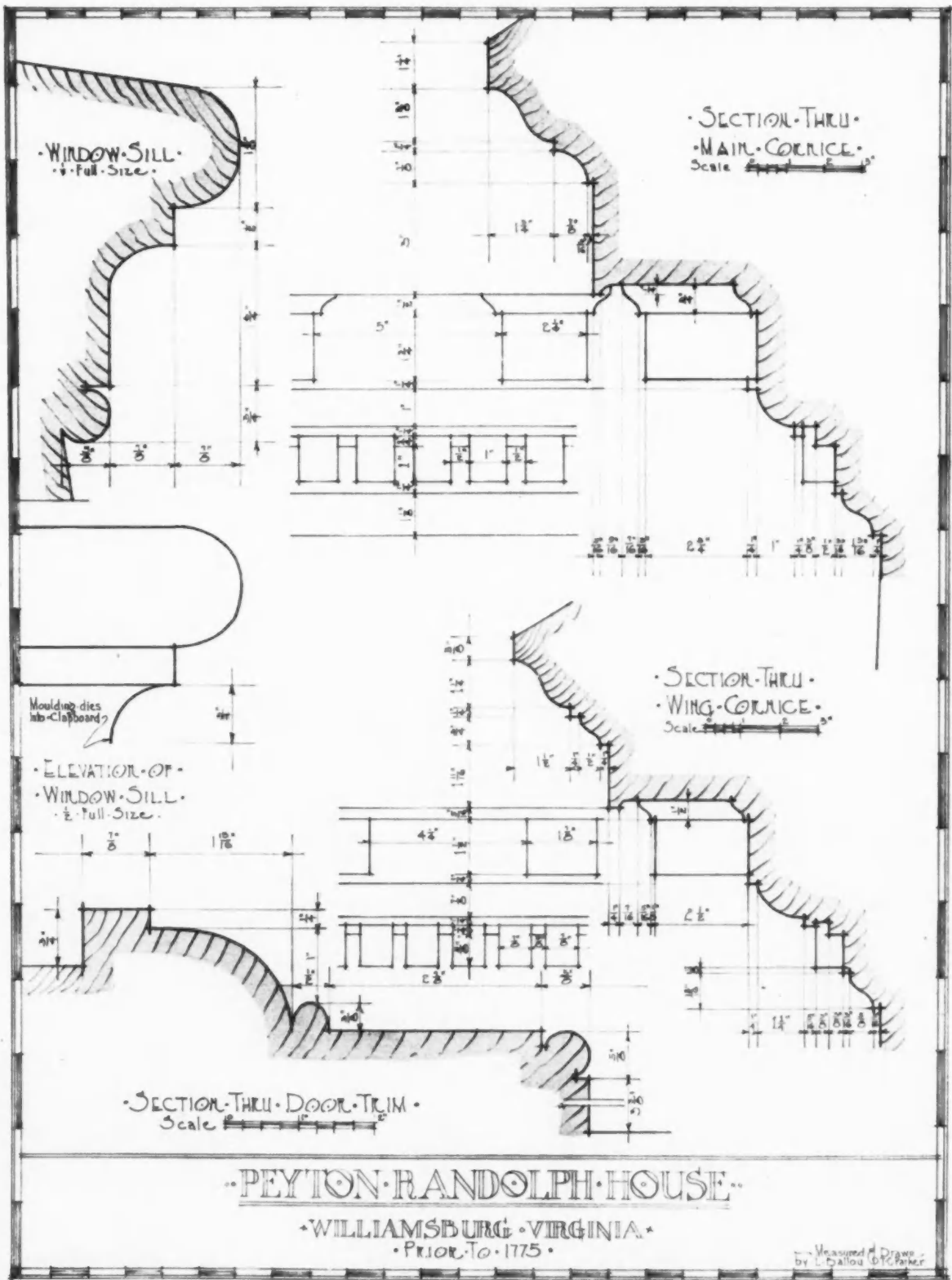
W. B. Smith & Co. Architects
101 N. 3rd St. Richmond, Va.



PEYTON RANDOLPH HOUSE
WILLIAMSBURG, VIRGINIA

ARCHITECTURAL RECORD SERIES
EARLY AMERICAN ARCHITECTURE





IN THE CAUSE OF ARCHITECTURE

BY FRANK LLOYD WRIGHT

IV. THE MEANING OF MATERIALS—WOOD

FROM THE fantastic totem of the Alaskan—erected for its own sake as a great sculptured pole, seen in its primitive colors far above the snows—to the resilient bow of the American Indian, and from the enormous solid polished tree-trunks upholding the famous great temple-roofs of Japan to the delicate spreading veneers of rare, exotic woods on the surfaces of continental furniture, wood is allowed to be wood.

It is the most humanly intimate of all materials. Man loves his association with it, likes to feel it under his hand, sympathetic to his touch and to his eye. Wood is universally beautiful to Man. And yet, among higher civilizations, the Japanese understood it best.

They have never outraged wood in their art or in their craft. Japan's primitive religion, "Shinto," with its "be clean" ideal, found in wood ideal material and gave it ideal use in that masterpiece of architecture, the Japanese dwelling as well as in all that pertained to living in it.

In that architecture may be seen what a sensitive material, let alone for its own sake, can do for human sensibilities.

Whether pole, beam, plank, board, slat or rod, the Japanese architect got the forms and treatments of his architecture out of tree-nature, wood-wise, and heightened the natural beauty of the material by cunning peculiar to himself.

The possibilities of the properties of wood came out richly as he rubbed into it the natural oil of the palm of his hand, ground out the soft parts of the grain to leave the hard fibre standing—an "erosion" like that of the plain where flowing water washes away the sand from the ribs of stone.

No western peoples ever used wood with such understanding as the Japanese did in their construction—where wood always came up and came out as nobly beautiful.

And when we see the bamboo rod in their hands—seeing a whole industrial world interpreting it into articles of use and art that ask only to be *bamboo*—we reverence the scientific art that makes wood *theirs*.

The simple Japanese dwelling with its fences and utensils is the *revelation* of wood.

Nowhere else may wood be so profitably studied for its natural possibilities as a major architectural material.

Material here fell into artistic hands—a religious sentiment protecting it, in all reverence for simplicity.

Sometimes in the oak-beamed and panelled rooms of Old England, when "carpentry" was restrained, oak was allowed to be something similar as is seen in oak-timbering of the Middle Ages. In the veneering of later periods the beauty of wood came out—but the carpenter-forms of the work invariably did violence to the nature of wood. The "cabinet-maker" had his way with it.

Woodwork soon became what we learned to call carpentry; more or less a make-shift. Panelling was its sum and substance where the pilaster would not stick nor the cornice hang.

All wooden joinery of the periods, soon or late, fell to pieces, and interruption by too many ingenious "members" frittered away wood-nature in confusion or in contortions of an ingenious but false or inferior "taste."

Outside primitive architectures, sympathetic use of wood in beautiful construction would be found far north or far south—

among the Norsemen, or among the South Sea Islanders.

Because of wood we have—the carpenter.

The carpenter loved wood in feeble ways—but he loved his tools with strength and determination. He loved his tools more. Good wood is willing to do what its designer never meant it to do—another of its lovable qualities—but therefore it is soon prostitute to human ingenuity in the makeshift of the carpenter. Wood, therefore, has more human outrage done upon it than man has done, even upon himself.

It has suffered more—far more than any of the materials in our category.

Where and when it is cheap and, so, become too familiar as it nearly always does in a new country, it soon falls into contempt. Man's longing for novelty tries to make it something else. To the degree that the carpenter-artist has succeeded in doing this—one might think—is he the artist-carpenter.

In his search for novelty, wood in his hands has been joined and glued, braced and screwed, boxed and nailed, turned and tortured, scroll sawed, beaded, fluted, suitably furbelowed and flounced at the carpenter's party—enough to please even him. By the aid of "modern" machines the carpenter-artist got it into Eastlake composites of trim and furniture, into Usonian jigger porches and corner-towers eventuating into candle snuffer domes or what would you have?; got it all over Queen Anne houses outside and inside—the triumph of his industrious ingenuity—until carpentry and millwork became synonymous with butchery and botchwork.

Queen Anne! What murder!

And even now—especially now—in the passing procession of the "periods" I never see orderly piles of freshly cut and dried timber disappearing into the mills to be gored and ground and torn and hacked into millwork without a sense of utter weariness in the face of the overwhelming outrage of something precious just because it

is by nature so kind, beneficent and lovely.

Man has glorified the Tree in the use he made of the Stick—but that he did long before the Louis, or the Renaissance got by way of Colonial and Eastlake—or was it Westlake—to Queen Anne; and then by way of the triumphant Machine to General-Grant-Gothic and the depths of degradation that soon came in the cut-and-butt of the fluted "trim," with turned corner-block and molded plinth-block.

This latter was the fashion in woodwork when I found the uses of wood I shall describe.

Machinery in that era was well under way and ploughed and tore and whirled and gouged in the name of Art and Architecture.

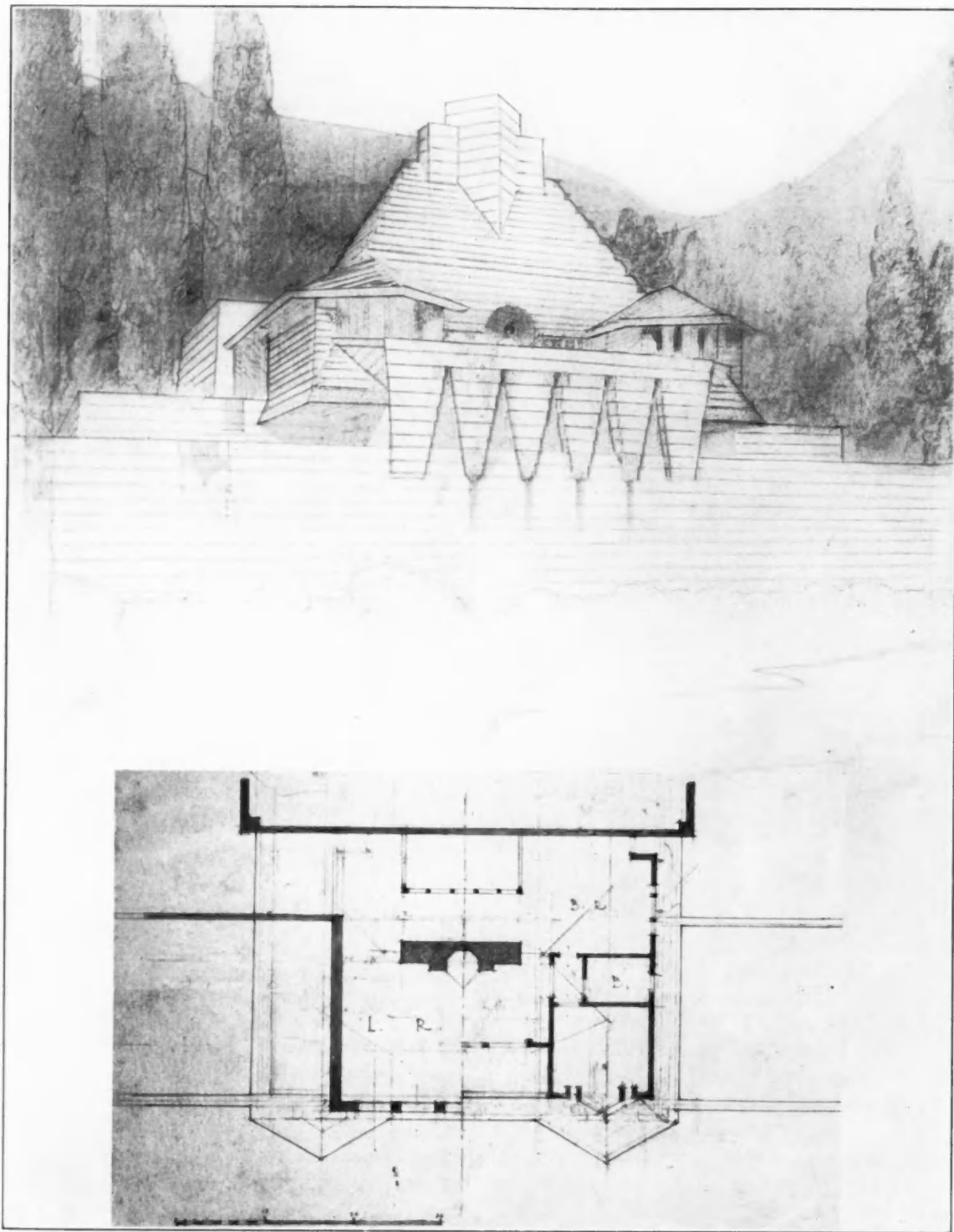
And all this was so effectually and busily done that the devastation began to be felt in the "boundless" Usonian forests. Conservative lumber-men took alarm and made the native supply go a little further by shrinking all the standard timber-sizes first, one-eighth of an inch both ways—then a little further on one-eighth inch more both ways—now still a little further—until a stud is become a bed-slat, a board kin to a curling veneer.

