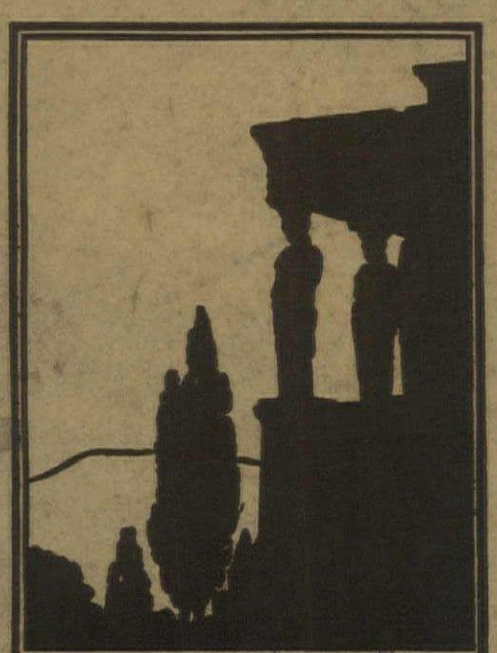
ARCHITECTURE

November 1927



New York vs. Chicago in Architecture

BY LEWIS MUMFORD

Light for Ornament

BY A. L. POWELL

Temple Emanu-El, San Francisco

BAKEWELL & BROWN, SYLVAIN SCHNAITTACHER, ARCHITECTS

The Lure of Provins

BY GERALD K. GEERLINGS

The Installation of a Carillon

BY CHARLES L. HILLMAN

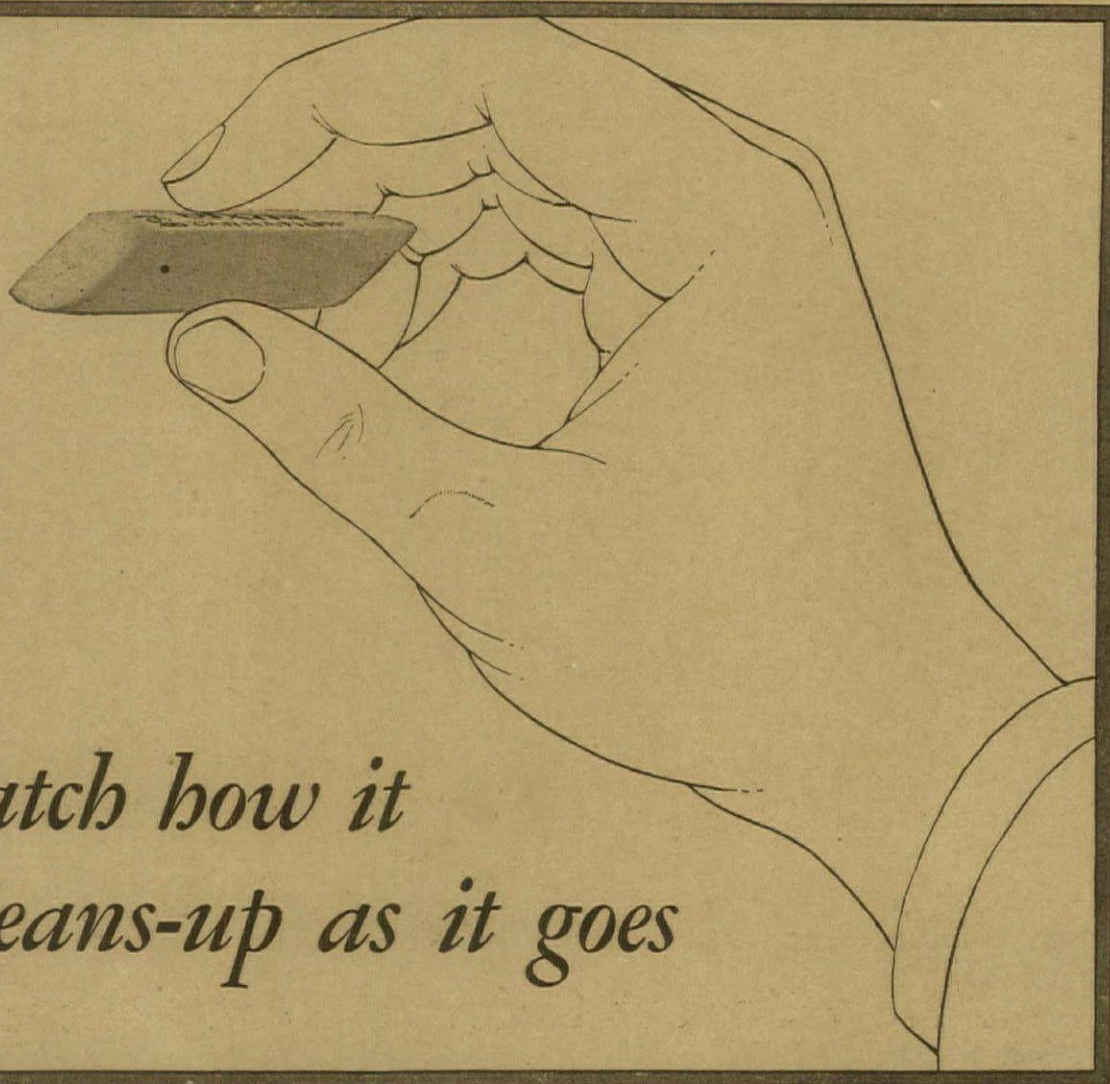
Colonial Top-Railings of Wood

A PORTFOLIO OF FORTY-TWO PHOTOGRAPHS

ONE DOLLAR PER COPY

CHARLES SCRIBNER'S SONS, *PUBLISHERS*

FIFTH AVENUE AT 48TH STREET, NEW YORK 7 BEAK STREET, LONDON



Watch how it cleans-up as it goes

DIXON
CARNATION ERASER

We know you're going to like the Dixon Carnation Eraser. Just give it a tryout and watch the way it *knuckles down* to its job and *cleans-up* as it goes along. Our special process is responsible for its constant pliable efficiency. The more you use a Dixon Carnation Eraser, the more you'll realize it's the eraser you should keep within easy reach always.

Sample Offer—*To give you the opportunity to see how the Dixon Carnation Eraser knuckles down and cleans-up, we will send you one free upon receipt of your name and address.*

JOSEPH DIXON CRUCIBLE CO., PENCIL DEPT. 1-J JERSEY CITY, N. J.

1827 THE HUNDREDTH YEAR OF DIXON SERVICE 1927

1—Cornelia Apts., 2—1450 Lake Shore Drive Bldg., 3—Lake Shore Athletic Club, 4—Swayne Apt. Hotel, 5—Cromwell Apts., 6—Lake View Apts., 7—Bismarck Hotel,

8—McCormick Hotel, 9—Shoreland Hotel, 10—5200 Sheridan Road Apts., 11—Eitel Hotel, 12—DeWitt Hotel. Approximately two and one half million square feet Pyrobar used.

PARTITIONS of Pyrobar Gypsum Tile, favored the country over, are "standard practice" in Chicago—particularly in hotel, apartment and club-building construction. For, in addition to *very greatly reducing* the fire hazard, these smooth, light-weight tile absorb sound to a marked degree. Thus *privacy*, and *safety*—the most essential qualities such buildings can offer—are admirably served.

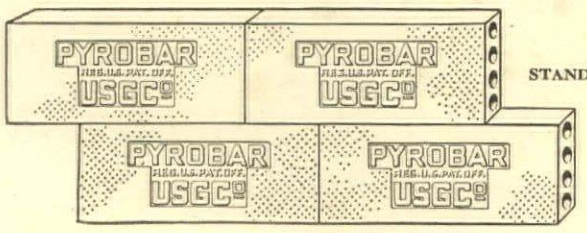
The twelve splendid structures grouped above are only a few of the many recent Chicago buildings partitioned with Pyrobar. With fireproof floor slabs, Pyrobar partitions confine fire to its original source.

A really *fireproof* partition must not only bar flame by its resistance to buckling and spalling under fire and hose streams, but must also bar igniting heat* from adjoining rooms. Underwriters' and U. S. Bureau of Standard tests prove Pyrobar cast gypsum tile effect *fire protection by insulation* to a far greater degree than any other partition material. And with all these outstanding superiorities, Pyrobar costs no more in place than other masonry partition materials. Send the coupon for details.

PYROBAR
Reg. U. S. Pat. Off.
PARTITION TILE
Made by the United States Gypsum Company

**Wood ignites at approximately 300° F. Structural Steel commences to fail at 700° F.*

UNITED STATES GYPSUM COMPANY
General Offices:
Dept. O, 300 W. Adams St., Chicago, Illinois



STANDARD U S BUILDING MATERIALS

MAIL THIS COUPON NOW

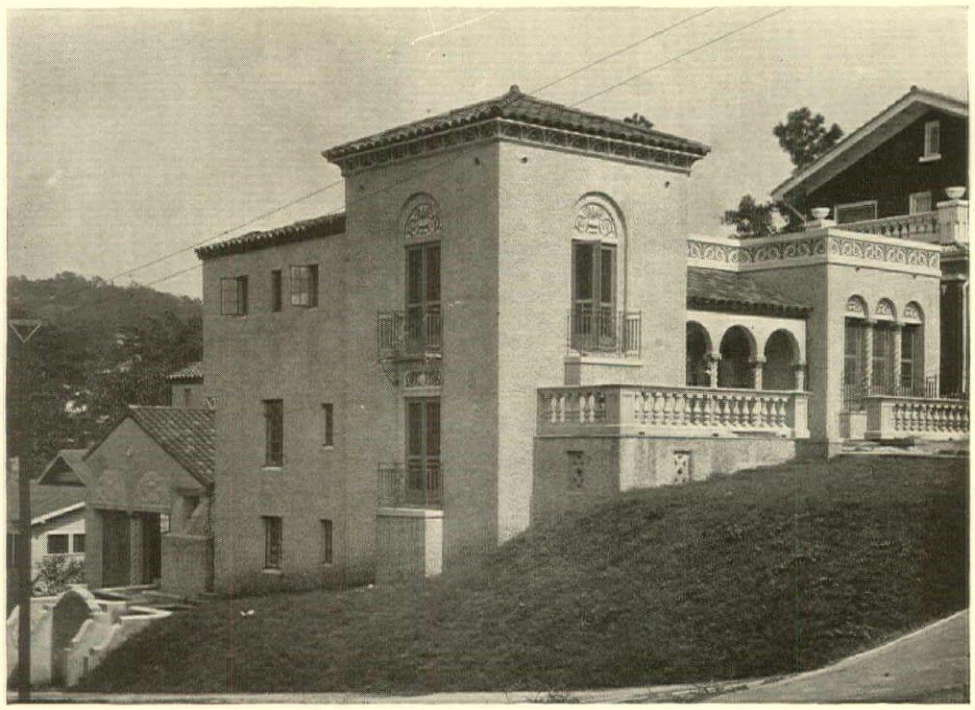
UNITED STATES GYPSUM COMPANY
Dept. O, 300 West Adams Street, Chicago, Illinois

Please forward your special pamphlet on Pyrobar Partition Tile.

Name .....

Address .....

ARCHITECTURE, published by CHARLES SCRIBNER'S SONS, 597 Fifth Avenue, New York, N. Y. November, 1927. Volume LVI, No. 5. Published monthly on the 28th of the month preceding date of issue. Entered as second-class matter, March 30, 1900, at the Post-Office at New York, N. Y., under the Act of March 2, 1879. Yearly subscription rate to members of the architectural and allied professions, $5; to all others, $10.



The Touch of Color

Polychrome Atlantic Terra Cotta is used most effectively and appropriately on the stucco residences, Spanish, Moorish and Italian, that are springing up over the country.

On the house illustrated four-color polychrome Atlantic Terra Cotta is used for balusters, parapet, cornice, twisted columns, capitals and lunette panels.

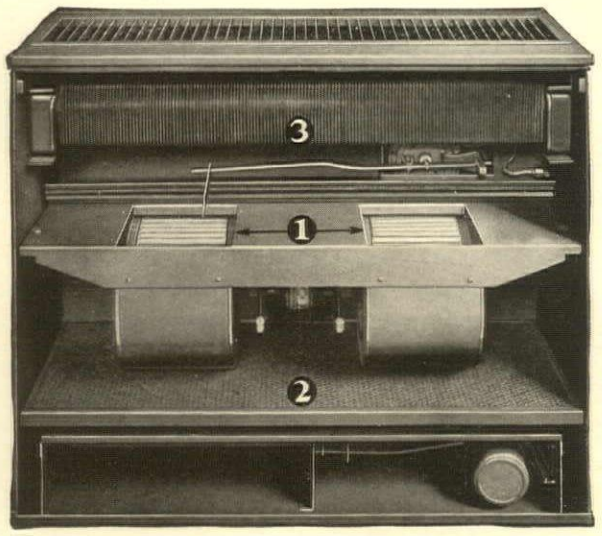
RESIDENCE, BIRMINGHAM, ALA.
THOS. REED MARTIN & SONS, ARCHITECTS
IRA W. WATSON, BUILDER

Terra Cotta by the Southern Branch,
Atlanta Terra Cotta Company

Atlantic Terra Cotta Company

19 West 44th Street New York

Atlanta Terra Cotta Company
Atlanta, Georgia



New PeerVent Unit with front plate removed, showing improved fan housings (1), new position of air filter (2) under the fans, and the highly efficient new radiator (3).

The New PeerVent Heating and Ventilating Unit

SOME time ago an Architect wrote in reply to an inquiry: "I consider that PeerVent Units are at all times a little in advance with improvements."

That comment was especially gratifying because it recognized what has been this Company's policy since the first Peerless Units were developed nearly fifteen years ago. The latest result of this policy is shown above—a radically improved PeerVent Unit.

Features. The air filter, which is specified separately and can be of any make preferred, is placed beneath the fans, thus protecting the motor and fans, and all other parts of the mechanism, from dust, smoke particles, and other suspended matter. The fan housings have been improved, resulting in larger discharge capacity at considerably lower fan speed, which makes the unit even quieter than before. A single damper now controls fresh air intake and recirculation, eliminating the inter-connected dampers formerly used and greatly simplifying this mechanism. Automatic control of the mixing damper also has been simplified. Alternating current motors can now be furnished for either single- or poly-phase current, eliminating motor-generator equipment and placing the PeerVent Unit System on a strictly unit basis. The radiator is entirely new, and even more efficient than the old one, without a single soldered, welded, or brazed joint. A new fresh-air damper control can be provided, to shut off the fresh air intake and start recirculation, automatically, whenever the room temperature falls below a predetermined point.

The new PeerVent Unit retains the earlier features of compactness and accessibility. All parts can be removed and replaced within a few moments, without tools. The unit is 36 inches high and 14 inches deep, the width varying with the capacity.

Send for the new PeerVent Catalogue and any special engineering data that you may require. If you are planning a building which requires mechanical ventilation, send blue-prints for a proposal and estimate. Or, on request, we will gladly send our local representative.

PEERLESS UNIT VENTILATION CO.
INCORPORATED
Skillman Avenue and Hulst Street — Long Island City, N. Y.

PEERVENT

Philadelphia, Jefferson Bldg. · Pittsburgh, 301 House Bldg. · Detroit, 1214 Lafayette Bldg
Boston, 100 Boylston St. · Harrisburg, 705 Telegraph Bldg. · Minneapolis, 240 7th Ave. South
Springfield, Mass. 196 Worthington St. · Cleveland, 1836 Euclid Ave. · Des Moines, 520 Securities Bldg.
Buffalo, 135 University Ave. · Chicago, 808 Monadnock Bldg. · Portland, Ore. 927 Board of Trade Bldg.
Toronto, Canada: Darling Bros., Ltd., 77 York St.

Heating and Ventilating Units

Durable, Economical Institutional Floors

MASONIC TEMPLE, NEW ORLEANS, LA.
Sam Stone, Jr., *Architect* 40,000 sq. ft. of T-M-B

DURABILITY is one of the outstanding qualities that make T-M-B a thoroughly satisfactory institutional floor.

There are scores of T-M-B installations in schools, clubs and hospitals showing no signs of wear after many years of service.

Comfortable and Quiet

The smooth, velvety rubber-like texture of T-M-B gives perfect walking comfort, and is remarkably quiet. The surface will never crystallize to unyielding hardness; it will never wear gritty or become slippery.

A T-M-B floor is easy to keep clean because there are no cracks or crevices to catch dirt.

The material will never rot, shrink, expand or become loose.

Cost and Maintenance Advantages

The initial cost of T-M-B is usually lower than other types of approved flooring material.

Maintenance cost is exceptionally low. If any area is ever damaged or if, as often happens, remodelling or rearrangement is necessary, new T-M-B material can be applied with perfect color matching and no evidence of a seam.

T-M-B is available in mahogany, verde green, black, olive green, tan and walnut.

Every installation is made under the supervision of our trained engineers, and carries the Moulding absolute guarantee, which sixty-two years of responsibility renders significant.

THOS. MOULDING BRICK CO.

151-169 W. Wacker Drive
Chicago, Ill.

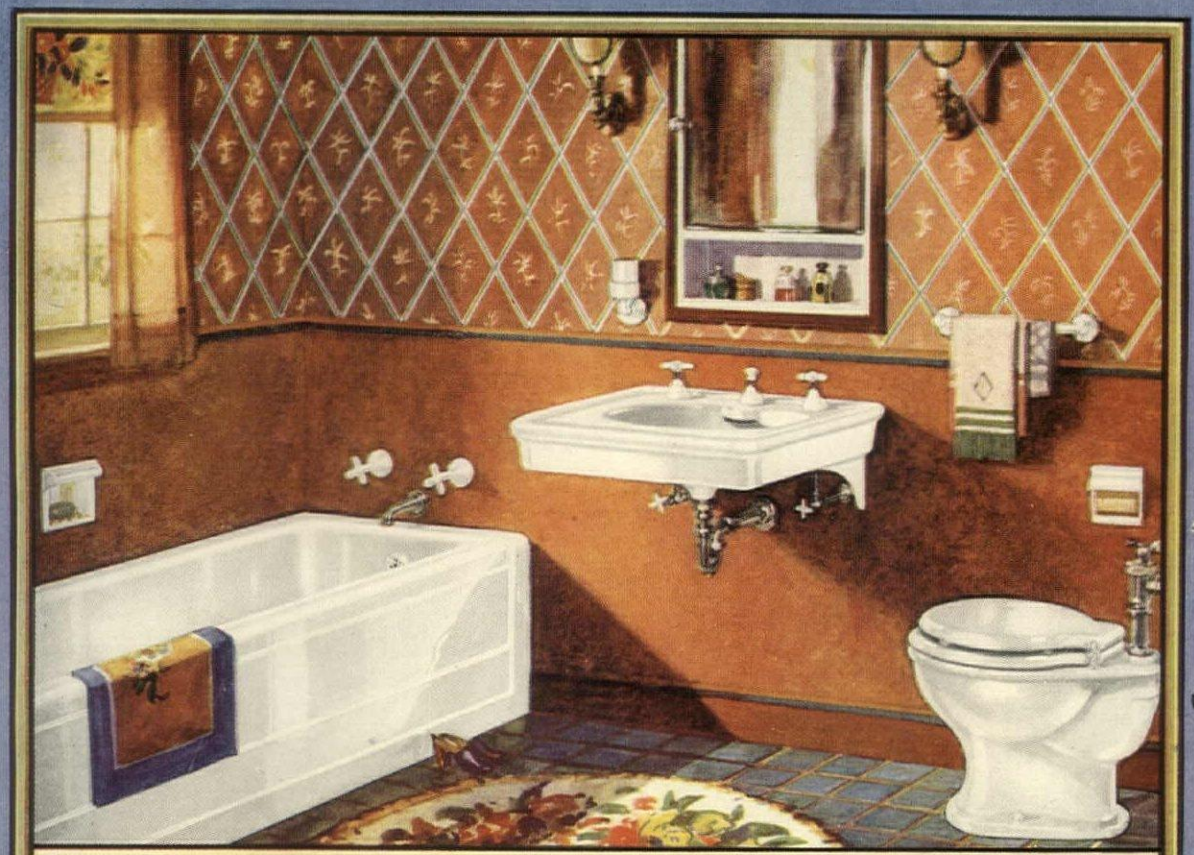
Grand Central Terminal Bldg.
New York, N. Y.

Moulding's T-M-B Flooring

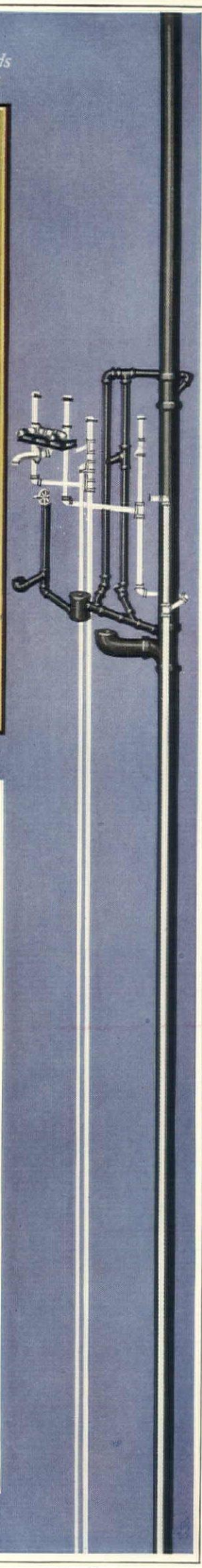
150 Pounds Pressure

CRANE VALVES

2500 Pounds Pressure



CRANE BEAUTY IN THE OPEN, CRANE QUALITY IN ALL HIDDEN FITTINGS



THE ENCHANTMENT OF COLOR

A tiny bathroom, or one as big as a double bedroom; both are given beauty by the wizardry of color. Color that makes the room bright in the morning, color that keeps it cheerful all day, color that soothes like a long remembered melody.

The crisp whiteness of the fixtures is like china, and as easy to clean. The lines are those of easy, flowing grace with a utility in every inch unknown in old designs. And every valve and fitting, improved by modern engineering, serves more dependably.

Are you planning bathrooms for small homes or large? Then you ought to have *New Ideas for Bathrooms* and *Homes of Comfort*. Two new Crane books, not booklets, that contain many new and valuable suggestions for planning and decorating. . . . Any responsible plumbing contractor will assure you that a Crane installation of fixtures, valves, and fittings, costs no more.

CRANE

Address all inquiries to Crane Co., Chicago

GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVENUE, CHICAGO

Branches and Sales Offices in One Hundred and Sixty-two Cities

National Exhibit Rooms: Chicago, New York, Atlantic City, San Francisco, and Montreal

Works: Chicago, Bridgeport, Birmingham, Chattanooga, Trenton; Montreal, and St. Johns, Quebec; Ipswich, England

CRANE EXPORT CORPORATION: NEW YORK, SAN FRANCISCO, MEXICO CITY, HAVANA

CRANE LIMITED: CRANE BUILDING, 1170 BEAVER HALL SQUARE, MONTREAL

CRANE-BENNETT, LTD., LONDON

CIE CRANE: PARIS, BRUSSELS

Louis XIV's Answer to Mme. de la Valliere

STUNG by her bantering laughter at his poor hunting lodge, the young king swore to replace it with the most beautiful palace the world had ever seen.

From far and near the world's greatest painters, architects and sculptors were summoned—men like Mansart and Le Brun. All France was organized to the task. Fabulous sums were poured in.

And the result? Versailles—the most magnificent palace of all times, that remains even to this day the inspiration of the masters of the fine arts the world over!

The famous stairway of the Petite Trianon, Versailles

Beautiful beyond compare, of finish and design to match your most costly furniture, SLYKER

RADIATOR FURNITURE

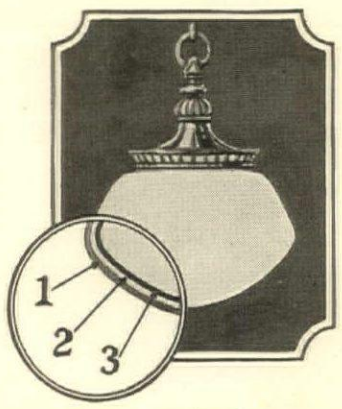
too, is a lifetime source of pride to the owners of America's finest homes and offices. Full details about their many exclusive features, cane and rod grilles or open type models, and suggestions from our Interior Decorating Department may be had by writing for Booklet "U" telling how to avoid redecorating. No obligation.

SCHLEICHER, *Inc.*, GARY, INDIANA

Slyker Show Rooms in the following cities:

BOSTON, MASS. BUFFALO, N. Y. CHICAGO, ILL. CINCINNATI, O. CLEVELAND, O. DETROIT, MICH. GREENVILLE, S. C. HARTFORD, CONN. KANSAS CITY, MO. MILWAUKEE, WIS. NEWYORK, N. Y. OAKLAND, CAL. OMAHA, NEB. PHILADELPHIA, PA. PITTSBURGH, PA. ROCKFORD, ILL. ST. LOUIS, MO. ST. PAUL, MINN. WASHINGTON, D. C. YOUNGSTOWN, O.

Help safeguard their eyesight



CELESTIALITE'S *Three Layers:*

[1] Of crystal clear transparency—for body and strength.

[2] A layer of white glass—to diffuse the rays and soften the light.

[3] A layer of blue glass—to whiten, clarify and perfect the light.

School children's eyes especially should be entrusted only to CELESTIALITE

THE eyesight of millions of students will be weakened or safeguarded in proportion to the care exercised by architects in selecting the lighting equipment for schools and universities. CELESTIALITE will conserve their eyesight. Schools and universities the land over are equipping their buildings with it.

CELESTIALITE approaches clear, natural daylight—unquestionably the best illumination. Its 3 layers of patented glass diffuse and perfect the artificial light of the Mazda lamp. It is a light you can look at without hurting your eyes. Children suffer no eye strain where it is installed. Teachers and pupils will both work better under CELESTIALITE.

Consider the plans in your office that call for school lighting. Then consider CELESTIALITE. Our engineers will gladly assist with any lighting problem you may have. Mail the coupon for free fragment showing unique 3 layer construction. Gleason-Tiebout Glass Co., Celestialite Division, 200 Fifth Ave., New York.

CELESTIALITE

(PATENTED)

MAN'S BEST SUBSTITUTE FOR DAYLIGHT

SEND THIS COUPON NOW

Gleason-Tiebout Glass Co.
200 Fifth Ave., New York City

Kindly send me free fragment of CELESTIALITE showing its three layer construction

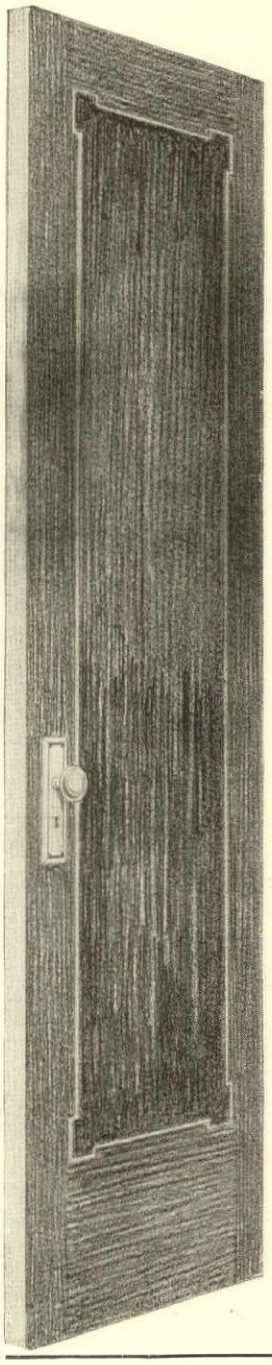
Name.....

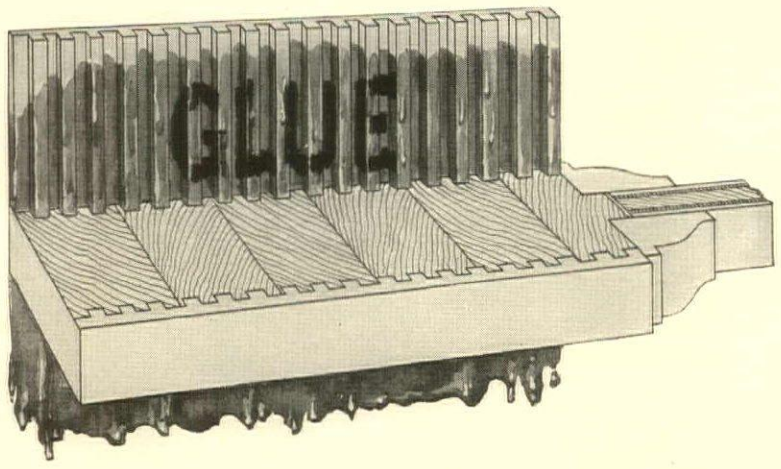
Address.....

City..... A-11

Where Veneer and There a Door's

The Door with the Exclusive Key-Veneered (Tongue-and-Groove) Construction





Below the surface of a Compound Door is construction which holds veneer to core with an iron grip. It is based on the tongue-and-groove principle, which not only doubles the gluing surface, but sets up a shearing resistance to all disintegrating forces.

This, and the handsome character of Compound Veneer work, make this door a popular choice in installations where constant strain is to be expected; in hotels, railway stations, public buildings and the like.

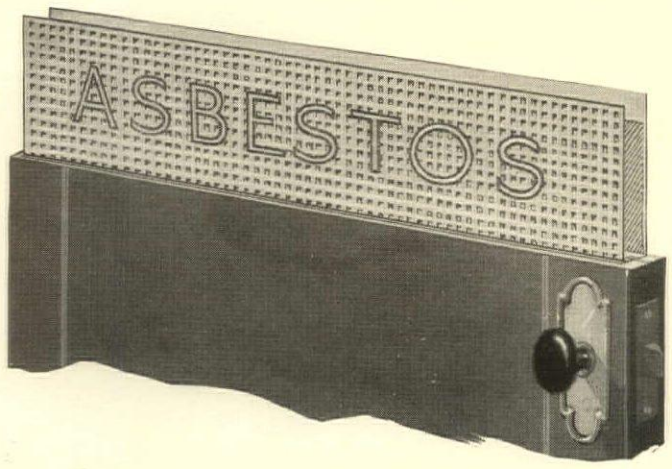
A good proportion of Compound installations during its thirty years of existence have outlived the buildings where installed.

TRADE MARK · REGISTERED
Compound
KEY - VENEERED
DOORS

THE COMPOUND &
ST. JOSEPH

AMERICA'S OLDEST VENEERED

Core Are Joined— Story Is Told



Between the veneer and core of a Pyrono Door lies the explanation of this apparent contradiction:

A wood door, beautiful in its skillful use of fine-grained veneers, and a barrier through which fire cannot pass.

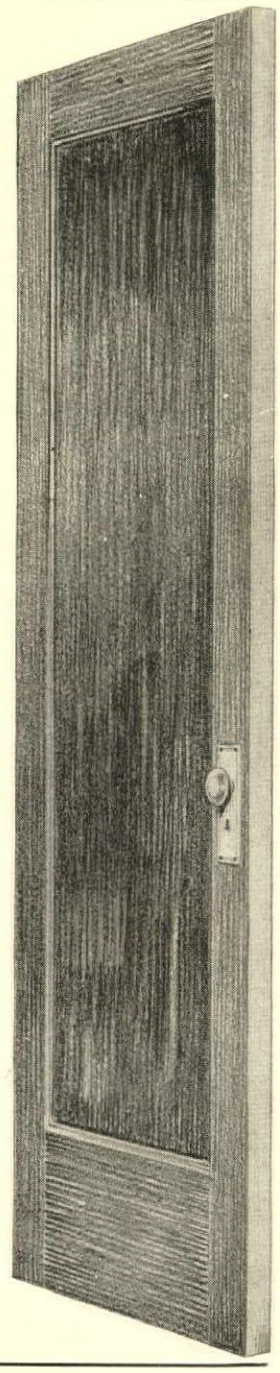
To all appearances, Pyrono is like any other door that is built by expert craftsmen who have the finest materials at their disposal. The wall of asbestos-sheathing that is inseparably bonded between Pyrono's veneer and core, however, gives it enormous added value.

Thus, in one specification, the architect can satisfactorily fulfill the opposing demands of beauty and safety.

Further information on both Compound Doors and Pyrono Doors sent on request.

Py-ro-no
TRADE MARK REGISTERED
ASBESTOS-INTERLINED DOORS

The Wood Veneered Door with the Fireproof Core



PYRONO DOOR CO.
MICHIGAN

DOOR SPECIALISTS

RUSSWIN *in* CHATTANOOGA

SOLDIERS AND SAILORS MEMORIAL AUDITORIUM, CHATTANOOGA, TENN.
Architects—R. H. Hunt Company
Contractor—John Parks
Russwin Dealers—Builders Hardware & Supply Company

Since 1839

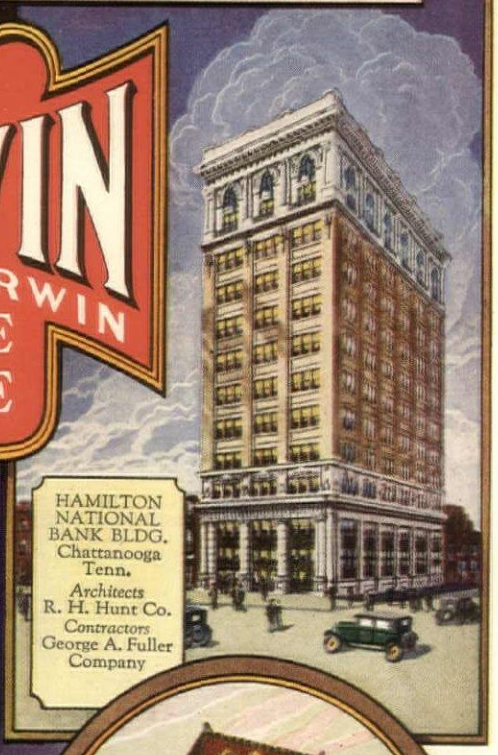
RUSSWIN

RUSSELL & ERWIN

DISTINCTIVE HARDWARE

"To Russwin-ize is to Economize the Economy of the Best"

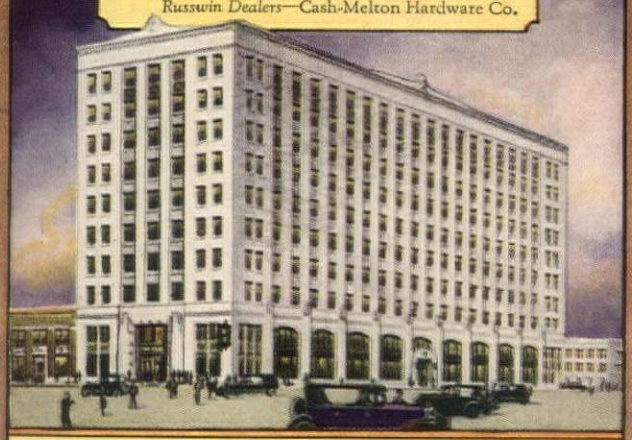
VOLUNTEER STATE LIFE BUILDING
CHATTANOOGA, TENN.
Architects—Barnwell & Barnwell
Contractors—W. D. Watts Company



HAMILTON NATIONAL BANK BLDG.
Chattanooga Tenn.
Architects
R. H. Hunt Co.
Contractors
George A. Fuller Company

JAMES BUILDING
CHATTANOOGA
TENNESSEE
Architects
R. H. Hunt Company
Contractors
Geo. A. Fuller Co.

CHATTANOOGA SAVINGS BANK & TRUST CO. BLDG.
CHATTANOOGA, TENN.
Architects—R. H. Hunt Company
Contractors—Foster-Creighton & Co.
Russwin Dealers—Cash-Melton Hardware Co.



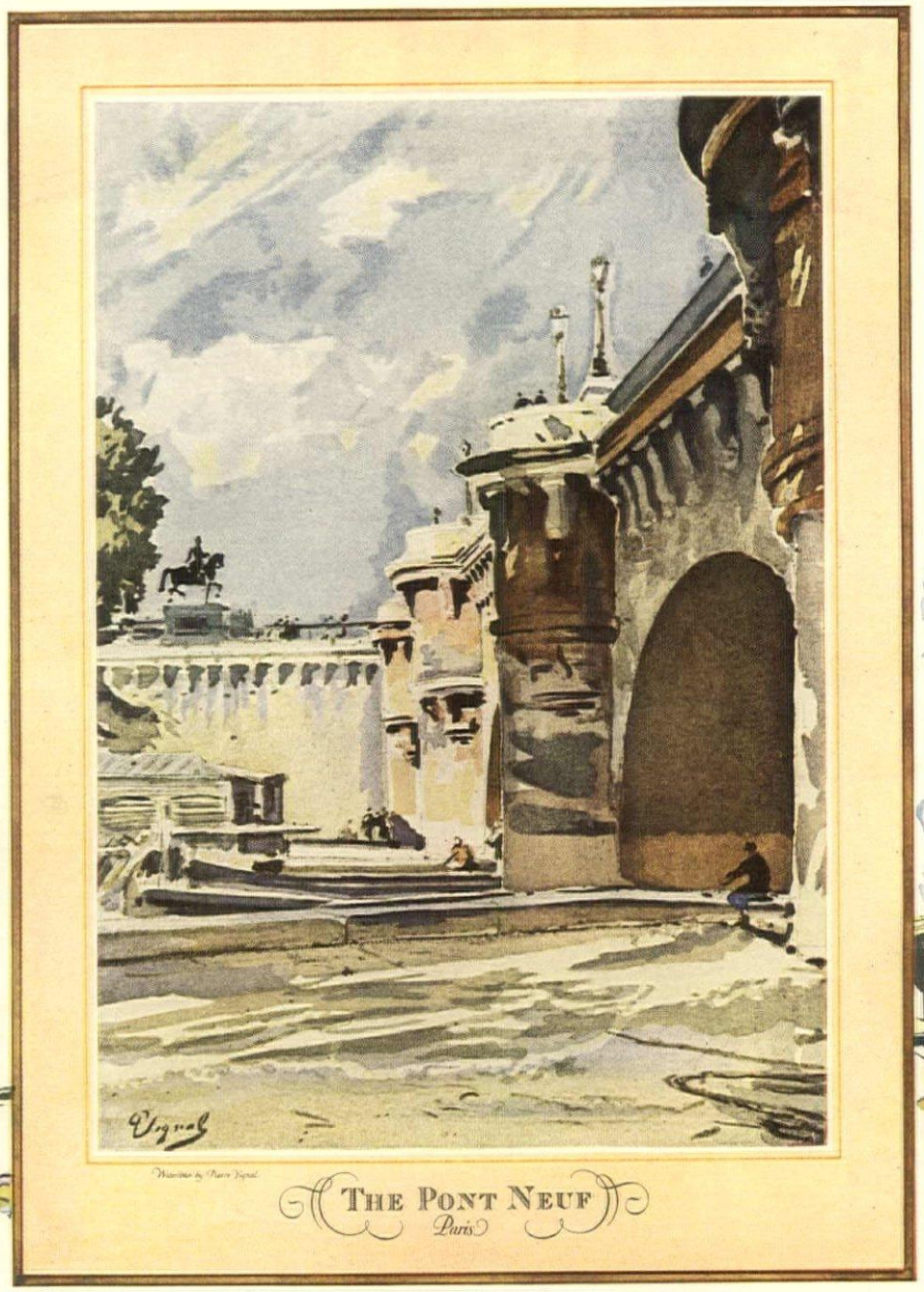
PROVIDENT BUILDING
CHATTANOOGA, TENNESSEE
Architects—R. H. Hunt Company
Contractor—John Parks
Russwin Dealers—Builders Hardware & Supply Co.

RUSSELL & ERWIN MFG. CO.

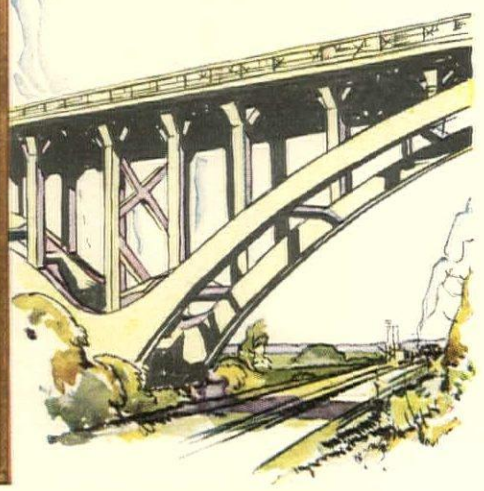
The American Hardware Corporation, Successor

NEW BRITAIN, CONNECTICUT

NEW YORK CHICAGO LONDON



The longest rib-arch bridge of concrete in America, the new Mendota highway bridge near Minneapolis (below) was built with Atlas *in one-tenth the time required for the famous old Pont Neuf in Paris. C. A. P. Turner and Walter H. Wheeler were associate engineers, the Koss Construction Co., Des Moines, were the general contractors.*



The standard by which all other makes are measured

PRESTIGE in any field is earned by accomplishment. In turn, it wins recognition and opportunity in important new projects.

In the brilliant advance of the Portland cement industry in America, *Atlas* has been an important factor. It has been used in countless everyday jobs, from sidewalks to silos. It has also been chosen for stupendous concrete projects like the Panama Canal and other pioneer structures where daring design, to be safe, required materials of dependable quality.

In the thirteen gigantic spans of the new Ft. Snelling-Mendota highway bridge, near Minneapolis, *Atlas* contributes its strength to their soaring yet rugged arches. By comparison, the famous old Pont Neuf in Paris, less than one-quarter its length, required ten times as long to build as Mendota's marvel.

Atlas reputation is rooted in manufacturing success as well as in flawless construction records. The rotary kiln, which revolutionized cement making in 1895, was developed by *Atlas*. It standardized quality, kept mill costs down and made possible the country's present huge production of 161,000,000 barrels a year.

Perfected also by The Atlas Portland Cement Company, *Atlas White* endows concrete with ageless, economical beauty in form, texture and color. Its plastic qualities allow utmost freedom in shaping complex details and decorations. Its affinity for color opens new and alluring possibilities to architects and owners.

With these two allied cements satisfying every building need, the choice of *Atlas* for the finest achievements in concrete proves its fitness for every job, from stately cathedral to lowly doorstep.

The Atlas plan of distribution is worked out to bring Atlas to consumers in the most economical manner—through the building material dealer, the sole distributor between Atlas plants and users. He adds economy in distribution, acts as purchasing agent for your community's needs in his chosen field, and deserves your recognition and support.

Write to The Atlas Portland Cement Company, 25 Broadway, New York, for information on any type of concrete work.

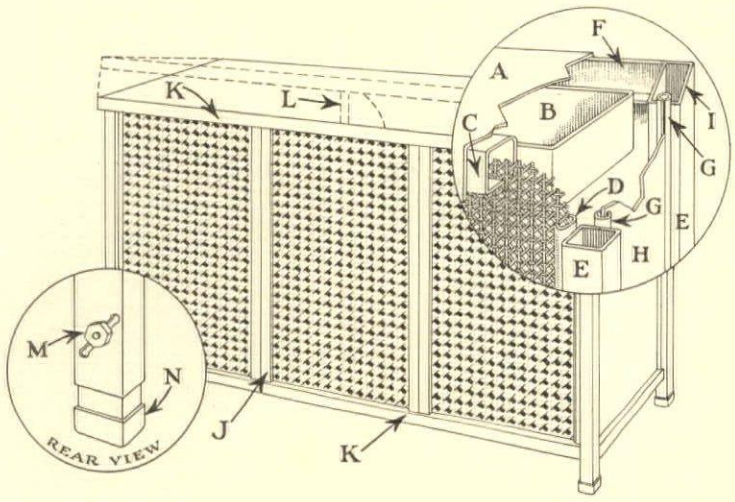
Write us for information about Lumnite, the cement which gives full *28-day strength in 24 hours*—a product of our affiliated company

ATLAS PORTLAND CEMENT GRAY & WHITE

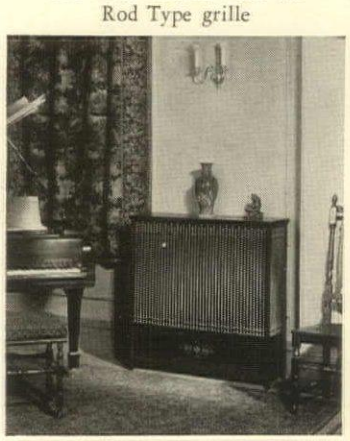
Main Offices·· New York ·· St. Louis

NEW YORK · ST. LOUIS · CHICAGO BIRMINGHAM · KANSAS CITY · PHILADELPHIA · BOSTON · DES MOINES · OMAHA · ALBANY · JACKSONVILLE, FLA.

New Artistry In Radiator Concealment

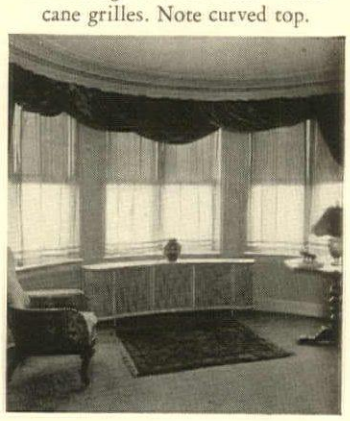


The Villa Console with our Rod Type grille



A. Hinged top of No. 14 gauge furniture metal.
B. Humidifying pan of galvanized iron.
C. Reinforced steel tubing, slotted to hold grilles securely.
D. Steel moulding, slotted to hold grilles securely.
E. Reinforced steel tubing.
F. Heavy formed iron crossbar makes back as rigid as front. Top is hinged to this crossbar.
G. Steel moulding, slotted to hold ends.
H. Ends solid (ends and back are No. 18 or No. 20 gauge, depending on size of Cabinet).
I. Corner joints mitred.
J. Mullions of steel tubing, slotted to hold grilles securely.
K. Crossbars of steel tubing, slotted to hold grilles securely.
L. Swivel "catch" to hold top open for increased circulation.
M. Slot and nut on *back of legs* for adjusting height.
N. Adjustable leg.

The Raleigh Window Seat—Steel-cane grilles. Note curved top.



Architects may now specify Tuttle & Bailey Radiator Cabinets with the same assurance that accompanies their recommendation of Ferrocraft cast grilles. For, unlike many others, this House has proceeded carefully into the new market, preferring to perfect its product rather than rush headlong into volume sales and mediocrity. Results have been very gratifying, indeed.

The construction, as well as material, of Tuttle & Bailey Cabinets is sturdy and of the highest quality. The steel frame-work, similar to that of modern sky-scrapers, is independent of other parts, such as, sides, back, grille and top. Fine furniture steel of heavy gauge is used throughout. When finished, these Cabinets are hardly distinguishable from the most expensive furniture.

Attractive models in keeping with good taste are offered in an adequate variety. They are made for all sizes of radiators and in 12 standard finishes, or to match your sample.

Mail Coupon for Illustrated Booklet

The Villa Window Seat with Steelcane grille.

TUTTLE & BAILEY MFG. CO.

Makers of REGISTERS and GRILLES for Eighty-one years.

441 LEXINGTON AVENUE · NEW YORK CITY

TUTTLE & BAILEY MFG. CO. A 11-27
441 Lexington Ave., N. Y. City

Please send booklet and details concerning your *All-Metal* Radiator Cabinets.

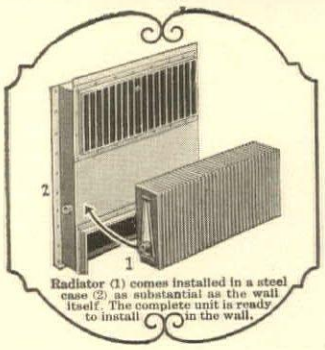
NAME .....

ADDRESS .....

The Villa Window Seat with Rod Type grille.

Saved—every inch of radiator space!

A modern home—equipped with Herman Nelson Invisible Radiators



Radiator (1) comes installed in a steel case (2) as substantial as the wall itself. The complete unit is ready to install in the wall.

HERMAN NELSON *Invisible* RADIATOR

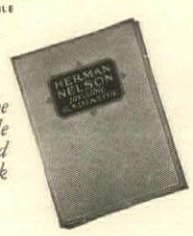
With

The Wedge Core RADIATOR

INDESTRUCTIBLE

TRADE MARK

All the facts about the Herman Nelson Invisible Radiator are contained in this interesting book



ENTIRELY new standards of interior beauty, sanitation and heating comfort unfold with the application of a finer method that eliminates radiators from every room.

Unique in design, the Herman Nelson Invisible Radiator may be installed in any standard wall or partition—invisible, silent, leak-proof, rust-proof, indestructible! Once installed, it never again requires attention.

Thus, in the Herman Nelson Invisible Radiator, with the exclusive wedge core, are found all the benefits of radiator heat with total freedom from its disadvantages. Color schemes and furniture arrangement are no longer hampered, as where exposed radiators are in use.

Architects and heating experts are invited to investigate the facts concerning this advanced heating unit. Complete information—in convenient form for filing—will be mailed upon receipt of the coupon below.

THE HERMAN NELSON CORPORATION, MOLINE, ILLINOIS

Builders of Successful Heating and Ventilating Equipment for 20 Years

Sales and Service

BELFAST, ME.	PHILADELPHIA	SAGINAW	CHICAGO	ATLANTA	SPOKANE
BOSTON	SCRANTON	DETROIT	DES MOINES	MEMPHIS	PORTLAND
NEW HAVEN	PITTSBURGH	CLEVELAND	MILWAUKEE	SAN FRANCISCO	SEATTLE
NEW YORK CITY	WASHINGTON, D. C.	COLUMBUS	GREEN BAY	EMPORIA	VANCOUVER
UTICA	ERIE	CINCINNATI	MINNEAPOLIS	KANSAS CITY	TORONTO
SYRACUSE	CHARLOTTE, N. C.	TOLEDO	ST. LOUIS	DENVER	WINNIPEG, MAN.
BUFFALO	GRAND RAPIDS	INDIANAPOLIS	BIRMINGHAM	SALT LAKE CITY	

THE HERMAN NELSON CORPORATION, *Moline, Illinois*

Please send me the illustrated book Number 37. I am planning to build a.....containing approximately.....rooms.

Name.....*Address*.....

The NATION'S BUILDING STONE

Architects Swing to "Gray" *and* "Variegated"

By A. E. DICKINSON, *President*
Indiana Limestone Company

Indiana Limestone Company is a consolidation of 24 of the oldest and largest companies in the Indiana Limestone district. With assets of over $46,000,000.00, this company has facilities for handling any number of large contract operations.

MOST of the really outstanding Indiana Limestone jobs of the country are now being built of Gray or Variegated stone. This style trend or preference is one which every alert architect will watch with interest.

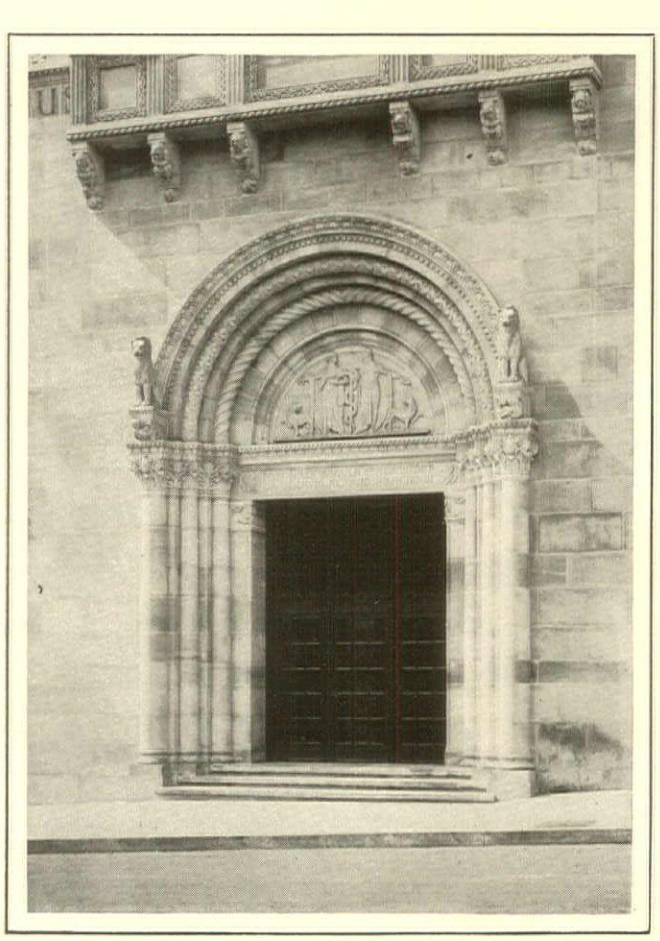
To mention a few examples: In New York, the New York Life Insurance Company building is Variegated. In Chicago, the Cook County Criminal Court House is to be Variegated. In St. Louis, likewise, the $4,000,000 Court House will require 232,000 cubic feet, of which 129,000 will be Gray and 103,000 Variegated.

And so we might continue across and up and down the country to point out job after job of prominence in which these grades of Indiana Limestone are being used.

How pronounced this swing toward Gray and Variegated is on the part of our leading architects may be noted from the fact that for the nine months ending August 31st, 22.5% of our total sales were in Gray and 25.4% in Variegated.

Now what are the reasons? We believe there are now many fine Indiana Limestone buildings in America for which a European architect, his imagination influenced by daily contact with buildings of venerable age, would have chosen the Gray or Variegated stone. It is a growing appreciation of the artistic possibilities of these grades of Indiana Limestone, we think, together with a better understanding of their structural merit and fine weathering properties, which is leading our most prominent architects to specify these varieties increasingly in preference to all other more costly building stones.

Please write us when information on any question pertaining to the use of Indiana Limestone is desired. Address Box 771, Service Bureau, Indiana Limestone Company, Bedford, Indiana.



Detail, New York Academy of Medicine
New York City

Masonic Temple, New Orleans, La. Sam Stone, Jr., Architect. Built of Variegated Indiana Limestone.

New York Academy of Medicine, New York City. York & Sawyer, Architects. Built of Rustic Buff and Variegated Indiana Limestone with small amount of sandstone.

THE EDITOR PRESENTS:

A word or two as to editorial plans completed and in the making, with a bit of news here and there

SCULPTURE IN THE OCTOBER ISSUE

IN the October issue, among the notable examples of collaboration between architect and sculptor as selected by a national questionnaire, was shown the Boston Public Library. It may not be generally recalled at this time just what was the work of the various sculptors contributing to McKim, Mead & White's design.

To Augustus Saint-Gaudens are due the three carved panels over the main entrances. The central panel, however, is an adaptation of one designed by Kenyon Cox. Augustus Saint-Gaudens also was commissioned to design, for each of the two pedestals in front of the library, three seated figures. These figures, however, never got beyond the initial stage, but these preliminary models were photographed and enlarged to the proposed full size, and set up upon the stone pedestals in Boston. They were very remarkable and were regarded by Saint-Gaudens as his most important and successful work, as far as they had gone. The head of Minerva on the keystone of the central arch is also by him.

Louis Saint-Gaudens, his brother, is responsible for the two lions on the main staircase.

Daniel C. French was the designer of the bronze entrance doors.

Domingo Mora was the sculptor of the book-marks carved in the discs between the arches and immediately below the cornice of the building. They were in their design exact copies of the original printed ones.

Frederick MacMonnies was the sculptor of the Bacchante which was placed in the centre of the courtyard pool. This statue, which was presented to the library by Charles F. McKim, was admirably suited for its location, but was criticised for its alleged immodesty, and it was finally withdrawn by McKim and is now in the Metropolitan Museum of New York. Mr. MacMonnies is also the sculptor of the bronze statue of Sir Harry Vane, former governor of Massachusetts.

On the New York Custom House, of which Cass Gilbert was the architect, the twelve standing figures near the top of the building represent the nations of ancient and modern times which have been great in sea commerce or sea power. From East to West they are as follows: Greece, by F. E. Elwell; Rome, by F. E. Elwell; Phœnicia, by F. W. Ruckstuhl; Genoa, by Augustus Lukeman; Venice, by F. M. L. Tonetti; Spain, by F. M. L. Tonetti; Holland, by Louis Saint-Gaudens; Portugal, by Louis Saint-Gaudens; Scandinavia, by Joannes Gelert; Germany, by Albert Jaegers; France, by Charles Grafly; England, by Charles Grafly.

During the World War the figure of Germany was changed into Belgium by Attillio Piccirilli.

Crowning the building in the centre are the arms of America, by Carl Bitter. The head in the key-block, over the central arch, is adorned with the wings of Mercury, god of commerce. Over the door in the vestibule are the arms of the City of New York, with windmills and beavers, by Andrew O'Connor.

The large groups at the level of the first story represent the four great continents: Asia, Europe, America, and Africa. These four groups are the work of Daniel Chester French.

ARCHITECTS HONORED AT THE PAN-AMERICAN CONGRESS OF ARCHITECTS IN BUENOS AIRES

INFORMATION is somewhat meagre as to the success of American architects who exhibited at Buenos Aires, and what has come to us is badly garbled as to Spanish interpretations of American names. We apologize in advance therefore for possible mistakes and omissions in the following list:

A. Premio de Honor and Diploma—

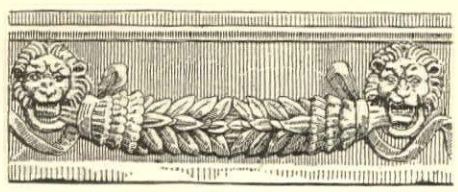
Charles Z. Klauder, Philadelphia, for his Tower of Learning, at Pittsburgh.

B. Gold Medal and Diploma—

Frank R. Watson, Philadelphia.
Olmsted Brothers, Boston.
Trumbauer, Zantzinger & Borie, Philadelphia.
Paul P. Cret & Albert Kelsey, Philadelphia.
Louis Duhring, Philadelphia.
Kenneth H. Murchison, New York.

C. Silver Medal and Diploma—

Robert McGoodwin, Philadelphia.
Carl A. Ziegler, Philadelphia.
Morgan Walls & Clements, Los Angeles.



Pierpont & Walter S. Davis, Los Angeles.
Roland E. Coates, Pasadena.
D. E. Waid, New York.
Thomas, Martin & Kirkpatrick, Philadelphia.
Carrère & Hastings, New York.
Paul P. Cret, Philadelphia.
Ritter & Shay, Philadelphia.
Day & Klauder, Philadelphia.

D. Honorable Mention—

Witmer & Watson, Los Angeles.
Gordon B. Kaufmann, Los Angeles.
G. Edwin Brumbaugh, Philadelphia.
William Lee Woollett, Los Angeles.
Bennett & Haskell, Pasadena.
W. L. Risley, Los Angeles.
Reginald D. Johnson, Los Angeles.
David A. Ogilvie,
Delano & Aldrich, New York.
Richard H. Dana, New York.
William B. Ittner, St. Louis.
Walter T. Karcher, Philadelphia.

STUDENT AWARDS AT THE PAN-AMERICAN CONGRESS

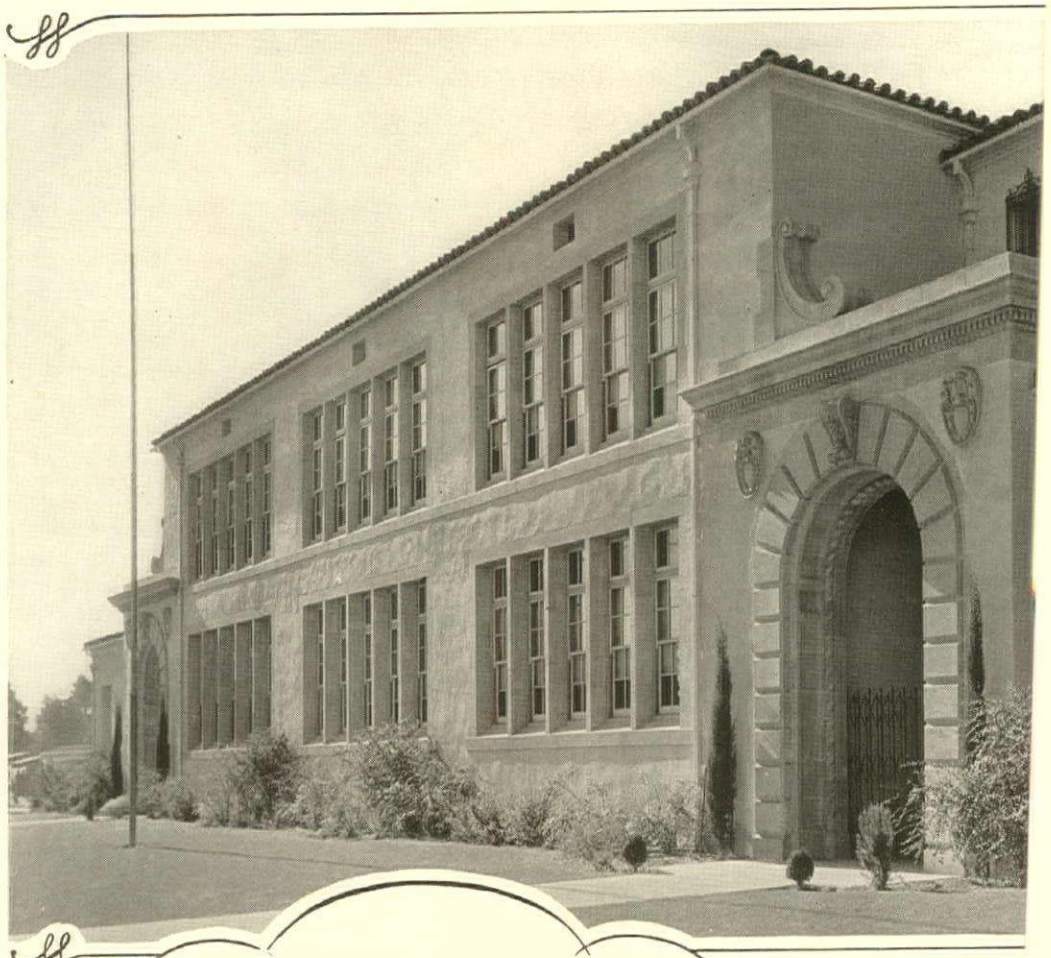
A TOTAL of thirty-one designs was submitted by the various American universities represented in the competition in Buenos Aires. Seven gold medals, three silver medals, and seven honorary mentions were awarded the American students by the jury.

In addition to taking first honors at the exhibition by virtue of the high awards made to all its exhibits of student work, the University of Pennsylvania's Department of Architecture was further honored by the selection of one of its designs to represent the work of American schools in competition with that of schools of all other countries. This was a design for "A Centre for the Exhibition of Building Materials," by John Lane Evans, Philadelphia. Evans won the John Stewardson foreign travelling scholarship, took sophomore honors while a student at the University, and also was awarded the Brooke Gold Medal, the American Institute of Architects Medal, and the Historic Ornament Medal.

INTERNATIONAL CONGRESS OF ARCHITECTS

THE United States participated in the eleventh International Congress of Architects, which met at The Hague and at Amsterdam, August 29 to September 4, with the aim to restore the world alignment in architecture disrupted by the World War, it is an-

(*Continued on page 33*)



FIFTY-SECOND STREET SCHOOL
LOS ANGELES, CALIFORNIA
Messrs. A. M. Edelman and A. C. Zimmerman, Architects
Los Angeles

Buildin
Into School Co

SCHOOL building today is a matter of design and beauty. There's a wide gulf separating the little red schoolhouse from the above imposing structure.

However, it is still just as important to build sturdy, permanent schools, as it was years ago when utility was the prime prerequisite.

Medusa Integral Waterproofing, used in the foundations and walls of the Fifty-second Street School pi possible a permanentl also prevents discolorat by dirt which would into the pores of ordi

You will find our "Sweet's," pages A2(A199; and B1545.

Your inquiries are answered by our Te

The **SANDUSKY CEMENT** *Co.*, **The Engineers' Bldg., Cleveland, (**
Manufacturers of Medusa White Portland Cement (Plain and Waterproofed); Medusa Waterproofing (Powder or Paste); Medusa Gray Portland Cement (Plain and Waterproofed); and Medusa Cement Paint.

MEDUSA

Please mention ARCHITECTURE in writing to manufact

THE EDITOR PRESENTS:

(Continued from page 31)

nounced by William Harmon Beers, of 333 Fourth Avenue, chairman of the Committee on Public Information of the American Institute of Architects.

Six delegates to the Congress had been appointed by the president of the Institute, Milton B. Medary, Jr., of Philadelphia. They were:

William Emerson, Boston, head of the Department of Architecture in Massachusetts Institute of Technology; Frank E. Wallis, National City Bank, Paris; Charles Butler, 56 West 45th Street, New York; Major George Oakley Totten, Jr., Washington, D. C.; Clement W. Fairweather, Metuchen, N. J.; Egerton Swartwout, 18 West 34th Street, New York. Professor Emerson is first vice-president of the Institute.

An American Section of the Permanent Committee of the Congress to be held under the auspices of the Government of Holland, has been organized with Cass Gilbert, of New York, as chairman. Other members of the Section are:

Professor William A. Boring, director of the School of Architecture at Columbia University; Glenn Brown, Washington; J. Monroe Hewlett, Brooklyn; William Rutherford Mead, New York; C. Howard Walker, Boston; C. C. Zantzinger, Philadelphia; George Oakley Totten, Jr., Washington; John Russell Pope, New York.

A CORRECTION

IN the October issue, in which Mr. Cortissoz's article on "The

January 23–27 in the West Baden Springs Hotel, West Baden, Ind. The show coincides with the ninth annual meeting of the Associated General Contractors.

Additional attendance will be composed of non-member builders and contractors, architects and members of highway and public improvement bodies. These will come from all parts of the country also, with a particularly strong contingent expected from the Indiana-Kentucky-Ohio area.

AMERICAN CONSTRUCTION COUNCIL

THE Sixth Annual Convention of the American Construction Council will be held in St. Louis, Mo., at the Hotel Statler, December 1 to 3, inclusive.

The plans under way for this convention promise the greatest meeting the Council has yet held.

WEST COAST WOODS COMPETITION

SOMETHING of the extent to which woodwork may be toyed with for architectural effect is revealed in the winning design of the recent competition for a house design featuring West Coast woods. The winner of the $2,000 first prize, Otho McCrackin, of Hutchinson, Kansas, gives his specifications (his design is reproduced herewith)

stencil of metal shall protect the surface exposing the design; this is to then be heavily sand-blasted, after which a blow-torch is to be applied to surface in not too even a manner. All to be stained a brownish-gray, with portions of the design brought out in rich deep color. . . ."

The competition was sponsored by the Washington State Chapter, A. I. A., with J. Lister Holmes, of Seattle, as professional adviser. The jury was made up of: Emery Stanford Hall, of Chicago; Henry C. Hahn and Louis C. Jaeger, of New York City; W. R. B. Willcox, of Eugene, Ore.; and David Myers, of Seattle. The second prize, $500, was awarded to Angus McD. McSweeney, of San Francisco.

NON-CERTIFIED ARCHITECT

UNLESS he informs his client that he is not a licensed architect at the time a contract is made, that contract is null and void for the architect who is not licensed, is the decision of the California Court of Appeals in the case of Payne vs. De Vaughn and Spaugh (No. 4140).

The plaintiff architect who loses the case called himself "Architectural Engineer," and although he had a signed contract for his work, this was declared null and void, the owner having later employed a licensed architect.

The decision concludes:

"We

A.D.T. Protection Services

THE business world has recognized the need for protection. ADT PROTECTS ADEQUATELY against Burglary, Fire, and Watchman's delinquency.

All of the above systems fill a definite need for protection—fill it effectively, and are adaptable to all types of buildings. Their effectiveness is due to CONSTANT supervision and maintenance by ADT [illegible] through ADT

to its effectiveness. Here is what ADT protection does:

1. Watches the Watchman—guards against delinquency.
2. Keeps a careful check on the automatic sprinkler system to keep it in operating condition at all times.
3. Provides fire alarm service and transmits all alarms to the fire department and insurance patrol.

Protects mercantile establishments and bank [illegible] each alarm

ARCHITECTURE

REG. U. S. PAT. OFFICE

THE PROFESSIONAL ARCHITECTURAL MONTHLY

VOLUME LVI NUMBER 5

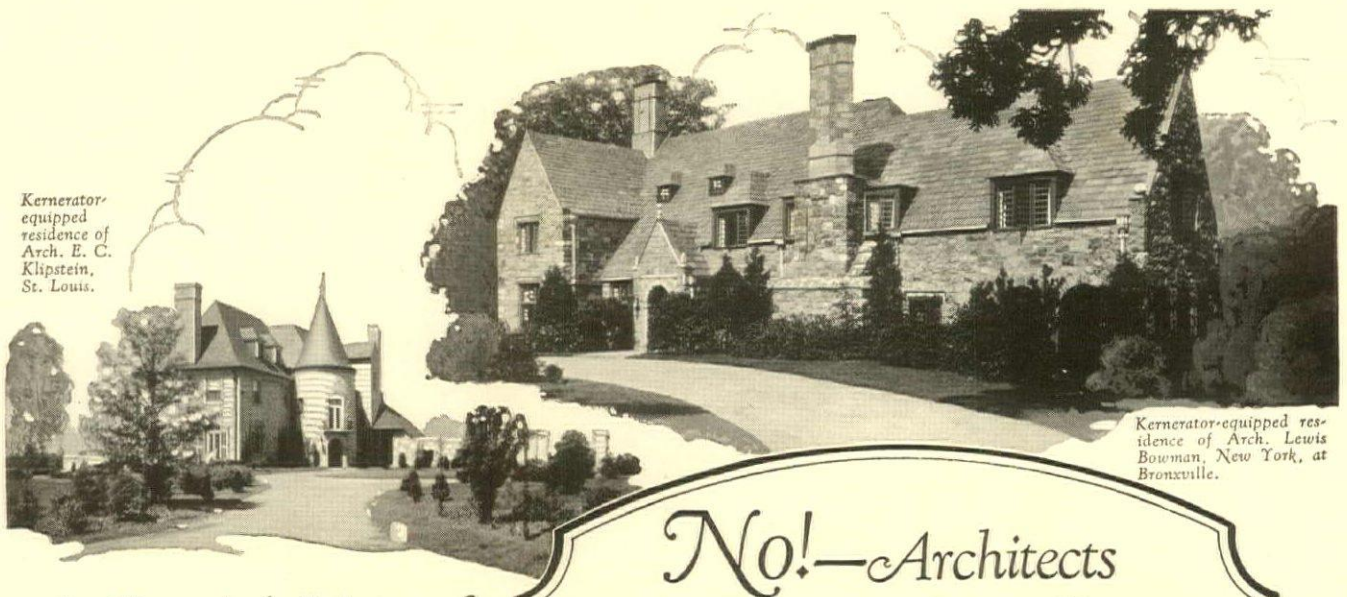
November 1927

CONTENTS

ARCHITECTURE is published monthly, appearing on the 28th of the month preceding date of issue. Price mailed flat to members of the architectural and allied professions, to any address in the United States, $5 per year in advance; to all others, $10; add $1 for Canadian postage and $2 for foreign postage. Single copies, $1. Advertising rates upon request. Entered as second-class matter, March 30, 1900, at the Post-Office at New York, N. Y., under the Act of March 2, 1879.

NEW YORK: 597 FIFTH AVENUE AT 48TH STREET

CHARLES SCRIBNER'S SONS, PUBLISHERS



Kernerator-equipped residence of Arch. E. C. Klipstein, St. Louis.

Kernerator-equipped residence of Arch. Lewis Bowman, New York, at Bronxville.

A Partial List of Other Architects Whose Homes are Kernerator-Equipped

Louis Greenstein.....Buffalo, N. Y.
Joseph H. Oberlies.....Rochester, N. Y.
C. D. Lucas.....Wilson Point, Conn.
Paul L. Cumings...Wellesley Hills, Mass.
Chas. D. Maginnis.....Brookline, Mass.
Howard T. Clinch.....Reading, Mass.
Nelson Friz.....Baltimore, Md.
Thomas Machen.....Baltimore, Md.
E. Allen Wilson.....Lansdowne, Pa.
Howell L. Shay.....Moylan, Pa.
Wm. C. Noland.....Richmond, Va.
Sidney L. Day.....Huntington, W. Va.
W. A. Meanor.....Huntington, W. Va.
Stanley Mathews.....Cincinnati, Ohio
Orville F. Ballinger.....Toledo, Ohio
Geo. W. Maher.....Chicago, Ill.
Alfred M. Saxe.....Chicago, Ill.
Robert S. DeGolyer.....Chicago, Ill.
M. B. Rissman.....Chicago, Ill.
Chas. N. Agree.....Detroit, Mich.
Albert C. McDonald.....Detroit, Mich.
Louis Kamper .....Detroit, Mich.
Ridgley Young.....St. Louis, Mo.
A. C. Bohlen.....Indianapolis, Ind.
Harry Fitton .....Indianapolis, Ind.
Wm. M. Kenyon ....Minneapolis, Minn.
Frank J. Forster.....Great Neck, L. I.
George F. Pelham.....Bronxville, N. Y.
Albert Wilson .....Mamaroneck, N. Y.

No!—Architects Don't Like Garbage Cans in their Own Homes

SINCE the introduction of successful flue-fed incineration by the Kerner Incinerator Co., fifteen years ago, more than 2,500 architects and contractors in every section of the country have recommended and used the KERNERATOR Chimney-Fed Incinerator for garbage and waste disposal in Homes, Apartments, Hospitals, Schools and other buildings.

Yet, there is nothing we prize more highly than the constantly growing vast number of KERNERATOR installations in architects' *own homes*. It is a strong endorsement of the successful incineration the KERNERATOR affords.

Successful incineration is the only kind anyone is interested in at any price. The KERNERATOR is *successful*. Its patented by-pass flue assures efficient and odorless combustion of garbage and waste, and without the use of gas or other commercial fuel. Year after year it continues to give that dependable service expected from a product always built to one standard—the best, that our long experience makes possible.

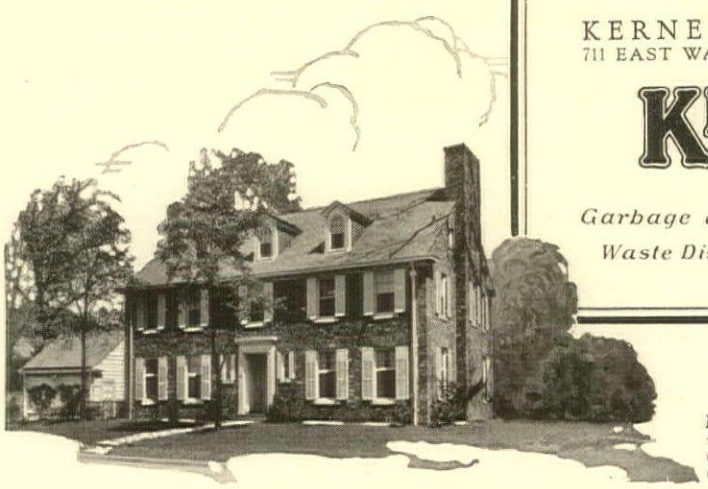
The architects whose homes are illustrated and listed here are only a few of scores who are enjoying the living comfort the KERNERATOR affords, and to whom we refer you for confirmation of our claims for the KERNERATOR.

Write for KERNERATOR catalogs in ready-to-file A. I. A. Folder 35J41. See Sweet's or phone your local KERNERATOR representative. Offices in 89 cities.

KERNER INCINERATOR COMPANY
711 EAST WATER STREET MILWAUKEE, WIS.

KERNERATOR
REG. U.S. PAT. OFF.
THE CHIMNEY-FED INCINERATOR

Garbage and Waste Disposal *without Leaving the Kitchen*



Kernerator-equipped residence of Arch. Robert O. Derrick, Detroit, at Grosse Point, Mich.

WATER-COLOR ON TINTED PAPER BY GERALD K. GEERLINGS

SCHOOL AT ASTON-SUB-EDGE, ENGLAND

ARCHITECTURE

VOLUME LVI NOVEMBER, 1927 NUMBER 5

Auditorium Building, Chicago

Adler & Sullivan, Architects

New York *vs.* Chicago in Architecture

By Lewis Mumford

THE New Yorker who prides himself on the architecture of his skyscrapers is perhaps a little surprised to know that most of the European architects who visit this country regard New York merely as a stopping-place on their pilgrimage to the Middle West. The Chicagoan, who has begun to take pride in buildings like the Chicago *Tribune* Tower, done more or less in the New York manner, will perhaps be equally surprised to find out that it is not the *Tribune* Tower nor the Jeweler's Building that attracts the pilgrim, but a number of great structures which date back to an ancient period in Chicago's history—that before the World's Fair.

The New Yorker has been told that he has created an original architecture, and the forms created by the set-back ordinance are indeed often original: the few such buildings that can actually be seen deserve a good part of the praise that is showered on them. The architecture of Chicago, however, is original in an even deeper sense: it has been one of the chief sources of the modern movement in Europe and it owes its originality not to conditions imposed by the municipal authorities in the attempt to preserve a little air and sunlight, but to the efforts of a great school of architects. The capital skyscrapers of New York, like the Barclay-Vesey Building, The Shelton, and the Radiator Building, are finer than anything that has lately been built in Chicago: the lake city, on the other hand, has the more significant historic examples. There is no Eastern architect upon whom European attention is so firmly centred as upon Mr. Frank Lloyd Wright; there is no other American architect in our history who has had such a deep influence outside his own country. The architecture of Chicago is a blasted promise; that of New York is a crippled and handicapped fulfilment. And here my parallels and antitheses must end, and I shall try to explain these singular facts.

Chicago rose in the seventies from a shantytown gutted by fire into an adolescent metropolis. The decades of the seventies and eighties were days of great dreams and remarkable fulfilments. Some one during this period—and it is curious that I have never met a Chicagoan who had the remotest idea who it was—conceived of thrusting great boulevards and parkways through the rectangular city, long before D. H. Burnham elaborated a grandiose plan for Chicago in conscious imitation of Napoleon III's Paris. The architects were equally busy; and although they found themselves sinking their foundations onto the water-table in the business district near the lake front, they began audaciously, under pressure from the business man, to send their structures higher and higher into the air. There is no actual scarcity of land in Chicago, and never has been; therefore the geographer-of-the-chair who traces the skyscraper to New York's narrow, water-hemmed sites must learn a little economics if he is to

Butler Brothers' Warehouses, Chicago. Graham, Anderson, Probst & White, Architects

discover why the skyscraper developed so lustily in Chicago.