All standardized sticks great and small are shrinking by a changing standard to meet the deadly facility which the Machine has given to man's appetite for useless things.

Usonian forests show all too plainly terrible destruction and—bitter thought—nothing of genuine beauty has Usonia to show for it.

The darkness of death is descending on wood by way of unenlightened architecture.

The life of the tree has been taken in vain as the stick, the substance of the shapely stick to become imitation-a-la-mode; the precious efflorescent patterns of wood, to be painted out of sight; its silken textures vulgarized by varnish in the misshapen monstrosities of a monstrous "taste."



✓ TAHOE CABIN, "SHORE TYPE"
FRANK LLOYD WRIGHT, ARCHITECT

The noble forest is become an ignominious scrap-heap in the name of Culture.

The Machine, then—was it—that placed this curse on so beautiful a gift to man? so friendly a material—this brother to the man—laid thus low in murder.

No.

Unless the sword in the hand of the swordsman murdered the man whose heart it ran through.

released upon the forest, for its devastation. Blame the lack of imaginative insight for the scrap-heap we have now to show for the lost trees of a continent—a scrap-heap instead of a noble architecture.

What should we have had to show were it otherwise? Vain speculation. What may we have to show for what is left—if base appetite becomes enlightened desire and imagination awakes and sees?



WALLS OF WOOD, UNPAINTED, "LET ALONE AS WOOD"

The Machine is only a tool. Before all, the man is responsible for its use.

His ignorance became devastation because his tool in callous hands became a weapon effective beyond any efficiency such hands had known before, or any sensibilities he ever had. His performance with his Machine outran not only his imagination which, long since, it vanquished, but the endurance of his own sensibilities as human.

No. Blame the base appetite the Machine

Well—we may have the nobility of the *material* if nothing else.

We may have simple timber construction, at least over-head, as a scientific art, free of affectation. The wood let alone as wood or as richly ornamented by hand in color or carving.

We may have satin-boarded wainscots—polished board above polished board, the joints interlocked by beaded insertion, so that shrinkage is allowed and the joint

ornaments the whole in harmony with its nature, individualizing each board.

We may have plaster-covered walls banded into significant color-surfaces by plain wood-strips, thick or thin, or cubical insertion, wide or narrow in surface.

We may have ceilings rib-banded in rhythmic arrangements of line to give the charm of timbering without the waste.

We may use flat wood-strips with silken surfaces contrasting as ribbons might be contrasted with stuffs, to show what we meant in arranging our surfaces, marking them by bands of sympathetic flat-wood.

We may use a plastic system of varying widths, weights of finely-marked wood rib-bands to articulate the new plastic effects in construction never dreamed of before. The flat-strip came so easily into our hands, by way of the machine, to give us—the "back-band" that follows all outlines even in an ordinary dwelling, by the mile, for a few cents per foot.

We may compound composite-slabs of refuse lumber glued together under high pressure and press into the glue, facings of purest flowered wood veneer on both sides—making slabs of any thickness or width or length, slabs to be cut into doors, great and small, tops thin or thick—preserving the same flower of the grain over entire series

or groups of doors as a unit, (see page 488).

We may mitre the flowered slabs across the grain at the edges of the breaks to turn the flowering grain around corners or down the sides and thus gain another plastic effect from the continuity of the flowering.

We may economically split a precious log into thin wide veneers and, suitably "backed," lay each to each, opening one sheet to lay it edge to edge with the sheet beneath it, like the leaves of a book so the pattern of the one becomes another greater pattern when doubled by the next.

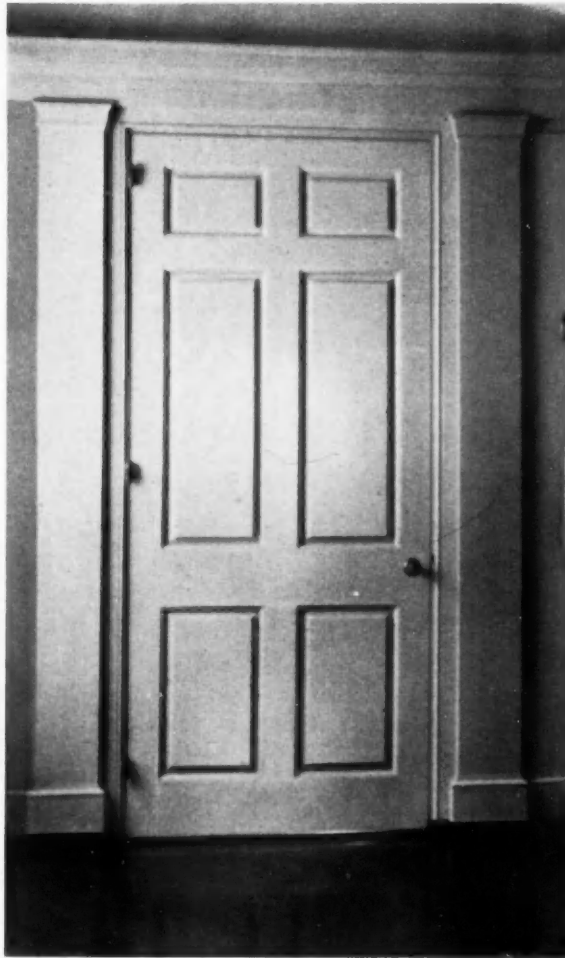
We may cross-veneer the edges of top-surfaces so that the grain of the top carries the flower unbroken down over the ends as it does on the sides.

There is the flat fillet (it happens to be true to wood) to "talk" with—if one must "explain."

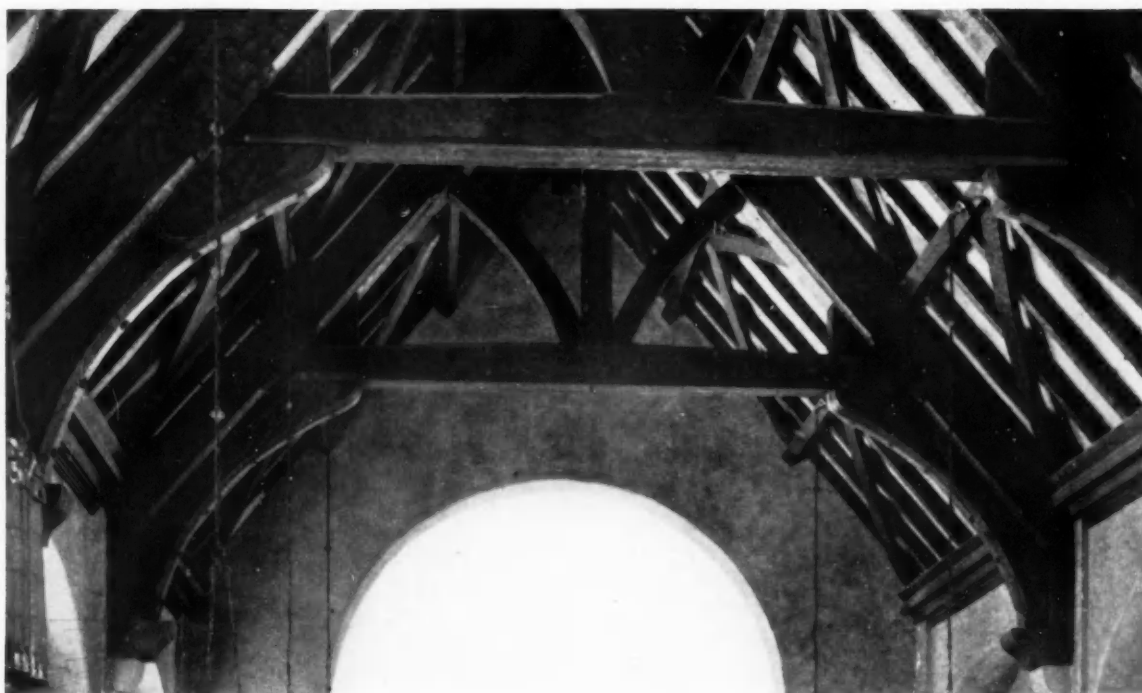
We may use the plain-spindle alternating with the thin flat-slat or square or round ones in definite rhythms of light and shade—allowing the natu-

ral color and marking of the wood to enrich and soften the surface made by them as a whole. With this we may bring in the accent block.

We have the edgewise and flatwise-strip or cubical stick and accent-block to "ingeniously" combine into screens for light-filters or for furniture.



WOOD ENCASED IN AN ARMOR OF PAINT



TIMBER, ROUGH HEWN FROM THE LOG AND USED STRUCTURALLY

These treatments all allow wood to be wood at its best and the machine can do them all surpassingly better than they could be done by hand—a thousand times cheaper.

Thanks to the machine we may now use great slabs compounded under heat and pressure, where rotary-cut veneers unrolled from a log in sheets ten feet long and as wide as the circumference of the log will yield, in thicknesses of one-thirty-second of an inch, wood wall-paper. And we may lay these sheets, against various compounds, on ceilings—with any manipulation of the efflorescence, now exaggerated by the rotary cut, but still true to wood, and do this to any extent.

The finer properties of wood have been emancipated by the machine.

Observe that, naturally, all these are *plastic* effects. That is, used for the sake of the surfaces and lines of their "wood-quality" in contrast to other materials. Carving has a small place in the grammar of these effects, except as an "insert."

There is always the limiting frame or border, constricting surfaces—the most obvious of all uses to which wood is put. And there is always a use of the solid wood stick to be made into honest furniture. There is the wooden frame to be overstuffed for deep comfort—wood showing only at extremities. In light stick-furniture wood combines well with plaited rattan or raffia.

In other words the beauty of wood as silken-texture or satin-surfaces upon which nature has marked the lines of its character in exquisite drawing and color qualifying flat-surfaces and rib-bands of infinite delicacy, in all variety—because we work *with* the machine, understanding wood, is more liberally ours.

Another opportunity is wood-inlay. There is the chequered turning of the grain to crossgrain in the same wood.

There are the patterns of inlay in contrasting woods.

There are the cunningly cut, denticulated or machined strips to be inlaid between

boards or used as edging flat surfaces of veneer: the denticulations to be picked out by polychrome in transparent bright stains, perhaps.

There is the whole gamut of transparent color stains from brilliant red, green, yellow and blue, to all hues in between, to aid and intensify or differentiate these uses of wood.

And for exterior work there are characteristic board-and-batten effects—horizontal, vertical, diagonal or checkered, got out of planks or boards with surfaces rough from the saw to be color-stained or allowed to weather.

There are roofs boarded lengthwise of the slope, likewise inlaid between the joints but with properly devised ornamental copper flashing to come up over the edges and the ends.

There are brilliantly decorative treatments of poles, free standing as the Alaskan totem stood, or in rows, horizontal or vertical. Palisaded walls.

There are combinations of the slender pole and square-stick and the spindle-rod, alternating with the slat or the board in endless rhythmic variety.

All these undressed-wood, plastic treatments, are much the same as for inside work, allowing wood to be wood but coarser in scale with an eye to weathering in the joinery.

And finally after we have exhausted the board and machined inlaid-batten, and the spread of the figure of the wood-flowering over flat surfaces, and the combinations of the following back-band and the varying rib-band—the spindle-stick, the flat-slab and the rod, the marking-strip and the accent-block, the ornamental-pole—rectangular timbering ornamentally planked, the undressed, interlocking boards on walls and roof slopes—then—

We have combinations of all these. A variety sufficient to intrigue the liveliest imagination for as long as life lasts—without once missing the old curvatures and im-

aging of organic-forms; the morbid twists and curious turns, the contortions imposed on wood in the name of the "Styles" *mostly* using wood as a makeshift—or, if not, as something other than wood.

A most proper use of wood, now that we must economize, are these treatments using marking-bands or plastic-ribbons, defining, explaining, indicating, dividing, and relating plaster surfaces. It is economy in the material, while keeping the feeling of its beauty. Architectural-articulation is assisted and sometimes had alone by means of the dividing lines of wood.

In these plastic treatments—using wood gently banded or in the flat allowing its grain and silken surface even in the spindle-screens to assert itself and wood-quality to enter into effect of the whole, we have found the Machine a willing means to a simple end. But for the Machine this free plastic use of wood either in rib-bands or extended flowered surfaces would be difficult, uncharacteristic and prohibitive in cost.

Moreover this is true conservation of wood because in these effects it is used only for its qualities as a beautiful material. The tree need no longer be lost.

In these papers we are not speaking of "building" as a makeshift, but of building as the Art of Architecture. And while all building, as things are, cannot be architecture but must make shift—architecture should hold forth such natural ways and means for the true use of good materials that, from any standpoint of economical realization of the best the material can give to structure, architecture would put mere building to shame. Stupid waste characterizes most of the efforts of mere builders, always—even or especially when, building for profit.

Wood grows more precious as our country grows older. To save it from destruction by the man with the machine it is only necessary to use the machine to emancipate its qualities, in simple ways such

as I have indicated, and satisfy the man.

There is no waste of material whatever in such uses, either in cutting up the tree or adapting the cutting to the work done when it is of the character described. The machine easily divides, subdivides, sands and polishes the manifold surfaces which any single good stick may be made to yield by good machine methods.

Wood can never be wrought by the

machine as it was lovingly wrought by hand into a violin for instance, except as a lifeless imitation. But the beautiful properties of wood may be released by the machine to the hand of the architect. His imagination must use it in true ways—worthy of its beauty. His *plastic* effects will refresh the life of wood, as well as the human-spirit that lost it—as inspiration—long since.



THE FIVE DOORS OF THE CUPBOARD ABOVE THE TABLE WERE CUT FROM A SINGLE
CYPRESS VENEERED SLAB

LIVING ROOM, TALIESIN

FRANK LLOYD WRIGHT, ARCHITECT

THE ARCHITECT'S LIBRARY

BENEDETTO CROCE

Benedetto Croce, an Autobiography, translated from the Italian by R. G. Collingwood. Oxford University Press, 1927. 116 p. 12mo. \$2.00.

CROCE'S AUTOBIOGRAPHY is a brief history of his mind and of his books. It was written for those already familiar with the latter, and for the assistance of his future critics and commentators. "My life, so far as it contains anything worth recording, is contained in the chronology and bibliography of my written works."

That bibliography is not a long one. The most important items in it, aside from the volumes of his quarterly "*La Critica*," are the three volumes of his *Philosophy of the Spirit*, of which the *Aesthetic* is the first, the *Logic* the second, and the third the *Philosophy of the Practical*. *Aesthetic* he defines as the science of intuitive knowledge; *Logic*, the science of intellectual knowledge, of concepts scientific and philosophical; *Practice*, the two kinds of knowledge as men possess and make use of them. The interest of *The Architectural Record* is presumably confined to the *Aesthetic*.

Croce is one of the most considerable figures in contemporary thought; but my own interest has been altogether with his literary criticism—books on *Goethe and Dante*, one called *Arioste*, *Shakespeare and Corneille*, and one miscalled in English *European Literature in the Nineteenth Century*—which lead one back to his *Aesthetic* because he insists that they must. I am not at all competent to give an account of his philosophy, but something of its nature is apparent in any chapter of the *Aesthetic*. It is of course idealistic, but seems to differ from most idealistic philosophy in that it anchors itself solidly in the phenomenal world. It knows nothing of transcendentalism. It does not search for reality beyond experience. It is an inquiry into the spirit, that is, into the ideas or values within the forms of our experience.

The *Aesthetic* appeared in 1910. But in 1893 he wrote an essay called "History Subsumed under the General Concept of Art," and in 1900 another called "Fundamental Propositions of an Aesthetic as Science of Expression and General Theory of Language," which titles would seem to show that the trend of his doctrine was already settled. In 1912 he wrote a "Handbook of Aesthetics" probably as a text book for the use of art schools.

The central idea of the *Aesthetic*, he says somewhere, is that "Art is not a work of reflection and logic, nor yet a product of skill, but pure spontaneous imaginative form." The book is largely

devoted to the elucidation of the last four words, and the combating *in extenso* of most that other men have thought on the subject.

There are two kinds of knowledge, he says, the intuitive, and the logical or conceptual. *That particular lake* is an intuition, *Water* in general is a concept. In ordinary life intuitive knowledge is readily admitted. The practical man lives by intuition rather than by reason, and probably admits it. But in the field of theory and philosophy this acknowledgment is not often made. Now, it is true that most intuitions of civilized man are mingled with intellectual concepts, but in point of fact they are so fused as no longer to be concepts but rather elements of intuition. Philosophical maxims in the mouth of a character in a tragedy do not function as philosophical concepts but as characteristics of the character. The result of a philosophical treatise is a concept, but the result of a work of art—however full it may be of philosophy—is not a concept but an intuition.

Furthermore, intuitive knowledge is expressive knowledge. Aesthetic is the science of expression. Works of art are examples of intuitive knowledge, the expression of impressions. Expression and impression are two sides of the same thing. Art is rooted in human nature, inseparable from the general spiritual life.

Beauty is not a physical fact; it does not belong to things, but to the activity of man, to his spiritual energy. Physical things are aids to the reproduction of the beautiful. Poems, symphonies, pictures, architecture, are the spiritual energy of memory assisted by physical things. Nature is not beautiful without the aid of the imagination. Natural beauty is a stimulus to aesthetic reproduction, which presupposes previous production. Without preceding aesthetic intuitions nature cannot arouse them. Man is a Narcissus. He looks into his own face. We receive but what we give.

The artist does not imitate nature, neither does he idealize nature. These are variants of the same illusion. What he does is to employ the natural fact as the instrument of reproduction of the ideal fact. He paints the landscape in order to paint the effect of the landscape on himself.

If there is today a Croce cult, if his *Aesthetic* is used as a text book in European schools of art and architecture, I suspect there are two reasons (among others): first, he is the most lucidly interesting writer on aesthetics since John Ruskin; and second, his point of view is mainly of this era. We recognize

the wrongness of Ruskin, but how far the rightness of Croce in our eyes is his contemporaneity is not an answerable question. He thinks as perhaps most of us think nowadays on these matters. Our lay apprehensions are pleased with a philosopher who seems to have so much common sense.

We may be irritated with his cock-sureness, with the constant recurrence of "certain" and "proved," and suspect that he does not mean by "science" what scientists mean by it. The criticism of any art, its appreciation and interpretation, may seem to us a matter of intuitions—that is, itself an art and not a science at all, nor much helped by a philosophy constructed of concepts. When he has reached by affirmation and denial, by argument and rebuttal, conclusions that we had reached intuitively, we may suspect that he had reached them himself before the argument began. A system built of untestable assertions, however profound and persuasive, may be a philosophy but it is not a science.

If an architect wants to know whether he ought to read Croce, I don't know. The educators seem to think that he ought. I should think any man who likes to think would like to read Croce. He is a stimulating man, learned, vigorous, positive, fresh and intellectually honest. He utters the thought of the early twentieth century instead of the middle nineteenth. It may be only the aspect of truth which corresponds to the state of mind of these generations, but the reading of Croce undoubtedly puts one in better possession of what that state of mind is. The man who most palpably affects his own time is the one who best tells it what it thinks.

Croce is more a critic of literature than of art. There is very little in the *Aesthetic* specifically about architecture. The principles are general, but the illustrations seldom taken from architecture. Here however is one passage: "Nothing can be more erroneous than the thesis that architecture is by its nature unfree and imperfect since it must also fulfill other practical objects," that is, other objects than beauty. The two objects are not necessarily in opposition, and the artist can prevent the contradiction by taking the practical end as itself "the material of his intention and aesthetic externalization." He need not add anything. If perfectly adapted to its purpose it will be beautiful. Unsuitable embellishment may be beautiful apart, but it is not so in that unsuitable place. The aesthetic fact can always accompany the practical fact by expressing it.

An article in the magazine called *The Arts* for February 1928, begins with a quotation from Fénelon, 1693, which may be translated "Architecture should admit no elements meant for ornament alone. By always seeking beauty of proportion we must

render in itself ornamental everything necessary to the edifice." The principle is familiar since Aristotle, even if sometimes disputed. But there is something fresh and stimulating in Croce's statement of it.

The Introduction by the translator into English of Croce's *Aesthetic* seems of extraordinarily small value; in fact I have not happened to have read anywhere a good article on Croce. Undoubtedly there are such. His central principle has been quoted; he reiterates it in many forms; but its significance can only be felt as illuminated by his own rich and varied discussion.

Personally, as a literary critic, I have a distrust of literary criticism in the leading strings of any philosophical theory. The values of the actual criticism usually turn out to be personal and intuitional. Croce himself, in his literary critiques, seems to me every now and then to be going off the track in pursuit of his theory, and being pulled back by his good sense. That may or may not have any bearing on the value to architects of the study of his *Aesthetic*. Speculatively I should think that when one had really comprehended his central idea and its significance, it might work out in one's own mind in a variety of interesting ways. An architect's interest in the *Autobiography* would be slight, and only by its connection with the *Aesthetic*.

ARTHUR W. COLTON

◊ MAYA CITIES

GANN, THOMAS.

Maya Cities. New York, Charles Scribner's Sons, 1928. \$5.00.

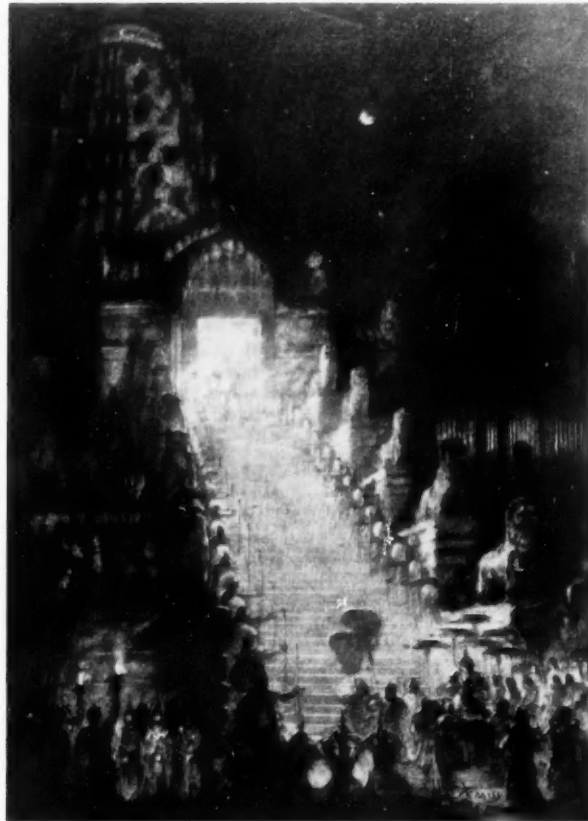
DR. GANN, in a sub-title, calls this book "A Record of Exploration and Adventure in Middle America," a modest understatement for what is really a noteworthy contribution to our knowledge of the civilization of the Mayas. The book is far more than an explorer's journal. Dr. Gann bases his work on a thorough scientific training and a long and vast experience in archaeological and anthropological investigation. When he goes into the Middle American field, he goes with the trained eyes of the scientist, the judgment of a man of exceptionally wide experience, and the imagination of the true historian. When one reads his book—and others like it that he has written—one soon realizes all this and comes to the conclusion that his sub-title is, after all, nothing more than a charmingly modest camouflage.