The economics are indeed simple. The era of railway building was coming to an end in the eighties and the steel companies had to find a new outlet for their mills. They popularized, if they did not actually create, our modern method of steel-frame construction; and they so made possible higher buildings at a relatively cheaper cost. At first high land values promoted congestion; but it took only a little while for the financier to discover that the reverse was equally true; congestion promoted high land values. The skyscraper was there to turn the trick. As to who actually invented steel-frame construction, the point is of little importance; according to standard authority it was used in a factory in France at least a decade before it was applied in America; and it was adopted quickly on this side because we have in back of us a tradition of wood-frame construction: our combustible cottages were similar in principle to the fire-proof skyscraper! More than one architect must have been driven into this new method of relieving the task of the clumsy bearing wall. Given the situation, the invention itself was almost inevitable.

While a new structural form was being born, an old form, that of solid masonry, was coming to its first maturity in America. Perhaps the best examples of this architecture are in Chicago. H. H. Richardson brought this older architecture to the Middle West; his Marshall Field Warehouse is one of the finest examples of nineteenth-century industrial building that I have seen anywhere; and the residence he designed at 1801 Prairie Avenue is not merely the best specimen of his own domestic work, but one of the minor classics of modern architecture. These buildings of Richardson's are neglected by our generation; but they deserve our pious admiration far more than the corpse-like remnants of the Federal period which it is nowadays fashionable to admire; and I am happy to say that the Chicago Chapter of the American Institute of Architects lately took steps to preserve this house, which fortunately remains in a run-down neighborhood on the South Side, where land values have not yet risen so prohibitively as to make the retention and up-keep of the house an impossibility. (It is now the Architects' Club of Chicago.)

Richardson's example was not lost on the younger Chicago men. The best of them, like John Root and Louis Sullivan, adopted his point of view and method without taking over his earlier mannerisms; their work derives from the freer, later Richardson—it is our great misfortune that, like Root himself and Goodhue, Rich-

ardson died at a relatively early age, just when his work had begun to show experimental vigor—the Richardson who was working through his antiquarian preoccupations into buildings, warehouses, railroad stations, cottages, town houses, which were wholly in the manner and mood of his own time. Two of these early Chicago skyscrapers divide honors between them: Adler and Sullivan's Auditorium Building, and Root and Burnham's Monadnock Building. The Monadnock is perhaps the more remarkable. It is a masonry building, without steel supports, fifteen stories high; with walls that at their base are almost fifteen feet thick. In spite of this solidity, the walls are bayed with windows, and every possible ray of light is brought into the offices. The total effect is elephantine; massive in form, but in its gestures firm and delicate. The Monadnock Building has the grave severity of an Egyptian statue from one of the great periods; every line is essential; there is not a single spot of ornament to hide or lessen this severity; it lives by its naïve vitality and by no borrowed grace. In short, the Monadnock Building was a true primitive in skyscraper masonry; it offered a solid foundation and it left the way clear for further developments.

Have the developments taken place? Yes, but not in America. The European architects who came to Chicago during the World's Fair were not particularly captivated or overwhelmed by the great show of classical buildings that the Eastern architects had planted around the Midway. What they took to Europe was the memory of the Monadnock Building and the other structures which were done in the same ruthless, direct, and original fashion. The Americans who look to-day at the work of Gropius and Mendelssohn and Taut in Germany, of Oudt in Holland, of Garnier and Le Corbusier and Mallet-Stevens in France, do not perhaps realize that the inspiration of this work came largely from America, and in particular from Chicago. The place to study the development of American architecture from the foundation laid down in the eighties and the early nineties is—Europe. The men who continued this line of development in America, Louis Sullivan and Frank Lloyd Wright, had a hard, up-hill time of it; for architecture in America lost its native bias in the nineties, through the fashionable examples of Hunt, McKim, White, Hastings, and their followers: it gave itself over to reproduction and adaptation, and in its modern forms it continued to exist only in factories, warehouses, and finally office buildings, in matter-of-fact forms which promised, but themselves usually lacked, the living touch of great architectural design. To-day the best modern buildings in Chicago—if one excludes the

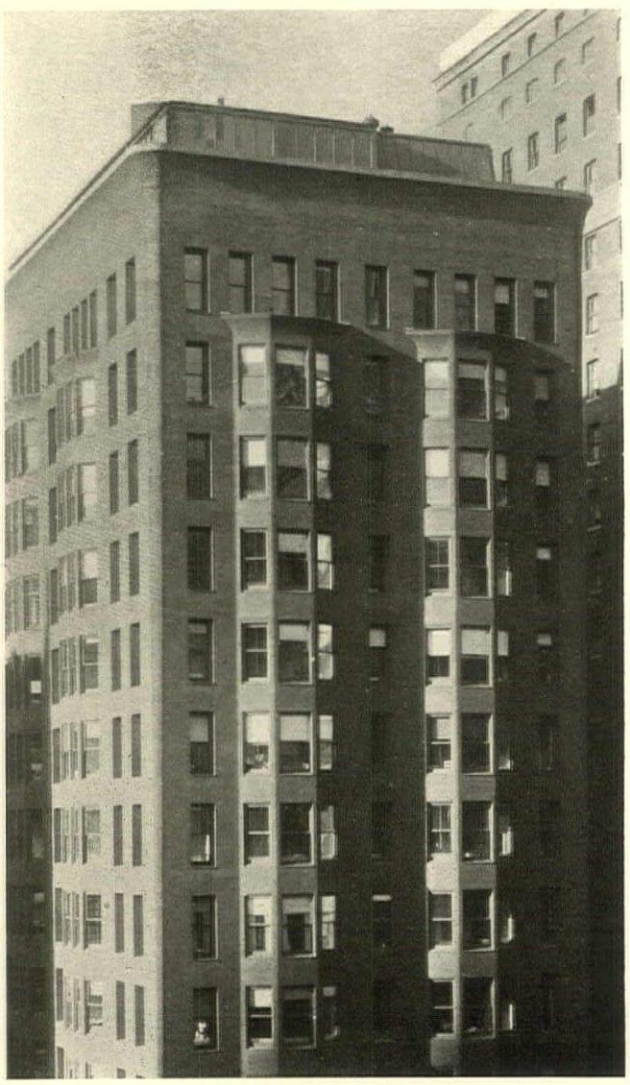
Warehouses of Hibbard, Spencer, Bartlett & Co., Chicago. Graham, Anderson, Probst & White, Architects

gymnasium at Northwestern University, some of Mr. Wright's residences and Mr. Barry Byrne's churches—are within this department: the Butler Brothers' Warehouses, the Pennsylvania Freight Terminal, and the Spencer-Bartlett Warehouse.

Unfortunately, these buildings are buried under a great heap of meretricious architecture, built by modern methods, with a highly mechanized modern equipment, but dull in design and feeble in all the apologies for ornamental beauty: office buildings surmounted by Temples of Love or steel towers with lanterns supported by steel buttresses that affect to fly—buildings of this character outweigh in quantity and in their effect on public appreciation the direct, sincere work that still endeavors to keep its head above water. To-day the architecture of Chicago is lost in a deluge of meaningless vulgarity; its vast moving-picture theatres, its classic stadium, the dull and merely grammatical Gothic of the University of Chicago buildings—all these things represent a sad falling away from the heyday of energy and originality. Mr. Wright's jolly dance-hall and restaurant, Midway Gardens, has been outrageously transformed by redecoration out of any semblance to its original interior; and the building itself might be torn down, one suspects, without causing the average Chicagoan the slightest pang of regret, certainly without the realization that it was originally one of the gayest monuments of modern architecture in our country.

As a relief from this vulgarity and neglect and dilapidation, one turns back to New York. Here, it is true, most of the good things cannot be seen a few years after they are built, so strong are the forces of congestion and so weak are our efforts to provide approachable sites; but the total effect of the city suggests discipline and order and the sort of elemental good taste that goes along with these spare virtues. The Bronx tenement and the Park Avenue apartment differ in scale and price but not essentially in design; and day by day architects slough off their weak details and their absurd ornamental excrescences, or, like Mr. Ely Kahn or Mr. Henry Churchill, employ an original artist to introduce fresh modern designs in the entrance way, the elevator door, the letter-box, and the intimate details of these great masses. If this movement keeps on another few years, the architects of New York will have caught up with their original exemplars in Chicago. That will be something like progress!

Monadnock Building, Chicago. The original portion is the near half. Root & Burnham, Architects



A detail of the upper stories, built in a day when a lack of cornice was heresy

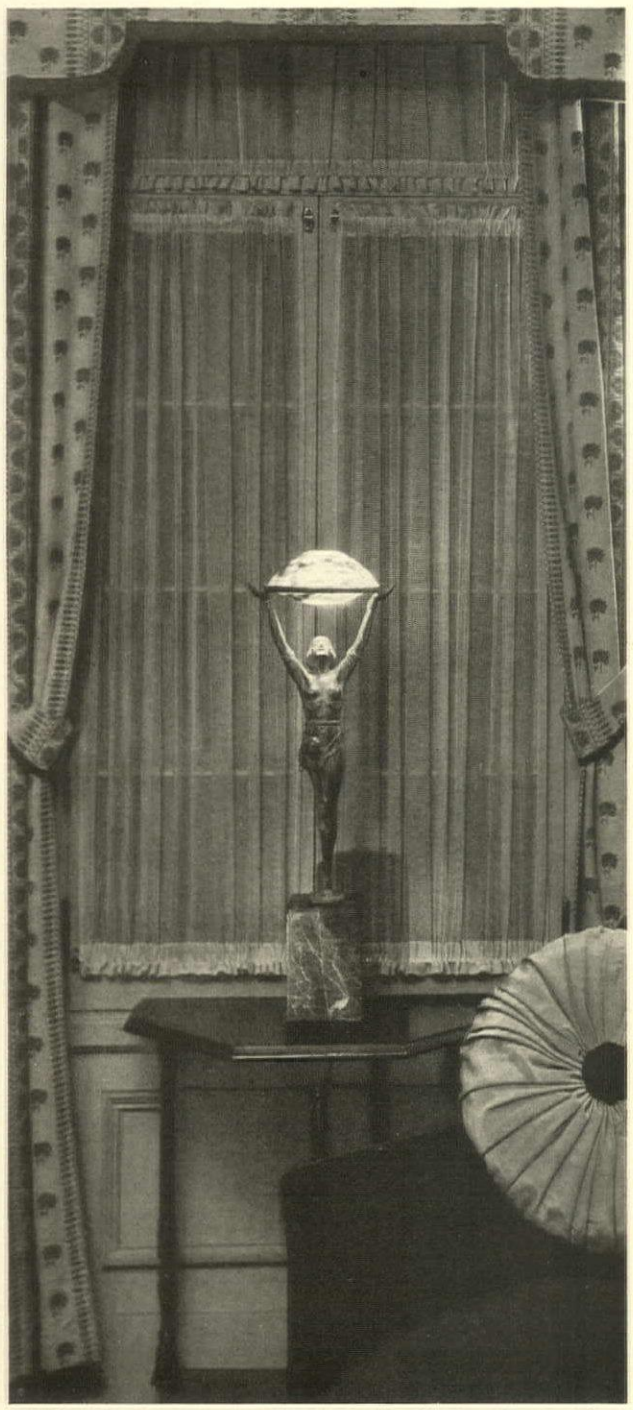
Light for Ornament

By A. L. Powell

MR. POWELL, WHO IS MANAGER OF THE ENGINEERING DEPARTMENT, EDISON LAMP WORKS, OF THE GENERAL ELECTRIC CO., PRESENTED A PAPER OF WHICH THE FOLLOWING IS AN EXCERPT, BEFORE THE RECENT CONVENTION OF THE ILLUMINATING ENGINEERING SOCIETY, IN CHICAGO

THOSE of us actively engaged in illuminating engineering work realize better than any other group in the world the amazing potentialities of light as a decorative medium. Skilful use of light produces such pleasing and far more charming results than ever can be obtained through the ordinary use of fabrics, draperies, hangings, coverings, metal or glass, that an appreciably larger percentage of the cost of a decorative interior should be devoted to lighting than is the custom. Light is so subtle in its action. It can be modified at will to fit any mood or feeling. Colored materials with their more or less fixed character were naturally easiest to work with and their application has come first in decorative schemes, but lighting has an intangible evanescent character that gives it a peculiar charm not possessed by any other medium available to the decorator.

A few years back, artificial light was relatively so expensive that all our energies were devoted to developing an appreciation on the part of the public of the advantages of proper artificial lighting for purely utilitarian purposes. It has taken a long while for us to arrive at the point of thinking of light as an ornament. Now, however, light sources have reached such a point in efficiency, and cost of current has become so low, that we are at the threshold of a new era in lighting. We can well afford to use light liberally for beauty's sake alone.



A French ornament consisting of a bronze figure about 18 inches high mounted on a marble base. Held aloft is a basket of conventionalized fruit in colors

It is obviously beyond the province of this paper to attempt to analyze all the ramifications of light for ornament or decoration, for they are indeed legion, and we must confine our attention to just one phase. The home is beyond doubt a place to start to build up a public consciousness of light as a decorative medium.

We have heard much talk of decorating with light in the home, and every little while some one asks the question: "What about color lighting for the living-room or dining-room?"

To answer this, we must appreciate that there is a radical difference between the home, which is purposely planned for rest and relaxation, and the theatre, dance-hall, or public building where we remain for only short periods. In some public buildings general lighting in color is perfectly feasible and desirable at certain times. We go there to be amused, entertained, or even startled. In the home, however, one cannot live comfortably with general lighting of pure color, such as red, green, blue, orange, yellow, etc.; it becomes annoying and uncomfortable. The only livable variations from the unmodified light of our common illuminants are in the direction of slight tinting, toward the yellow or toward daylight. If, then, we cannot use color in lighting in its generally accepted sense in the home, how are we to employ light as ornament?

The answer is simple—by confining the color in a rather intense form over limited areas. In other words, we should superimpose on the general illumination spots of high light in color. A luminous ornament is always more fascinating and more attractive than some piece of ornament that is of the same general brightness as its surroundings. To illustrate its simplest form we may consider two translucent decorated vases: one in its normal state sitting dull and lifeless on the table, a part of the picture, it is true, but scarcely noticed among the many other things which

This futuristically modelled Mephistopheles is of porcelain. Before him is a small luminous rock which illumines the deep crimson of the figure and casts an interesting shadow behind

attract the eye; the other enclosing and concealing a small lamp, so small the brightness of the vase is extremely low, yet powerful enough to cause the object to become luminous, to show up the details of decoration, and to provide a high-light in the general picture which the room creates. A painting would be most uninteresting without its high-lights; a room is equally so.

For many years the writer had been thinking along these lines and some time ago constructed several light ornaments of crude, yet relatively effective types. It was the skill of the French artists and designers, however, which made him appreciate more than ever before what we are overlooking in this country in not having an adequate line of light ornaments available to the public.

To determine whether the public was really in a mood to appreciate these light ornaments we secured from France quite a few samples which we installed in the Edison Lighting Institute. The Institute, as most of you appreciate, is visited by many thousands each year, our audiences varying from the grammar-school child to the executives of large corporations and welfare organizations, etc., with a high percentage of the gentler sex. We have found from experience that a cross-section of the comments of our visitors is fairly representative of public opinion about lighting.

To get back to our story, it can safely be said that there has been scarcely a visitor who has not commented with enthusiasm on these light ornaments. If we had been in the retail business or had a desire to sell those that we had, in every group there would have been several people leaving the Institute with one of the ornaments in their possession. As a matter of fact, although it has meant considerable inconvenience to us, we have been forced to send back to France on several occasions for extra specimens to meet the requests of visitors who insisted on having this one or that one for their own homes.

At the left are three widely differing types of parfum-brûles, wrought-iron bases supporting colored glassware. At the right is a shallow blue glass goldfish bowl, shown lighted at the top of the next page

It is natural that the French, with their inherent sense of the artistic fitness of things, would seize the opportunity, and design equipment which is especially well suited. There was another condition, however, which made this development more simple for them than it was here in America.

They had available for this service an extremely small 10-watt 115-volt lamp. This lamp has a diameter of approximately one inch, and a total height, including socket, of less than two and one-half inches. Up to a few months ago the smallest thing an American manufacturer could use on 110-volt circuits without the use of a transformer or an external resistance was either the S-14 bulb lamp with medium screw socket or the D-10 bulb lamp and candelabra screw socket. The overall length of the smaller of these combinations is something over four inches.

If one has to start to design a decorative piece around a light source and a mechanical part which is quite large, the resultant product is likely to be ugly, ill-proportioned, and inartistic. Fortunately we now have, or shortly will have available for this service, a 10-watt Mazda lamp in a small bulb, probably S-11 with intermediate screw base, which when mounted in a typical receptacle gives an overall height of less than two and one-half inches. This should remove any obstacle to the design of suitable equipment.

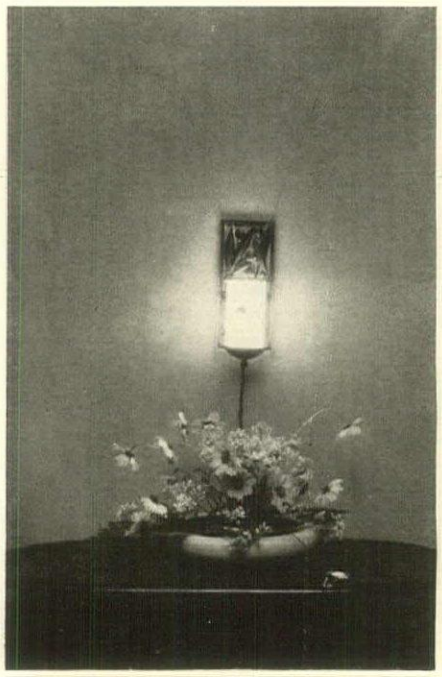
Light ornaments in France have taken many forms, some of which are shown in the accompanying illustrations. Many of them are called "parfum-brûles," or perfume-burners, from the fact that the area above the lamp is slightly depressed, and a few drops of perfume placed in this is vaporized by the heat from the lamp, giving—as well as interesting, fascinating lighting—a pleasing odor throughout the apartment.

The few typical examples of the French designs shown have been chosen, as far as practicable, to show characteristic specimens of different basic constructions, and of course form by no means a complete catalogue of the variations which are available.

Space and printing costs prevent the inclusion of more illustrations, and, in spite of the wonderful praiseworthy work the French have done, they have by no means exhausted the possibilities along this line. The few examples given merely show the method of approach. Translucent marble, fabrics, horn, sea-shell,

Looking down at the swimming goldfish in the blue glass bowl is the little white porcelain figure. The light shines through the water from below giving moving shadows of the fish

A few of the variations produced by the French designers with figures of sculptured metal and luminous forms in glass. The little pelican has a glowing red tongue; the squirrel has before him a dish of nuts; and the monkey carries his Diogenes lantern



A wall ornament that consists of a cylinder of whitish glass upheld by a framework of wrought iron

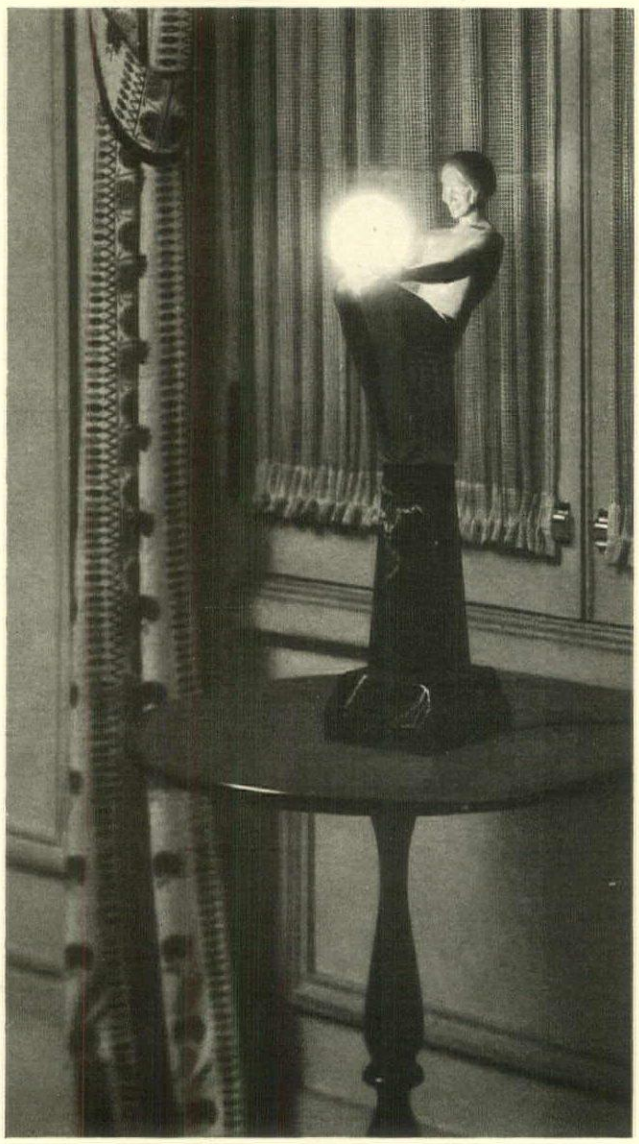
The parrot on his scarlet lacquered perch glows in translucent chinaware

A translucent model of the Pantheon made of marble veined in delicate yellows and browns

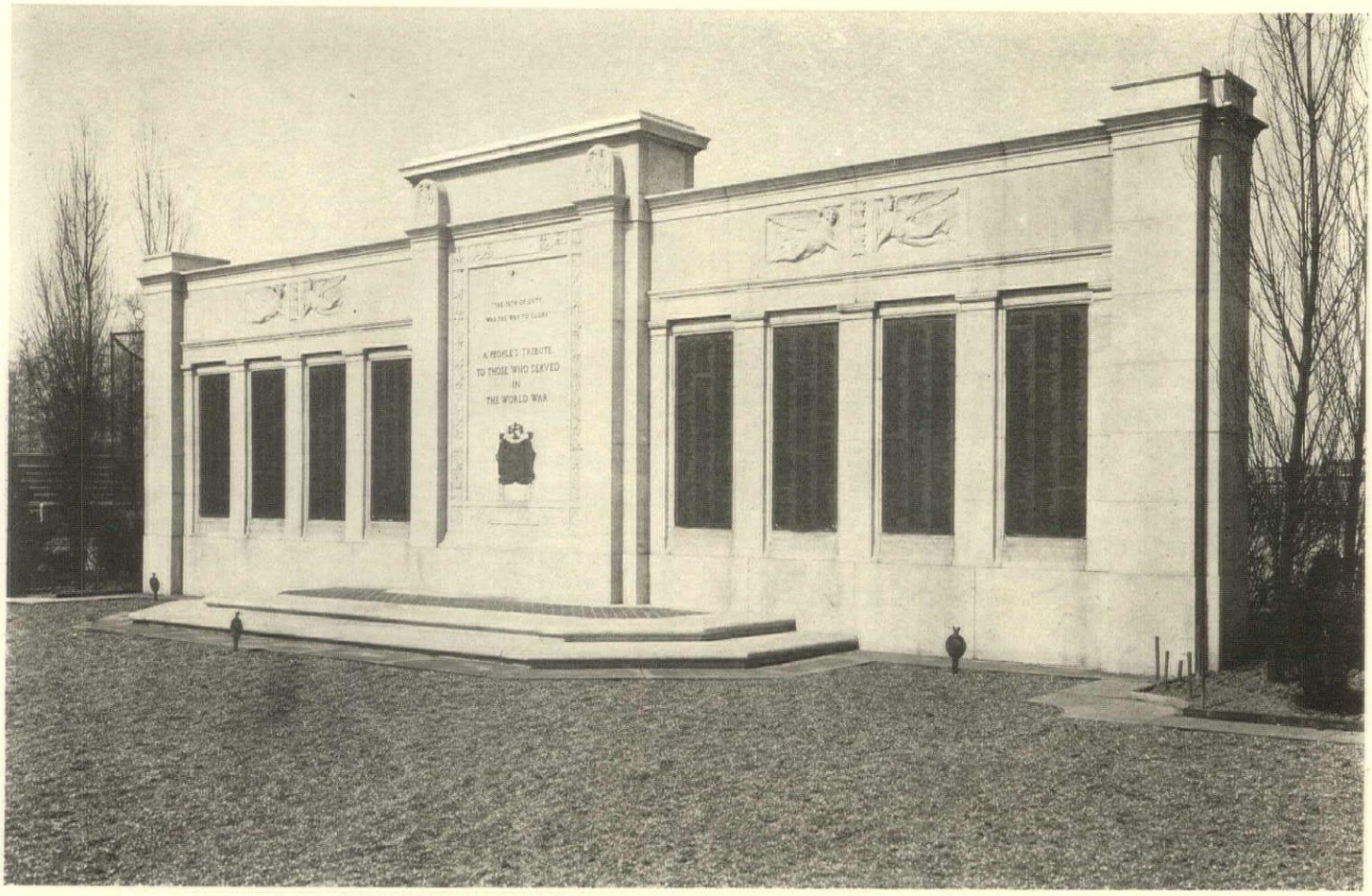
and many other materials can all be used to produce novel effects.

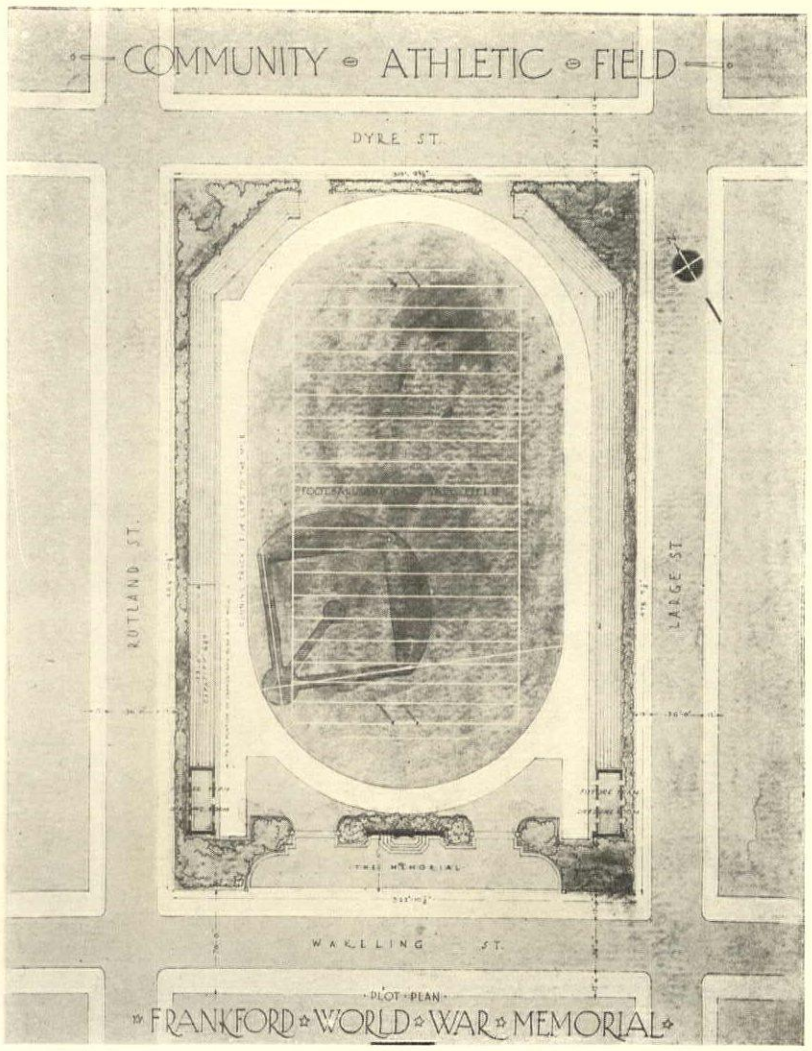
There is literally no such thing as too many light ornaments around the home, provided they are well chosen and properly placed. One of the homes with which the writer is familiar uses eight of these light ornaments in the living-room and adjoining hall. At first thought one would say the place must look like a fixture show-room, yet each of the ornaments used is so carefully chosen and seems to fill its niche so beautifully that a most entrancing picture is created without any suggestion of splurge.

It is well to close with a word of warning to the equipment manufacturers. Light ornaments may be either artistic and beautiful and desired by every one with any taste, or they may be crude, grotesque, and ugly, and of the type that persons with feeling would not allow in their homes. If we in America offer the public the wrong sort of equipment we are likely to kill this project before it ever comes into being. In general we should try to carry out the same delicate feeling and artistic sense that the French have shown. Light ornaments must not be "cheap" in the narrow sense of the word; they must not be garish; they must not have crude, inartistic decoration. Simplicity is far to be preferred to elaborateness of design. This does not mean that, with American methods of mass production, the product cannot be inexpensive, but in general price must be a secondary consideration to effect and workmanship. It is important to cater to the point of view of the connoisseur. The experience of the few merchants who have been dealing in luminous ornaments indicates that many persons who would not hesitate to quibble over the price of a utilitarian lamp readily spend much larger sums for luminaries which are obviously works of art rather than merely ultilitarian sources of illumination.



The figure is of bronze, perched on a pedestal of marble, and gazing into the heavily etched luminous ball. Not least interesting in the composition are the shadows





WORLD WAR MEMORIAL, FRANKFORD, PA.

PAUL P. CRET, ARCHITECT

JOHN DONNELLY, SCULPTOR

The memorial is at one end of a community field and consists of the central monument, shown above, and two dressing-rooms for athletic teams. The fronts of the latter are memorials, one to the war mothers, the other to the conquering spirit of brave men

War mothers' memorial. Inscription by Royal Cortissoz

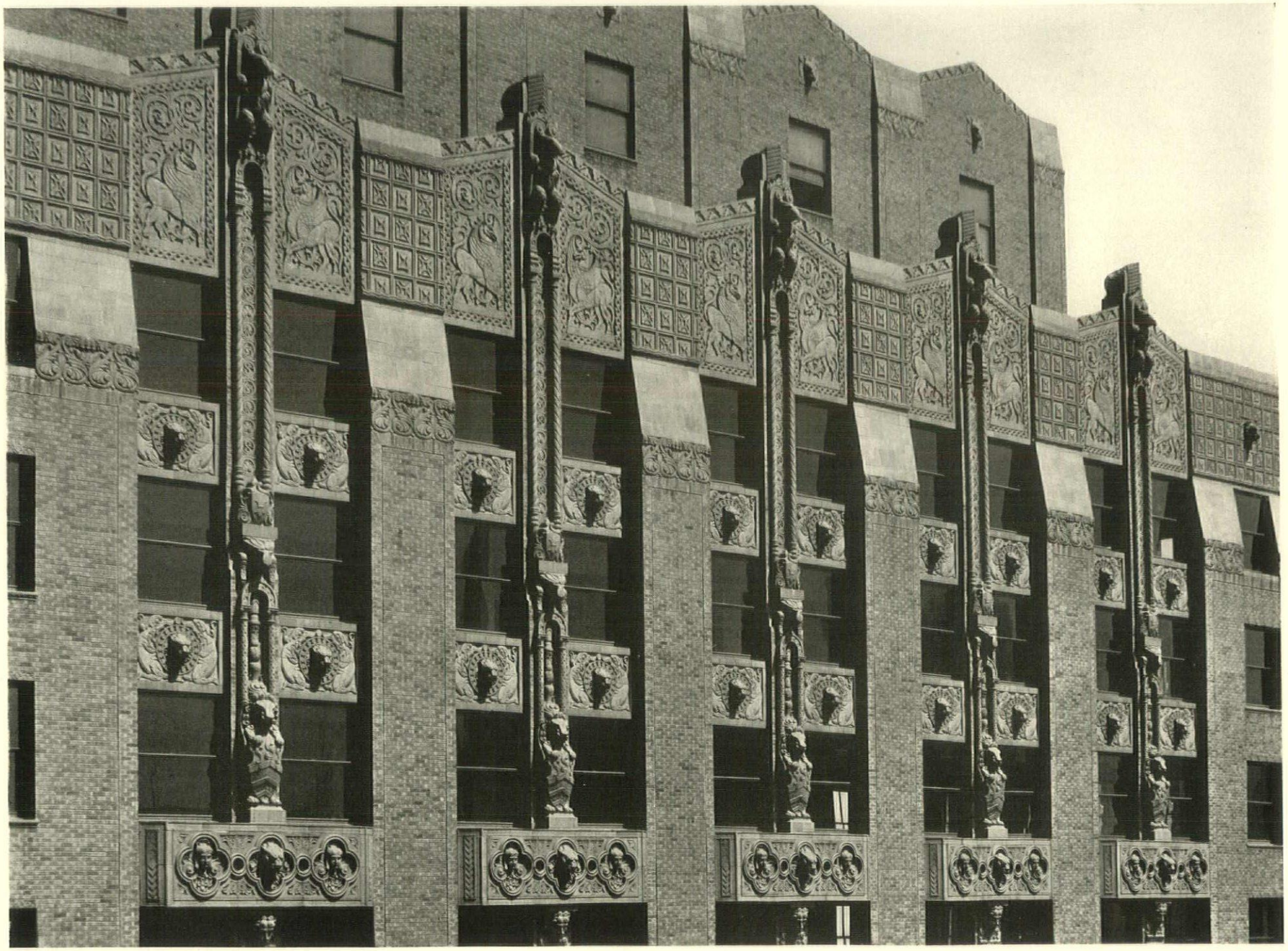
One of the team dressing-rooms

WORLD WAR MEMORIAL, FRANKFORD, PA. PAUL P. CRET, ARCHITECT. JOHN DONNELLY, SCULPTOR

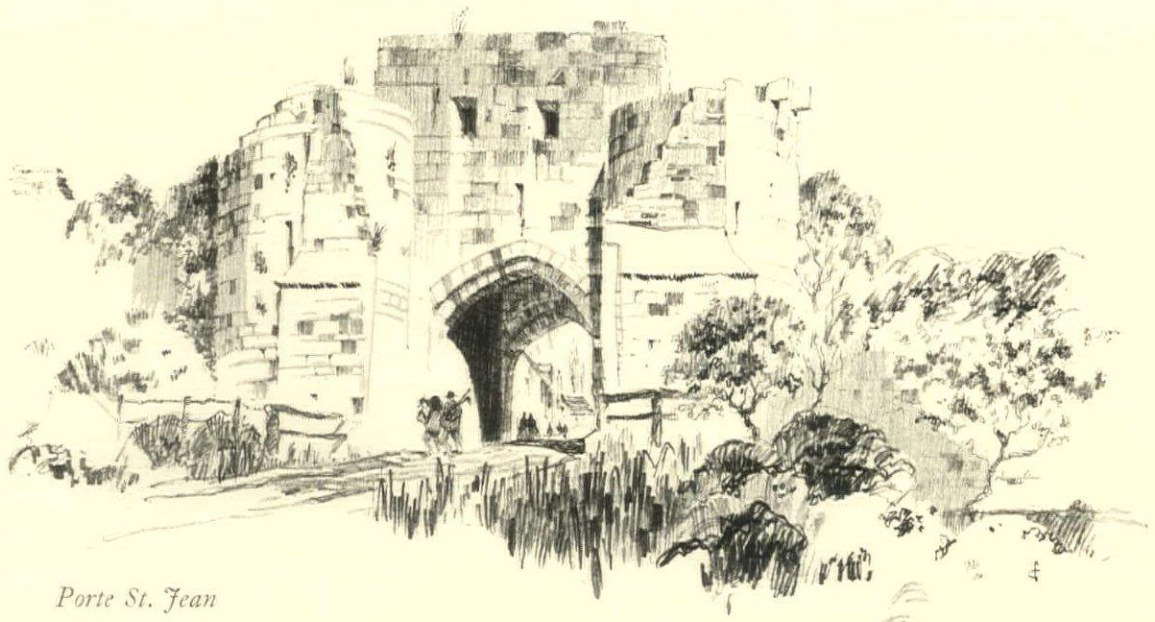
Detail of upper stories

LAKE-STATE BANK BUILDING, CHICAGO, ILLS.

C. W. & GEO. L. RAPP, ARCHITECTS



LAKE-STATE BANK BUILDING, CHICAGO, ILLS. Detail of upper stories C. W. & GEO. L. RAPP, ARCHITECTS



Porte St. Jean

The Lure of Provins

By Gerald K. Geerlings

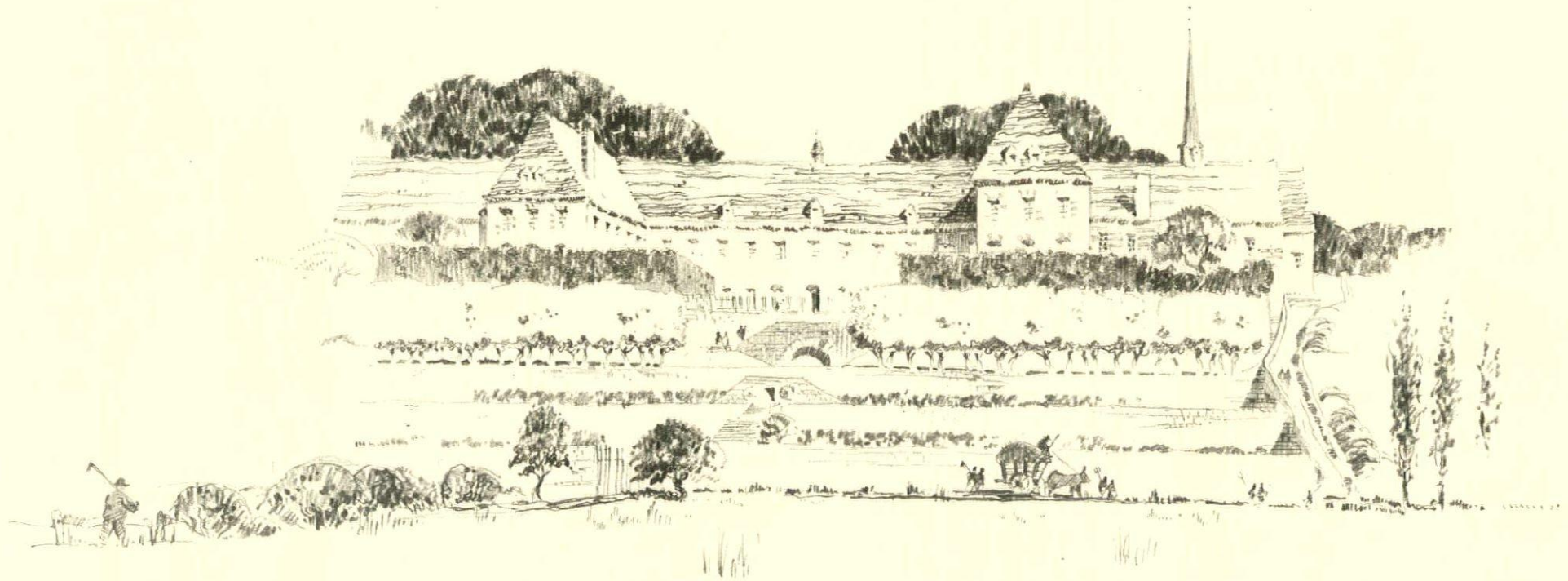
ILLUSTRATED WITH PENCIL DRAWINGS BY THE AUTHOR

PARIS for the tourist is just *Paris*, the "simply divine" epitome of all that which the prim-and-proper home town forbade. But one of the curses of architecture is that Paris cannot be that for the architect. On sailing he may have boasted to his thirsty friends that he would lap up the Montmartre for them, but, when he essays to do so, dawdles too long over the text-book foundation for architecture. Sooner or later he discovers that the personality of Paris architecture insists on flavoring every drop of *Burgundy* or *Triple-sec*. Early or late, sober or happy, Paris persists on being architectural. A glorious revel for the flapper but a continuous object lesson for the ever-harassed architect! And so, *enter Provins!*

Only about fifty-five American miles and a few American dimes distant from the Place de l'Opera is Provins, once the third city of France (after Paris and Rouen). Fortunately for the itinerant and franc-shy architect, Provins has never ascended into the three-asterisk class in Baedeker, or so much as demurely announced itself in architectural books. Consequently it offers the ideal hunting-ground for the architect who likes to put his conscience in its place by announcing that he is not squandering his time but investing it in surroundings "adaptable" to his practice, as well as affording him a spot in which to frisk about and discover at least one brand-new *chef-d'œuvre* for every café. There are legions of houses which would induce any client to mortgage his limousine and even his loud-speaker to reproduce one of them; there is a home for the aged which would rejuvenate the most decrepit; a stronghold sufficient in itself to inspire a dozen new zoning set-back ideas; a batch of walls, moats, gates, and fantastic compositions to incite the ruination of a whole water-color pad with gobs of luscious jade, vermilion, chrome orange, and cerulean blue.