Dr. Gann has, for a long time, ranked as one of the greatest authorities on Maya life, past and present. His fortunate position as chief medical officer of the colony of British Honduras has enabled him to come into intimate contact with the Indians of today; and also to reach, without too much difficulty,

some of the most important archaeological sites. His anthropological and ethnological studies of the Maya people of the present (embodied, in part, in his work "The Maya Indians of Southern Yucatan and Northern British Honduras," published as Bulletin No. 64 of the United States Bureau of American Ethnology) have not only made available scrupulously accurate and exhaustive descriptions of the physical and mental characteristics, the habits, and the customs of the Maya Indians, but have also served to help clear away the fog of misinterpretation and misrepresentation thrown over this whole subject by the pronouncements of certain men who are unable to forget that they are white and that the Mayas happen to be colored—and thus, of necessity, "inferior." In the field of archaeology, Dr. Gann has made many valuable discoveries, some of the more recent of which are likely eventually to render untenable at least two of several hypotheses that up to the present day have seriously hampered Middle American research: the hypothesis, first, that the Maya civilization is of relatively recent origin; and the hypothesis, second, that it is autochthonous, and owes nothing to European or Asiatic civilization of remote antiquity. Dr. Gann does not go as far as

some archaeologists do in attributing extreme antiquity to the Maya civilization; but his discoveries of megalithic stone work and of evidences of archaeological stratification at Labaantun, together with other evidence of similar nature at other sites, lead him to believe that the civilization is much older than most of the North American archaeologists have so far been willing to admit. And a remark on the next the last page of the work under review indicates that Dr. Gann believes that there at least may be *something* in the theory of contacts and exchanges between the Mayas and the Asiatics.

He says: "I hope next year to continue work in Central America, and also to visit certain parts of the East, between the former civilizations of which and that of the Maya it would seem, as the result of recent excavation and exploration, that architectural and artistic affinities exist, too close to be merely fortuitous, which may tend to throw further light on that vexed question—the possibility of Asiatic influence on pre-Columbian American civilizations." For elements of similarity see illustration, page 491.



RECONSTRUCTION: ANGKOR, INDO-CHINA
(From a drawing by Hugh Ferriss)

In the present work, Dr. Gann offers a series of most interesting observations—some of them revealing entirely new facts—upon Maya architecture, an art that is becoming more and more interesting and important to architects all over the world today. He found several hitherto unknown sites of Maya ruins; one was a city of considerable size, which he named Tzibanché ("Writing on Wood") because of the hieroglyphics he found there, carved on great beams. He also does a great deal toward clearing up the puzzle of the use and significance of the tiny temples that are so numerous along the east coast and offshore islands of the peninsula—structures so small as to cause one to wonder whether the ancient inhabitants of this region were a race of dwarfs. The answer

suggested by Dr. Gann to this puzzle is, that there is ample reason for believing that the ancient inhabitants were just that—dwarfs!

He makes many fruitful suggestions concerning some of the problems connected with the well-known ruined cities of Uaxactun and Tikal, and offers a description of further discoveries at Labaantun, the place at which he found, some time ago, the megalithic stone work. At Tzibanché, however, he made the most interesting discoveries described in this book. His own account of them follows:

"The Mayas were greatly restricted in their

architectural achievements, and more especially in the width of their rooms, by the fact that they never discovered the principle of the true arch, and had to resort to the clumsy expedient of over-lapping courses of masonry, covered at the summit by flat flags or capstones. This restricted the breadth of their arches to about 16 ft., but rooms of only 3 ft. in width—and, as will be shown later, hardly any of the rooms in these temples exceeded 3 ft., and some did not even reach it—are practically unknown elsewhere in the Maya area." (P. 78).

"Temple No. 2, to the west of the last, and distant from it about 50 yards, was very similar in structure. . . . This temple contained two rooms, one immediately behind the other. Each was 58 ft. in length, by 18 ft. in height. They both presented the extraordinary characteristic—which I have never before encountered in Maya rooms—of being broader at their ends than in their centres. Each chamber measured 6 ft. 4 in. in breadth at both ends, and narrowed down to but 2 ft. in the centre. This is a unique condition, and the only explanation of it which I am able to suggest is that the temple walls had to be thickened along the central part of the building, at the expense of the chambers, in order to take the thrust of the immensely heavy roof comb which they supported." (P. 79).

"The roofing (of Temple No. 7 at Tzibanché), which at the southern end of the eastern chamber was perfectly preserved, was, so far as my experience goes, absolutely unique in the whole Maya area. The chamber went up to a height of 20 ft., with a diameter of 3 ft. At this height, long, narrow stone brackets projected on each side, supporting sapodilla beams, placed in a row, in contact with each other, and completely roofing this part of the chamber. Above this roof, for six feet, the walls gradually inclined inward, till they were separated by a space of less than one foot, which was bridged over in the usual way by flat capstones. The lower part of this

space, between the sapodilla roof and the capstones, was filled in by masonry, resting on the upper surface of the wooden beams; the upper part was hollow. . . . I have described this method of roofing in some detail, for, so far as my experience goes, it is absolutely unique. . . ." (P. 82).

"With the exception of fragments of pottery, we found no small artifacts at the ruins. . . . ; but I obtained from *chicleros* two objects found by them in the vicinity. The first of these is a celt-shaped block of dark green, compact, serpentine-like stone 10½ in. long, and roughly polished. Upon one surface is depicted crudely, in broad, shallow lines, a seated human figure. Now, there can be no doubt whatever but that this is a product of the archaic civilization which flourished some four thousand to five thousand years ago. It is, in fact, almost an exact duplicate of similar crude stone figurines discovered by Dr. Gamio during his recent excavations in Guatemala, which undoubtedly belong to the archaic horizon.

"So far as I am aware, archaic objects have not before been found in Yucatan, and this find should stimulate research, especially in the caves of the peninsula, for similar objects. . . ." (Pp. 87-88).

Any one at all well informed upon Maya civilization will be left breathless by these four discoveries, any one of which would justify a monograph!

Taking it all in all, or bit by bit—regarding it simply as an adventure yarn, to be read solely for entertainment; or considering it as a series of rather extraordinary scientific records—the book is a first-rate achievement. The "general reader" as well as the specialist will find it fascinating. One of the best things about it is its style—a style resting on a solid foundation of scientific knowledge that never obtrudes itself, but which gives that atmosphere of authenticity and verisimilitude which characterizes all valid works of this type, and which no amount of ingenuity can ever succeed in counterfeiting.

JAMES C. BARDIN

✓
LIST OF NEW BOOKS ON
ARCHITECTURE AND THE ALLIED ARTS

COMPILED BY
PAULINE V. FULLERTON
LIBRARIAN IN CHARGE OF THE DIVISION OF ART AND
ARCHITECTURE, THE NEW YORK PUBLIC LIBRARY

—◆—
ARCHITECTURE

BUTLER, ARTHUR STANLEY GEORGE.

The Substance of Architecture; with a foreword by Sir Edwin Lutyens. New York: Dial Press, 1927. xvii, 319 p. Front., plates. 8°. \$4.00. English edition published by Constable & Co., Ltd., of London at 12s. 720.1.

Essays on various aspects and elements of architecture.

BYNE, ARTHUR, and M. S. BYNE.

Majorcan Houses and Gardens; a Spanish island in the Mediterranean. New York: William Helburn, Inc., 1928. 6 p. l., xviii p. 188 pl., 2 l. f°. \$25.00. 728.8.

"The authors are here concerned mainly with the as yet unpublished villas de campo and small farmhouses. These admirably met the primary requirements of a country house. As an economic and artistic solution of more or less universal problems, old Majorcan houses ought to prove interesting in newer parts of the world."—Introduction. The volume is well indexed, has a brief bibliography, and a series of excellent folio plates.

CHATTERTON, FREDERICK.

Shop Fronts; a selection of English, American and continental examples. London: The Archi-

- tural Press, 1927. viii, 108 p. Plans, plates. sq. f°. 10s. 6d. American edition published in Cleveland by Carl Wendelin Kuehny at \$7.50. 729.38.
"Selected examples of recent fronts designed by representative architects of many nationalities."—Foreword. The plates are grouped under country, and then arranged alphabetically by city. There is an index of architects and designers.
- CRAM, RALPH ADAMS.
The Ruined Abbeys of Great Britain. Boston, Mass.: Marshall Jones Co., 1927. xiii, 298 p. Front., illus., plans. 8°. \$5.00. 726.71.
A new edition of a volume long out of print.
- HURLIMANN, MARTIN.
La France; Architecture et Paysages, introduction de Paul Valéry. Paris: A. Calavas, 1927. xxxvii p. 304 pl. f°. 175 fr. English edition published by Brentano under title "Picturesque France" at \$7.50. 720.944.
The introduction deals with the typical characteristics of the French people and of their architecture. The many plates from photographs by Hurlimann, show representative examples from the architecture of many periods and various provinces.
- LATHROP, ELISE.
Historic Houses of Early America. New York: Robert M. McBride, 1927. xv, 464 p. Front., illus. 4°. \$10.00. 724.173.
Bibliography p. 445-452.
List of historic houses by towns and states, p. 453-464.
Not an architectural study primarily, but an interesting record of colonial homes, very fully illustrated.
- SEXTON, RANDOLPH WILLIAMS.
Interior Architecture; the design of interiors of modern American houses. Foreword by Charles A. Platt. New York: Architectural Book Pub. Co., Inc., 1927. 3 p., 114 p. Front., illus. f°. \$7.50. 729.
A discussion of the problems of interior design and its relation to the work of the decorator.
- SIMONS, ALBERT, and S. LAPHAM.
Charleston, South Carolina. With a foreword by Samuel Gaillard Stoney. New York: Press of the American Institute of Architects, Inc., 1927. 4 p., 176, 44 p. Illus., plates, port., plans, facsim. f°. (The Octagon library of early American architecture, vol. 1). \$20.00. 724.173.
Bibliography: 1 leaf at end.
A study of this local type of colonial architecture and the factors influencing its development. Excellently illustrated.
- STAVENOW, AKE LUDWIG.
Carl Hårleman: en studie i frihetstidens arkitektur-historia. Upsala: Almquist & Wiksells, 1927. xi, 362 p. Front., illus. (incl. port.) 4°. 15 kronor. 724.185.
Bibliography of both manuscript and printed sources p. 343-351. A detailed study of the life and more especially of the works of this Swedish architect of the 18th century. 171 illustrations in the text, including plans and measured drawings. Well indexed.
- WATSON, WILBUR JAY.
Bridge Architecture, containing two hundred illustrations of the notable bridges of the world, ancient and modern, with descriptive, historical, and legendary text. New York: W. Helburn, Inc., 1927. 288 p. Front., illus., plates. f°. \$17.50. 624.
Bibliography: p. 282.
"The purpose of this work is to illustrate the art of good bridge design, both as to composition and detail, utilizing selected photographs for the purpose."—Preface.
The arrangement of both text and plates is first by periods of construction and second by type of design.
- ALLIED ARTS
- BANKART, GEORGE P., and G. E. BANKART.
Modern Plasterwork Design. London: The Architectural Press, 1927. 3 l. 100 pl. nar. f°. £2 15s. 729.66.
The preliminary text characterizes the various types of modern plasterwork. The 100 drawings, chiefly of plaster ceilings, are in part records of work actually executed, and in part abstract suggestions for further development.
- BELKNAP, HENRY WYCKOFF.
Artists and Craftsmen of Essex County, Massachusetts. Salem, Mass.: The Essex Institute, 1927. viii, 127 p. Front., plates, ports., facsim. 8°. \$3.00. 740.
Chiefly from local documents is compiled this record of architects, sculptors, cabinet makers, metal workers and others whose activity covered the period from the earliest times to 1860.
- BRUN, CHARLES.
Intérieurs Rustiques. Paris: C. Moreau, 1927. 3 l. 32 pl. f°. 90 fr. 747.
A group of interiors, illustrating French provincial details and furniture.
- Eric Gill.* London: E. Benn, Ltd., 1927. 29 p. Front., (port.), 33 pl. 4°. (Contemporary British artists.) 8s. 6d. 735.
Uniform with other volumes of the series, this monograph has a short biography and appreciation of this English sculptor and illustrations of his representative works.
- EUMORFOPOULOS, GEORGE.
The George Eumorfopoulos Collection; catalogue of the Chinese frescoes by Laurence Binyon. London: E. Benn, 1927. vii, 22 p. 50 col'd, mounted pl. f°. £12 12s. 709.51.
560 copies only printed.
The introduction discusses the technique of Chinese fresco painting, its relation to Indian art and the problem of dating existing examples. The catalogue is a detailed description of the paintings illustrated in the 50 colored plates.
- ISHAM, SAMUEL.
The History of American Painting. New edition with supplemental chapters by Royal Cortissoz. New York: The Macmillan Company, 1927. xvii, 608 p. Front., illus. 4°. \$12.50. 750.1.
Bibliography, p. 593-600.
A new edition of a standard history, first published in 1905 and long out of print.

KOCH, HUGO.

Der Garten; Wege zu Seiner Gestaltung. Berlin: E. Wasmuth A.-G., 1927. 328 p. Mounted col'd front., illus. (incl. plans), plates (part mounted col'd). f°. 42 marks. 710.

Bibliographical footnotes.

Deals with the principles and elements of landscape gardening as exemplified in German practice. The volume has 443 illustrations and 16 plates.

KONDAKOV, NIKODIN PAVLOVICH.

The Russian Icon. Translated by Ellis H. Minns. Oxford: Clarendon Press, 1927. xxvi, 226 p., incl. diagr. Col'd front., illus. (incl. map), plates (part col'd). 4°. £5 5s. 755.

An important contribution to the literature of the subject by an authority on Russian art. Excellently illustrated and well indexed.

MACQUOID, PERCY, and R. EDWARDS.

The Dictionary of English Furniture from the Middle Ages to the Late Georgian Period. With an introduction by H. Avery Tipping. London: "Country Life," 1924-27. 3 v. Front., illus., col'd plates. f°. 5 guineas per vol. 749.

Volume 3, published 1927, completes this important dictionary of furniture, with its authoritative text and wealth of illustration.

PARK, EDWIN AVERY.

New Backgrounds for a New Age; illustrated with line drawings and photographs. New York: Harcourt, Brace, and Co., 1927. xiii, 225 p. Front., illus., plates. 8°. \$5.00. 709.93.

"This book will attempt to deal with the most advanced tendencies in the field of applied art and architecture in this country."—Chapter 1.

RIDDER, ANDRÉ HENRI PIERRE DE, and W. DEONNA.

Art in Greece. New York: A. A. Knopf, 1927. xxxii, 375 p. illus., plates. 8°. (The history of civilization.) \$6.00. 709.38.

Translated by V. C. C. Collum.

Bibliography, p. 355-363.

The aim of this book is "to show the part which art has played in the life of the Greeks, and the character it took on among them, in such fashion as to explain

the influence exercised by Greek artists on the art of other peoples and later ages."—Foreword.

RIPLEY, MARY CHURCHILL.

The Chinese Rug Book; with seventeen half-tone illustrations. New York: Frederick A. Stokes Co., 1927. xviii p., 66 p. Front., illus., plates. 8°. \$3.50. 745.

This volume deals with the materials, the methods of weaving, the colors, design and classification of Chinese rugs.

SHEPHERD, JOHN CHIENE, and G. A. JELlicOE.

Gardens and Design. London: E. Benn, Ltd., 1927. xv, 248 p. Diagr., Front., illus. (incl. plans). f°. £3 3s. 710.

Bibliography, p. 243.

Essays on various aspects of landscape architecture and on certain individual gardens, such as the Villa Gamberaia; Versailles; and Little Thakeham, Sussex. 202 plates from photographs and measured drawings.

WEHLE, HARRY B.

American miniatures, 1730-1850, one hundred and seventy-three portraits selected with a descriptive account, and a biographical dictionary of the artists by Theodore Bolton. Garden City, N. Y., Pub. for the Metropolitan museum of art by Doubleday, Page & Company, 1927. xxv, 127 p. col. front., xlvi plates (ports., part col.) 4°. \$10.00. 759.1

"General bibliography of early American miniature painting"; p. 117-118.

The text deals with the origin and distinctive qualities of miniature painting; and then traces the history of the American miniature. The biographical dictionary gives bibliographical sources for each artist; and the index of the 173 portraits on 48 plates gives painter-subject and owner.

WEINGARTNER, JOSEF.

Das Kirchliche Kunstgewerbe der Neuzeit. Innsbruck: Tyrolia A. G., 1927. 489 p. Illus. 4°. 27 marks. 740.

Bibliographical footnotes.

A discussion of ecclesiastical art as exemplified in needlework, church vessels and furniture. Well illustrated and indexed.

FOREIGN PERIODICALS

Reviewed by Henry-Russell Hitchcock, Jr.

THE FOLLOWING list gives the more important material in the foreign periodicals received by the Record during the past month. Some few articles are historical and one or two of a technical nature; the majority consists of well illustrated accounts of the executed work of contemporary architects and occasionally there are designs submitted in competitions. The illustrations that accompany this review are selected for their presumable interest to architects of America and as typical of the better accomplishment of European architects. The mass of contemporary work seems to fall into three general classes:

(1) Moderately traditional work distinctly modern

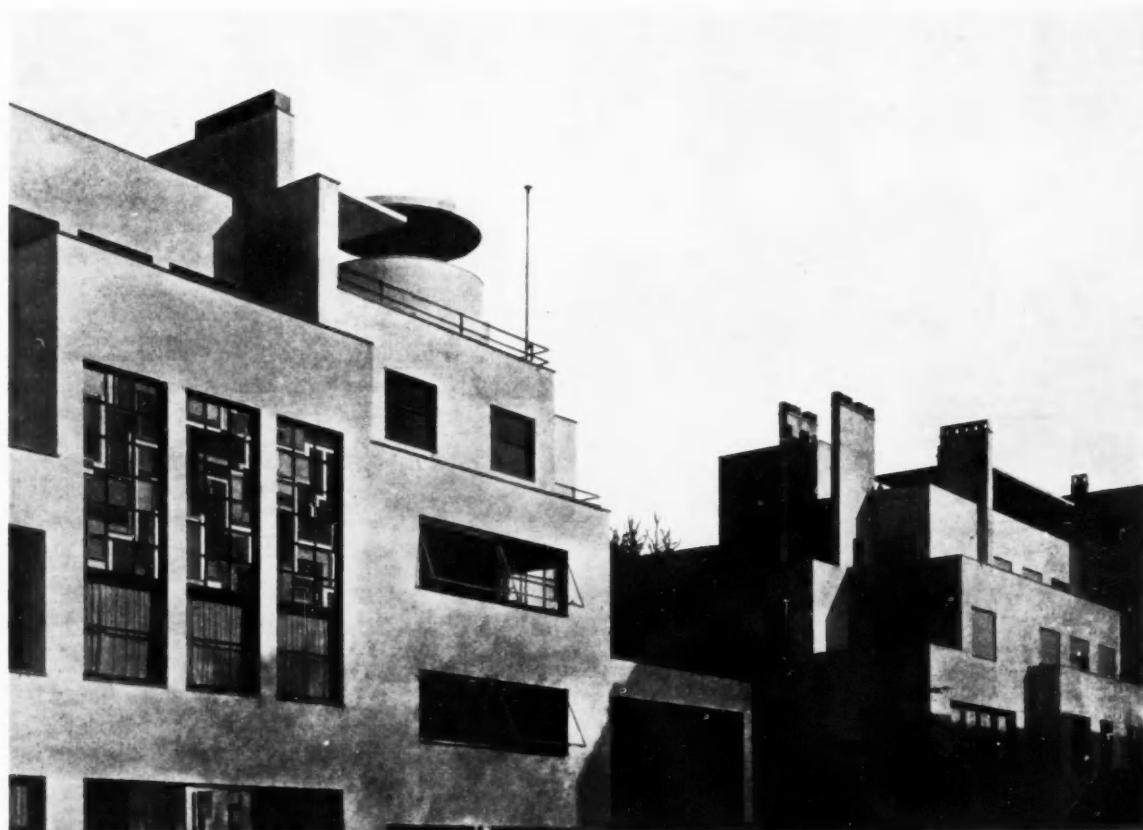
in its simplicity and feeling for form. (2) Modern work in which no traditional elements remain. (3) Engineering. Comment is made only on articles and illustrations of conspicuous interest or merit.

ENGLAND:

The Architect's Journal. Jan. 25, 1928. An article on the proposal to standardize brick-sizes, by Nathaniel Lloyd, the historian of English brick-work.

Journal of the Royal Institute of British Architects. Dec. 10, 1927. A well illustrated article by Sir Herbert Baker on the Government offices of Pretoria and the New Delhi.

Dec. 24, 1927. An archaeological article on the Roman Architecture of Jerash (Syria) by M. A. Sisson.



HOUSES IN THE RUE MALLET-STEVENS, PARIS. ROBERT MALLET-STEVENS, ARCHITECT
From *L'Architecte*, December, 1927

Jan. 14, 1928. The winning designs of Elizabeth Scott for the Shakespeare Memorial Theatre at Stratford.

Jan. 28, 1928. A well illustrated review of Boerschmann's *Chinesische Architektur* by Arnold Silcock.

BELGIUM:

Le Mouvement Communal. Jan. 15, 1928. The preface and conclusions of a study by the International Labor Bureau on the methods of making housing statistics.

ITALY:

Ingegneria. Dec. 1927. Plans and illustrations of the Stuttgart Housing Exposition with article by Vittorio d'Amico.

FRANCE:

L'Architecte. Dec. 1927. Four fine plates of views of the Rue Mallet-Stevens with houses by Robert Mallet-Stevens. Plans of individual houses as well.

La Construction Moderne. Dec. 11, 1927. Description and illustration of the modern interiors of the liner *Ile-de-France*.

Dec. 18. Description and illustration of the Airport of Le Bourget.

Dec. 25. A conservatively modern country church at Provilleux (Aisne) by M. D. Boulenger; photographs, plan, elevations.

Jan. 8. An article on modern Dutch architecture by Théo van Doesburg.

Interior architecture exhibited at the Salon d'Automme: a fine hotel lobby by Pierre-Patout.

Jan. 22. Fully illustrated account of the Restoration of Soissons Cathedral by the architect, Emile Brunet.

SWITZERLAND:

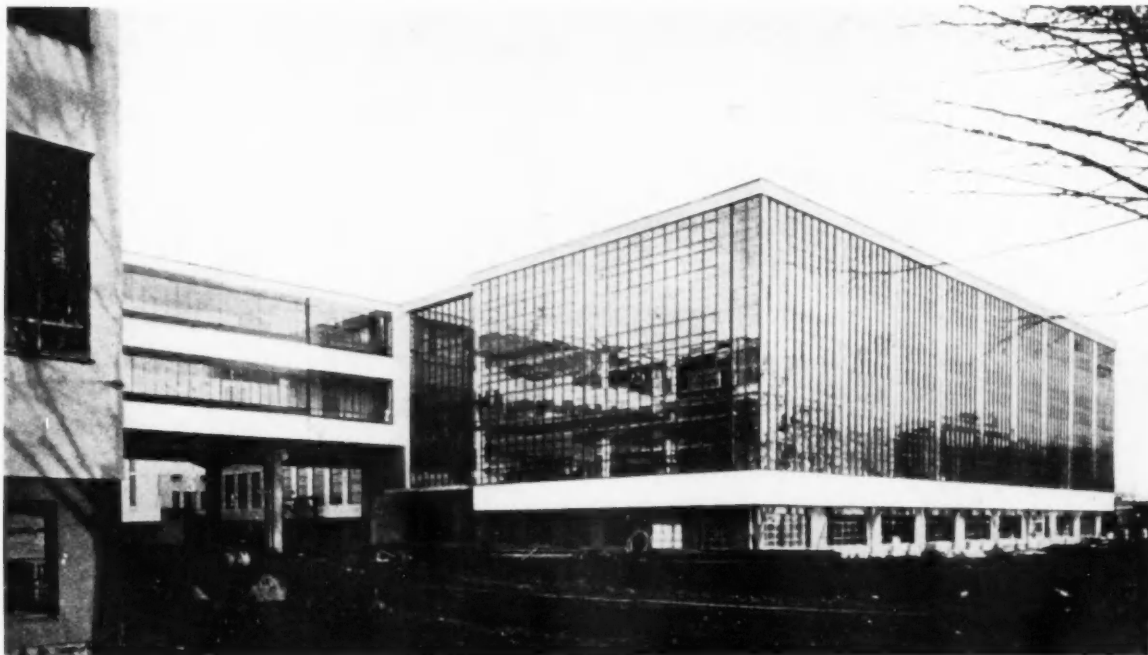
Das Werk. Dec. 1927. Two simple traditionalist churches: one at Bonaduz by the brothers Sulser, the other at Wohlen by Emile Schäfer.

Jan. 1928. An article on the Dessau Bauhaus with fine photographs of the latest work, both exteriors and interiors.

Also a memoir of Hermann Muthesius, the author of *Das Englische Haus*.

POLAND:

Architektura i Budownictwo. Dec. 1927. A more complete and more fully illustrated article than that in *Ingegneria* on the Stuttgart Housing Exposition.