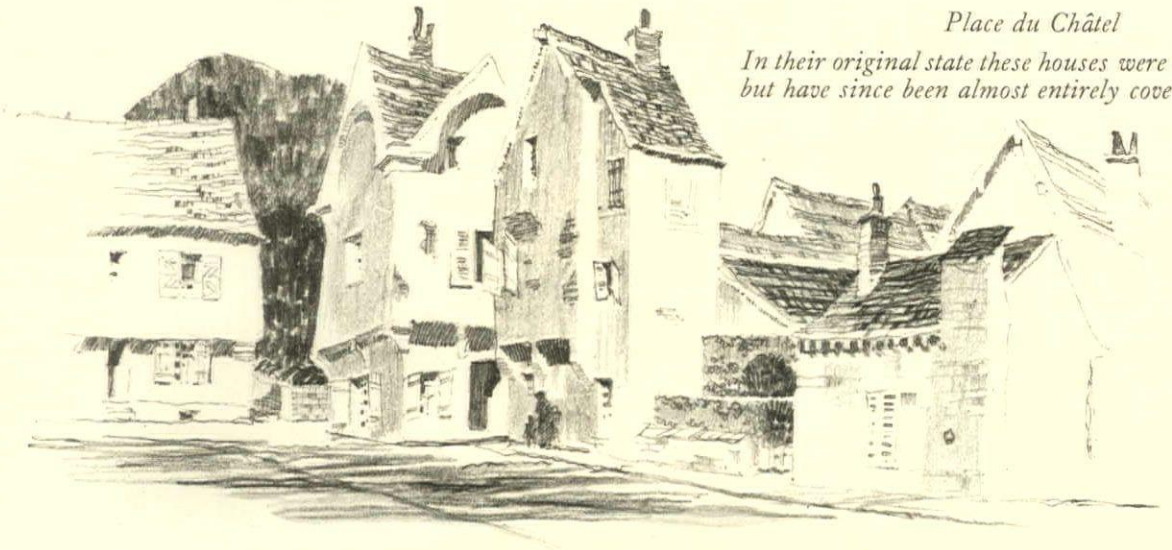
In its infancy, in the third century, Provins was a Roman military outpost. Charlemagne established a "heavyweight" class of fortress and a moat. In the heyday of her prosperity Provins had above 80,000 inhabitants, and enjoyed two hundred years of eminence preceding the fourteenth century and the English invasion. Under the influence of the Counts of Champagne (and what city would not!) she became celebrated industrially in addition to her military and ecclesiastical prominence. Henry IV besieged her during the religious wars in 1589, and turned the final trick which industrial disputes and English invasions had unfortunately begun. Provins steadily "declined" in a historical sense from then on, but from an architectural standpoint moulded and mellowed. True, the town has not yet been made to appear with all the perfection of a Hollywood "set," nor been restored to the *n*th degree as have Carcassonne and Aigues-Mortes. The holiday attire of a colorful past is still visible though threadbare. Some of the plumes have been plucked and others badly frayed, but their quills still sit at a jaunty angle. At present the population is about 9,000, although very few inhabitants ever seem in evidence. When they do it seems to be for agricultural purposes outside the town, or observation of queer foreigners when within the town.

Like all well-bred towns, there is an upper and lower division, and like all French towns they are full of interest. The lower is entertained by two energetic little streams, the Durteint and Voulzie (a colorful suggestion for the names of twins), which do all the fancy back and side steps of a modern dance, gossiping the while and making merry along the fronts of the houses,



HOPITAL GENERAL
PROVINS

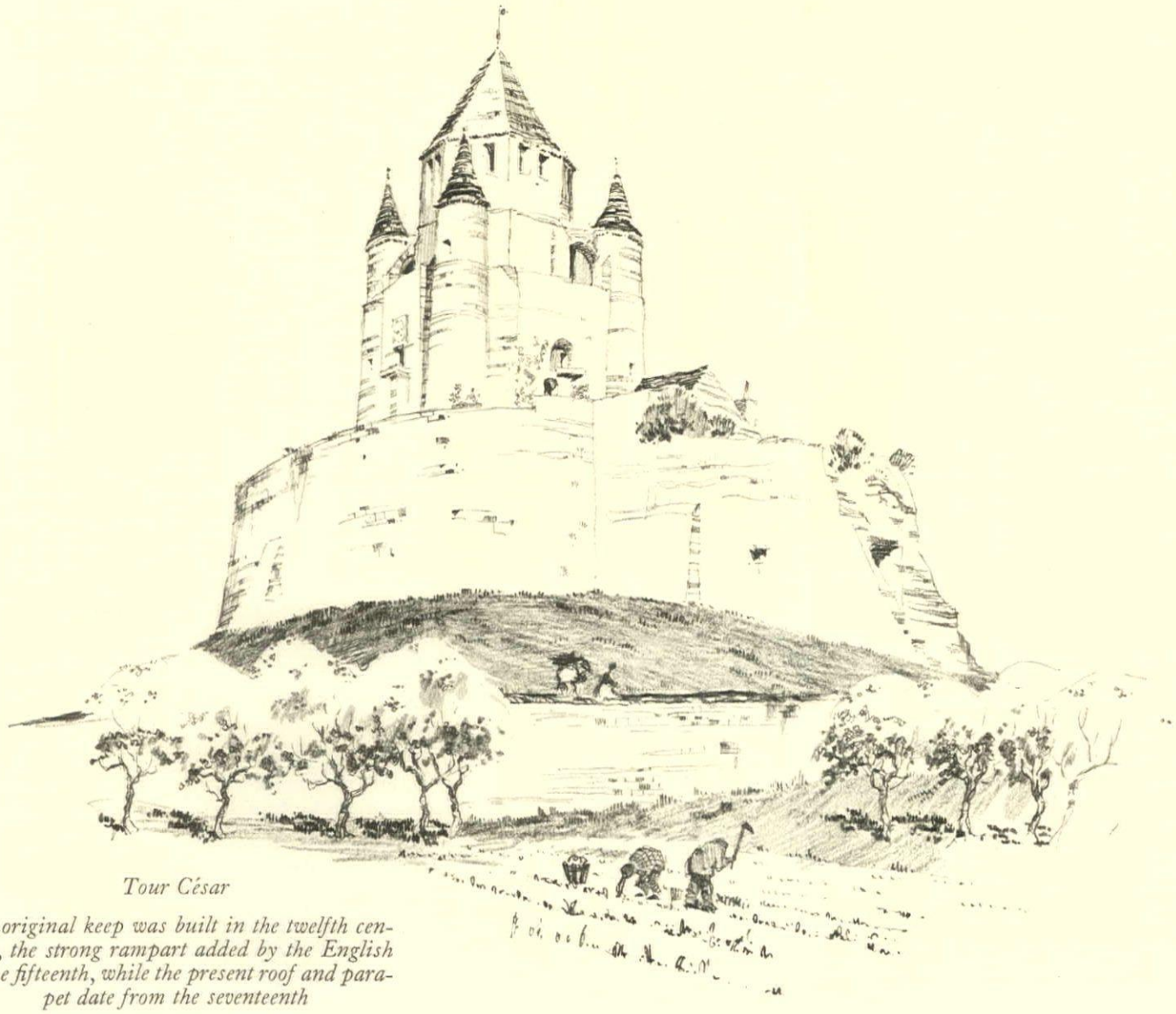
Thibaut-le-Chansonier, Count of Champagne, is said to have seen St. Catherine tracing the plan with a sword. She was an excellent architect, if the story be true, for a similar building might happily serve the purposes of a country club, a day school, a glorified country residence, or a beautiful what-not. Surrounding the three sides of the front court are delightful loggias opening on a formally planned garden. The rising terraces of gray stone walls, the range of greens in the clipped trees, climbing vines, and brilliant vegetable tops, surmounted by cream stucco walls and soft lavender roof of the building, compose a most harmonious mosaic of color



Place du Châtel

In their original state these houses were half-timbered but have since been almost entirely covered by stucco

under their rear washing-sheds, and striving as valiantly as any two little streams can to bring Venice and her Lido to the very doorsteps of the Provinsites. There are churches in Gothic, Romanesque, and Picturesque—to restrain the exultant visitor from becoming too heathenish in his delight. St. Ayoul grew actively from the twelfth to the sixteenth centuries, and passively since then in annexing texture. A corner hexagonal turret would excite a Hollywood producer to build up an entire spectacle around it. The near-by tower of Notre-Dame-du-Val, a relic of a sixteenth-century Gothic church, was undoubtedly intended as a knock-out composition for sketching from all angles. Ste. Croix, a thirteenth, fifteenth, and sixteenth century edifice, as well as St. Quiriace (from 1160 on), are worthy architectural shrines, lacking only in publicity agents, or



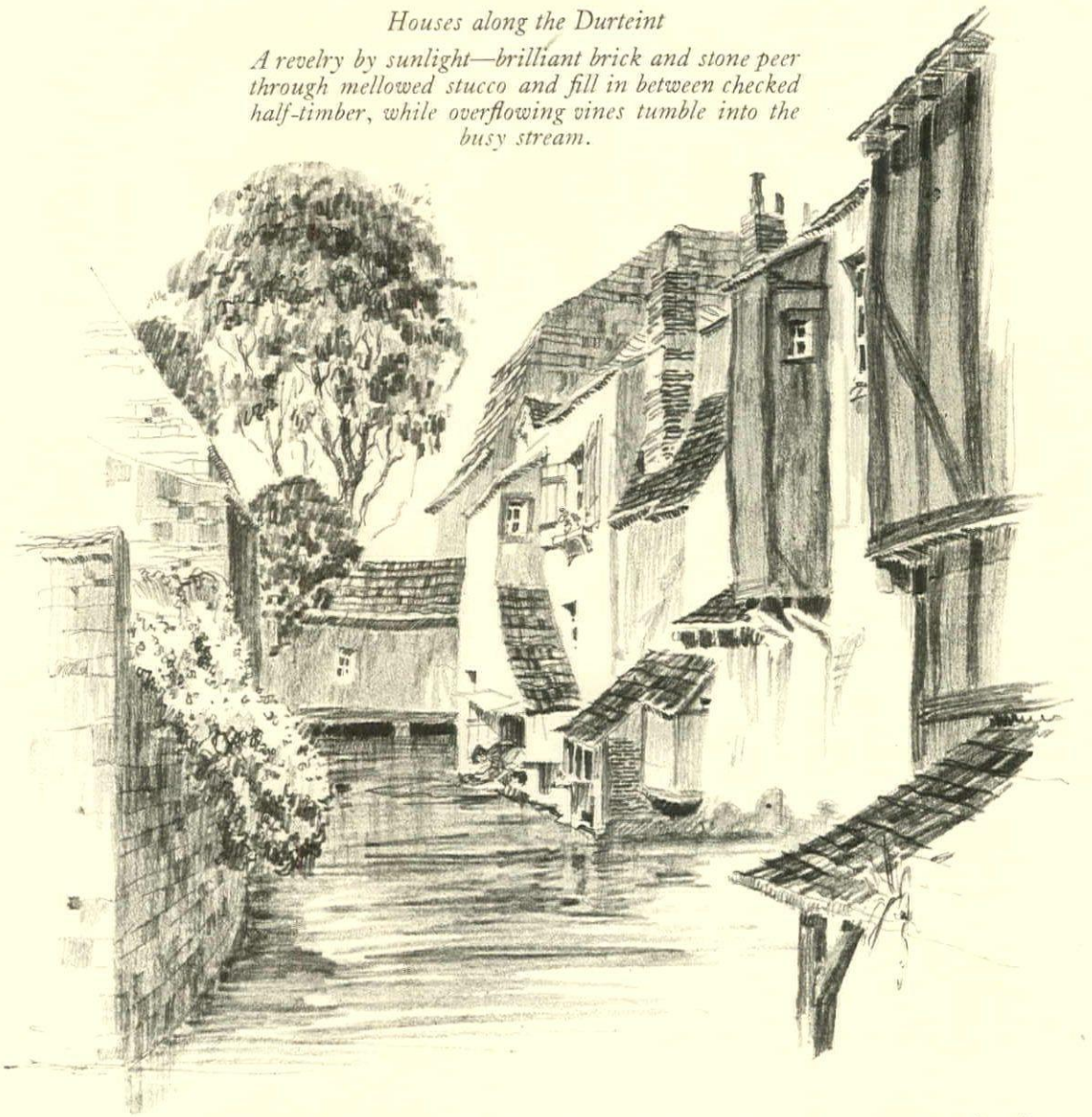
Tour César

The original keep was built in the twelfth century, the strong rampart added by the English in the fifteenth, while the present roof and parapet date from the seventeenth

their progeny would extend from Maine to Mexico. A little market-place specializes in trimmed rows of trees, that beautiful architectural adjunct of all French towns which we never allow ourselves to duplicate. Whether we do not know how to grow and trim plane (sycamore) trees, or whether we cannot bear the thought of cutting off their tender twigs, is one of the unsolved mysteries of America. Anyway, Provins has its delectable little square shaded by these neatly interlacing trees.

Houses along the Durteint

A revelry by sunlight—brilliant brick and stone peer through mellowed stucco and fill in between checked half-timber, while overflowing vines tumble into the busy stream.

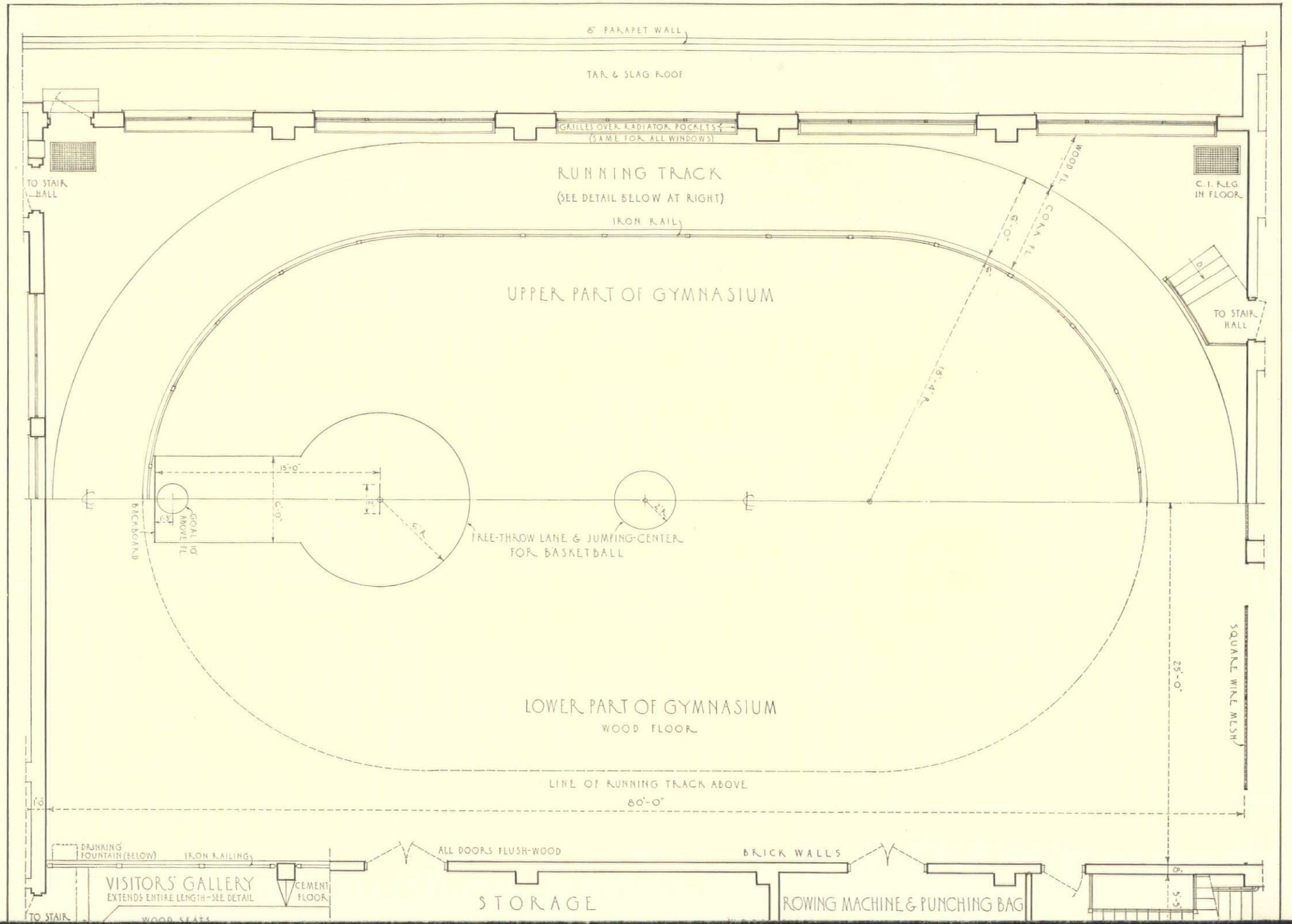


The upper town is girdled by the austere remains of walls, moats, towers (*Tour aux Pourceaux* and *Tour aux Engins*), and gates (*Porte de Jouy* and the *Porte St. Jean*). The latter, still in a fair state of preservation, marks the start of the road to Paris between straggly orchards and bravely tilled fields. Alluring paths and roadways try to skirt the walls, and after a fashion eventually make their way through a maze of brambles, thickets, flowering shrubs, and groves of trees. The focus within the ramparts is the *Place du Châtel*, its borders embroidered by fascinating houses of varying manner and mien. These and many others with characteristics like cover-designs for dream-houses offer enticing views at every hand, but for amazing qualities are not to be compared with the subterranean passages which once honeycombed the entire upper town. At present these are to be entered only at the crypt of the *Grange des Dîmes*, accompanied by the cobbler who squats across the street. He is probably one of the outstanding wits of France, but as yet has not been commercialized by C. C. Pyle. In his introductory speech within the old tithe barn, where some very miscellaneous antiques moulder, he raps the head of a battered and chipped Venus, and (unchivalrously) for the benefit of the ladies observes: "*Voilà—solide.*" Or, fumbling in a venerable sarcophagus, digs out a cigarette remnant with: "*Les Romans fumaient aussi.*"

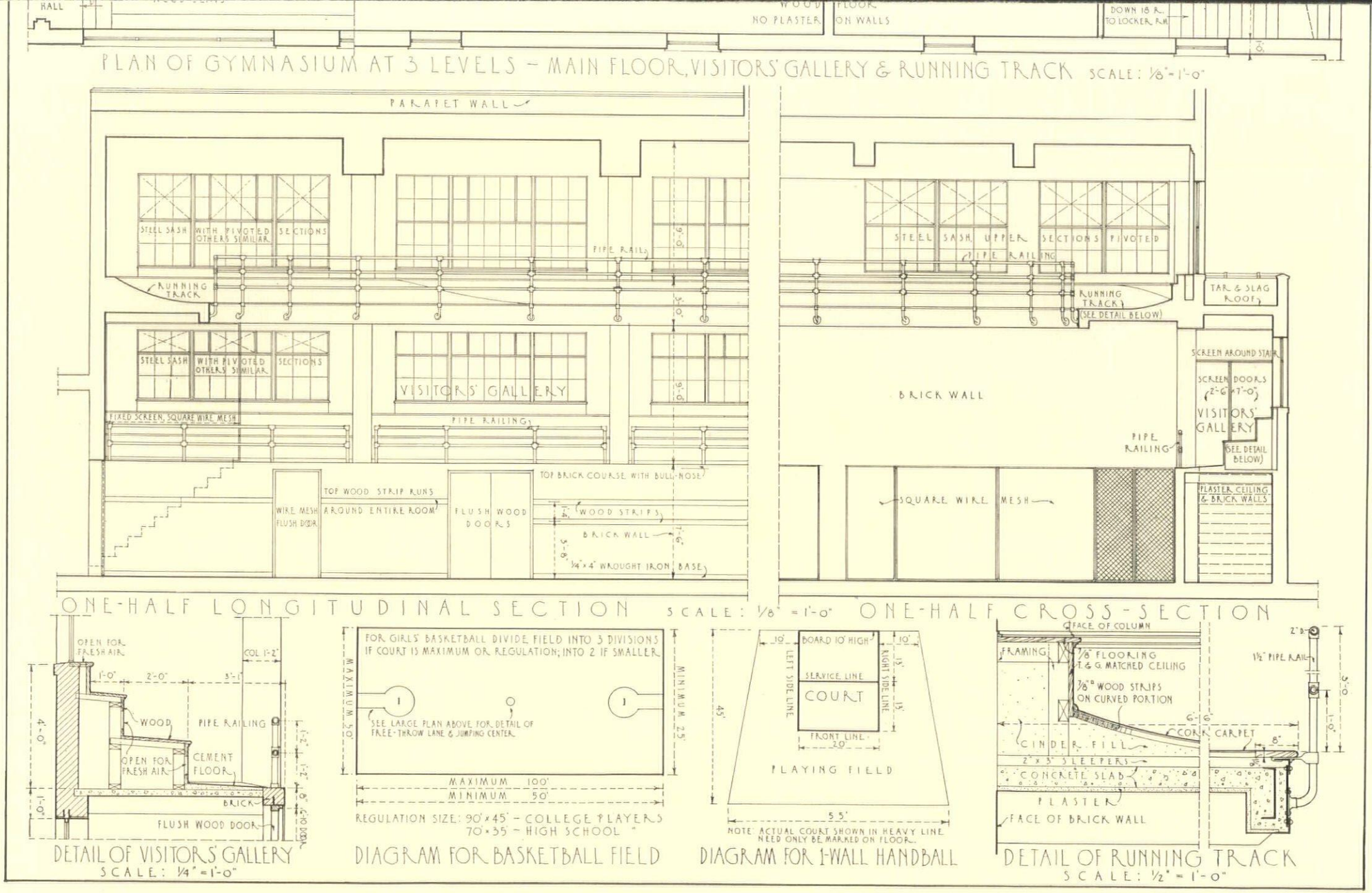
. . . . . .

So, in all dignity, a brimful bumper of architectural *Triple-sec* to Provins—where no tourist asks in Timbuctoo French how to buy a complete Wall Street quotation, where mediæval hotels serve "red ink" as a matter of course (and after a stay of several days charge only what you think must be the account for one day), where there is architecture aplenty, but not so scholastic that it makes your memory realize its deficiencies, where there is rich color and running water, and where time is not reckoned in commuting trains but in centuries!

To Provins—"bottoms up"!


8" PARAPET WALL
TAR & SLAG ROOF
GRILLES OVER RADIATOR POCKETS
(SAME FOR ALL WINDOWS)
TO STAIR HALL
RUNNING TRACK
(SEE DETAIL BELOW AT RIGHT)
IRON RAIL
C.I. REG. IN FLOOR
WOOD FL.
CONC. FL.
5'-0"
UPPER PART OF GYMNASIUM
TO STAIR HALL
18'-4"
15'-0"
6'-0"
6'-3"
BACKBOARD
GOAL 10' ABOVE FL.
FREE-THROW LANE & JUMPING-CENTER FOR BASKETBALL
SQUARE WIRE MESH
25'-0"
LOWER PART OF GYMNASIUM
WOOD FLOOR
LINE OF RUNNING TRACK ABOVE
80'-0"
DRINKING FOUNTAIN (BELOW)
IRON RAILING
VISITORS' GALLERY
EXTENDS ENTIRE LENGTH—SEE DETAIL
CEMENT FLOOR
WOOD SEATS
TO STAIR
ALL DOORS FLUSH-WOOD
BRICK WALLS
STORAGE
ROWING MACHINE & PUNCHING BAG
5'-5"

GYMNASIUM, Y. M. C. A., JERSEY CITY, N. J. (See details on other side of sheet) JOHN F. JACKSON, ARCHITECT



GYMNASIUM, Y. M. C. A., JERSEY CITY, N. J.

JOHN F. JACKSON, ARCHITECT

NOTES

GYMNASIUM, Y. M. C. A., JERSEY CITY, N. J.

JOHN F. JACKSON, ARCHITECT

Materials:

Ceilings plastered; walls brick and unplastered in gymnasium and rooms under visitors' gallery.

Floors—wood in gymnasium, cement in visitors' gallery, cork on running-track.

Base in gymnasium, ¼″ x 4″ wrought iron.

Railings for visitors' gallery and running-track, of iron pipe.

Steel sash with wire-glass, upper sections pivoted.

Doors, flush wood.

Running-Track:

6′ 6″ wide with ends a continuous semicircle—preferable to practice of having two abrupt turns at each end with short straightaway between.

Visitors' Gallery:

Ingeniously worked in above rooms required for storing apparatus, rowing-machines, punching-bags, etc.; gives spectators an opportunity of viewing an exhibition or match at a level only slightly above performers' heads; provides double seating capacity with running-track when maximum seating is required, as for basket-ball tournament, etc.

Basket-ball Field:

In addition to notes on diagram (see over) the following quotation from the 1927-28 rule book applies to floor markings: "The face of the backboard should be two feet from the end wall, but on short courts when the backboard is placed against the wall there shall be an end line, the inner edge of which is two inches out from the wall. On narrow courts when the playing court is the full width of the floor there shall be a side line, the inner edge of which is two inches out from the wall."

Handball Courts: (See diagram over)

Where the lines of handball courts are near those of other games, as basket-ball, volley-ball, etc., it is advisable to paint them a different color as an aid to players. Most courts are placed too close together; the "playing field" as noted on the diagram is self-explanatory as to the amount of room really needed.

This is the thirteenth in a series of measured drawings by Mr. Geerlings, of which the subjects chosen are among those occurring in modern practice. The intention has been to select the best available solutions of problems that are likely to be troublesome to the architect who has not met similar ones before, and to reproduce these painstakingly, with photographs and helpful data.

Subjects that have already appeared are: A Shop-Front Show-Window (Starrett & Van Vleck, Architects), November, 1926; Interior Details of a Fifth Avenue Shop (Starrett & Van Vleck, Architects), December, 1926; Teller's Cage and Bank Screen (York & Sawyer, Architects), January, 1927; Apartment-House Details (McKim, Mead & White, and James C. Mackenzie, Jr., Architects), February, 1927; Hotel Office Details (Geo. B. Post & Sons, Architects), March, 1927; Cigar-Stand, Hotel Roosevelt, New York (Geo. B. Post & Sons, Architects), April, 1927; School-Building Details (Guilbert & Betelle, Architects), May, June, and July, 1927; Barber Shop, Hotel Roosevelt, New York (Geo. B. Post & Sons, Architects), August, 1927; Beauty Parlor in the same hotel, September, 1927; Telephone and Telegraph Room and Newspaper and Candy Stand, October, 1927. The next drawing will cover some ward details from the Roosevelt Hospital, New York, by York & Sawyer, Architects.

EDITORIAL COMMENT

VOL. LVI, No. 5 ARCHITECTURE NOVEMBER, 1927

"It was the strong communal spirit, giving unity of purpose to the varied facilities of individuals, that made possible the production of the noble arts of the Middle Ages. . . . The capricious and irresponsible individuality of the time, together with the confused complexity of ideas and aims, gave rise to most of that which is open to criticism in the Fine Arts of the Renaissance."

CHARLES HERBERT MOORE,
in "Character of Renaissance Architecture."

BUSINESS AS USUAL

THE Chicago *Tribune's* very recent survey of business conditions indicates that business is expanding in a substantial and well-sustained movement. The prospect is unquestionably brighter than a year ago. At that time production and trade during the summer of 1926 had been on an unseasonably high plane; we faced a saturated market, and a check last autumn was inevitable. The present autumn finds a very different set of conditions. Summer production and distribution volumes have been moderate. There has been no over-production, no excessive out-of-season drive for business, no saturation of the consuming public. Added to all this is the indication that the farmer's income for 1927 will be a cool billion dollars more than he got in 1926.

In the building industry it seems likely that the year will close with something like a 2 per cent decrease over 1926. It is a significant fact, however, that building permits in the twenty-five leading cities show, for the first time in months, an increase over the corresponding month of last year. One month's record does not necessarily mark a distinct trend, but upon the data at hand it would seem that, outside three or four cities of the first rank, the curve has turned upward once more.

"The attempt at prettiness has too long been the curse of architecture, the attempt to capture the elusive beauty of the craftsmanship of past centuries in our day, when the men and the social organism of which they were a part have passed into the limbo of history."

SIR LAWRENCE WEAVER,
in "Cottages."

BETWEEN THE MILLSTONES

WE confess to a large measure of sympathy for the subcontractor. His path is not strewn with roses, even at best, and there are points at which he treads gingerly upon a very thorny way. For instance, just what is the legal status of an order from the architect directing the subcontractor to perform certain work which is an extra, and directing that this be charged to the general contractor or to the owner? Is the architect's relationship with the owner or general contractor such that he has the legal right to order work or materials in their names? In case of a suit being necessary for collection, would the courts regard such an order as binding upon the third party? It is certainly doubtful, and yet a request on the part of the subcontractor for a direct authorization often results in haughty resentment on the architect's part, if it does not actually bar any future business relationship.

A somewhat similar problem faces the subcontractor if he dares to ask the architect for credit references as to an owner for whom he is invited to work. The architect certainly has no intention of guaranteeing payment by the owner, yet he is impatient or resentful, as a rule, of such fundamentally reasonable effort on the subcontractor's part to keep his business on a rational basis of business safety.

As to the authorization of extras, it is so much the better practice for all concerned—the architect most of all—for the architect to have the owner authorize every extra over his own signature, that this procedure must soon come to be universally followed.

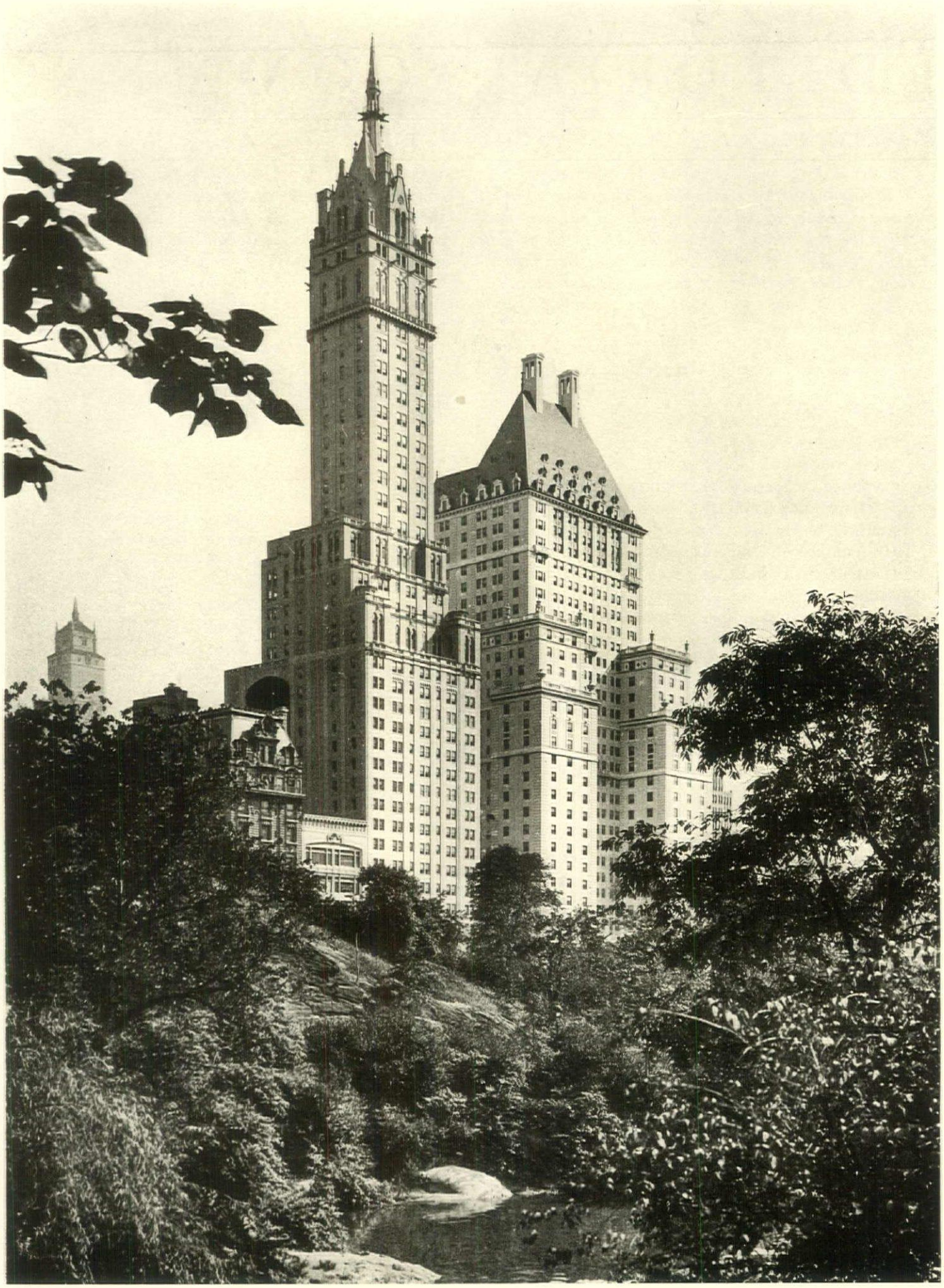
In the other matter, it seems to us that the subcontractor would secure an owner's credit rating more accurately and with less embarrassment to all concerned if he sought this through the usual business channels.

"Within five years Rome must become the most wonderful city of the world in the eyes of all people on the globe."

MUSSOLINI.

BUILDING CODES AND THEIR BLUE LAWS

THE Western Society of Engineers urges a determined fight on the part of architects and engineers against certain outgrown restrictions imposed by building codes, that impede progress and prohibit the use of new and improved construction methods and materials. Antiquated restrictions, perhaps adopted years ago, before the days of modern scientific construction, exist in almost every city. Our building codes should be fluid rather than fixed, just as modern construction is fluid and never static. It is unlikely that any real progress will be made in this regard until the making of building codes is taken out of the hands of those who are sometimes influenced by political considerations or by well-organized lobbying rather than by technical principles. If these codes could be put in the sole control of a commission made up of representative architects, engineers, builders, city planners, and similarly qualified technical experts, their purpose would unquestionably be achieved.



Photograph by Ewing Galloway

A new vista from Cental Park, showing New York's two newest hotels. At left, over the trees, the Ritz Tower; the tall tower is that of the Sherry-Netherland (Schultze & Weaver, Architects); at the right is the Savoy-Plaza (McKim, Mead & White, Architects)

The Installation of a Carillon

THERE has recently been installed in the tower of the First Methodist Episcopal Church of Germantown, Philadelphia, Pa., a grand carillon of forty-eight bells, ranging in size from 7 inches in diameter to 5 feet 8 inches, the latter weighing 6,720 pounds. While it is known as a carillon of forty-eight bells, there are in reality sixty-three. The forty-eight refers to the number of tones and half tones, which cover a range of four octaves. Some of the smaller bells are in pairs, so as to produce a greater volume of sound.

CHARLES L. HILLMAN, ARCHITECT, TELLS OF THE UNUSUAL PROBLEMS MET IN HANGING THIRTY-TWO TONS OF BELLS IN AN OLD TOWER

The bells are supported on a rolled-steel frame and are arranged in four tiers, the larger ones on the bottom. They are bolted to the frame and sounded by cast-iron clappers swung from the under sides of their crowns, that of the largest bell weighing 156 pounds. The total weight of the bells and their frame is approximately 32 tons.

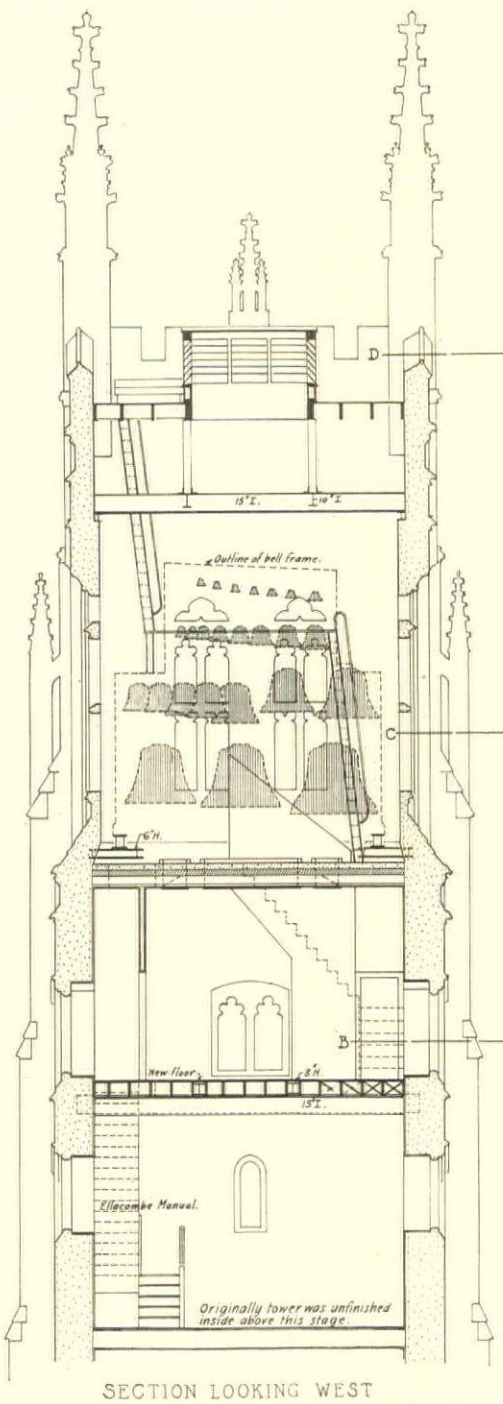
The church and the tower were built about thirty years ago, of a local granite trimmed with Indiana limestone. All the masonry is in good condition. The tower is 25 feet square outside, and 120 feet high. The floor of the bell-chamber is 70 feet above the street. Before preparations were made in the tower to receive the carillon there were three stages; the second one had a rough board floor, and the interior of the tower above it was unfinished. The third, or bell-chamber floor, is constructed of 12-inch I-beams supporting 4-inch brick arches filled with 4 inches of cement. The roof is copper-covered wood sheathing supported on 2-inch by 12-inch wood rafters.

In computing the strength of the tower to carry the additional load imposed by the bells and their frame, it was found that the masonry was amply strong, but that the weight transferred to the earth at the interior corner would be in excess of that allowed by the Philadelphia building laws. Therefore it was necessary to provide additional footings at this point.