CRAFT SHOPS OF THE DESSAU BAUHAUS INSTITUTE, WALTER GROPIUS, ARCHITECT
From *Das Werk*, January, 1928

SPAIN:

Arquitectura. Dec. 1927. An illustrated account of the Fiat Factory in Turin.

ARGENTINA:

Revista de Arquitectura. Jan. 1928.

An excellent six story city building by Acevedo, Becú and Moreno in the XVIII Century French tradition.

GERMANY:

Baukunst. Dec. 1927. Devoted chiefly to the work of the modern traditionalist Prof. Paul Schmitthenner.

Die Kunst. Dec. 1927. Better but fewer illustrations of the Stuttgart Housing Exposition than those in the Italian and Polish reviews.

Moderne Bauformen. Dec. 1927. A variety of conservatively modern interiors. A note on Japanese construction. A diagram of Le Corbusier's sliding window.

Jan. 1928. The remodelled Hotel Breidenbacher Hof in Düsseldorf and other work by Fahrenkamp in a manner very characteristic of Germany of the post-war period.

Die Baugilde. Jan. 1928. Illustrations of the homes of the Rue Mallet-Stevens at Paris by Mallet-Stevens. A Glasgow factory. A new Autobus.

Wasmuths Monatshefte für Baukunst. Dec. 1927. Comparison of Modern and African use of brick.

Jan. 1928. Engineering work by Paul Bonatz. Small traditional-modern houses by Prof. Schmitthenner. An article by Herbert Lippmann on American architecture.

Zentralblatt der Bauverwaltung. Dec. 14, 1927. Modern peasant's cottages by Werner Scholtz.

Jan. 4. Friedrich-Paulsen-Schule in Niebüll by the Schleswig Office of Public Works.

Deutsche Bauhütte. Jan. 1. An article on the Bayreuth Eremitage by Paul Schubring. A conservatively-modern church in Esslingen by Martin Elsässer.

Bauwelt. Dec. 8, 1927. A study of the future development of workers' apartment houses by the Brothers Luckhardt and Alfons Anker. The Stadium at Frankfurt (Oder).

Dec. 15. The apartments at Celle by Otto Haesler. Factories by Wayss and Freytag.

Dec. 22. Studies of the use of color and texture on concrete surfaces.

Dec. 29. Criticism of the accepted design for the Palace of the League of Nations; with plan and elevation.

Jan. 5, 1928. Apartment houses at Frankfurt-am-Main by Ernst Balsler.

Jan. 12. Apartment houses at Berlin-Lichtenberg by Erwin Gutkind.

Jan. 26. Competition designs for the extension of the Reichstag Building, Berlin.

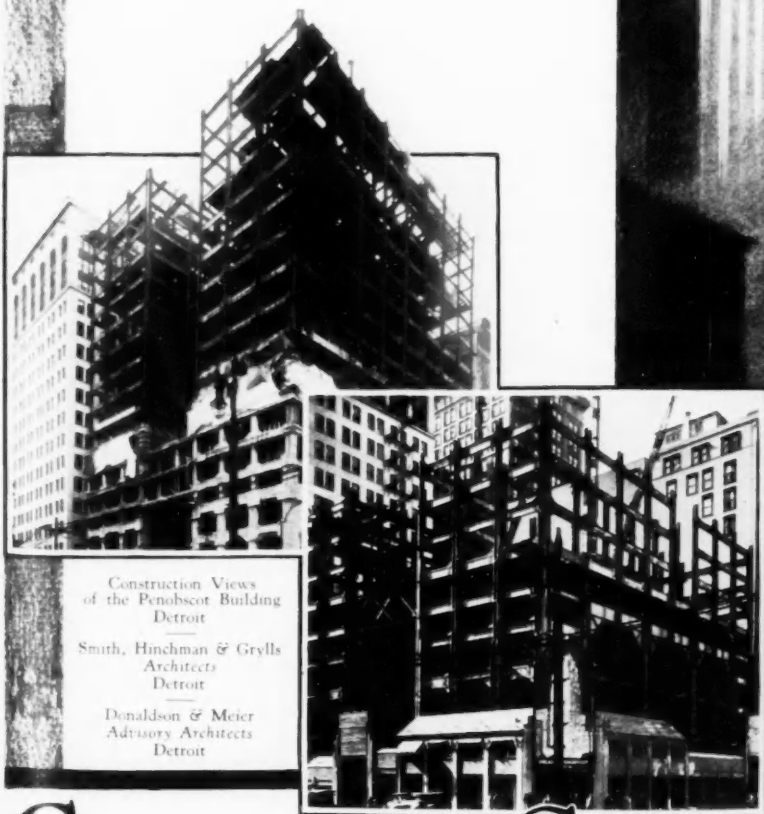
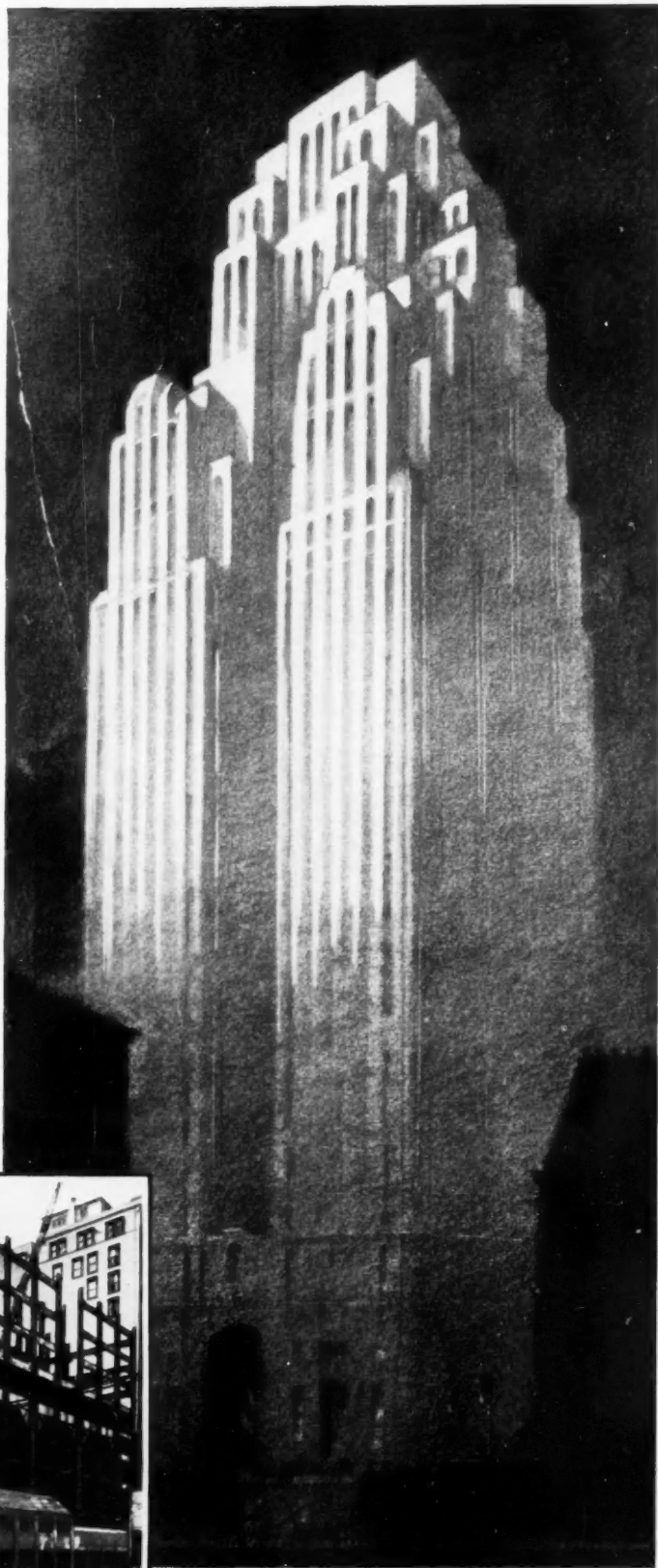
The Highest Building in Michigan

*Constructed with the new
Carnegie Beam Sections*

The Penobscot Building in Detroit, 47 floors, is an outstanding example of the use of Carnegie Beams in tier buildings.

These new sections offer the architect and builder unique features that make steel construction easier, simpler, and more economical. Are you taking advantage of these important new principles?

*Complete information is contained in
our book—"Carnegie Beam Sections".*



Construction Views
of the Penobscot Building
Detroit

—
Smith, Hinchman & Grylls
Architects
Detroit

—
Donaldson & Meier
Advisory Architects
Detroit

Carnegie Steel Company

PITTSBURGH-PA.

NOTES IN BRIEF

BRITISH ARCHITECTS' CONFERENCE

The Annual Conference of British Architects will take place at Bath, England, from June 20th to June 23rd, 1928, inclusive, and the Wessex Society of Architects will be the hosts of the Conference. The Conference will be largely of a social character and it is expected that many ladies will be present as the guests of the members.

"If any American architects happen to be in England at the time mentioned" writes the Society Secretary, "we should heartily welcome their presence at the various functions which will form part of the programme."

FORESTRY RESEARCH

The Illinois Society of Architects and the Chicago Chapter, American Institute of Architects, recommend the passage of the McSweeney-McNary Bill known as House Bill No. 6091 and Senate Bill No. 1183.

This Bill is of advantage to all persons engaged in the handling and use of lumber and is of particular value to the architect and all building trades.

"The Bill," says the "Leaflet," published by the Chicago Chapter of the A. I. A., "is virtually a legislative and fiscal plan for forestry research in the Department of Agriculture, including the Forest Service, the Bureau of Plant Industry, the Bureau of Entomology, the Biological Survey, and the Weather Bureau. Instead of the fluctuating annual appropriations heretofore prevalent, this Bill lays down a ten-year Budget which will stabilize effort and bring greater results per dollar invested. All Federal Forestry Research now under way and all that is contemplated in the near future is covered. The Bill carries no actual appropriation but it sets up maximum authorizations, one for each of various sections or subjects. If enacted, these authorizations will serve as a guide to the Agricultural Department, to the Budget, and to Congress in making regular annual appropriations for Forestry Research.

"The specific items covered are: Forest Experiment Stations, Tree Diseases, Decay Prevention, Insects Injurious to Trees or Forest Products, Game Management, Forest Fires, Range Experiments, Forest Products including Foreign Woods, Survey of Forest Resources and Requirements, Economics of Forest Production and Utilization."

LOUIS H. SULLIVAN MEMORIAL

It has been proposed that the architects of Chicago erect a monument that will suitably mark the grave of Louis H. Sullivan. It is intended that George Elmslie,

for many years associated with Sullivan in his life and work, shall design the monument.

It is urged that contributions and suggestions by architects everywhere be sent to Thomas E. Tallmadge, Chairman, 160 North LaSalle Street, Chicago.

COMPETITION FOR TOMB OF UNKNOWN SOLDIER

The United States Congress has authorized the Secretary of War to secure competitive designs to complete the Tomb of the Unknown Soldier in the Arlington National Cemetery, together with such inclosure as may be deemed necessary. The competition will close June 2, 1928. Copies of programme may be obtained by addressing the Quartermaster General, Cemeterial Division, Munitions Building, Washington, D. C.

ARCHITECTURAL CLUBS

In addition to the fifty-seven Chapters of the American Institute of Architects, there are as many architectural clubs where architects and draftsmen foregather and in many instances, as with the Architectural League of New York, membership is extended to include sculptors, painters, craftsmen and members of building trades. While Institute Chapters ponder over questions of national interest to architects and the ethics of the profession, the smaller "clubby" clubs are concerned with social relations, with atelier activities

in which the draftsman is given an opportunity to improve his talent and with the creation of a spirit of good fellowship between the architect and representatives of the building trades.

Listed below are active architectural clubs whose circulars and programmes of club events have been received by this department of The Record.

THE ARCHITECTS' CLUB OF CHICAGO

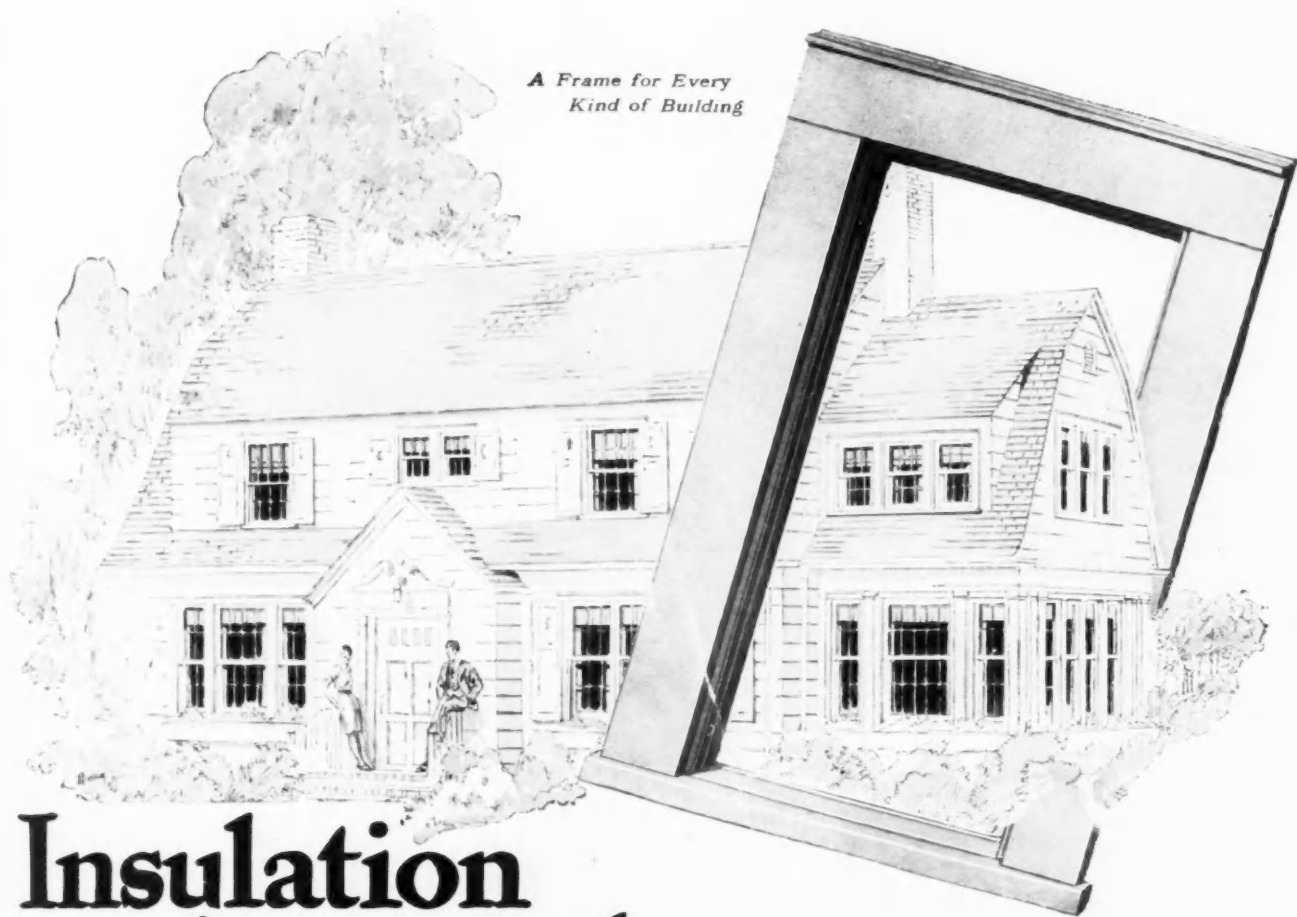
President	ALFRED GRANGER
First Vice-President	GERHARDT F. MEYNE
Second Vice-President	R. J. McLAREN
Treasurer	F. E. DAVIDSON
Secretary	CARL E. HEIMBRODT

The first annual exhibition of the Architects' Club of Chicago was held at the Club House on Prairie Avenue, opened early in April and continuing through May.

This exhibition includes examples of materials and processes as well as drawings, paintings and models by architects, painters and sculptors. The Illinois Society of Architects, the Architectural Sketch Club and the Architects' Club of Chicago supplement the activities of the Chicago Chapter of the A. I. A.



A Frame for Every
Kind of Building



Insulation is wasted....

if window frames are leaky

SUPERIORITY
GUARANTEED
by the trade mark

**Genuine
White Pine
Sills and Casings**

1 White Pine for PERMANENCE
2 Weather tight for HOME COMFORT
3 Standardized Quantity Production for ECONOMY
4 Styles and Sizes for BEAUTY
5 Available at dealers for CONVENIENCE

No one will claim to be able to really lift himself by his own bootstraps.

Yet that is just what you are trying to do when you specify the insulation and weather-stripping to make a home comfortable and aren't sure about its window frames.

And are you always absolutely sure of accurate milling, tight-

fitting joints, a wide blind-stop that really stops, and *genuine* white pine in the exposed parts?

You can be certain of these points of superiority as well as many other distinctive features, if you specify Andersen Frames*.

All we ask is that you get acquainted with us and our product. Start by checking and sending in the coupon below.

Distinctive Features

- (1) Detailed and constructed to merit architects' critical approval.
- (2) Genuine, clear White Pine sills and casings.
- (3) Exclusive, patented weather-tight features.
- (4) Perfect mill workmanship—absolute accuracy and uniformity.
- (5) A window or door frame type and size for every architectural need.
- (6) The only standardized frame adequately designed for wide blind-stop extensions, permitting the use of narrow outside casings.
- (7) Nationally distributed.
- (8) Dependable because guaranteed by a reliable manufacturer.
- (9) Equipped exclusively with the new patented, noiseless, friction-reducing Andersen pulleys.

See Sweet's Architectural Catalog, page B 1160 for frames, page B 1785 for pulleys. The Architectural Record, May, 1928

Andersen FRAMES

*The Andersen Trade Mark is on every frame.

ANDERSEN LUMBER COMPANY
Box 4105, Bayport, Minnesota

for the drafting room and specification writer.

I will be interested in receiving items checked:

A sample of the new, noiseless, frictionless Andersen pulley.

Andersen Catalogue No. 300—Complete, detailed information

Name _____ Street _____

City _____ State _____

T SQUARE CLUB OF PHILADELPHIA

President PAUL P. CRET
 First Vice-President GEORGE K. TRAUTWEIN
 Second Vice-President HAROLD L. WATTS
 Treasurer ROY W. BANWELL
 Secretary HENRY G. RIEBER

President Paul P. Cret instituted a monthly forum idea as a pattern for regular meetings. These have led to interesting and lively discussions.



Mr. Raymond Hood of New York City was the club guest at the March meeting when he spoke on "The Price of Beauty."

Regular fortnightly exhibits are continuously on view.

The atelier numbers between forty and fifty students with Prof. Jean Hebrard as Patron, assisted by Walter Autrim and Boris Riaboff.

The club publishes a monthly bulletin, "The Girandole."

ST. LOUIS ARCHITECTURAL CLUB



President JOHN A. BRYAN
 First Vice-President HARRY F. WESTERHOLT
 Second Vice-President EDW. F. BRUEGGEMAN
 Treasurer RICHARD S. JOHNSON
 Secretary ARTHUR T. GRINDON

BOSTON ARCHITECTURAL CLUB

The club holds a dance each month in the club rooms at 16 Somerset Street. Early in the Spring the annual Twelfth Night Revel of the club was staged with the great hall decorated in extreme modern decorations and costumes inspired by L'Art Nouveau.

Exhibitions have been held from time to time, the last was the House Beautiful Small House Competition exhibit.

SAN FRANCISCO ARCHITECTURAL CLUB

President LAWRENCE KEYSER
 Vice-President HARRY LANGLEY
 Treasurer E. C. COUNTER, JR.
 Secretary RUSSELL B. COLEMAN

The San Francisco Architectural Club conducts classes in architectural design following Beaux-Arts Institute of Design programmes. There are also class groups in water color, history of architecture, engineering for architects, contracts and specifications and in classic orders of architecture, each under the direction of experienced college graduates of ability.

THE ARCHITECTURAL CLUB OF NEW HAVEN, CONN.

President A. W. BOYLEN
 Vice-President JOSEPH A. JACKSON
 Treasurer H. STORY GRANGER
 Secretary L. R. HAMMOND

PRATT ARCHITECTURAL CLUB, INC.

President RAYMOND D. RITCHIE, '13
 Vice-President DANIEL O. LARSEN, '12
 Treasurer ALFRED D. COLE, '19
 Secretary DANIEL N. BUGEL, '22

This club is composed of graduates in architecture from Pratt Institute, New York City.

The purposes of the club are social and professional; luncheons are held each Tuesday and occasional dances and exhibitions are sponsored.



ARCHITECTS AND ENGINEERS CLUB OF SACRAMENTO

President J. O. TOBEY
 Vice-President JENS C. PETERSEN
 Treasurer HARRY W. DEHAVEN
 Secretary EARL L. HOLMAN



Meetings are held the first and third Monday noons of each month, excepting July and August. At these meetings a selected speaker talks on topics pertaining to architecture or the building industry.

PITTSBURGH ARCHITECTURAL CLUB

President CHARLES M. STOTZ
 Vice-President C. A. KLAMAN
 Treasurer RAYMOND M. MARLIER
 Secretary M. E. HENRY

The publication of *The Charette* (Edward B. Lee, Editor) by the Pittsburgh Club is in itself a distinguished accomplishment. *The Charette* is characterized by its editors as "a Journal of Rejuvenation, Published every month by the Pittsburgh Architectural Club, Inc." The remarkable spirit of coöperation always evidenced by the group of Pittsburgh architects is, in part, due to this magazine. Not that the publication of *The Charette* is the sole club activity. Architects everywhere should read *The Charette* to find out how diversified the interests and activities of an architectural club can be.



THE ARCHITECTURAL CLUB OF LOS ANGELES

President GEORGE P. HALE
 Vice-President HUGO C. OLTSCH
 Treasurer KEMPER NOMLAND
 Secretary C. K. HAZEN

PASADENA ARCHITECTURAL CLUB

President WM. J. STONE
 Vice-President ORRIN F. STONE
 Treasurer WM. S. BUYERS
 Secretary ROY B. PARKES

CONTRIBUTORS

J. DONNELL TILGHMAN, architect; draftsman with John Russell Pope, New York City.

JOHN V. VAN PELT, practising architect, New York City; graduate, Ecole des Beaux-Arts, Paris; first American to obtain value for diploma at the Ecole; Professor of Architecture, Columbia University Extension.

HERBERT CROLY, Editor "The New Republic"; formerly Editor "The Architectural Record."

FREDERICK GOUDY, type designer, printer; recipient of gold medal, A. I. A., The American Institute of Graphic Arts and the Architectural League of New York for distinguished service in typography.

GLENN BROWN, architect; formerly secretary A. I. A.; author of Papers on Improvement of Washington, D. C.

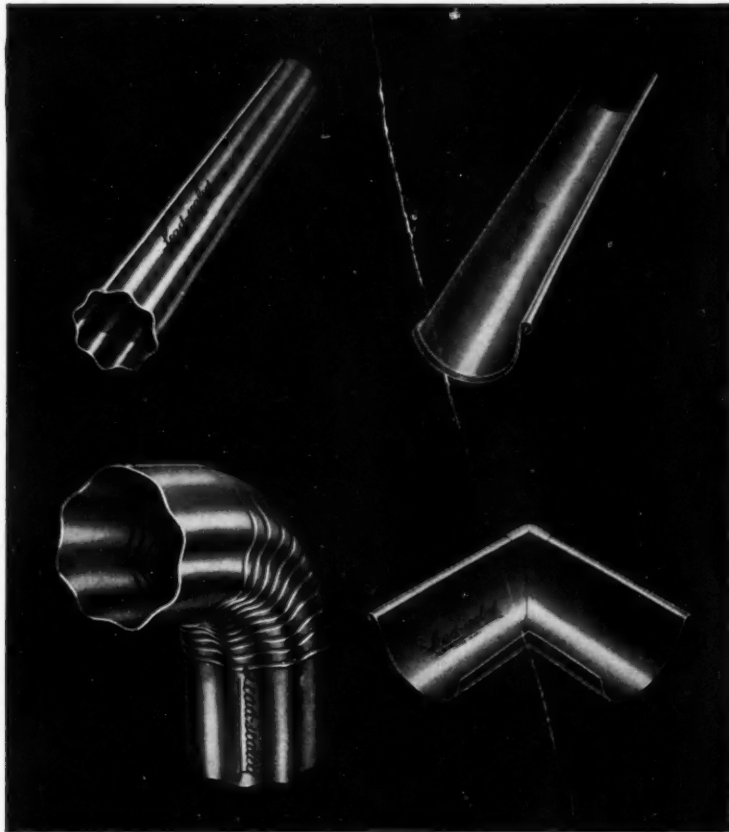
JAMES C. BARDIN, Professor Romanic Languages, University of Virginia; student of Mayan civilization; preparing dictionary of Mayan language.