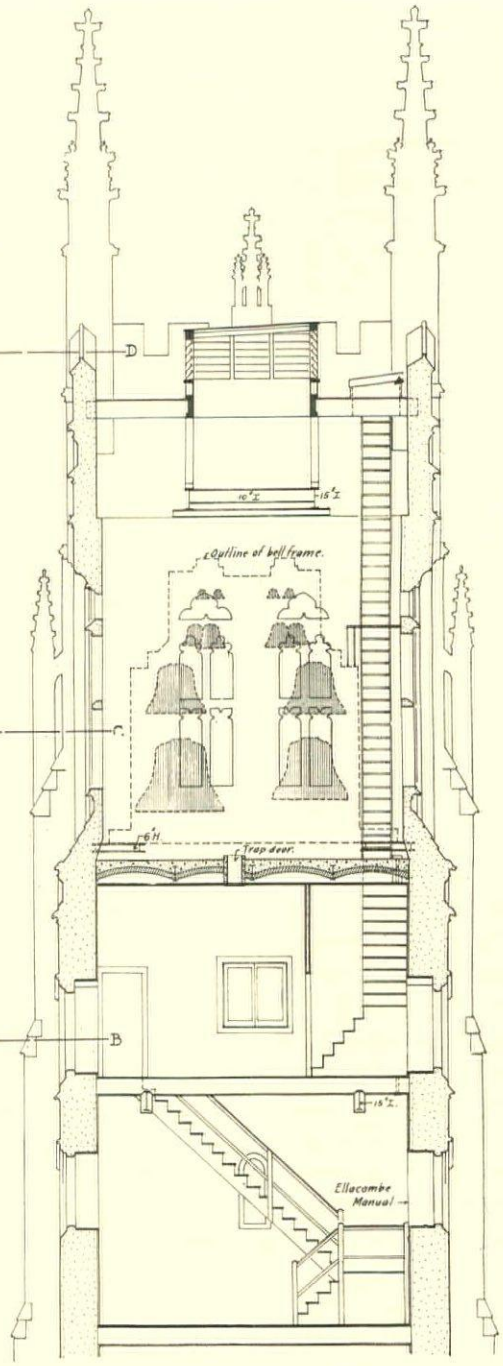
A diagonal aperture was carefully cut through the corner of the tower foundation, keeping it back enough to avoid disturbing the corner stones and thereby retaining as much strength as possible during the operation. On the axis of this aperture, and far enough from each end of it to avoid the old foundations, concrete piers extending down to the bottoms of the old footings were placed and their tops carefully levelled. Two 9-inch I-beams were then slipped through the aperture and bedded on the new piers with cement. Adequate bearing for the masonry supported by these beams was provided by two cast-iron plates, 2 feet 8 inches by 12 inches by 2 inches, one resting on the upper flanges of the beams and the other, after having its top flushed with cement, was driven to a solid bearing by six pairs of cast-iron wedges driven between the two. Concrete was then tightly rammed into the aperture.

The carillon is played by means of a clavier, somewhat resembling an organ console except that instead of keys it has short levers. These levers and the pedals have a travel of about 2½ inches when a note is struck, and are connected by means of steel wires to levers on rocking shafts, with other levers attached to the bell clappers and to counter-weights; so that a very delicate adjustment is possible, and little effort required to sound even the largest bell. The founders of the carillon desired that the clavier-room floor be between 13 and 14 feet below the floor of the bell-chamber. This necessitated the construction of a new floor and a room to contain the clavier. This floor was required to be very rigid, with two steel beams so spaced that the clavier could be bolted directly to them.

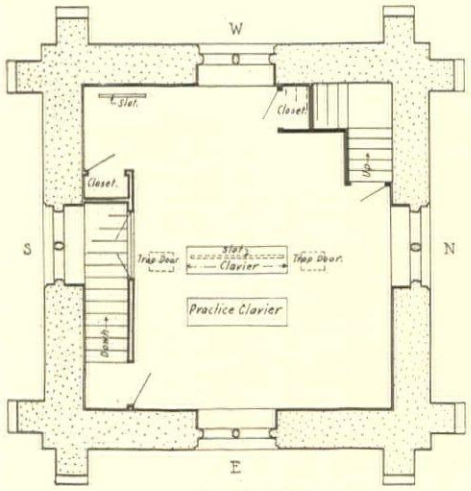
The frame to which the bells are hung was designed by the founders, John Taylor & Company, of Loughborough, England, and is built of British rolled-steel structural shapes, the entire load being carried on two compound girders spanning the interior of the tower. It was originally intended that these girders should bear directly on the masonry, which would have necessitated cutting holes in the wall on one side more than twice the depth required for bearings. Because of the length of the girders and the restricted space for handling them, this would have been slow and expensive work, so it was decided to set a 6-inch H-beam diagonally across each interior angle of the tower to form bearings



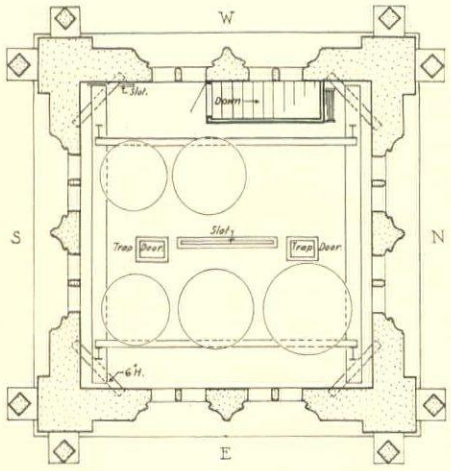
SECTION LOOKING WEST



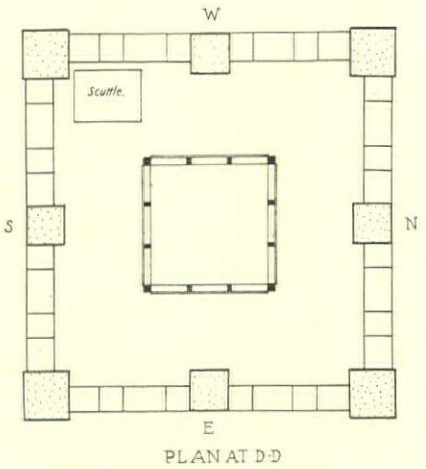
SECTION LOOKING SOUTH



PLAN AT B-B.
(Clavier Room).



PLAN AT C-C.



PLAN AT D-D

CARILLON INSTALLATION, FIRST M. E. CHURCH, GERMANTOWN, PA. CHARLES L. HILLMAN & SON, ARCHITECTS

for the compound girders. This arrangement has several advantages over the original plan: The load is distributed over eight points on the masonry instead of four, and at the points of greatest strength; the diagonal beams, being short, were easily handled and required less cutting into the walls for bearings; and it was possible to do this work before the carillon arrived, thereby expediting its erection; also because the compound girders did not have to be so long as originally designed, it facilitated their handling.

Provision for allowing the sound of the bells to escape from the bell-chamber was an important item. There were twin windows in each side of the tower, divided mid-height by stone transoms, and having stone louvres. The tympanums in their heads were solid. The louvres were removed and the tympanums in the heads were cut out, and, as an additional sound outlet, a pent-house with louvred sides was constructed on the roof. Under the pent-house the rafters were cut out and framing pieces put in, supported by four short Georgia pine posts, which are supported by two 15-inch I-beams spanning the tower. It was foreseen that these beams would facilitate the handling of the bells and frame by providing fastenings for tackle and hoists; therefore each one was made strong enough to carry the heaviest bell in midspan.

As previously mentioned, the rocking shafts operating the bell clappers are connected to the clavier by wires, which pass through a slot in the floor of the bell chamber; this slot is 6 feet long by 2 inches wide, and had to be accurately located. Also there are two trapdoors in the ceiling of the clavier-room and the bell-chamber floor to enable the carillonneur to hear the bells distinctly while playing. To place the trapdoor and slot frames, the brick floor arches were shored and cut, and concrete frames strong enough to take the thrust of the arch were cast *in situ*, the concrete extending above the floor to form curbs.

Connection was made to the present heating system and a steam riser run to radiators in the clavier-room. Because of the strenuous exertion required to play the carillon, bathing facilities are a great convenience; therefore a lavatory with cold water connection was installed in the clavier-room.

The rough walls of the tower below the bell-chamber floor were furred and lined with wall-board, the joints being covered with battens. The walls of the bell-chamber were flush-dashed with Portland cement and sand.

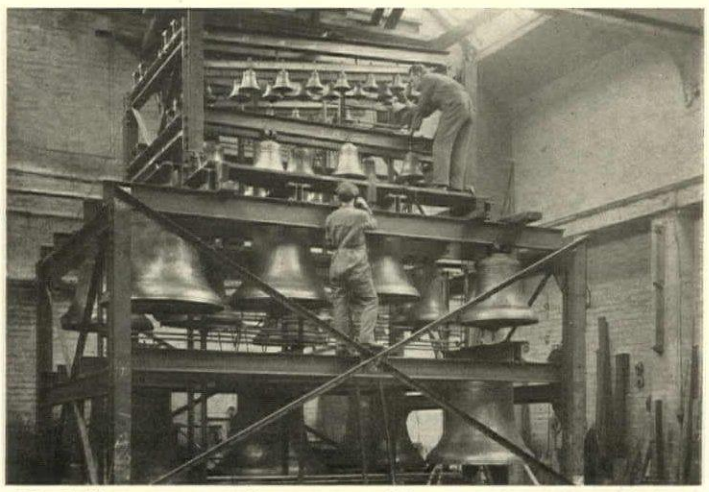
The agreement with the bell founders provided for the landing of the carillon on the wharf at Philadelphia. At this point the owner assumed responsibility. A cantilever was placed across the tower on the parapet and anchored down by means of a cable fastened under a corbelled buttress on the church side. The jambs of one of the windows in the bell-chamber were carefully cut out sufficiently to allow the largest bell to pass. The bells and heavier members of the frame were hoisted by a power-winch on a truck until they were above the sills of the belfry windows, when they were made fast to a hand-hoist secured to the steel roof-beams. As the power-winch was eased off the hoist pulled the bells through the window and swung them clear inside; then, by using a second hoist, they were easily and quickly placed in position. The largest bell had 3 inches clearance through the opening in the jambs, and passed without touching. While the hoisting was being done new jamb stones were being cut, and were ready to set when it was finished.

In addition to the playing clavier there is a practice clavier, which is similar to the playing one except that it is not connected to the bells but to small metal tubes of corresponding tones, set in a wooden frame above the levers. This permits the carillonneur to practise without ringing the bells. There is also an ellacombe manual or chiming apparatus, fastened to the wall on the landing of the stairs leading to the clavier-room. This consists of eight ropes fastened to a wood frame, and connected to eight of the larger bells for the purpose of tolling or chiming them.

All openings in the belfry, including the pent-house, are screened with copper fly-netting to exclude snow; in the windows this is backed up with heavy galvanized iron screens to prevent birds flying through it.

The pastor's room in the church and the clavier-room are connected by telephone. In the tower vestibule is a memorial tablet stating that the carillon is the gift of Mr. and Mrs. William H. Shelmerdine as a memorial to their son.

Additional footings were given the tower walls by cutting through a corner and bridging the load



The bells are mounted upon a steel frame—sixty-three of them in all, covering a range of four octaves

ANNOUNCEMENTS

D. Leonard Halper, architect, has opened his Cleveland office for the practice of architecture at 7016 Euclid Avenue. He will be pleased to receive a complete file of manufacturers' catalogues and samples.

Walter P. Crabtree, of New Britain, announces that his son, Walter P. Crabtree, Jr., has been taken into partnership under the firm name of Walter P. Crabtree & Son, architects, and the opening of new offices in the Capitol Building, 410 Asylum Street, Hartford, Conn.

W. K. Eldridge, architect, announces the removal of his office from 218 Medical Arts Building, to 203 Medical Arts Building, Indianapolis, Ind.

S. Grant Alexander has changed his offices from the Chamber of Commerce Building to 113 East College Street, Asheville, N. C.

BOOK REVIEWS

THE SMALLER HOUSES AND GARDENS OF VERSAILLES FROM 1680 to 1815. By LEIGH FRENCH, JR., and HAROLD DONALDSON EBERLEIN. 102 pages, 9 by 12 inches. Chiefly illustrations, from photographs and measured drawings. New York: 1926: The Pencil Points Press, Inc. $6.

In the shadow of the Palace at Versailles stand a number of comparatively modest houses of the seventeenth and eighteenth centuries, the homes of various members of the court circle. There are throughout these dwellings a quiet elegance, a delightful ingenuity of plan, a sophisticated simplicity that mark a group unique, and incidentally one full of suggestion for the modern adaptation. The photographs are well chosen and well printed, the drawings in a particularly sympathetic key.

CHICAGO TRIBUNE BOOK OF HOMES. 99 designs for five-room and six-room houses, submitted in a competition. 110 pages, 10½ by 13 inches. Illustrations from line drawings. Chicago: 1927: Chicago Tribune. $1.

If any architect needs ideas for the minimum house, here they are.

THE ARCHITECTURE OF THE RENAISSANCE IN FRANCE. Two volumes: The Early Renaissance (1495–1640) and The Later Renaissance (1640–1820). By W. H. WARD, M.A., F. S. A., F. R. I. B. A. 566 pages, 6 by 9 inches. 473 illustrations from photographs and drawings. New York: 1927: Charles Scribner's Sons. $7.50 per volume.

The late W. H. Ward's volumes, first published in 1911, have long occupied a very important niche in architectural literature. Ward's breadth of view, his deep knowledge of his subject, his painstaking accuracy, and his clear and concise style have combined to make an enduring work. The present edition is revised to incorporate Ward's later and fuller knowledge, with a preface by Sir John Simpson, M.A., past president R. I. B. A., and additional illustrations.

SYMBOLISM FOR ARTISTS: CREATIVE AND APPRECIATIVE. By HENRY TURNER BAILEY, Director Cleveland School of Art, and of John Huntington Polytechnic Institute, and ETHEL POOL, Instructor in Symbolism, Trinity Cathedral, Cleveland. 240 pages, 4¼ by 6½ inches. Illustrated. Worcester, Mass.: 1925: The Davis Press. $5.

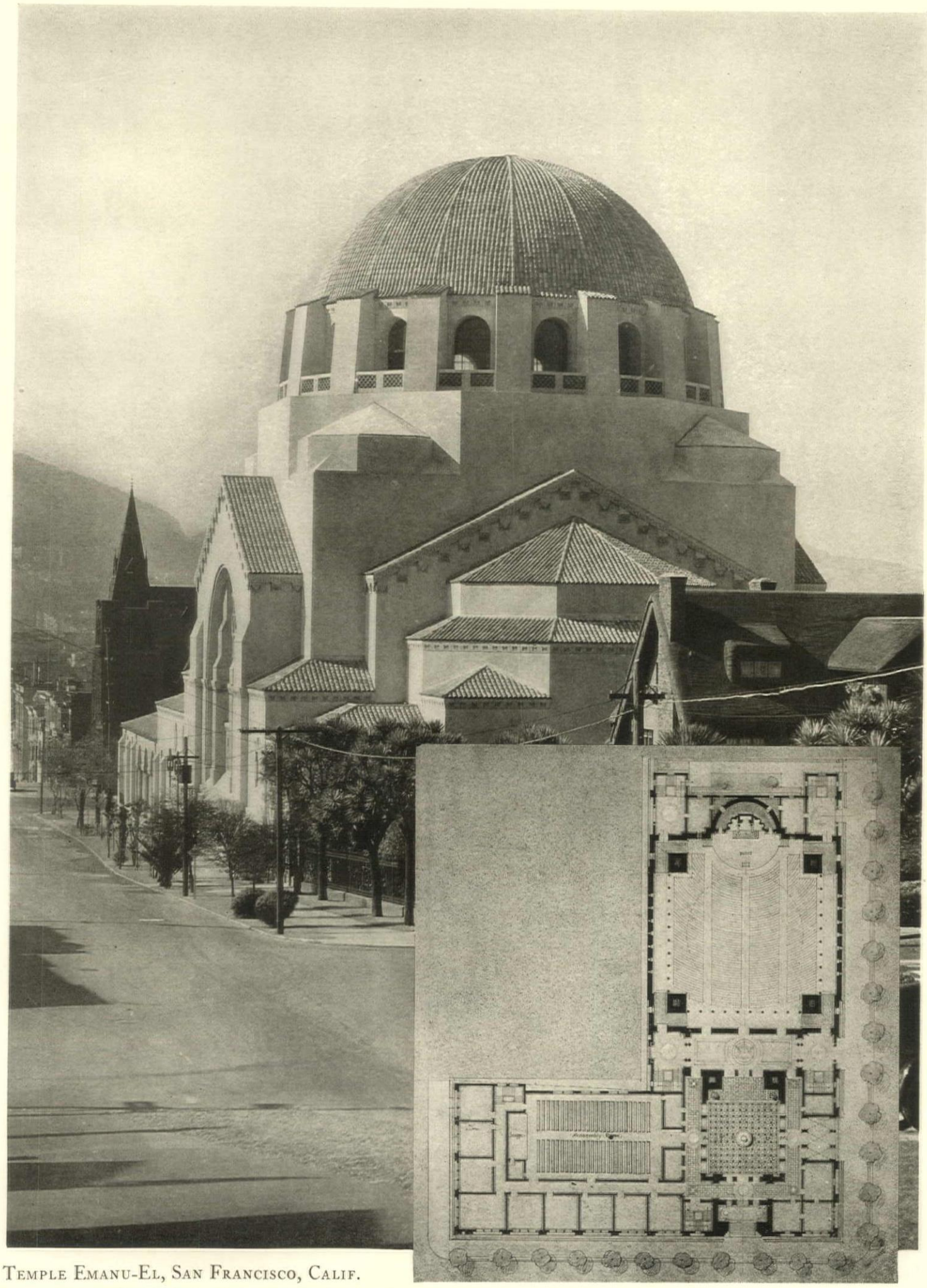
An alphabetical arrangement of information as to the meaning and use of symbolic motives in the art of the past. It should prove of real value to art students and teachers. to travellers, and to artists generally. The latter would find it a convenient means of checking or adding to their knowledge of symbolic forms.

HOUSE HEATING WITH OIL FUEL. By P. E. FANSLER, E.E., Associate Editor *The Heating and Ventilating Magazine*. 354 pages, 6¾ by 10 inches. Illustrated with diagrams and photographs. New York: 1927: Heating and Ventilating Magazine Co. $4.

A most comprehensive presentation of a subject on which the latest possible information is sought. In addition to the matters of combustion, burner types, mechanical draft, automatic control, installation, and servicing, the author gives the Underwriters' regulations, oil-burner ordinances, and a chronological list of burners classified as to type.

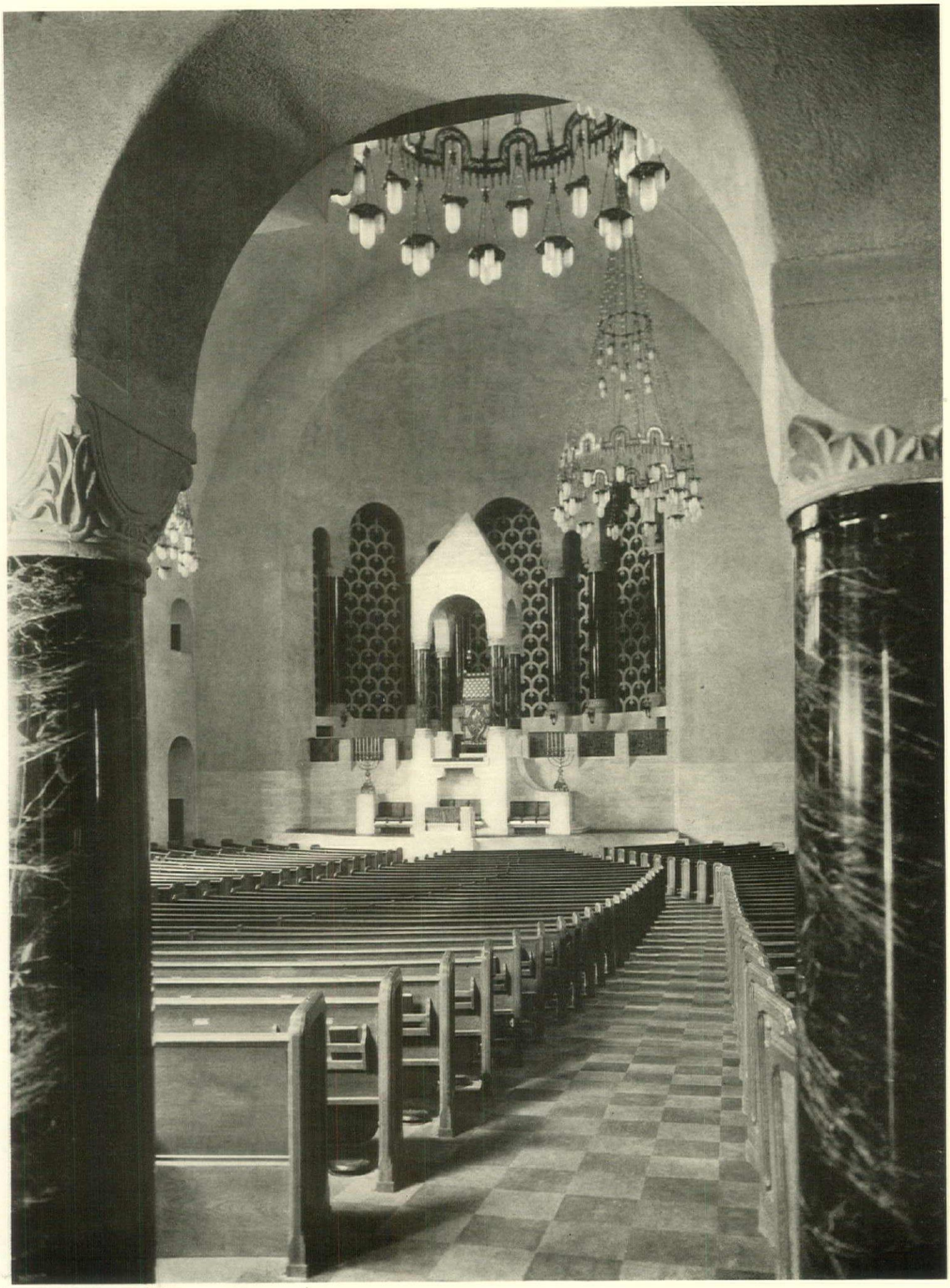
U. S. GOVERNMENT MASTER SPECIFICATION FOR CEMENT, PORTLAND. Circular of the Bureau of Standards, No. 33. Washington: Government Printing Office. 10 *cents*.

U. S. GOVERNMENT MASTER SPECIFICATION FOR CEMENT, PLASTIC MAGNESIA, USED AS FLOORING, BASES, WAINSCOTS, ETC. Circular of the Bureau of Standards. No. 323. Washington: Government Printing Office. 10 *cents*.



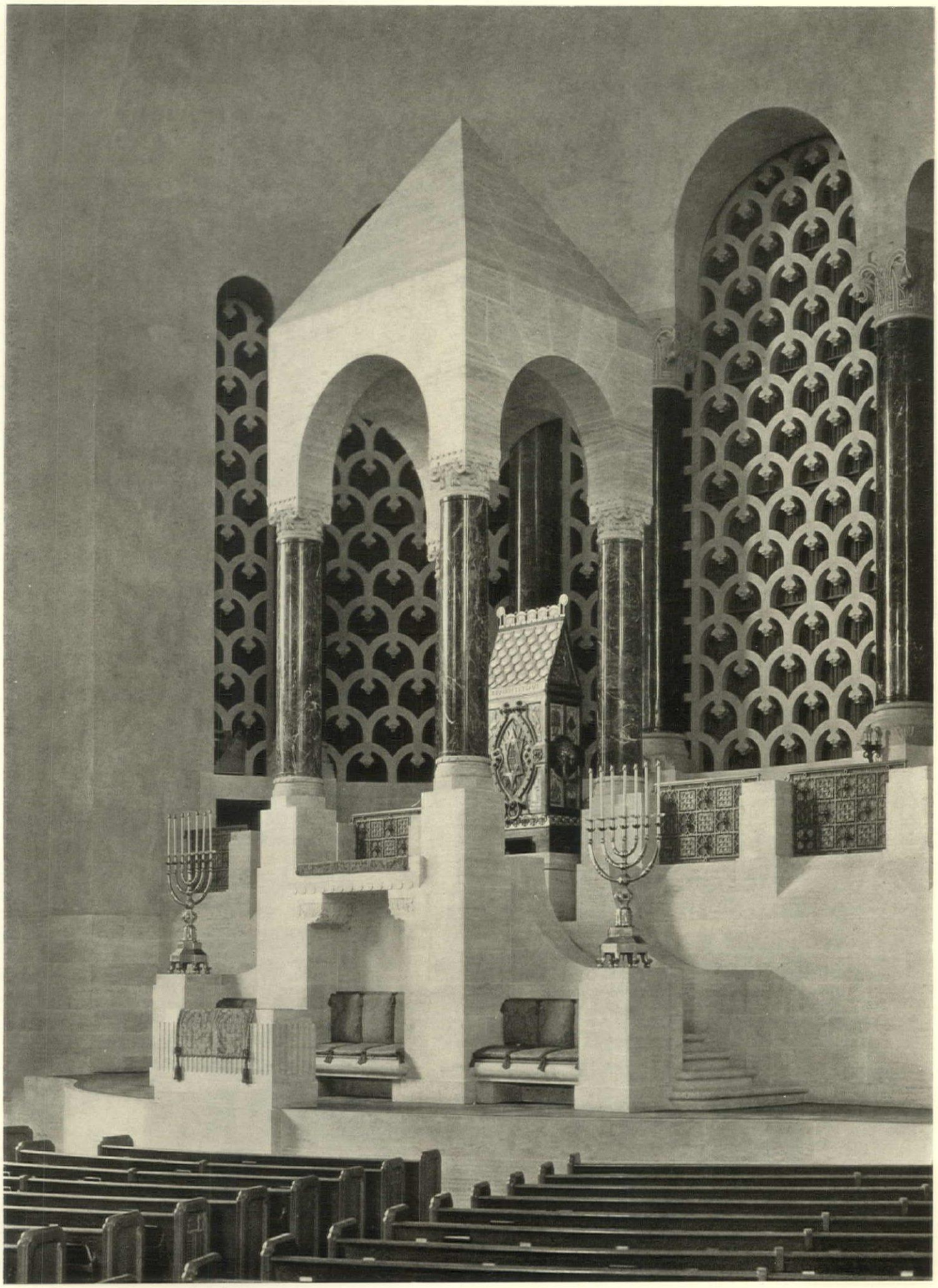
TEMPLE EMANU-EL, SAN FRANCISCO, CALIF.

BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS



TEMPLE EMANU-EL, SAN FRANCISCO, CALIF.

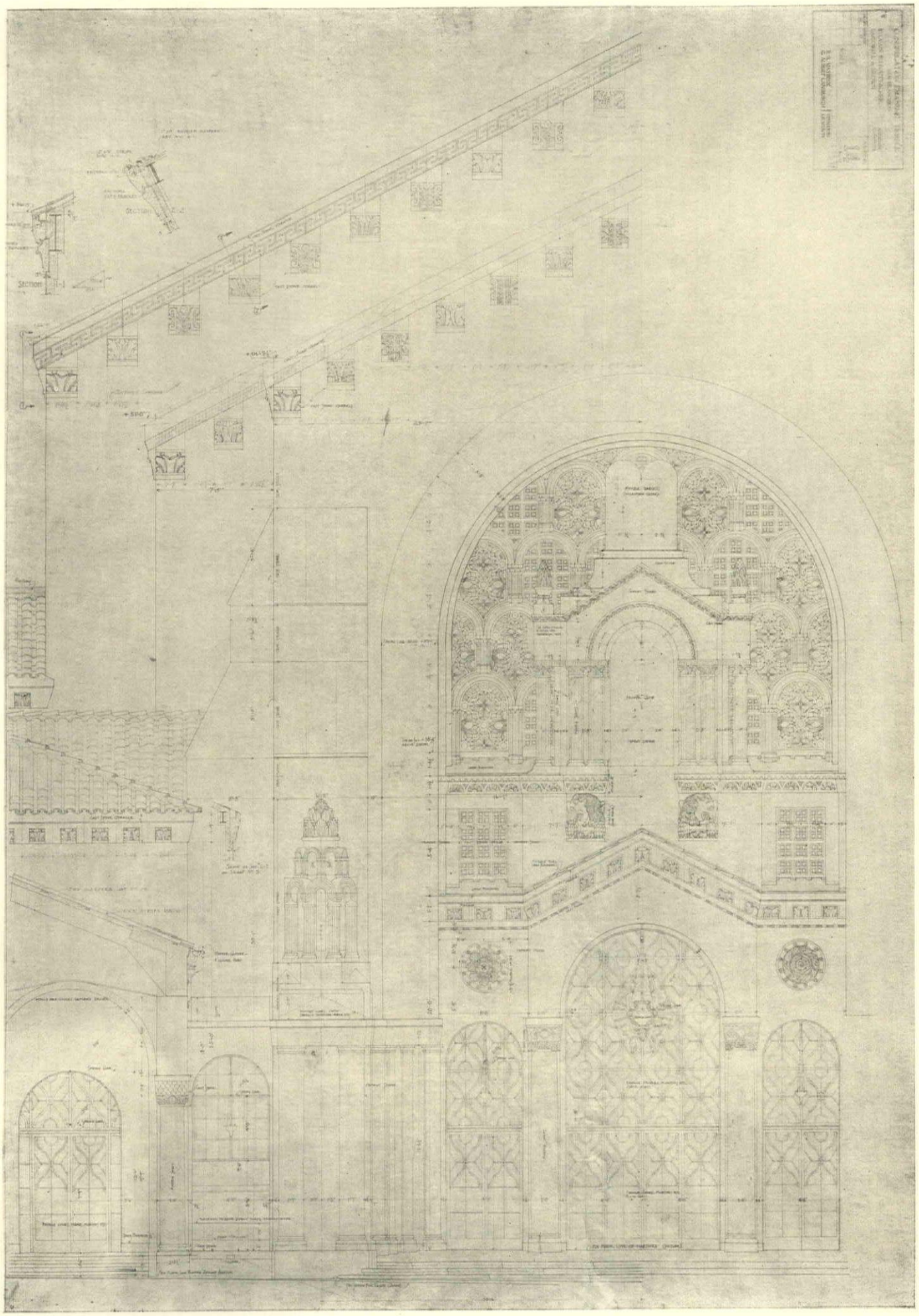
BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS



TEMPLE EMANU-EL, SAN FRANCISCO, CALIF.

BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS

TEMPLE EMANU-EL, SAN FRANCISCO, CALIF. BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS

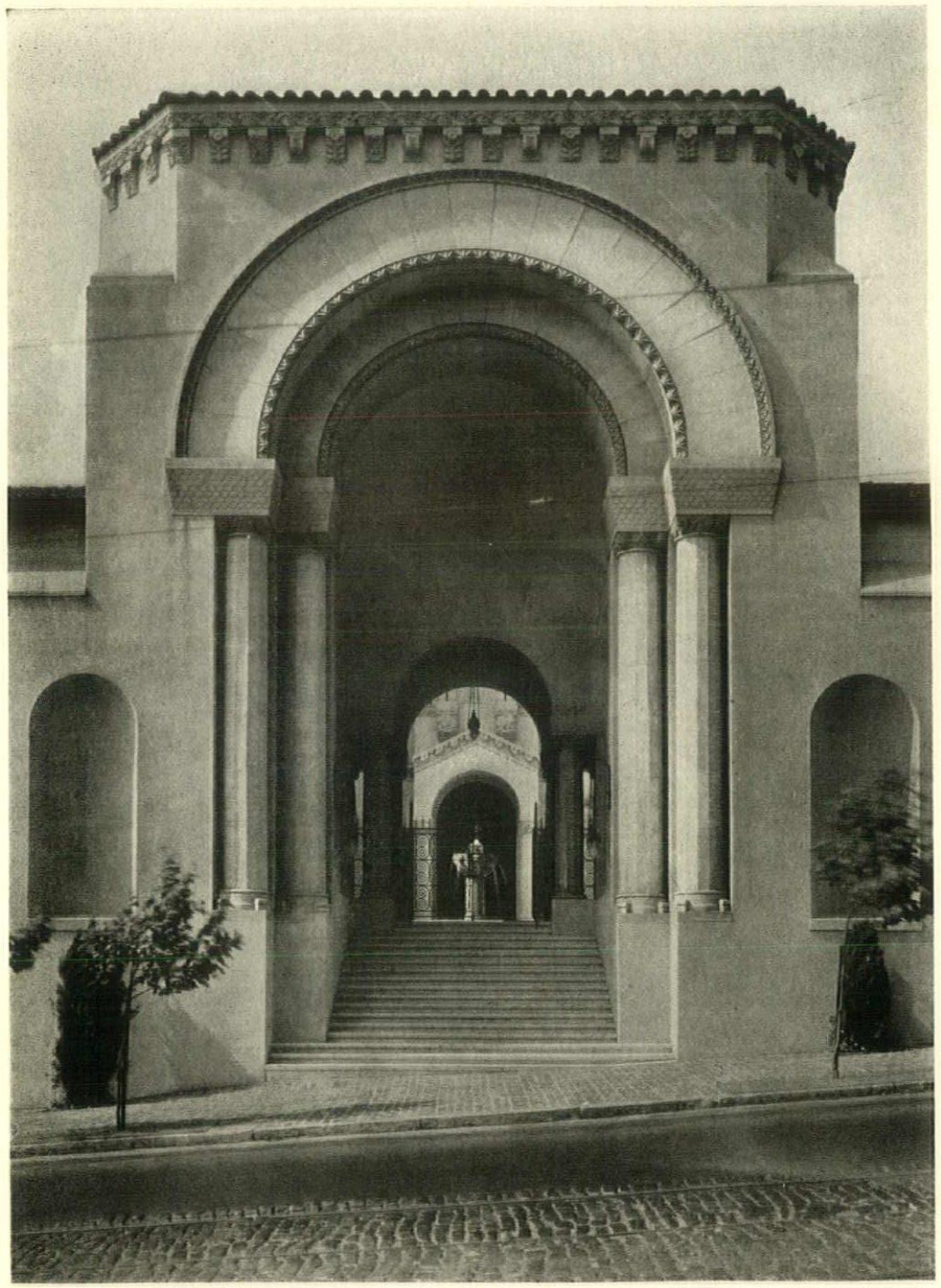


TEMPLE EMANU-EL, SAN FRANCISCO, CALIF. From half-inch scale detail

BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS

TEMPLE EMANU-EL, SAN FRANCISCO, CALIF. BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS

TEMPLE EMANU-EL, SAN FRANCISCO, CALIF. BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS



TEMPLE EMANU-EL, SAN FRANCISCO, CALIF. BAKEWELL & BROWN AND THE LATE SYLVAIN SCHNAITTACHER, ARCHITECTS

Robert C. Reamer, Architect

The Pacific Coast delights to indulge its playful spirit in the design of its theatres. The two photographs above, reminiscent of totem poles of the Northwest, show the Fifth Avenue Theatre, Seattle

An indication of the fact that American architecture is beginning to influence our London brethren is found in this model of a housing scheme by Topham Forrest, F. R. I. B. A., Chief Architect of the London County Council

Architectural News in Photographs

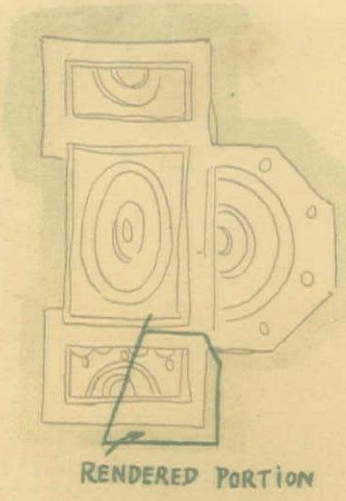
A new building that helps to make interesting the skyline of Brooklyn on her famous heights is the Leverich Towers Hotel. Starrett & Van Vleck, Architects

Los Angeles's new city hall is nearing completion, its high white tower a landmark. John C. Austin, John Parkinson, and Albert C. Martin, Associated Architects

Newark's new home of the New York Telephone Co. maintains the exceptionally high standard of our telephone buildings generally. Voorhees, Gmelin & Walker, Architects

A VILLAGE DRUG-STORE, SAYBROOK, CONN.

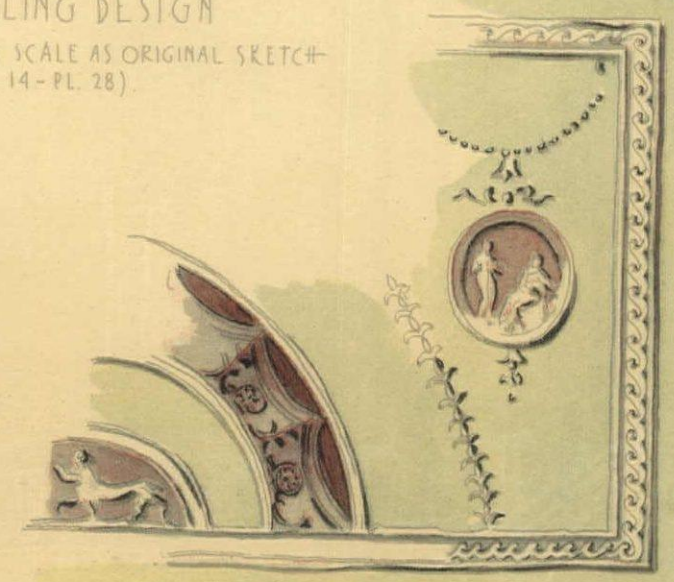
Although the site, it is said, has held a store of some kind ever since 1719, the present building has only recently been remodelled by Francis A. Nelson, Architect, who put in the doorway, display window, and the gold mortar in the pediment



CEILING DIAGRAM

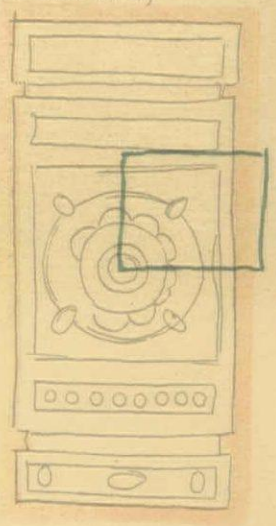
"ADELPHI 1778" - PART OF CEILING DESIGN

SAME SCALE AS ORIGINAL SKETCH (VOL. 14 - PL. 28).