PROFESSIONAL ANNOUNCEMENTS

	Page*
Architects' Announcements	69
Notes in Brief	144, 146
News of the Field	148
Construction Statistics	150
Received from the Publishers	152
Recent Trade Publications	154

Advertising Section

**By AMALGAMATING Pure Lead to Steel - -
Lead-Sealed has Solved a Problem in Metalwork**



OUT of regard for cost and practical construction every architect has at times specified some sheet metal other than the one most appropriate to his design.

Often this problem can be solved by Superior Lead-Sealed which provides the beauty as well as the enduring qualities of pure lead in a form that is both inexpensive and easily worked.

Its base is a special steel

to which heavy lead surfaces are firmly amalgamated. The coating does not break or peel in forming. It seals the steel against rust attacks.

Superior Lead-Sealed sheets are readily available almost anywhere. Write for sample and complete data.

THE SUPERIOR SHEET STEEL CO.
Canton, Ohio—Division of Continental Steel Corp.
Makers of *Supex Metal Galvannealed, Galvanized and Long Terne Sheets*



Two surfaces of Pure Lead seal a core of special analysis, copper content steel.

Superior
Lead-sealed

THE SUPERIOR SHEET STEEL COMPANY
Canton, Ohio
Division of Continental Steel Corp.
Please send sample and detailed information on Superior Lead-Sealed.

Name

Address

NEWS OF THE FIELD

THE LINOLITHIC COMPANY OF SOUTH AFRICA, Union House: 32, 34, 36 Chiappini Street, Cape Town, writes us to say that they would like to get in touch with American manufacturers of composition floors, cork floors, hardwood floors, battleship linoleum, parquet and all modern floors. They are not merchants and do not sell materials, but contract to lay floors to clients' specifications in the Union of South Africa. As all their materials have to be imported and as they are in a fairly large way of business, they state that they are in a position to place substantial orders with American manufacturers.

THE KALMAN STEEL COMPANY has opened a branch office in Houston, Texas, under the charge of Mr. H.W. Goodman. Mr. Goodman has been transferred from the Detroit office of the Kalman Steel Company—and has been identified with the building industry for some years. The office will cover the States of Texas and Louisiana with headquarters at 938 Bankers Mortgage Building in Houston.

NOT ONLY those people directly connected with industrial art but Chicago and the Central West as a whole may well take pride in the new Industrial Arts School whose establishment has recently been assured. Mr. Gustav Hottinger's contribution of \$50,000 completed the \$260,000 quota set by the Rockefeller Foundation as the condition of an additional gift of \$100,000. The gift of Mr. Hottinger, the President of The Northwestern Terra Cotta Company, is to be known as "The Hottinger Foundation of Architectural Modelling, Founded by Gustav Hottinger, 1928."

The Industrial Art School, a project of the Association of Arts and Industries, is to be housed in the Art Institute of Chicago. Money is being raised to pay the salaries of a staff of expert instructors. When the School is completed the very best instruction will be offered in a wide range of industrial arts, including Architectural Modelling, Furniture, Jewelry, Printing, Wall Paper, Textiles, Ceramics, Interior Decorating and Costume Designing.

J. I. McCANTS, for many years identified with the cement industry in the South, has recently become affiliated with the Sales Organization of the Bates Valve Bag Corporation and will represent the company in the South, as Southern Sales Manager. The Bates Valve Bag Corporation has recently established a factory at Birmingham, Alabama, to supply the needs of their Southern customers. The strategic location at Birmingham will enable the Bates Corporation to make quick deliveries and the organization is prepared to cooperate to the fullest extent with the cement manufacturers and users of cement and other commodities that are being shipped in the Bates Multi-Wall Paper Bags.

A PUBLICATION issued recently by the United States Bureau of Standards indicates that almost one-third of the home owner's heat dollar escapes through roofs and walls, and about fifteen per cent through and around doors and windows.

It is estimated that only about fifty cents of each dollar

invested in fuel for the average home ever reaches the living-rooms at all. The rest goes up through the chimney or into the ashcan in the form of unburned fuel. With a good heating plant and careful firing, this waste can be reduced to forty cents, and in exceptional instances where the chimney draft is good, to thirty cents. Chimney flues without linings or of insufficient size or height are stated by heating authorities to underlie most of the dissatisfaction with heating plants.

Fifteen to twenty per cent of the fuel otherwise burned can be saved, according to the Bureau of Standards, by weather-stripping the windows; twenty-five to thirty per cent by using double or storm windows in addition. The use of a one-half inch insulation material between the studs produces about the same effect. Much better results, according to the bureau, are secured if this insulating material is placed in the middle of the stud spaces in a frame wall than if it is used as sheathing or plaster base.

Aside from the annual fuel saving and great comfort, an insulated house requires a smaller heating plant than a non-insulated house of the same size and saves on the initial cost of furnace, radiators and piping. On the other hand, the cost of special insulation for a new house varies from three per cent upward of the total cost of the building. It is held to be very fortunate, therefore, that lumber, from which more than eighty per cent of American homes are built almost entirely, is an excellent insulating material. Wood leads all other structural materials used for dwellings, the heat loss per inch of thickness being in proportion of one to six or eight for concrete; three to six for brick; three for gypsum and two to five for plaster.

SIMPLIFIED PRACTICE RECOMMENDATION No. 49, Sidewalk, Floor and Roof Lights, has been reaffirmed without change by the industry for another year, according to the Division of Simplified Practice of the Department of Commerce. The reaffirmation is effective from March 1, 1928.

Prior to the adoption of this simplified practice recommendation on March 1, 1926, the industry was manufacturing 80 styles, 120 sizes, and 10 shapes of lights. The first conference held that 10 per cent of this variety would meet at least 90 per cent of the normal requirements. The original recommendation promulgated in 1926 provided for 5 styles, 6 sizes and 2 shapes, an average elimination of 90 per cent.

According to the report just received by the Division of Simplified Practice from the Standing Committee of the industry, a survey of accepters of this recommendation showed that the degree of adherence was 94 per cent.

AN ANNOUNCEMENT recently made by the National Electric Light Association shows the amount of electrical energy sold to various classes of consumers and the revenues derived from the sale of this power during 1926 and 1927. In all, 6,345,165,000 kilowatt hours were consumed during 1926 by all classes of consumers compared to 500,000,000 kilowatt hours consumed for equipment used for mechanically controlling air conditions. This equipment, according to the Association figures, was used by 750,000 consumers.

A Prediction of Color...

COLOR has arrived. In the last few months you have seen such commonplace articles as typewriters . . . radio sets . . . fountain pens . . . kitchen knives . . . brightened with vivid color. The same magic touch has transformed our everyday surroundings; color on walls and floors . . . color in bathroom fixtures . . . kitchen cabinets, refrigerators . . . color in sheets and window-shades.

Architecture, ever expressing the current mode, swings rapidly to the free use of exterior color. Experiments that were bold a year ago are accepted as a matter of course today. *And Fiske predicts that the vogue for color has only just started!*

To architects who wish to work out new color effects, Fiske is glad to extend the same co-operation that developed the famous Fiske Black Brick used by Raymond B. Hood in the American Radiator Building.

To those who find what they want in the Fiske Line (now comprising scores of beautiful shades which cannot be duplicated elsewhere), Fiske offers the full facilities of sales and service headquarters at New York and Boston. And Fiske dealers everywhere co-operate not only in displaying the Fiske Line, but in getting exactly what you want put on the job when you want it.

FISKE & COMPANY, Inc.

NEW YORK: 17 W. 46th Street

BOSTON: 115 Federal Street

PLANTS

MILTON, PA.

RIDGWAY, PA.

DARLINGTON, BEAVER COUNTY, PA.

BUCKEYSTOWN, MD.

The FISKE Line

TAPESTRY · TAPESTRY ANTIQUES

CALEDONIAN · MILTON REDS

DARLINGTON GRAYS · FISKLOCK

and other high-grade Face Brick



*"Back of the Brick
is the Service"*

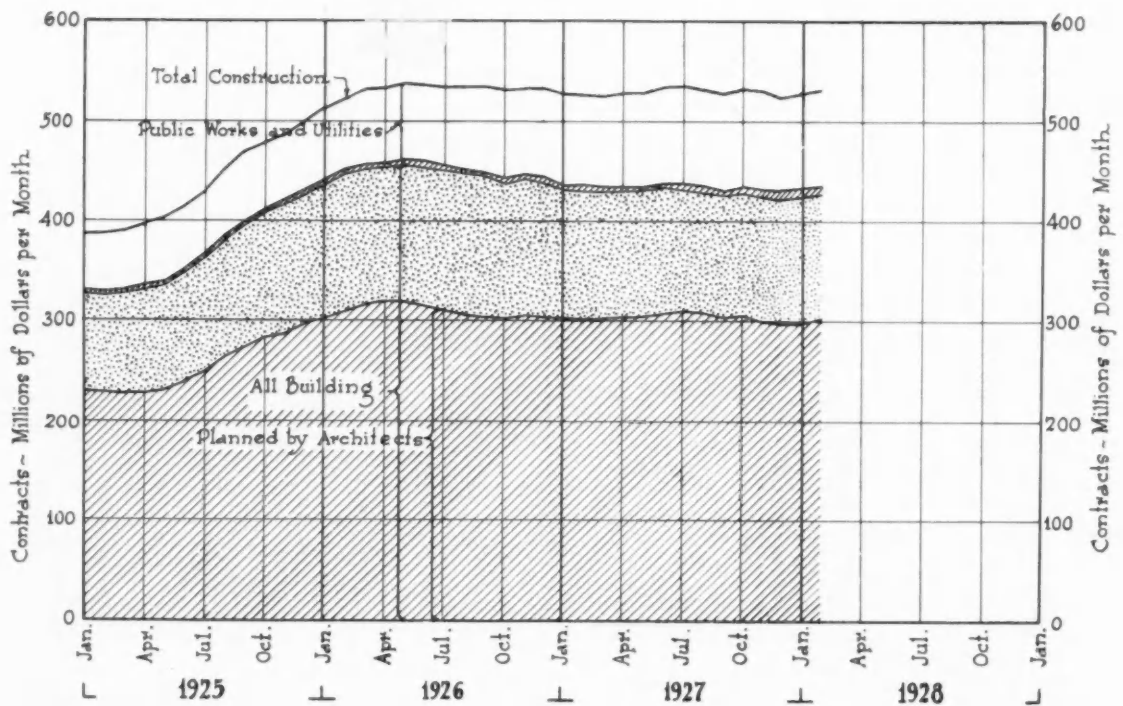
FISKE BRICK

CONSTRUCTION STATISTICS

From the records of F. W. DODGE CORPORATION, Statistical Division. The figures cover the 37 states east of the Rocky Mountains and represent about 91 per cent. of the country's construction volume.

First Two Months, 1928

Classification	TOTAL CONTRACTS		PLANNED BY ARCHITECTS		
	Number of Projects	Valuation	Number of Projects	Valuation	Per cent. of Total
Commercial Buildings	3,535	\$126,546,800	1,498	\$ 99,318,300	79%
Educational Buildings	326	42,019,900	278	40,930,600	97%
Hospitals and Institutions	115	19,493,100	80	18,639,700	96%
Industrial Buildings	924	72,851,600	319	27,185,000	37%
Military and Naval Buildings	17	723,000	5	210,000	29%
Public Buildings	144	9,186,100	89	8,347,700	91%
Religious and Memorial Buildings	269	12,882,900	188	11,498,600	89%
Residential Buildings	18,098	432,174,300	5,191	294,347,400	68%
Social and Recreational Projects	331	44,603,400	210	42,298,200	95%
Total building	23,759	\$760,481,100	7,858	\$542,775,500	71%
Public Works and Utilities	1,408	132,018,900	39	3,094,400	2%
Total construction	25,167	\$892,500,000	7,897	\$545,869,900	61%
Total construction, first two months, 1927	20,321	778,037,900	6,722	498,985,600	64%



General Trend of Building and Engineering Construction