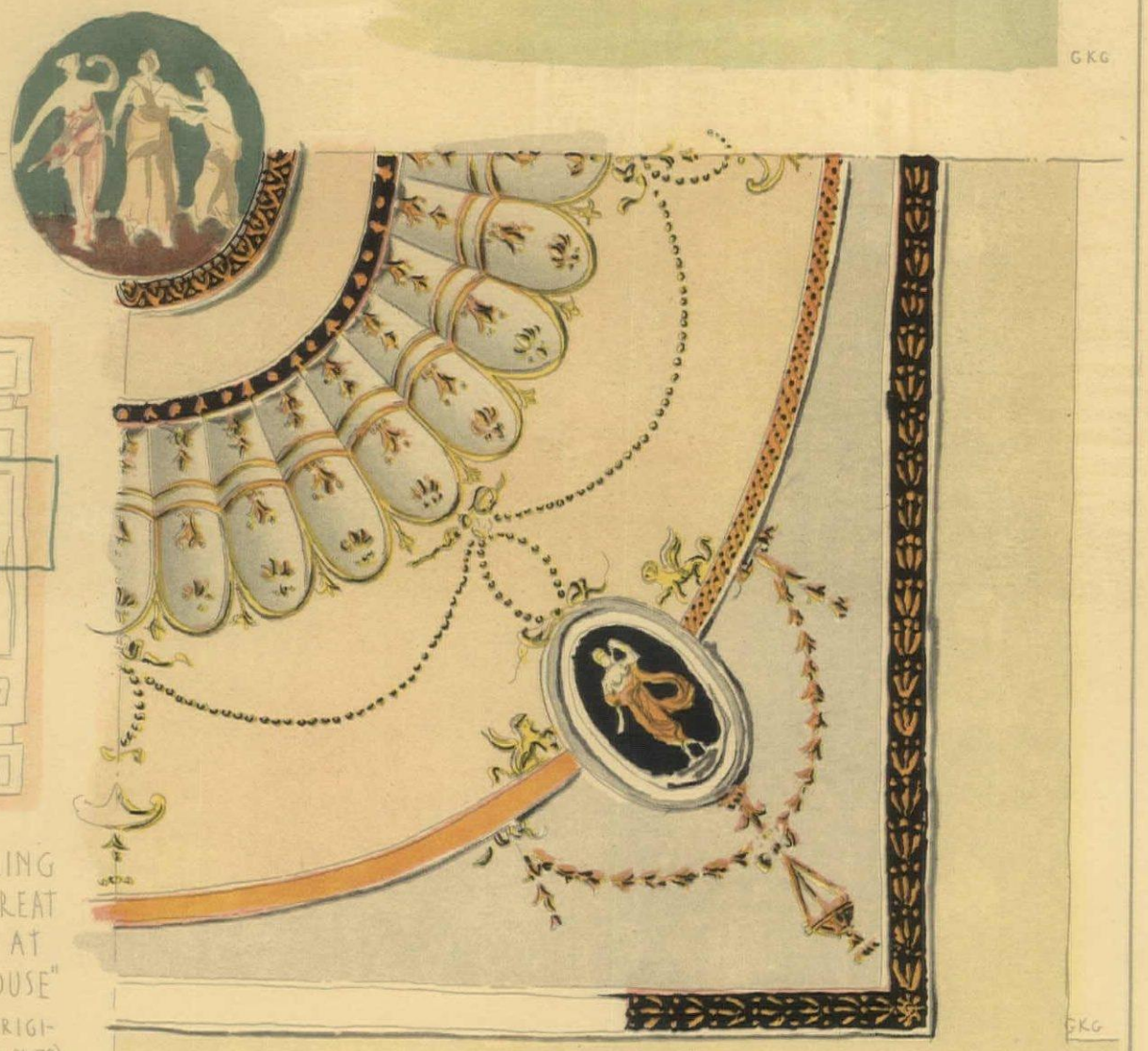
GKG

CEILING DIAGRAM (DARK LINE MARKS RENDERED PART)



PART OF CEILING DESIGN "FOR GREAT DINING ROOM AT CUMBERLAND HOUSE"

SAME SCALE AS ORIGINAL SKETCH (VOL. 14 - PL. 79)

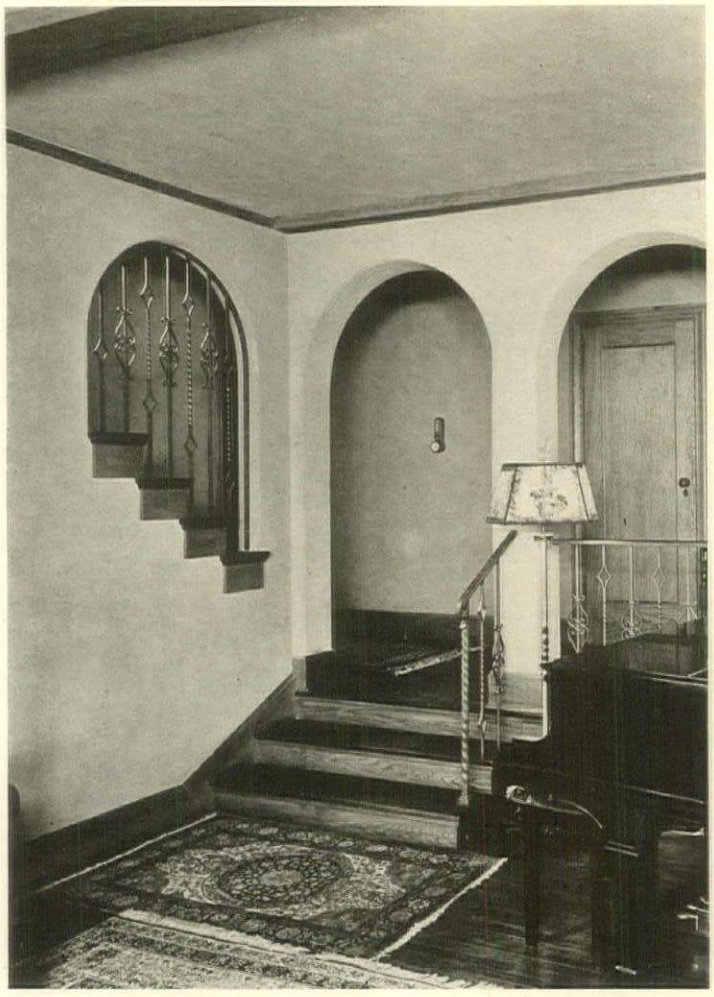


GKG

Color Schemes of Adam Ceilings—III

From accurate copies in water color by Gerald K. and Betty F. Geerlings of the original studies by the Adam brothers now in the Sir John Soane Museum, London. These faithfully follow the colors but do not pretend to retain the exact delineation of the ornament.

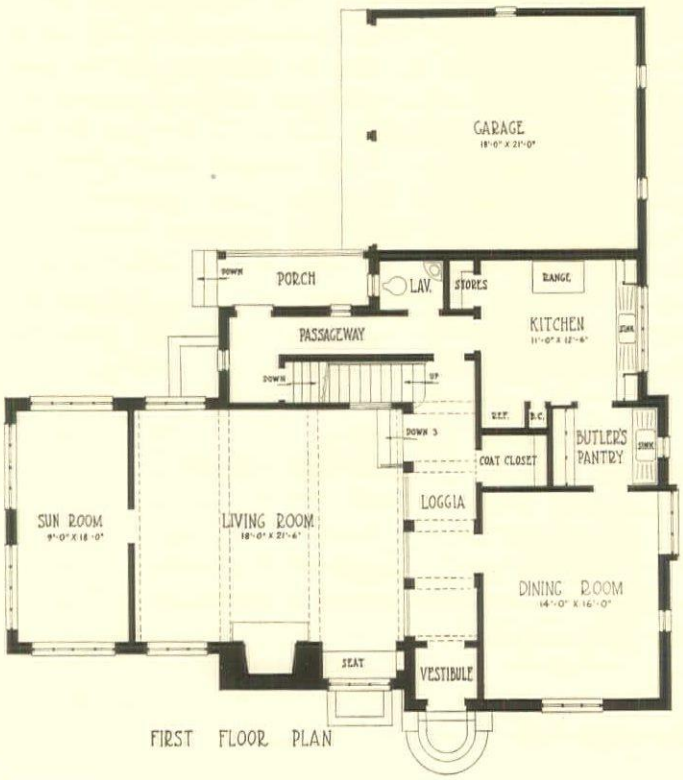
HOUSE OF MARTIN T. FLANAGAN,
SOUTH MOUNTAIN AVENUE,
MONTCLAIR, N. J.
LUCIAN E. SMITH, ARCHITECT



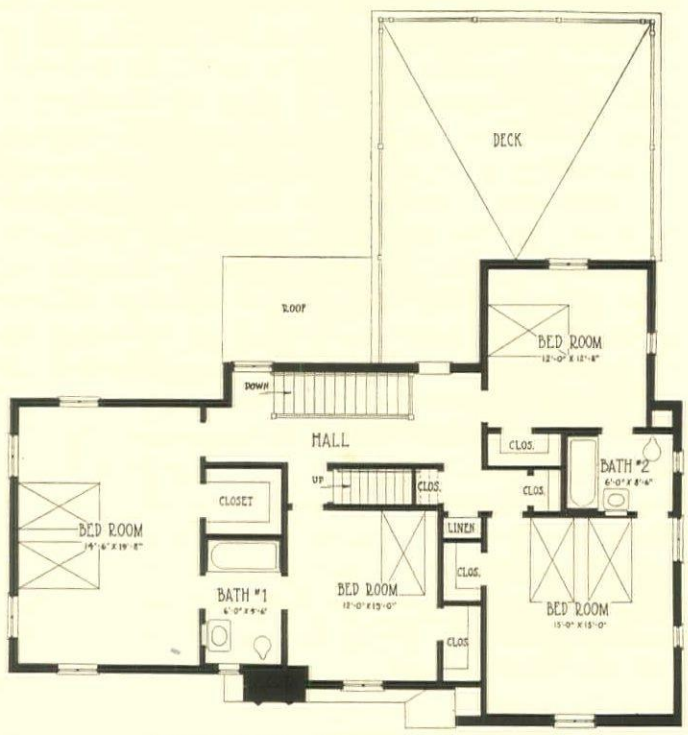
Stairway and loggia

Entrance from living-room

HOUSE OF MARTIN T. FLANAGAN
MONTCLAIR, N. J.
LUCIAN E. SMITH, ARCHITECT



FIRST FLOOR PLAN



SECOND FLOOR PLAN

The Architectural Clinic

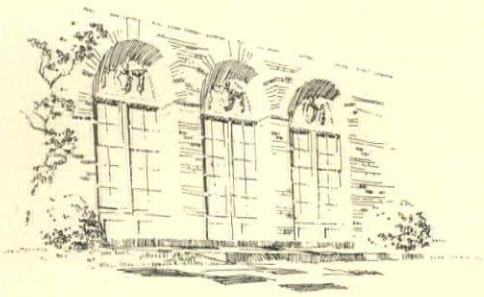
HARDWARE AND STILES

TO the query "When is a door not a door?" we have all heard the moss-aged reply, "When it is a-jar," but the hardware contractor knows better. His answer is "When it has a 2-inch stile."

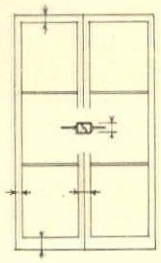
As a matter of record, a door stile may be dieted down to 2 inches in width, and still digest a cylinder-lock with 1-inch back-set, providing that the thickness is no less than 1¾ inch and the door not too large. However, it is equally a matter of record that hardware advisers are reluctant about such an emaciated stile, pointing out that a damp season, a ruffled temper, and bulging biceps may combine to do the door no good. Window casements sneak under the 2-inch stile classification, however. A door stile pared down to its advisable minimum probably comes closer to being 3 inches, with a 1½-inch back-set lock, although if there is a pair of doors, 2½ inches may suffice happily. When the reduced stile of 3 inches or less is employed, the lever handle is a necessity, of course, and offers the opportunity of making the simple mistake of extending in the wrong direction unless the doors are carefully marked on the plans, both as to swing and which of a pair is "active." A common practice is to assume that if a pair of doors is to swing in, the right door (from the outside) is the "active" member. The hardware contractor is in his happy hunting-ground when the stiles are of a common dimension throughout a job and ample in width, but he is willing to accept responsibilities if stiles are variable providing that door swings are shown, and special conditions are marked on plans, with not only stile widths given but thicknesses as well. One of the foremost gray-hair producers, say the hardware men, is the residential job where the client and architect take turns playing havoc with the door and hardware schedule without keeping said document up to date or informing the contractors involved. The result ends usually with too few locks that fit, and too many words that do.

The day was, and now is passing, when the cremorne or cremone bolt, with a lot of accredited French ancestry, was a popular chaperone to every pair of French doors. Both numbers and varieties of the cremone are growing less, but the client still lives who gets perfect satisfaction from them on 2-inch to 3-inch stile French doors. If one door is to remain closed while the other is open, he may even wish to have one on each door.

After interviewing members of the hardware profession, THE CLINIC comes to the conclusion that both the client and contractor would be the richer if more information were placed on estimate drawings. In the absence of a lump-sum allowance, the same estimator may "figure" the job two ways. He can submit a low price in order to get it, and trust that the architect is not intending to interpret too many extras between the lines of his vague specifications, or require too many items not shown on drawings which are covered only in general clauses; in these the contractor and his heirs are bound to furnish anything which will contribute to the artistic *ensemble*. Or, he may estimate the job so as to "play safe," and therefore let his chance-taking competitor walk off with the dotted line. Modern catalogues offer complete information for him who would seek to avoid trouble later. There is the story of the architect who specified a certain hinge by number, but covered himself by a protective phrase, serenely tucked away, which absolved him and his inaccuracies forever and a day. The contractor estimated and furnished the article specified by number, only to find on the job that they fitted on the doors no better than his bill for an "extra" fitted the architect's sense of personal error.



Not infrequently in residential work three arches have French doors in the centre, flanked by double-hung sash. When ¾"-scale details are made it becomes evident that, unless the stiles of the doors are cut down to 2½" to 3" in width, the amount of wood showing at the head rail will differ widely between the doors and windows. From a design standpoint the three openings should appear alike.



To save his client money by obtaining more definite estimates, the architect might well dimension stile and rail widths and thicknesses, and meeting-rail section, for all openings requiring special or high-priced hardware.

The excavator has the advantage over the hardware contractor, not only that his services need fit less accurately, but that he is not the last contractor on the job, when the client wants protection on his doors, so that he can move in with his stamp collection and radio. Any slips in excavating are as nought compared with a doorknob's absence. Thus it is that at the crucial moment, when each keyless second strikes agony in the heart of the owner, the hardware contractor arrives just in time to be showered by the culminating wrath for all previous delays. Unfortunately, in these days of involved shipments and delayed deliveries, the hardware cannot be ordered until the cabinet or mill work is detailed by the architect, and since special equipment is not to be had for the asking in a twinkling, the real cause (stage whisper) is often traceable to delinquent architect's details.

Casement windows should have stile and rail widths and thicknesses clearly marked on plans from the start. If they are changed later a revised schedule should be sent in to the interested contractors. Fasteners, catches, and the like can make for no end of irritation when this information is omitted, and the hardware contractor must obtain his data from the mill instead of from the architect's organization.

Emery Stanford Hall, A. I. A., Chicago. Recently on Jury of Award, West Coast Woods Competition

Walter P. Crabtree, New Britain, Conn., engaged in the general practice of a busy industrial city

Carl Reger, A. I. A., Morgantown, W. Va.

N. Max Dunning, F. A. I. A., Chicago, is Director of the Structural Service Department, A. I. A.

James E. McLaughlin, A. I. A., of McLaughlin & Burr, Boston. Specializes in schools and hospitals

Edwin B. Phillips, A. I. A., of the firm of Spencer & Phillips, Memphis, Tenn.

Leonard Schultze

S. Fullerton Weaver, C.E.

Schultze & Weaver

who build hotels from coast to coast and whose latest achievement is the Sherry-Netherland, New York

George Bain Cummings, A. I. A., Conrad & Cummings, Binghamton, N. Y.

You know these men by reputation — do you know them by sight?

W. Duncan Lee, A. I. A., Richmond, Va. Has special distinction as designer of private residences

L. B. McCoy, Houston, Texas

Bloodgood Tuttle, Cleveland, Ohio, who has practised in New York and Detroit

Robert K. Fuller, A. I. A., Denver, Colo.

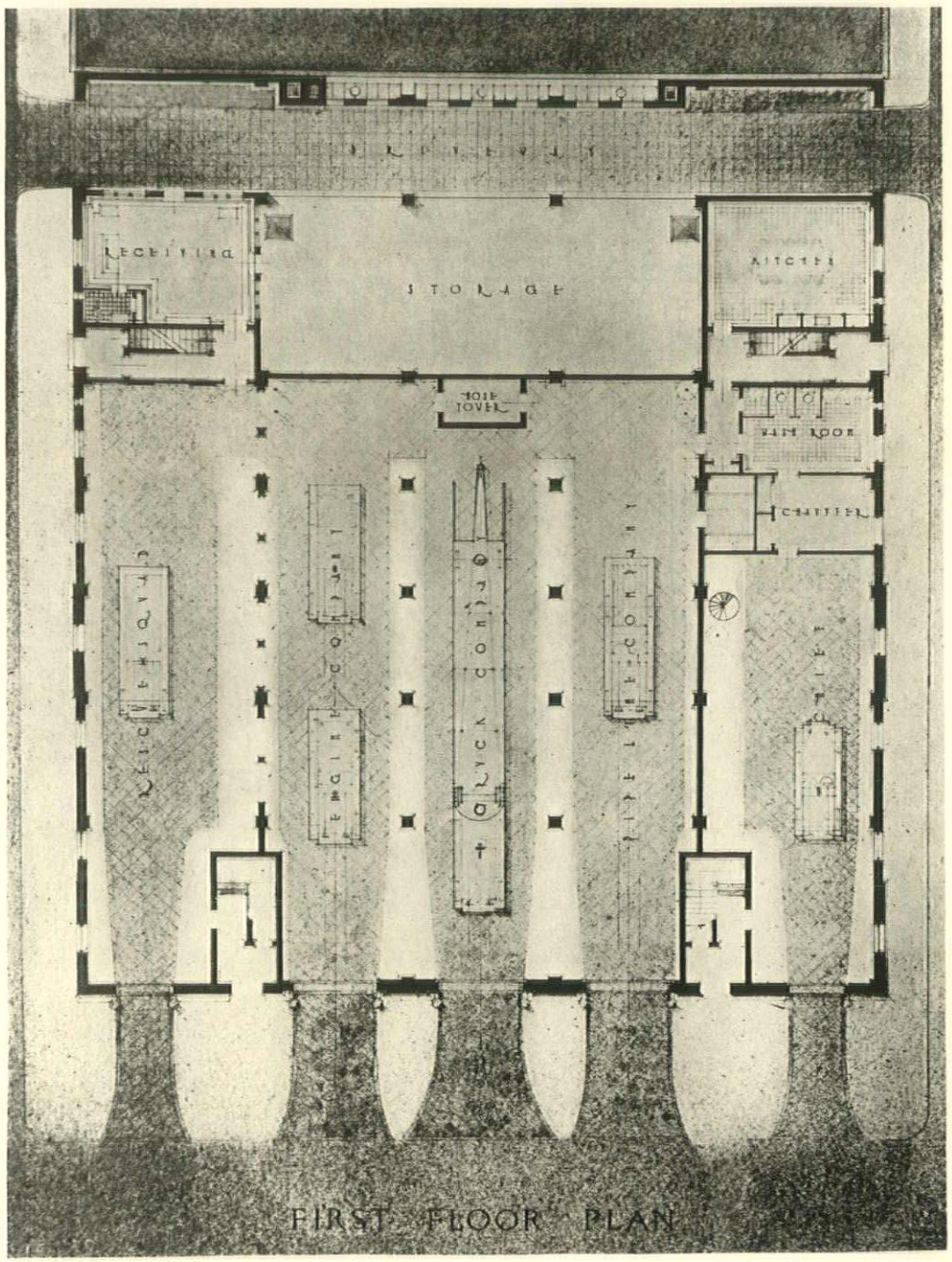
Philip H. Smith, Smith & Walker, Boston, Mass., who specializes in churches and industrial buildings

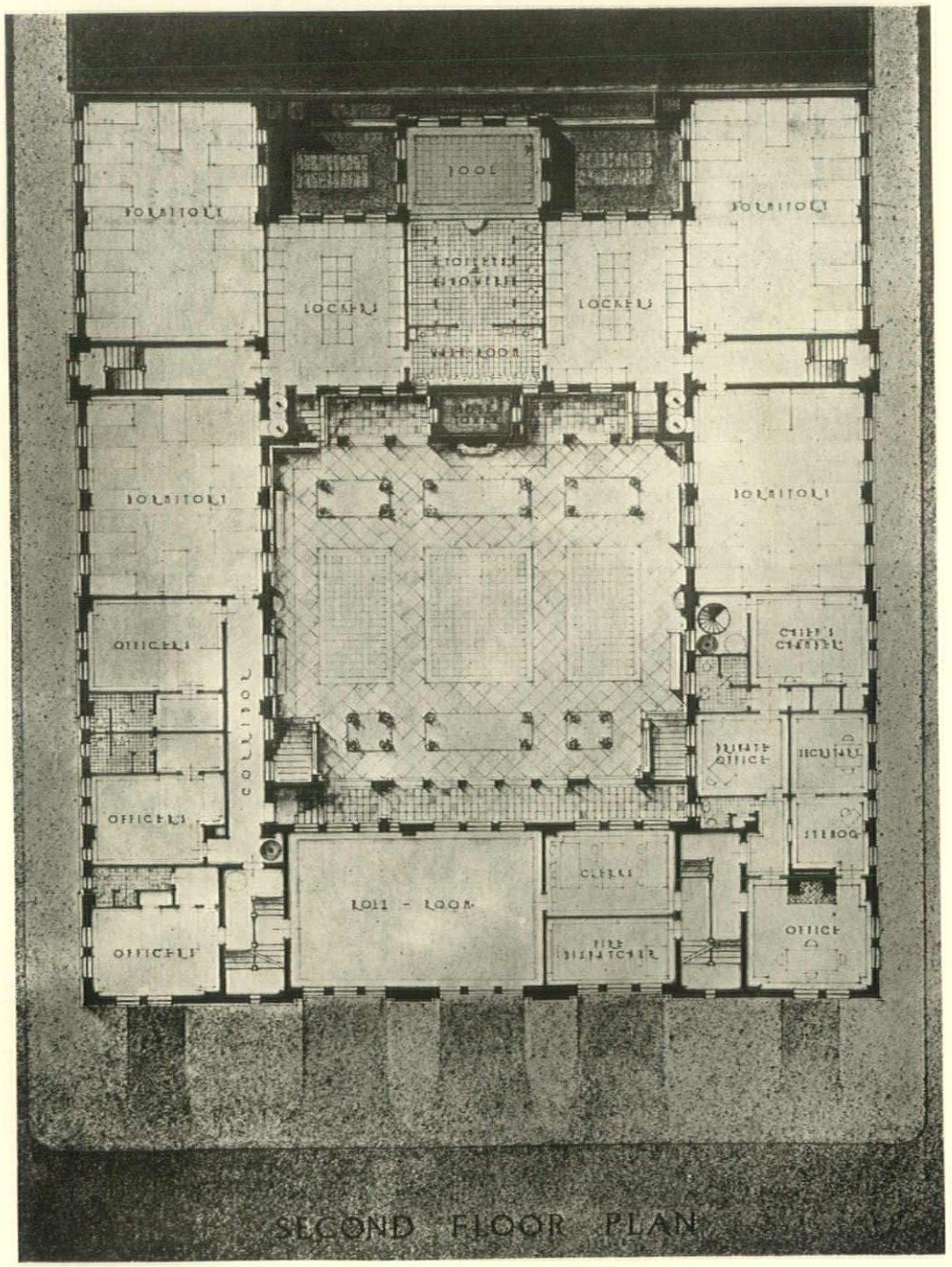
Alexander Carl Guth, Secy. Wisconsin Chapter, A.I.A., of Herbst & Kuenzli, Milwaukee, Wis.

Gilbert L. Rodier, Secy. Washington (D. C.) Chapter, A. I. A., of Rodier & Kundzen

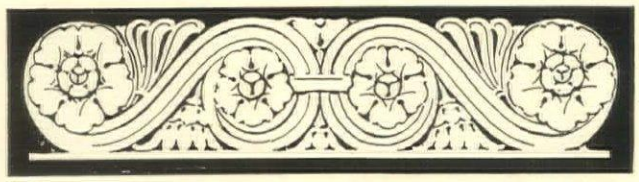
Fire Headquarters, Philadelphia, Pa.

John Molitor, City Architect





FIRE HEADQUARTERS, PHILADELPHIA, PA. JOHN MOLITOR, CITY ARCHITECT



ARCHITECTURE'S PORTFOLIO OF COLONIAL TOP-RAILINGS OF WOOD

Subjects of Previous Portfolios

STAIRWAY DETAILS (GEORGIAN, EARLY AMERICAN, ETC.)
February, 1927

PANELLING OF THE ENGLISH TYPES
January, 1927

STONE MASONRY TEXTURES
March, 1927

FANLIGHTS AND OTHER OVERDOOR TREATMENTS
May, 1927

DOOR HARDWARE
August, 1927

TEXTURES OF BRICKWORK
June, 1927

IRON RAILINGS
July, 1927

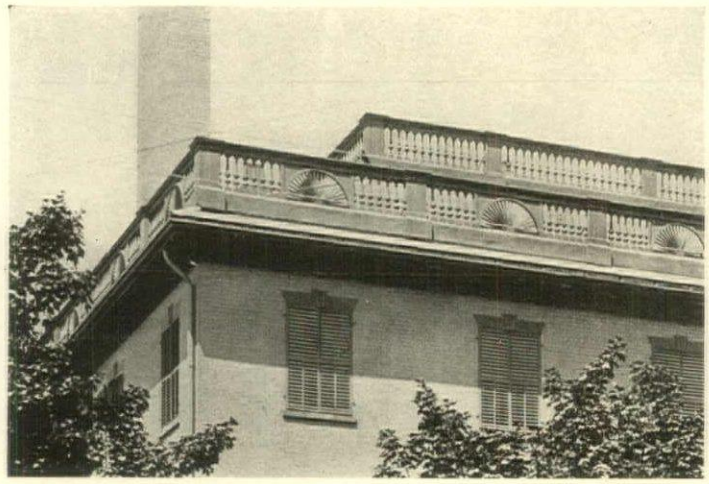
ENGLISH CHIMNEYS
April, 1927

GABLE ENDS
October, 1927

PALLADIAN MOTIVES
September, 1927

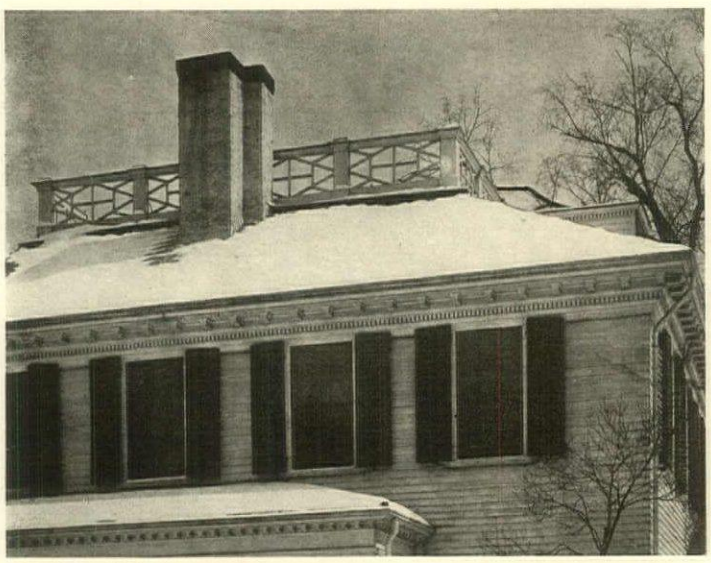
SUBJECTS IN PREPARATION FOR FUTURE ISSUES

Beamed Ceilings
Built-in Bookcases
Chimney Tops
Circular and Oval Windows
Leaded Glass Medallions
Cornices of Wood
Decorative Plaster Ceilings
Garden Steps
English Fireplaces
Floors of Wood
Elevator Doors
Garden Gates
Garden Walls
Rain-conductor Heads
Stucco Textures
Treillage

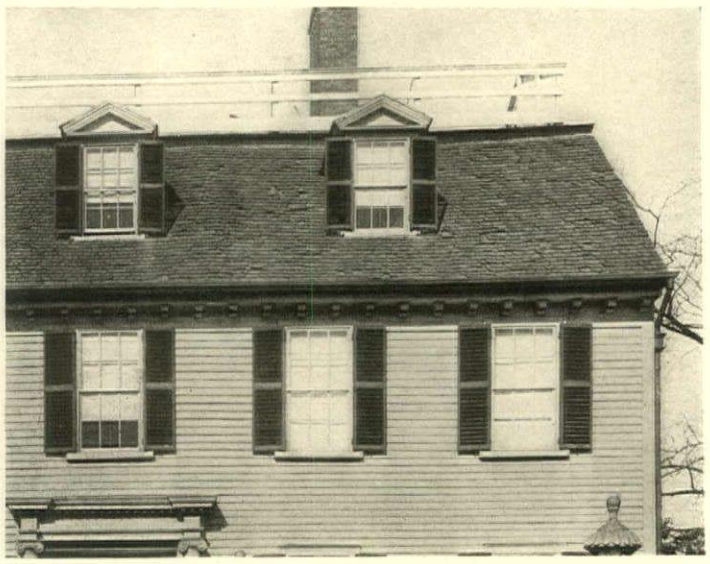


SALEM, MASS., 1818

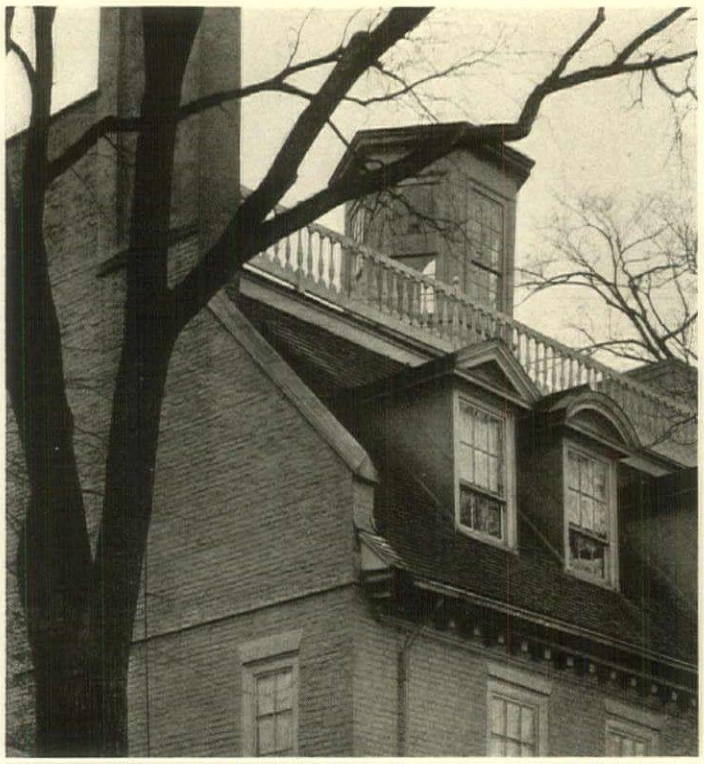
SALEM, MASS.



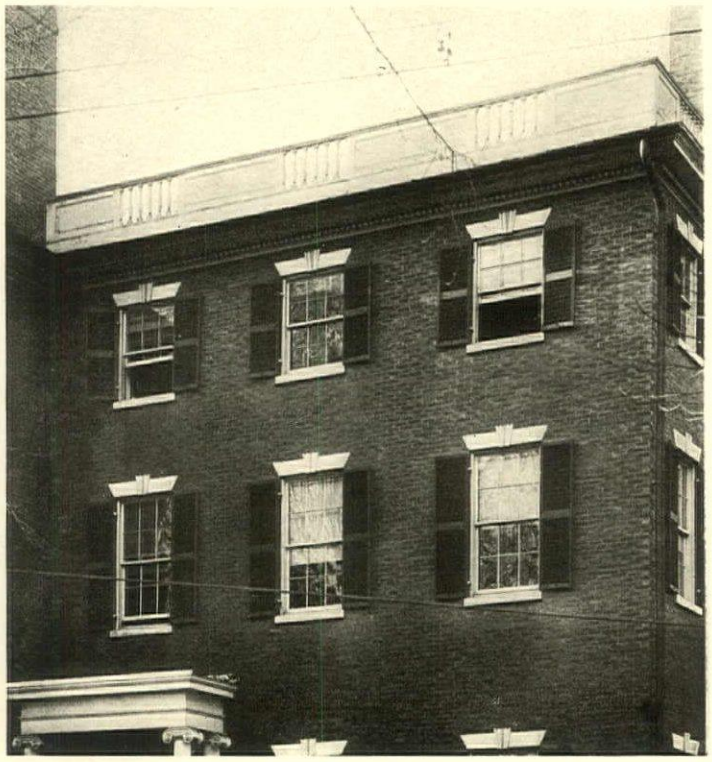
JAMAICA PLAINS, MASS., 1774



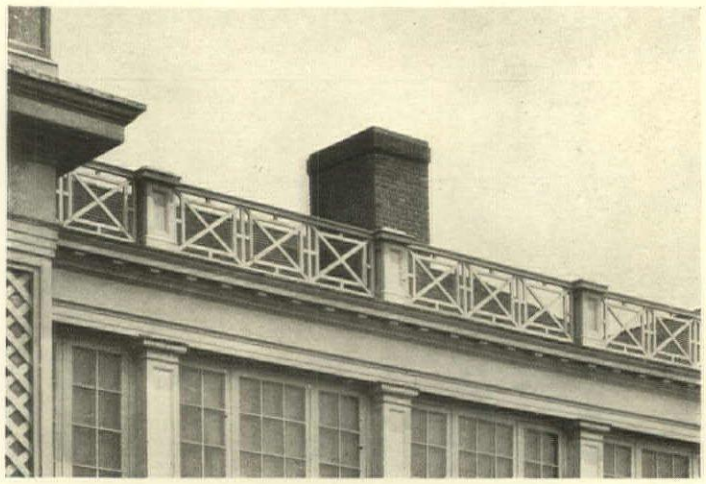
SALEM, MASS., 1719



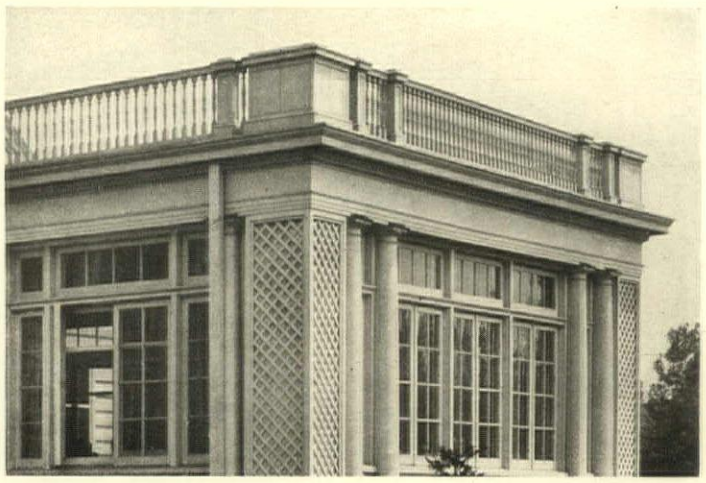
PORTSMOUTH, N. H., 1718



SALEM, MASS., 1818



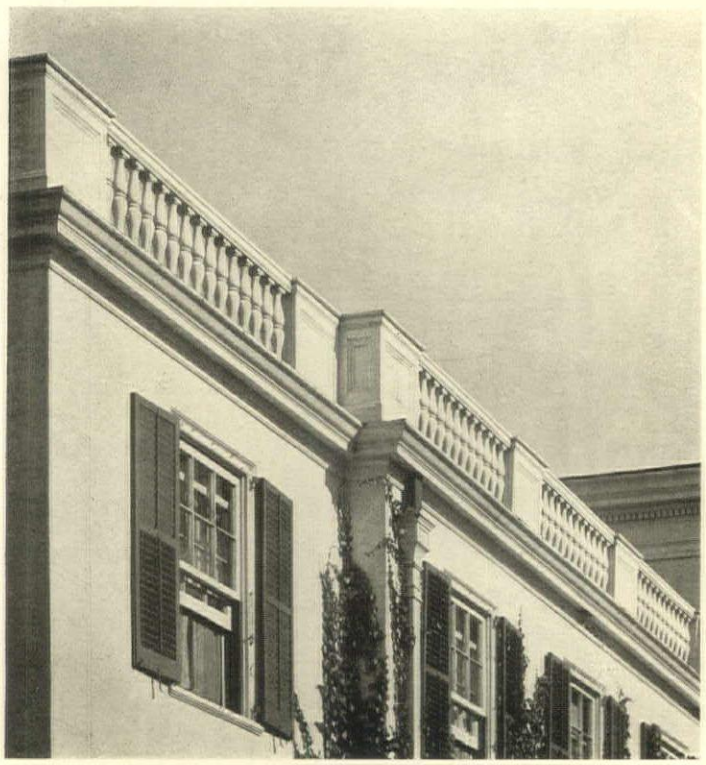
MORRELL SMITH



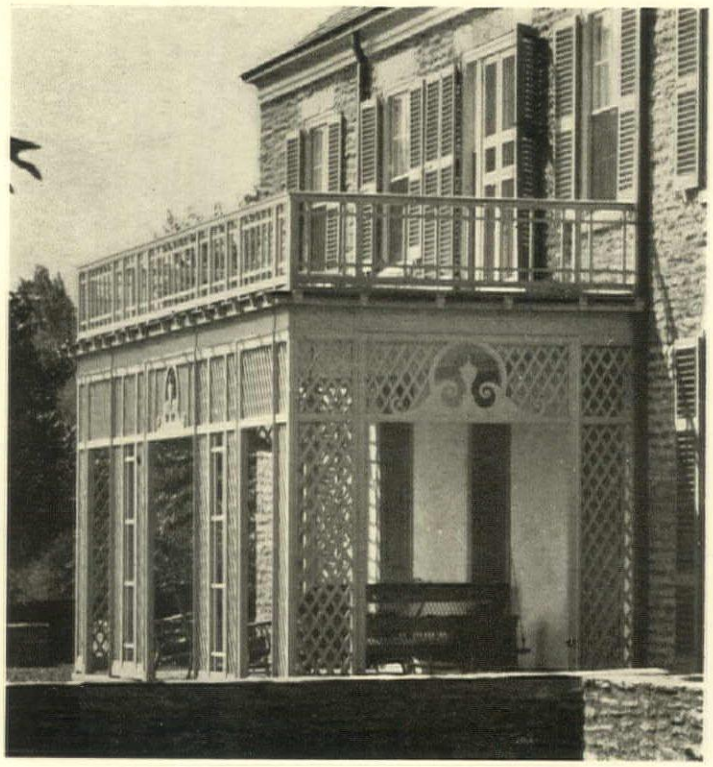
MORRELL SMITH

GEORGE THOMPSON

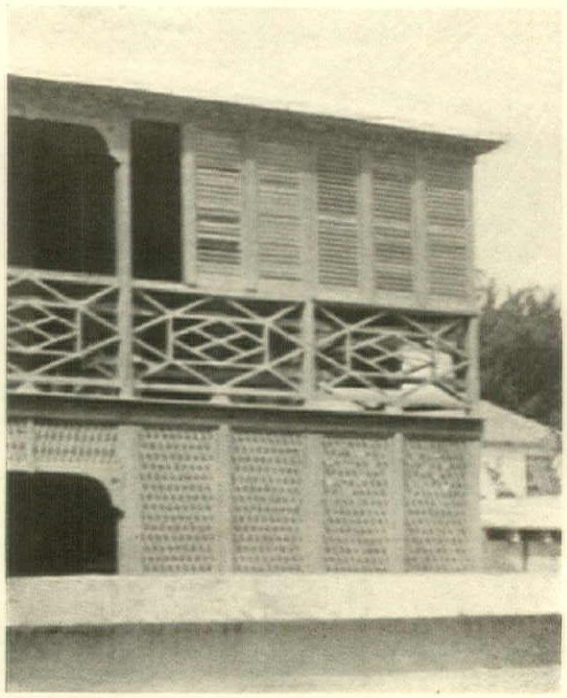
PATTERSON & DULA



JAMES WM. O'CONNOR

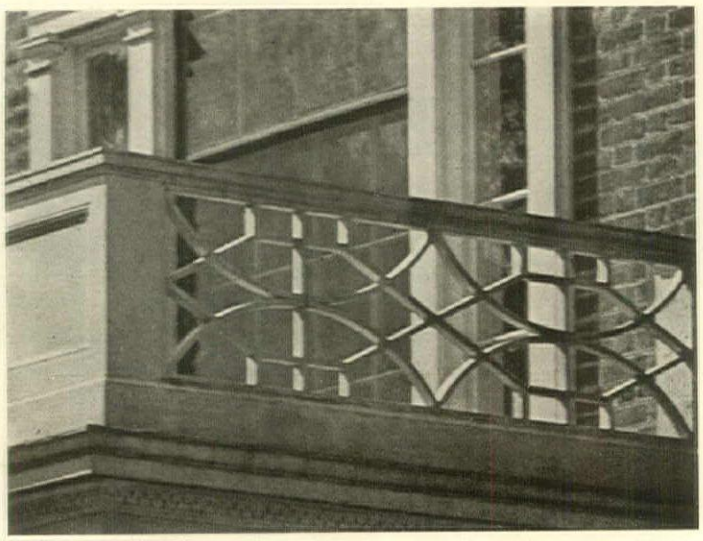


EDMUND B. GILCHRIST

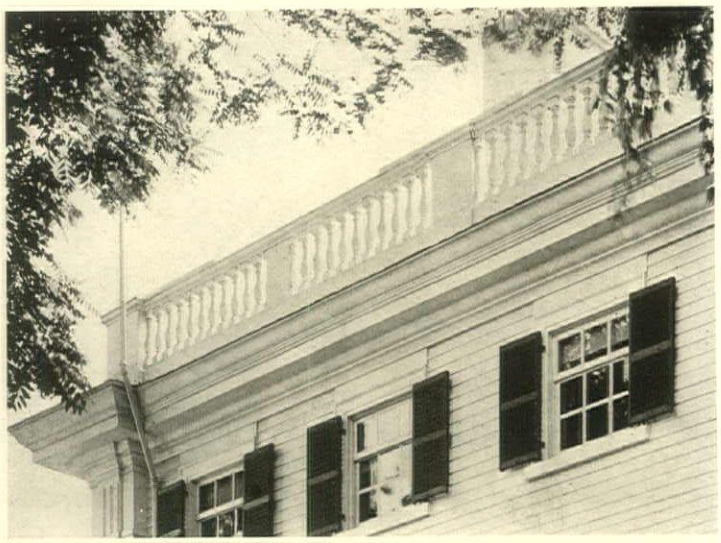


BERMUDA

SALEM, MASS., 1810

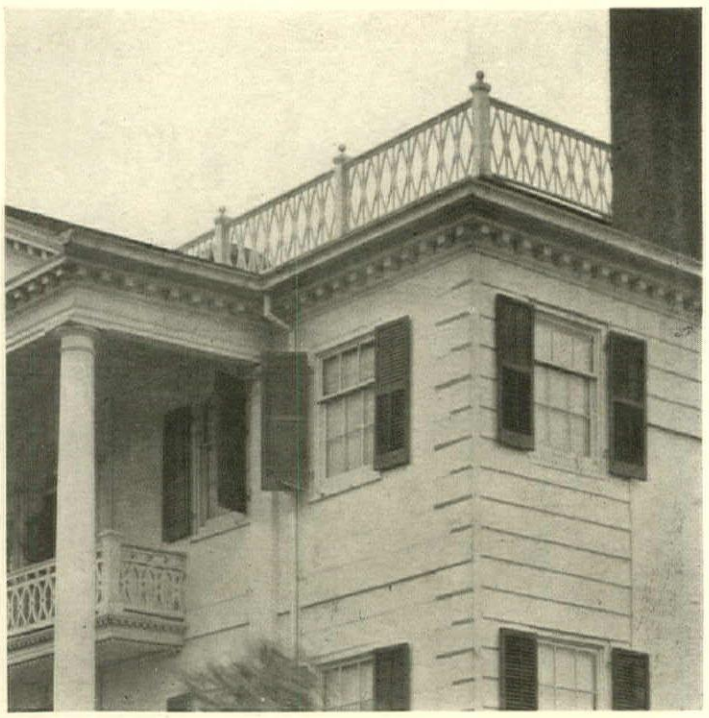


MURPHY & DANA

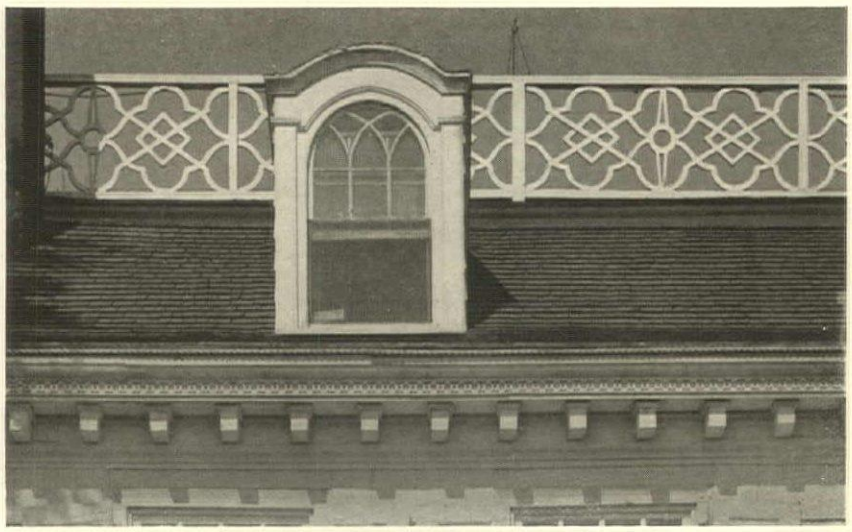


SALEM, MASS., 1782

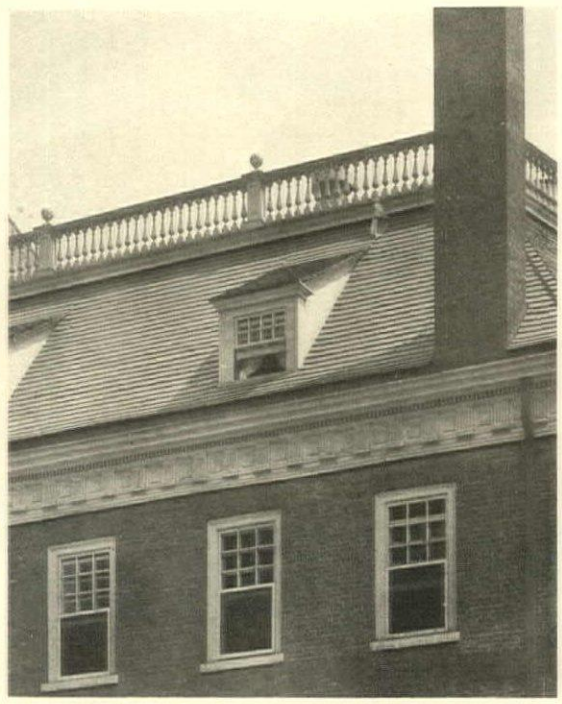
SALEM, MASS., 1782



JUMEL MANSION, NEW YORK, 1765



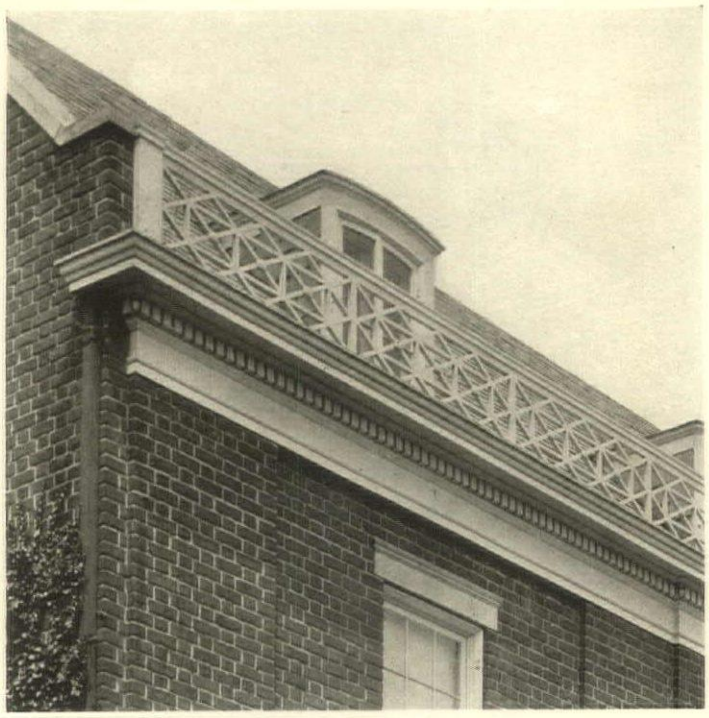
"ROCK HALL," LAWRENCE, LONG ISLAND



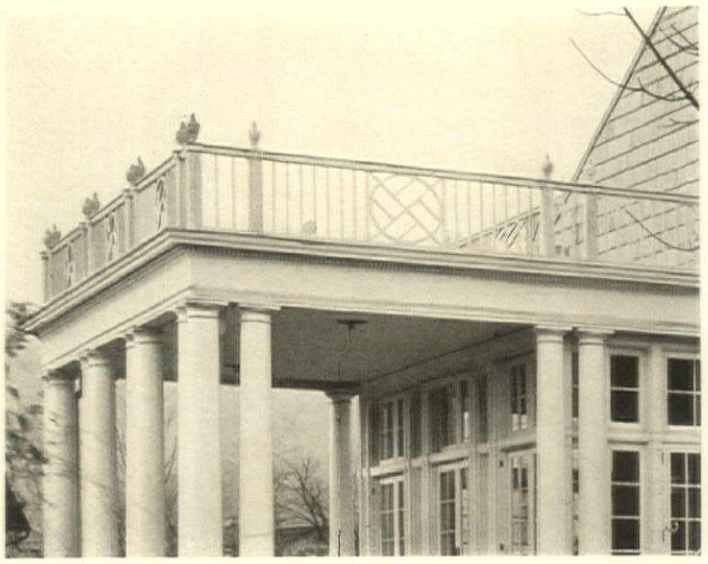
FRAUNCES'S TAVERN, NEW YORK, 1719

HAROLD E. PADDON

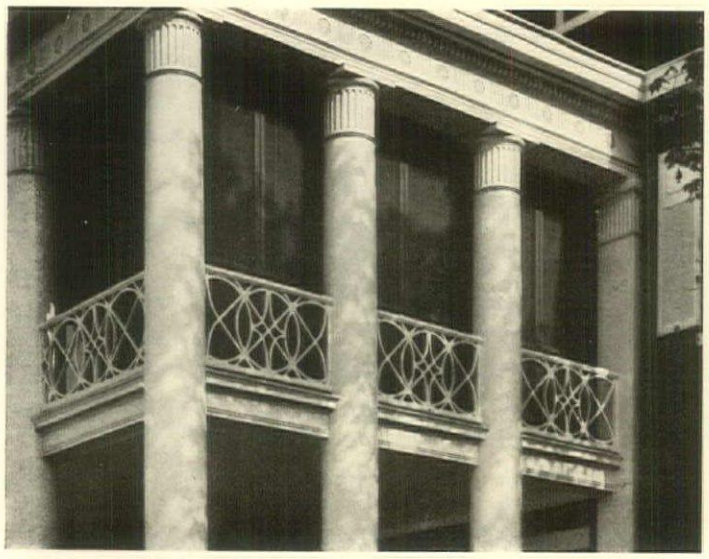
SALEM, MASS.



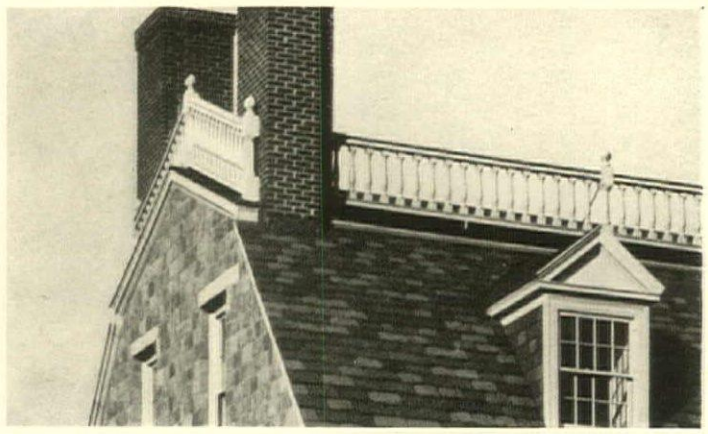
LAURENCE H. FOWLER



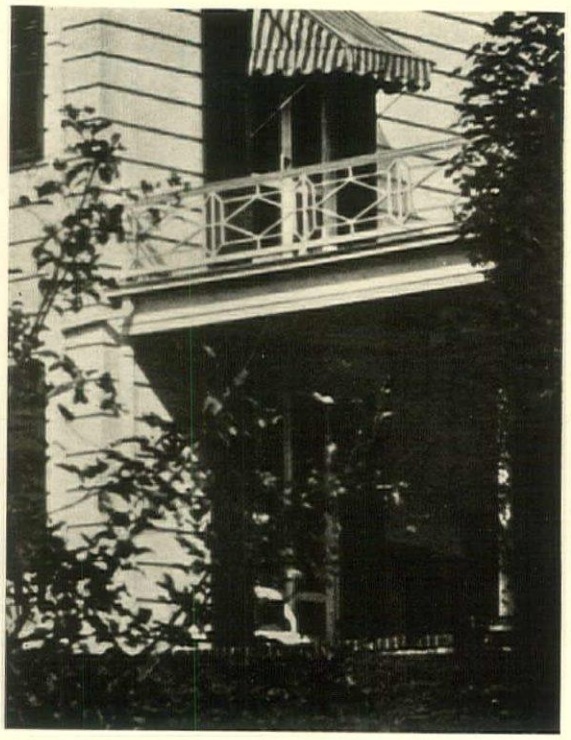
FRANCIS A. NELSON



AYMAR EMBURY, II

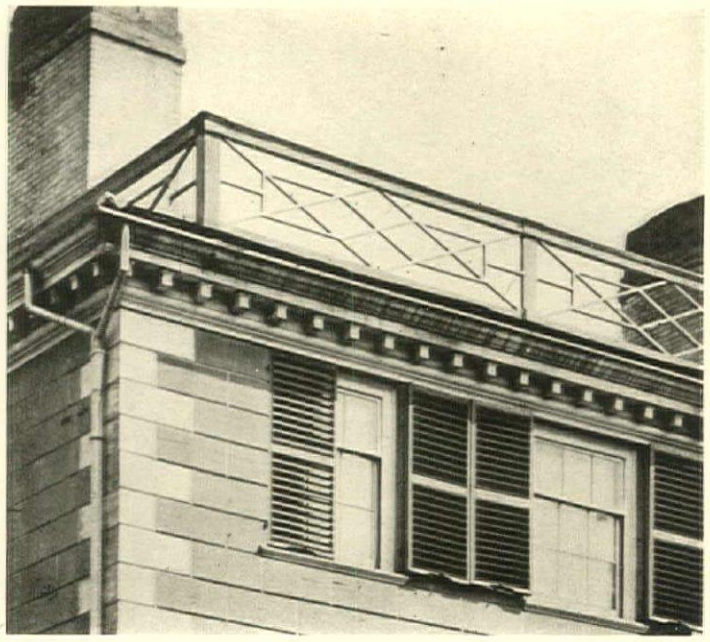


M. F. WESTHOFF (REPRODUCTION)

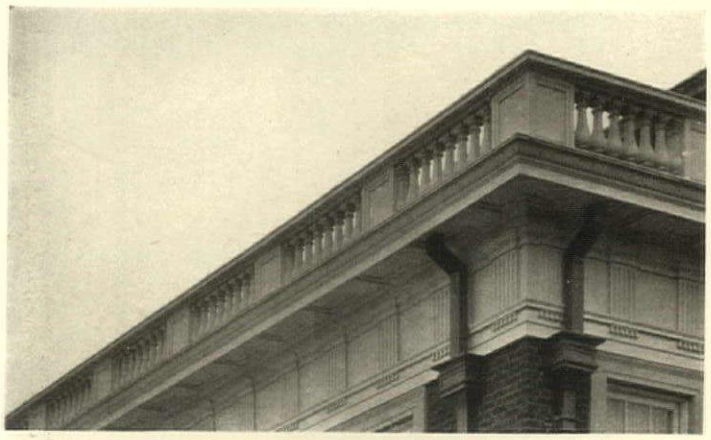


ELECTUS D. LITCHFIELD

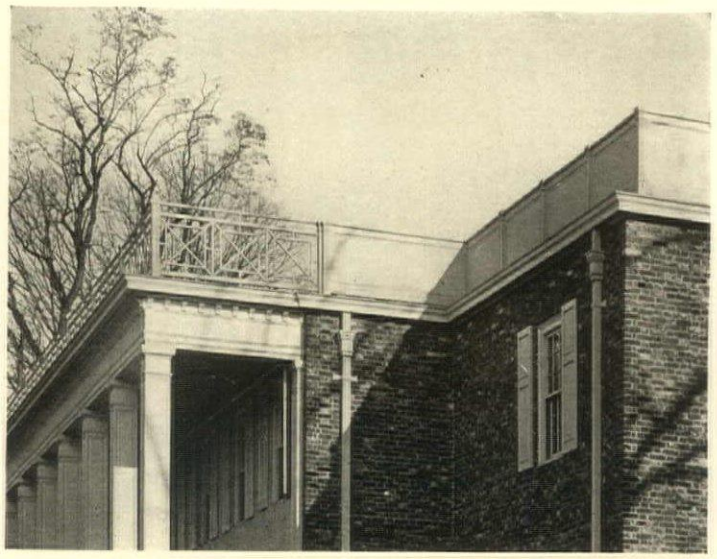
PEABODY, WILSON & BROWN



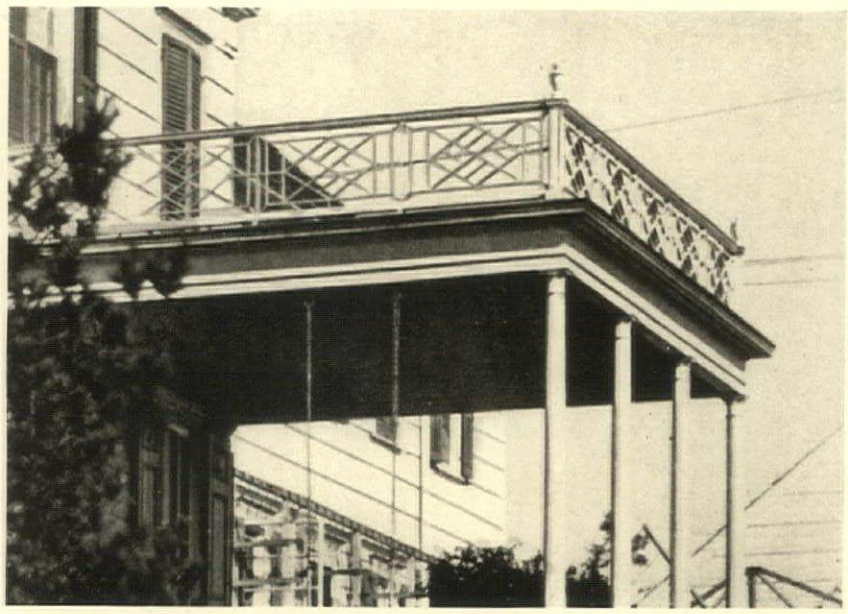
SALEM, MASS.



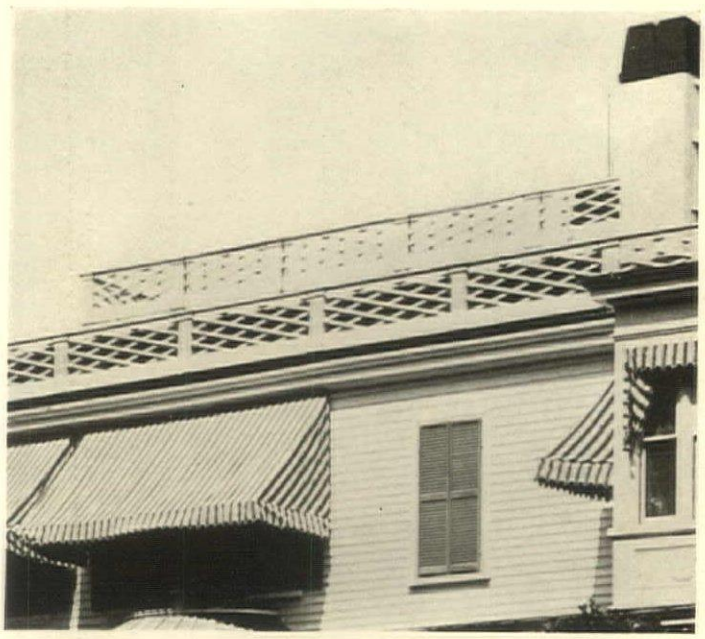
ROGERS & ZOGBAUM



SMITH & BASSETTE



ELECTUS D. LITCHFIELD



OLD POINT COMFORT, VA., 1800

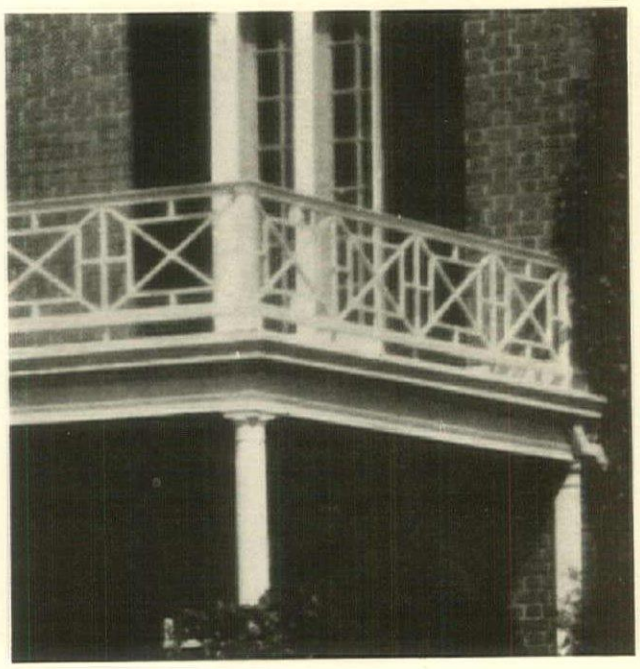
GEORGE FULTON, JR.

ROBERT SEYFARTH

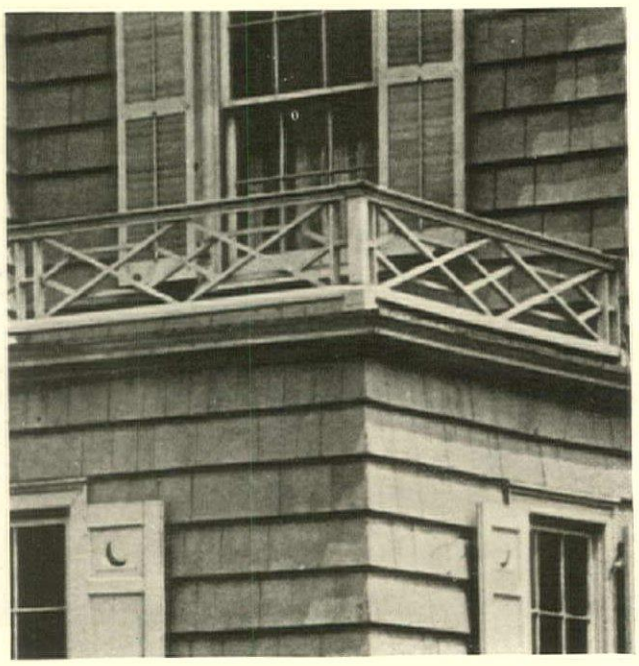
MODERN

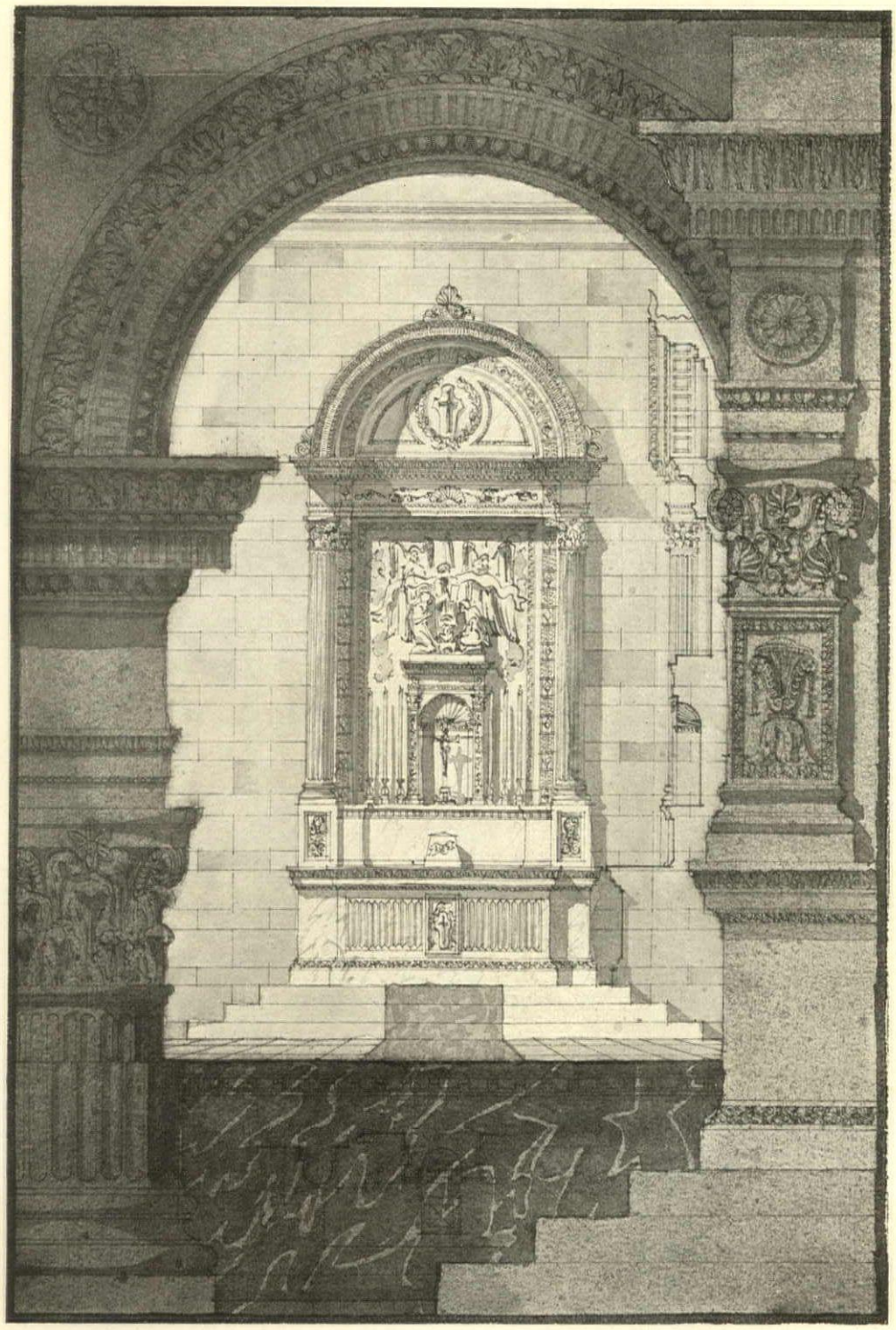
McKIM, MEAD & WHITE

PRINGLE & SMITH



ELECTUS D. LITCHFIELD





DESIGN AWARDED FIRST PRIZE

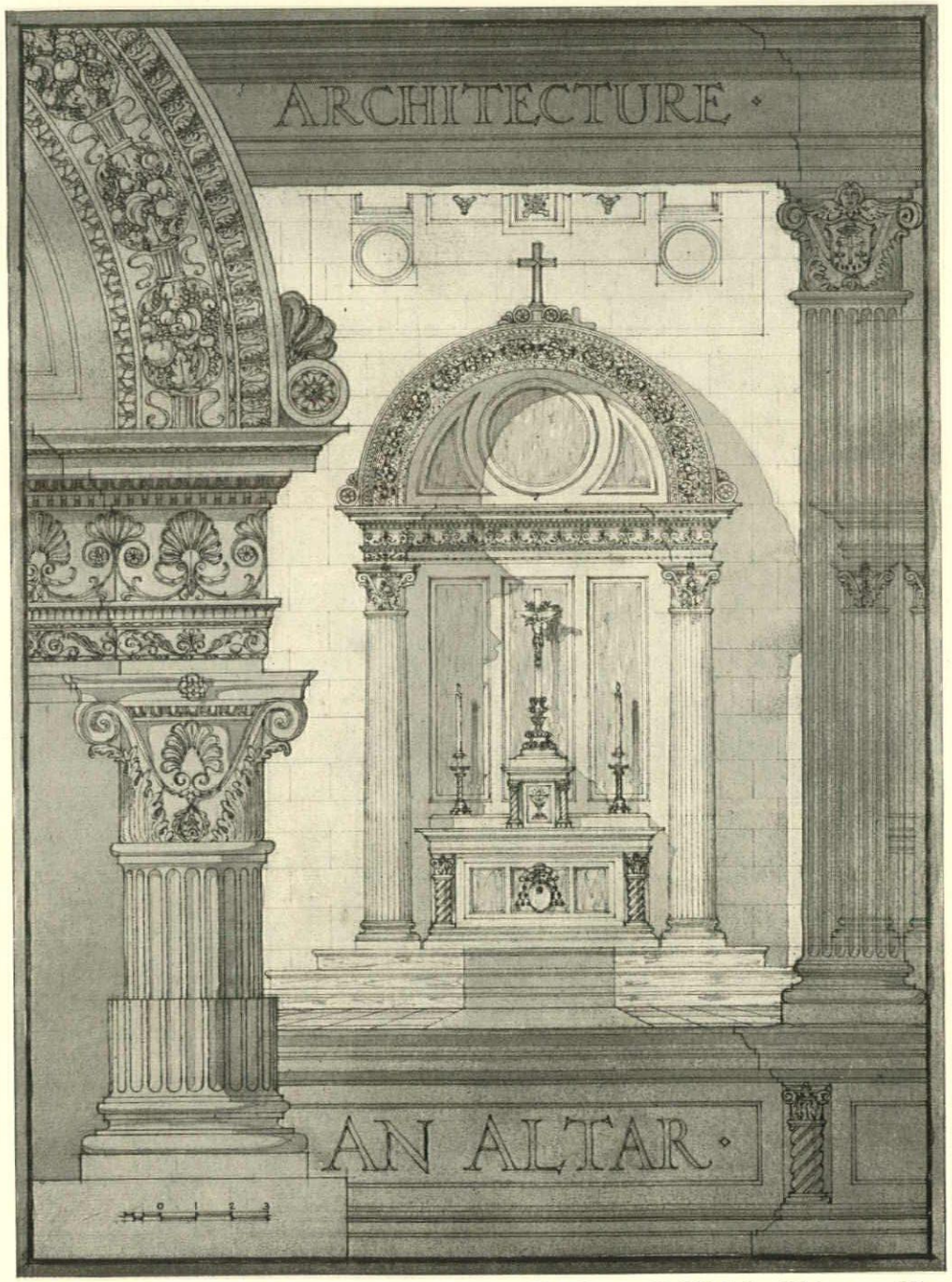
By George L. Ramsey, Chicago, Ills.

ARCHITECTURE'S Competition VII—Report of the Judges

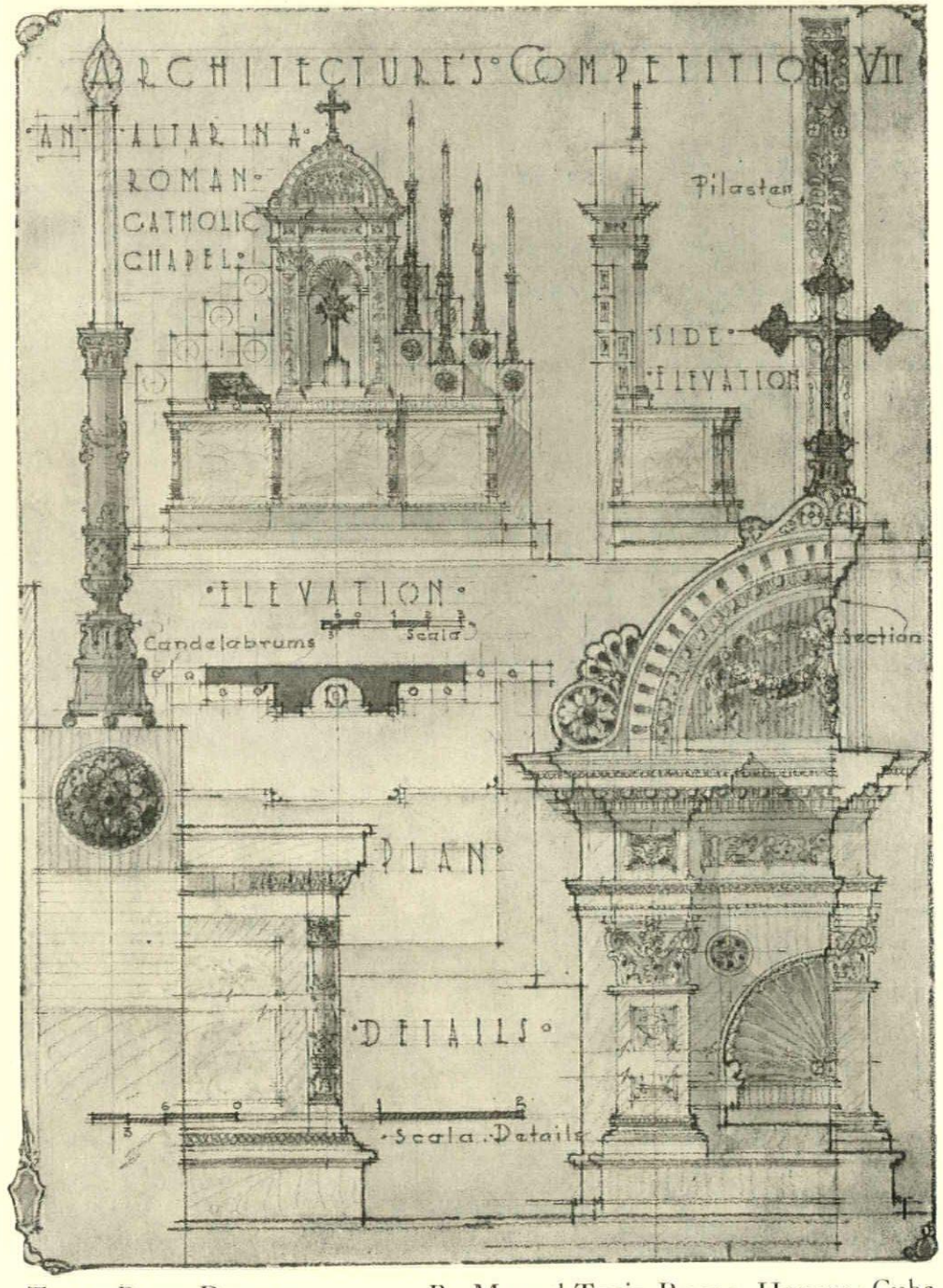
IN Competition VII, the programme of which called for an altar in a Roman Catholic Chapel, designed in the style of the Italian Renaissance, the judges take pleasure in awarding the prizes as follows:

First Prize—George L. Ramsey, Chicago, Ills. Second Prize—Peter J. Weich, Chicago, Ills. Third Prize—Manuel Tapia Ruano, Havana, Cuba. Fourth Prize—Domenic Thomas Russillo, Providence, R. I. Fifth Prize—Alfred Reinhardt, Elmhurst, Long Island.

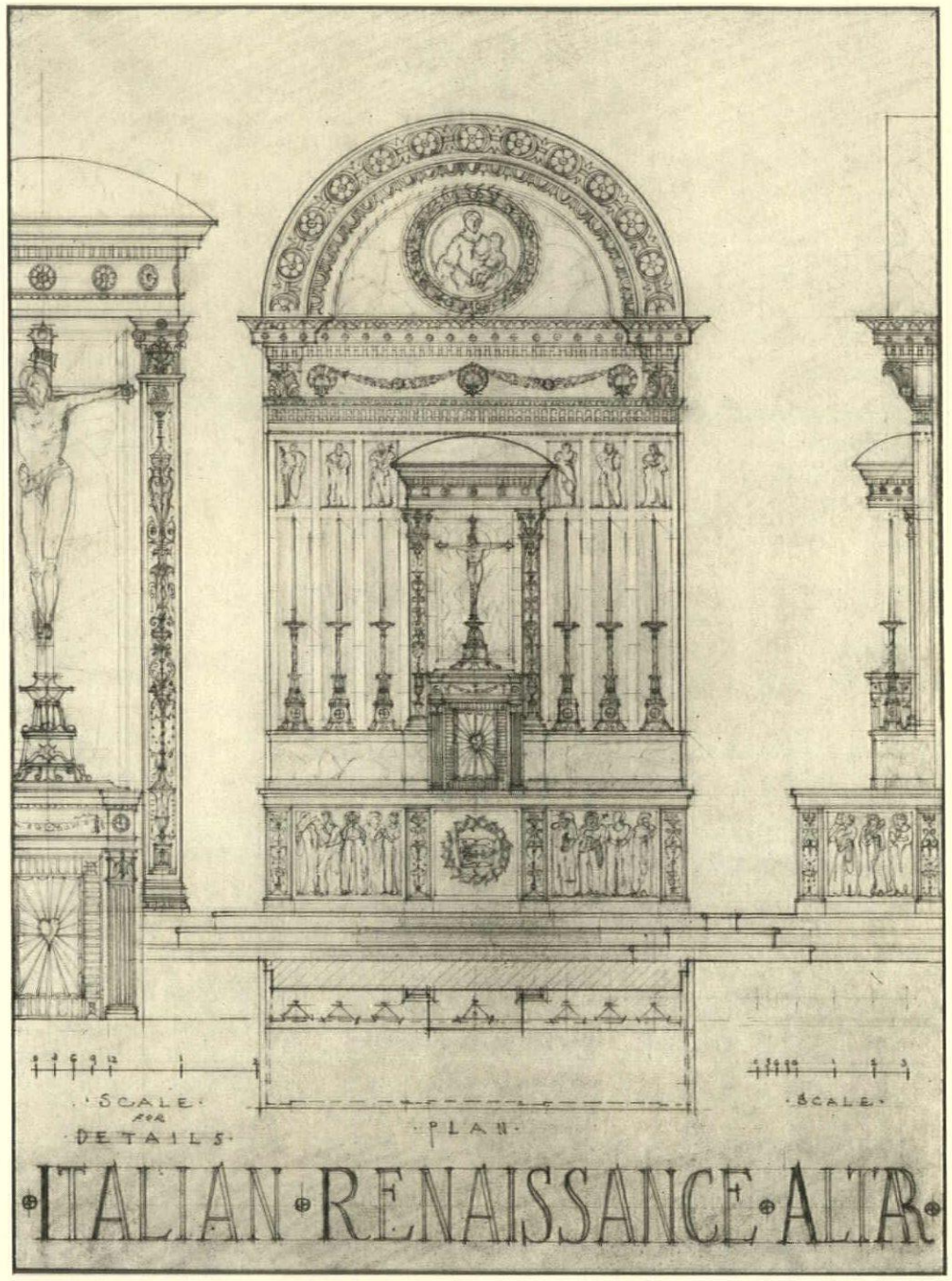
There were two rather conspicious faults in the bulk of the entries this month—a lack of understanding of scale, and a lack of knowledge of the style prescribed by the programme. The latter fault is one that may quite possibly be charged against a lack of sufficient "documents" on the part of the contestants—either such a lack or insufficient energy to go to the library and dig up the books. The former fault, a failure in scale, is undoubtedly one that is not so easily cured. In fact, one of the judges remarked that it is perhaps the most common of all shortcomings in architectural competitions generally, since a real feeling for scale is the last thing an architect masters—if ever.



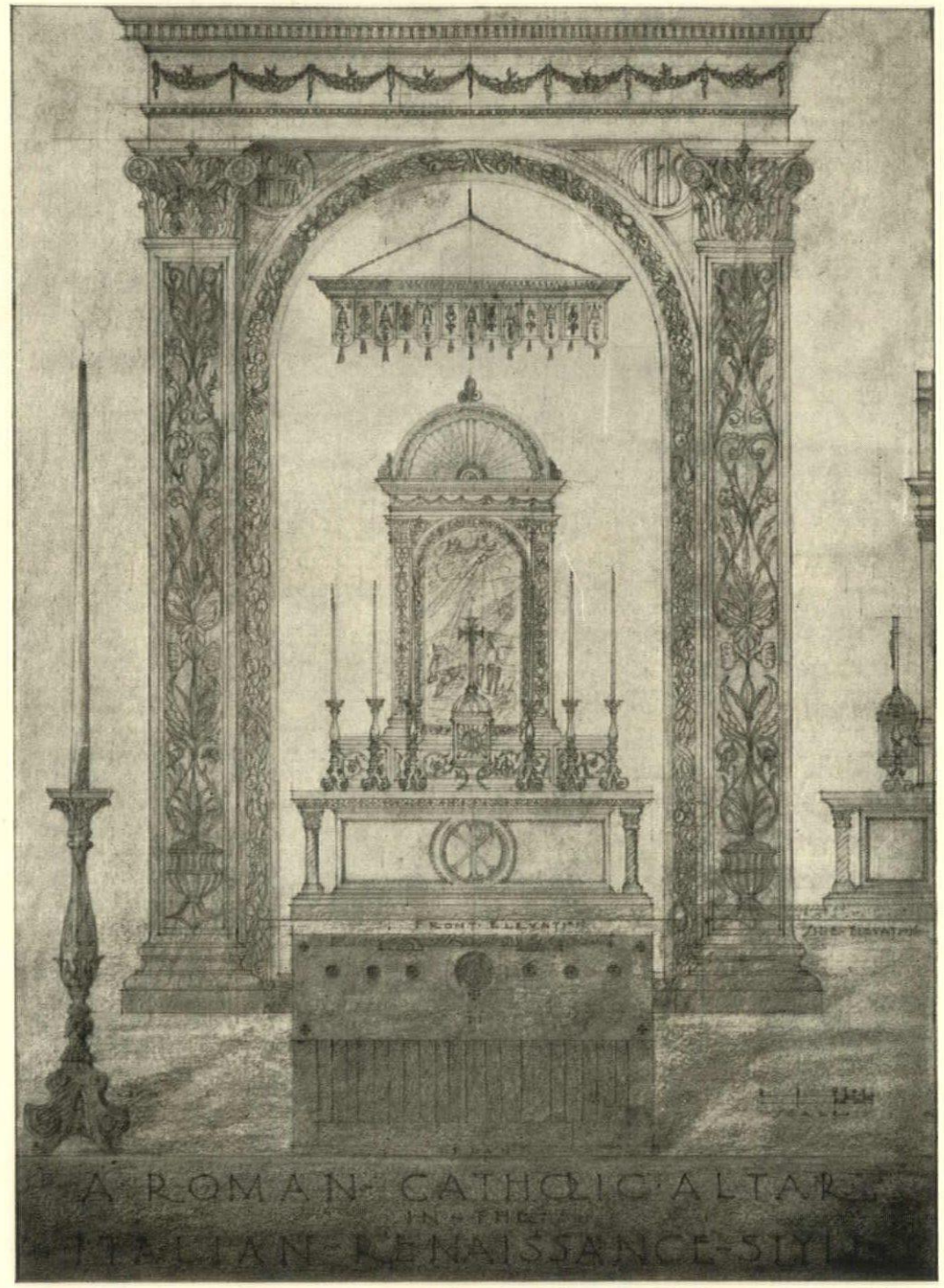
SECOND PRIZE DESIGN By Peter J. Weich, Chicago, Ills.



THIRD PRIZE DESIGN By Manuel Tapia Ruano, Havana, Cuba



FOURTH PRIZE DESIGN By Domenic Thomas Russillo, Providence, R. I.



FIFTH PRIZE DESIGN By Alfred Reinhardt, Elmhurst, Long Island

ARCHITECTURE'S COMPETITIONS

GENERAL CONDITIONS

Jury of Awards: H. Van Buren Magonigle, F. A. I. A., architect.

J. Monroe Hewlett, F. A. I. A., artist and architect.

Henry H. Saylor, Editor of ARCHITECTURE.

Compensation to Competitors: ARCHITECTURE will pay to the winners of each competition, immediately after receiving the jury's judgment, the following:

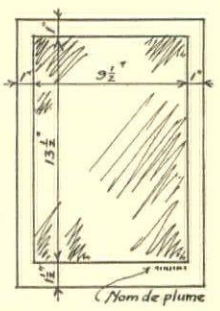
For Design placed	First....	$150.00	
" " "	Second..	75.00	
" " "	Third...	30.00	in books*
" " "	Fourth..	20.00	in books*
" " "	Fifth...	10.00	in books*

*These to be chosen from the Art and Architectural Catalogue of Charles Scribner's Sons.

In addition to the above awards, which are made for each one of the monthly competitions, ARCHITECTURE will present three medals at the end of the twelfth competition, one of gold, one of silver, and one of bronze, to the three designs chosen from among the monthly winners which, in the opinion of the jury, show the greatest merit in design.

Eligibility: Architects, draftsmen, and students are invited to enter one or all of these monthly competitions. It is *not* necessary that a competitor be a subscriber to ARCHITECTURE. A competitor may submit one or more designs in any of these competitions, but not more than one prize will be awarded to a competitor in each.

Requirements: One sheet (paper, not cardboard) only is required for the presentation of each design. It must be exactly of the size indicated in the sketch diagram herewith, the border margins left blank excepting for the nom de plume or other identifying device. The drawing may be in line or wash, or both, but if in wash it should be in monochrome, preferably in India ink. Indicate all scales graphically. To preserve the anonymity of drawings, each is to be signed with a nom de plume which is also written upon the outside of a blank white envelope containing the competitor's name and address. Drawings may be sent flat or rolled, and are to be addressed "ARCHITECTURE, Competition No. ——, 597 Fifth Ave., New York, N. Y." The closing times given below are for receipt of entries at the office of ARCHITECTURE, rather than the closing by postmark date—this being necessary in order that judgments can be made and published in the following issue of the magazine. In justice to all, no questions regarding the competitions can be answered.



Drawings awarded prizes become the property of ARCHITECTURE for publication and for any other use at the publishers' discretion. Other drawings will be returned to the senders only if postage is included.

Programmes for Competitions IX, X, and XI

Competition IX. Closing December 1, 1927, at noon.

Subject: Working-drawings of a Palladian window in the gable end of a shingled house. Show all details required for proper execution of the work, utilizing whole sheet as nearly as possible. Design will count 70 per cent, excellence of drawing 30 per cent, in the judging.

Competition X. Closing January 2, 1928, at noon.

Subject: The fireplace end of a living-room in a house adapted very simply and inexpensively from the Spanish. The width of the room is 15 feet; height, 9 feet to bottom of ceiling-beams. Show elevation of room end at ¾-inch scale; plan and section of fireplace, and any larger-scale details.

Competition XI. Closing February 1, 1928, at noon.

Subject: A gasoline and service station on the outskirts of a New England town. The property is a southeast corner, 100 feet square. Show plan of whole plot, two elevations, and a birds'-eye perspective.

SEVENTH REGIMENT WAR MEMORIAL, NEW YORK CITY

KARL ILLAVA, SCULPTOR
ROGERS & HANEMAN, ARCHITECTS

CONTACTS

DEVOTED TO A BETTER UNDERSTANDING OF THE BUSINESS SIDE
OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES

Collaboration Between Architect and Contractor

By W. A. Starrett

VICE-PRESIDENT, STARRETT BROTHERS, INC.

SUCH a wealth of speculation —I might say idealism—is unfolded by the possibilities of collaboration between architect and contractor—or, more properly, between architect and builder —that to begin the subject almost anywhere leads to so wide a range of possibilities that one must almost from the first select some important phase and stick closely to that text, lest he unconsciously launch out into a general dissertation on the whole building business. Yet there is much to be said on the question in a general way if we first get a few of the definitions squarely set forth.

Photograph by Pirie MacDonald

Collaboration may be of very different kinds, according to the time and occasion and the nature of the business arrangement that governs the problem in hand. Yet the ideal collaboration must start very early and, indeed, might properly be called the collaboration between the owner, architect, and builder. If the builder also is a contractor, who agrees to perform for a given price, the collaboration could well begin when the problem is under consideration for its solutions, and long before that price is fixed. How often do we all see those completed drawings all crisscrossed with changes, and addenda representing a belated collaboration between architect and contractor, when, through the eleventh hour of business closing, the project is cut and slashed and emasculated to bring it within a financial budget that was about the first determined factor of the problem.

But even when this budget is not inflexible—when a come-and-go is squarely faced by the owner—how often the fresh knowledge and fresh point of view of the builder, gained by the intensive pursuit of a large, going business where costs and methods are constantly before his mind, bring a tardy recognition that some things could be better, some things could be changed, and, indeed, some things omitted, all to the betterment of the project.

There is no use talking collaboration unless we define where it begins and under what auspices it is approached. "You boys get together and work it out," is the refuge of a bewildered mind, particularly when the owner has made a fiduciary deal with one element—the architect—and invited caveat emptor in his hard-driven bargain with the contractor. There is very little opportunity for collaboration here. Few architects and owners realize the tares that such a deal is liable to sow. The wonder of it is that things work so well under such contending forces, and it is to the credit of the contractor that so many of these alliances come through successfully.

Idealized, collaboration should start when the project is conceived. Let the owner regard the builder as he does his architect—a coequal adviser who has valuable knowledge of ways and means and the costs thereof—who has pride and joy in accomplishment and whose concern is not to see how much he can make, but how well it can be done. Here we have the true professional basis and the foundation of all the great economies of construction. Management, yes, and painstaking supervision—everlasting vigilance as to costs as the work progresses, alertness to clear definition and organized forethought —these all must be of the essence of the builder's ability. But these are only a part. The big decisions, the selection of the elements—the factor of actual and probable cost laid side by side and weighed with the question of desirability—there is where the money and time are saved in rich measure.

In the building of great metropolitan structures, two things are spent, time and money. No one is more prodigal of time than the average owner in the early days of consideration of his project. Important decisions are postponed for no other reason than that they are difficult—and they are often difficult because of the uneasiness at what they cost and what they entail. On these the competent builder can throw light; yet he is generally kept aloof, or, indeed, not consulted at all, and the conferences go lamely on their way, vague assumptions as to costs mounting their predecessor, until the final awakening—where was the builder? He was out in the market-place with a vast amount of pertinent knowledge, but held aloof awaiting that field day and elimination race which should in some way recoup the owner from imagined losses that would come to him through taking the builder into his original conferences.

The building industry is an ever-changing complexity. New forms and new methods are constantly arising, and of these, both as to practicability and availability, the owner and architect should have specific confirmation. The builder is best qualified to give these, but he must know the basic problem and be in the conferences before it is too late.

Let the owner and architect cease to regard the builder as a vendor of buildings, for such he is not. The fallacy leads to a deal of trouble and unending misunderstanding. If, after the owner and architect have fully digested the money value of their decisions and the true nature of the function the builder performs, it is desirable to agree upon the cost, then the builder properly becomes a contractor, and, after all, all he is guaranteeing is the cost of a certain number of elements, the total being the money value of the decisions reached. Then collaboration in its finest sense has been accomplished and the results can be gratifying to all concerned.

There is a vast field here, and it starts away back with the understanding of what the building business really is—not a lot of scrambling claimants who pretend to be able to do anything cheaper than any one else, but a sound, logical business that recognizes its responsibilities, its problems, and its limitations; that has something to offer in the way of an immensely valuable service; whose claim to recognition comes of long experience and mature judgment. Architects of considerable standing and experience recognize these things, and in recognizing them they lay the foundation for the most effective and fruitful collaboration. Co-operation becomes synonymous with it, and the outcome is the rich reward of a fine accomplishment.

Charles Keck, Sculptor

Carrère and Hastings, Architects

Office Procedure of Ludlow & Peabody

By Robert W. Blodget

NEARLY all architects' offices are organized to handle the work which comes to them, in a systematic manner. However, as the circumstances surrounding the various jobs are never exactly alike, the system has to have a certain degree of flexibility. The work in our own office generally moves through its various stages in about the manner outlined below.

It used to be considered sufficient to have a letter of authorization from the owner, and, in fact, architects in many cases were reluctant to broach to their client the subject of a formal contract. This letter usually did not cover many of the points where there might be possibility of dispute and left the door open for all kinds of misunderstandings in case of suspension or termination of the agreement, changes in working drawings and specifications, etc. I am glad to say that the majority of architects now realize that carrying on business without having their relation with the client definitely established by a contract is most unbusinesslike, and are presenting contracts to their clients for signature. The American Institute of Architects has standard contracts covering the several accepted forms, and we always have one of these contracts signed in the initial stages of the work.

The programme comes next. We examine the building plot and surrounding conditions, developing the requirements of the owner by a series of conferences, and study the problem in its relation to local laws, ordinances, etc.

The sketches are next in order, and there may be a great many sketches made before all the issues are settled. The sketches determine the character of the architecture, set-backs, courts, the number of stories, and the plan of each floor, number of elevators, staircases, etc., as well as all other important features of the building. We, at this stage, generally go over the sketches with the building department and any other departments having jurisdiction, in order to make sure they agree with our interpretation of the code, in all important respects.

During the sketch stage we have an architects' survey made of the premises, determining accurately all angles, levels, relation of adjacent walls, sewers, water lines, gas mains, etc., and also have test borings made to determine the nature of the strata on which the building will rest.

When the sketches are in final form and have been approved by the owner, the working drawings are started by the drafting-room. As the first step, a job captain is appointed to have charge of this job, and he may have from two to a dozen men under him. The

job captain has direct charge of preparation of the drawings, and all instructions from the firm are given to him. The preparation of the drawings is supervised by firm members as it progresses.

When the working drawings are about ten days from completion, the specification writer begins the specification, and we try to time matters so that the specification will be completed and typewritten two days after the working drawings are completed.

As soon as the working drawings and specifications are completed, the necessary blueprints are prepared and are put in the hands of a previously selected list of bidders for estimate.

At the same time that the drawings go to bidders, we prepare the necessary papers and file the drawings with the building department and any other departments having jurisdiction, and endeavor to secure a final ruling from them while the bidding is progressing, so that if any changes are demanded, the necessary adjustment can be made in price before the contract is signed.

When the bids are received they are presented to the owner and, if satisfactory, a contract is negotiated with the successful bidder and the construction work is begun by the contractor.

As soon as it is definitely established that the job will go ahead, we start our scale and full-size details, and prepare these in sequence agreed on with the contractor.

As the construction work progresses, our superintendent inspects the work at regular intervals to see that the job is progressing satisfactorily, that the quality of the work is proper, that the architectural effects are satisfactory, and to give any necessary interpretations of the drawings and specifications. If the work costs over $500,000 it is usually advisable to place on the job a clerk-of-the-works, whose duties include checking of accounts and the constant inspection of the work.

When the work is of considerable size, subcontractors' meetings are usually organized. These meetings are held weekly and are for the purpose of bringing about better understanding and co-operation between the various trades involved and between the architects and subcontractors. Each subcontractor gives a report of the progress and necessities of his work, tells the architect's representative what he wants in the way of drawings or instructions, and is allowed to air any grievances.

It is usually advisable to hold in the architects' office a weekly conference of executives, at which a member of the architects' firm, the general contractor and his superintendent, and the consulting engineers discuss the general progress and conduct of the work.

At intervals during the progress of the construction shop drawings from the subcontractors for steel, stone, terra-cotta, marble, ornamental plaster, trim, etc., are received and are checked by us and approved, or returned for correction.

At regular intervals during the progress of the construction, payments are made to contractors, after their requisitions have been checked by the superintendent in co-operation with the accounting department of our office.

When the work is claimed by the contractor to be complete, we make a painstaking check-up with the drawings and specifications and make note of any omissions or unsatisfactory work. When these matters are attended to, we issue final certificate to contractors, which, with the payment of our own final bill, closes the job off the books.

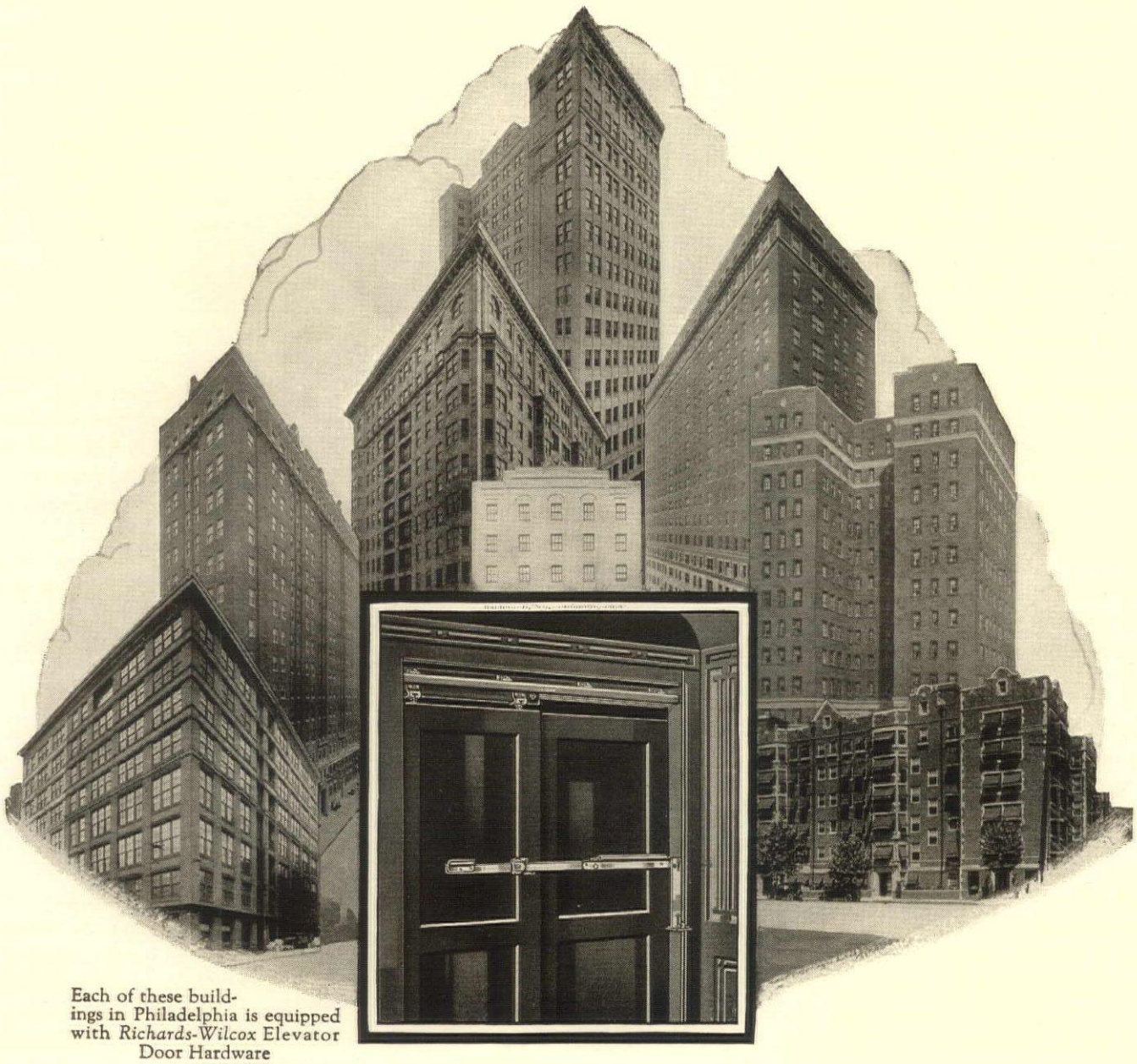
Of course, the above outline merely touches the surface. There are the architects' cost records (which we try to keep very accurately), bookkeeping, general administration, correspondence, conferences with clients, contractors, subcontractors, etc., and many other services of a miscellaneous character, which are necessary throughout the duration of the job.

THE OFFICE PERSONNEL OF LUDLOW & PEABODY
NEW YORK CITY

First Row, Sitting (left to right): Ernest G. Mason, William Orr Ludlow, Charles Samuel Peabody, Robert W. Blodget, Robert W. Maust, Paul W. Drake

Second Row, Standing (left to right): Harold R. Stroh, Gladys R. Benson, Ruth R. Weiss, Emanuel Kandel, Lewis Gersh, William H. Baum, Thomas W. Craddock, Barrett Alger

Third Row, Standing (left to right): John H. Vietor, Muriel Van Hoosear, Charles J. Hoffman, Arthur H. Gilkison, Frank Kirkpatrick, Charles E. Nelson



Each of these buildings in Philadelphia is equipped with *Richards-Wilcox* Elevator Door Hardware

R-W Unit Control Means

Elevator Door Perfection Plus Protection

Built right into Richards-Wilcox elevator door hardware is safety, service and satisfaction. Specify *all* Richards-Wilcox equipment—hangers, checks, closers, interlocks. Through unit control, there is the security of a single responsibility for unfailing performance and safety.

Our engineers will furnish you with designs and specifications

Richards-Wilcox Mfg. Co.

"A Hanger for any Door that Slides."

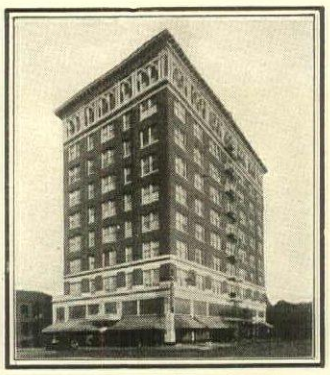
AURORA, ILLINOIS, U.S.A.

New York Boston Philadelphia Cleveland Cincinnati Indianapolis St. Louis New Orleans
Chicago Minneapolis Kansas City Los Angeles San Francisco Omaha Seattle Detroit
Montreal · RICHARDS-WILCOX CANADIAN CO., LTD., LONDON, ONT. · Winnipeg

(629)

Largest and most complete line of door hardware made

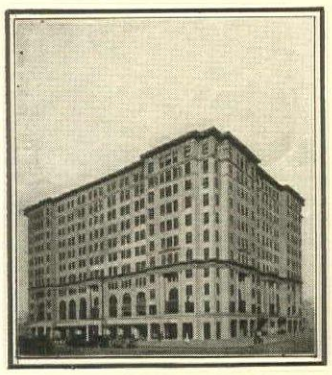
St. Louis — Bell Telephone Building



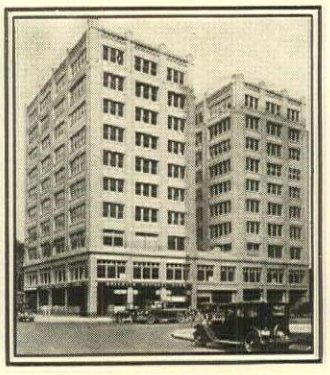
Oakland — Medical Arts Building

New York — Standard Oil Building

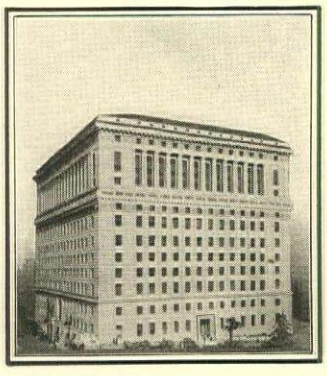
Philadelphia — Bell Telephone Bldg.



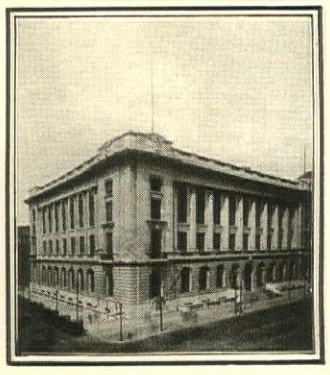
Washington — Investment Building



Detroit — Stephenson Building



Los Angeles — Hall of Justice



Cleveland — Public Library

The Country Over—

All over the country, you'll walk on these modern business floors. Attractive and business-like, they are suitable for any interior.

But the national popularity of BONDED FLOORS does not depend on appearance alone. Their resilience underfoot gives comfort and quiet. Durability built into BONDED FLOOR materials, is made doubly sure by careful installation by skilled mechanics.

Tangible pledge of that durability is obtainable in the form of a Guaranty Bond, issued by the U. S. Fidelity & Guaranty Company with every BONDED FLOOR installed according to our specifications.

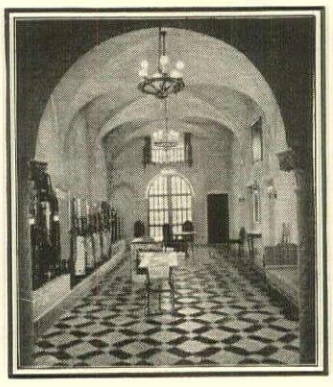
When you are considering floors, call in the country's largest resilient flooring contractors—BONDED FLOORS COMPANY. Write our department G, please, for estimates or other information.

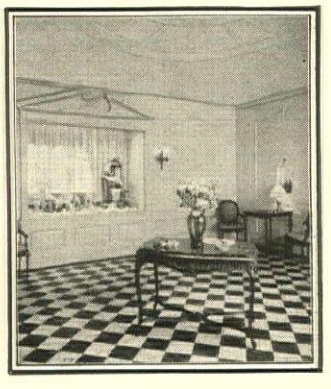
BONDED FLOORS COMPANY, INC.

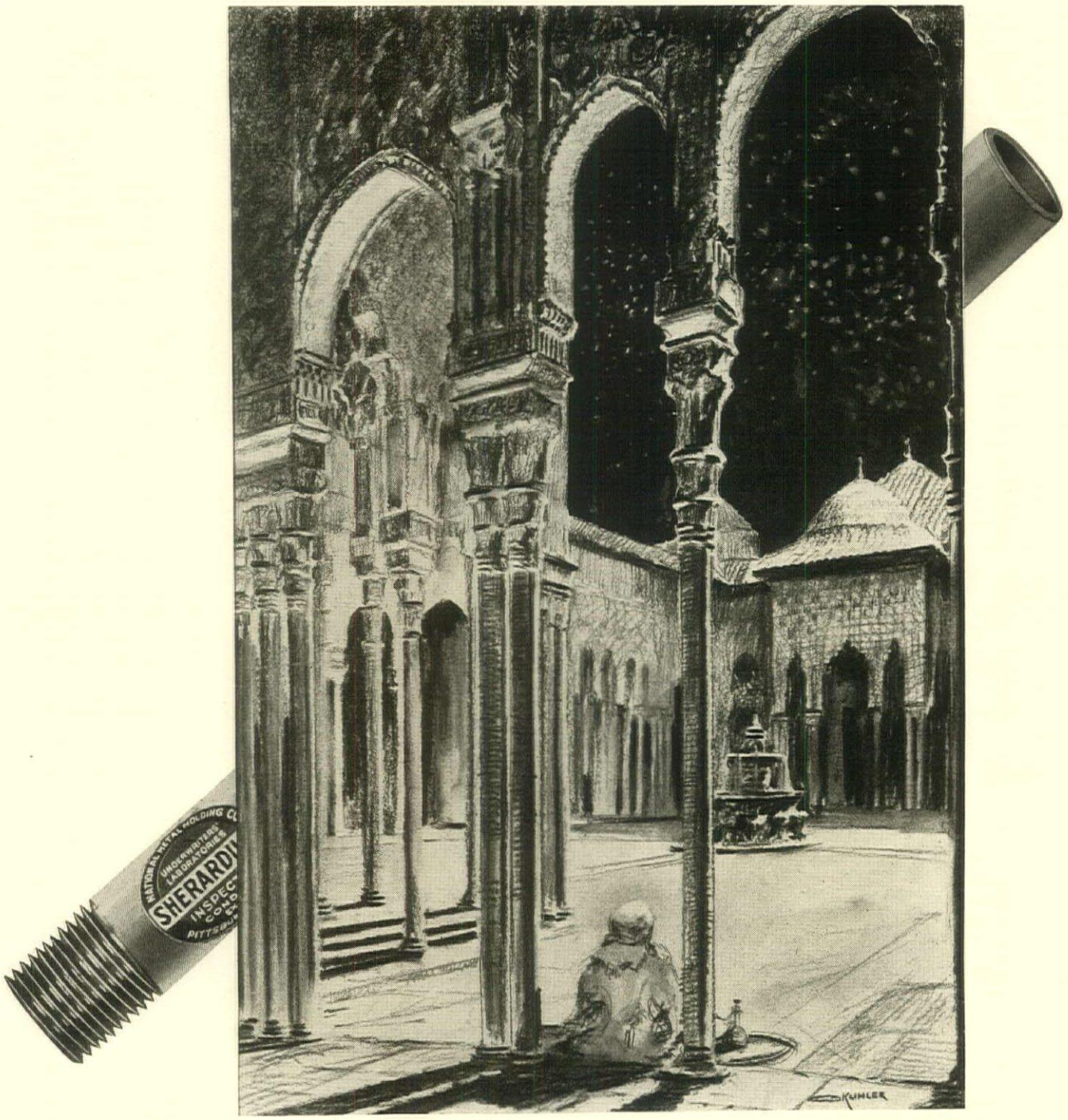
Manufacturers ~ Engineers ~ Contractors

New York Boston Philadelphia Cleveland Detroit
San Francisco *Distributors in other principal cities*

BONDED FLOORS
Resilient Floors for Every Need







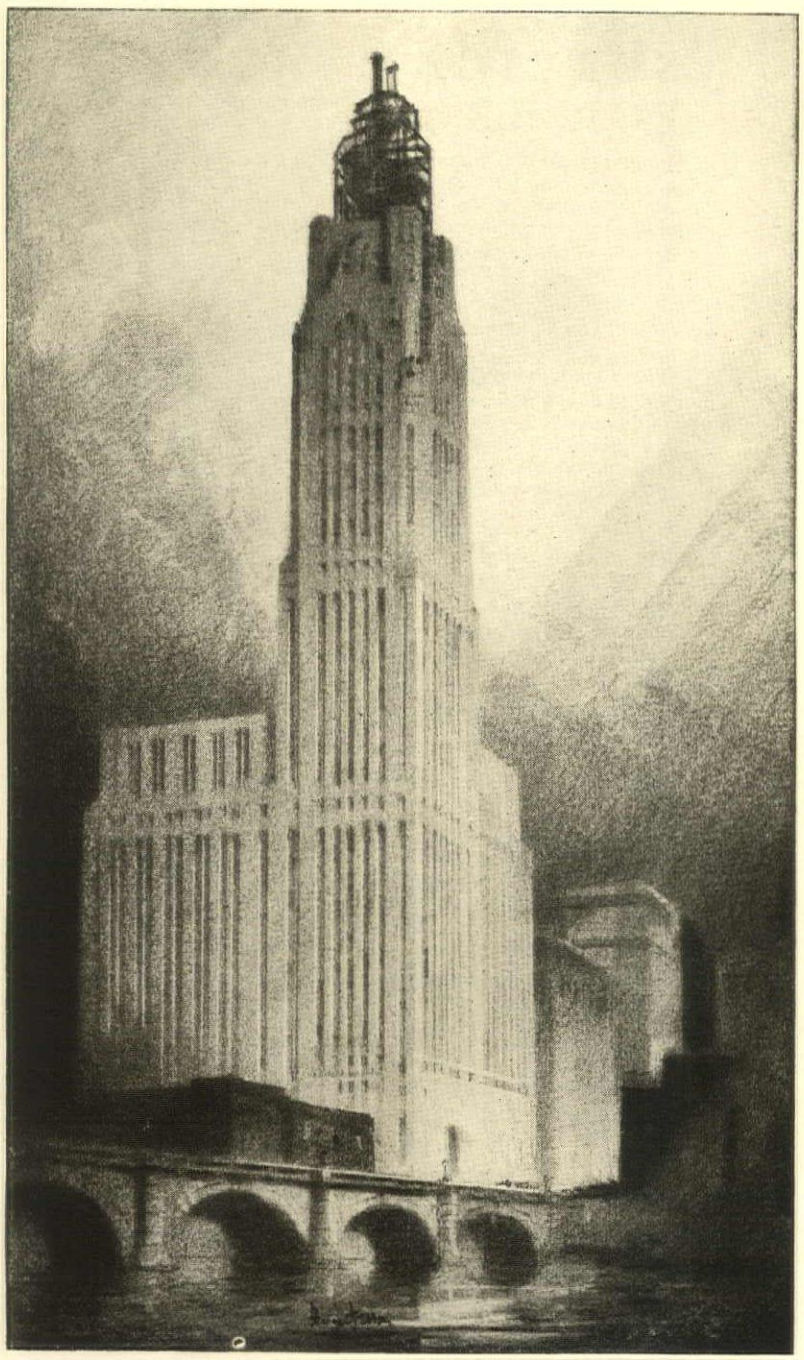
THE COURT OF THE LIONS, ALHAMBRA. DRAWN BY O. KUHLER FOR NATIONAL METAL MOLDING CO.

ENDURING worth knows no frontiers of time or space. In Spain, 600 years ago—the Court of the Lions. In America, today and for the years ahead—Sherarduct Conduit, the permanently safe raceway for wires—rust-proofed by zinc driven into steel, and acid-proofed by baked-on enamel. Safe from rust and acid, inside and out. Permanently safe.

NATIONAL METAL MOLDING COMPANY

PITTSBURGH. PENNSYLVANIA.

ELECTRICAL PRODUCTS



A reproduction of this rendering by Hugh Ferriss, suitable for framing, will be mailed free of cost to any architect

SLOW UP DEPRECIATION—WITH STEEL!

The owner often fails to realize that a building begins to depreciate from the day its doors are opened! That rapid progress in structural method demands utmost flexibility in materials. Depreciation constitutes a serious problem in any building which cannot be quickly and easily altered, extended or remodeled.

Steel is the most *flexible* of all building materials! Steel structures retard obsolescence by permitting (a) increased floor area through added stories, (b) construction of additions on adjoining ground, (c) conversion of structure, or any part of it, to new uses, or (d) altering to more modern interior arrangement. Send for your complimentary copy of informative fact-book, "STEEL NEVER FAILS." (A. I. A. Standard File No. 13).

AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC.

The co-operative non-profit service organization of the structural steel industry of the United States and Canada. Correspondence is invited. Address: A. T. North, A. I. A., Department of Architectural Relations, 285 Madison Avenue, New York City.

Steel Insures Strength and Security

ARCHITECTURE'S SERVICE BUREAU FOR ARCHITECTS

ARCHITECTS AND EVERY ONE INTERESTED WILL FIND HERE THE LATEST AND MOST UP-TO-DATE INFORMATION ON BUILDING EQUIPMENT AND ACTIVITIES IN THE INDUSTRY. THESE PUBLICATIONS MAY BE HAD BY ADDRESSING ARCHITECTURE'S SERVICE BUREAU FOR ARCHITECTS, 597 FIFTH AVENUE, NEW YORK. OUR SERVICE BUREAU WILL OBTAIN ANY OTHER CATALOGUES OR DATA YOU REQUIRE.

"LOOKING TOWARDS THE LIGHT"

Under a globe that lowers the intensity of the light the eye becomes rapidly fatigued, particularly when engaged in clerical work such as the visualization of printed and written matter. Once the eye is fatigued, of course the whole body is affected. On the other hand, with a globe permitting too high an intensity of illumination, or with any glaring reflections from work and surroundings, the vision is seriously impaired and efficiency curtailed.

The vast size of our office buildings, our large number of hospitals, the intense reading requirements of our universities, the delicate experimental work of our modern laboratories, the long rows of merchandise in our department stores—these things must have proper lighting diffusion.

Artificial light that has as far as possible the qualities of Nature's daylight finds its place as the artificial light of the houses, offices, schools, and factories of the immediate future and, as far as one can now see, of the distant future.

LUPTON CASEMENT WINDOWS

A valuable and handsome new book has just been issued by David Lupton's Sons Co. on their casement windows. It is replete with details and other useful data.

ELECTROL, INC.

The Electrol All-Electric, Entirely Automatic Oil-Burner is fully described in a new folder issued by this concern. This burner has rendered superlative service in many homes and buildings.

"ALPHA AIDS"

An A-No. 1 house-organ from the Alpha Portland Cement Co.

SAFETY STAIR TREAD CO.

A new folder describes the Wooster Safe Groove Treads and Security Nosings.

"STAINPROOF"

The announcement by the Master Builders Company of Cleveland, Ohio, inventors of Colormix, colored integral concrete floor hardener, of "Stainproof," a new method and material for protecting new floors, indicates that with this phase of the work protected, the entire process of producing a perfect concrete floor has now been brought under exact control.

LATEST IN EFFICIENCY KITCHENS

A sink, a china closet, and an electric refrigerator are all included in a space no larger than a piano-box in kitchen equipment designed for the magnificent ten-unit, 4,000-apartment Tudor City development in New York. This compact kitchen unit, set in a recess in the wall, and hidden by curtained doors when not in use, was worked out by architects of the Fred F. French Company, the builder, and Frigidaire Corporation.

"TRIANGLE NEWS"

This house-organ, from the Richardson & Boynton Co., always contains a great deal of interest.

WARREN WEBSTER

A new bulletin announces another new product for use in Webster systems of steam heating—the Webster drip trap. This is a compact, easily installed heavy-duty trap, with float-valve mechanism for handling water of condensation, and thermostatic valve for handling air.

STANDARD SPECIFICATIONS FOR FINISHING LIME PLASTER

For the purpose of aiding architects in obtaining a perfect, everlasting job of plaster and solving their acoustical problems, the Finishing Lime Association has issued a valuable book on the use of finishing hydrated lime.

GRADING RULES

Rules for maple, beech, and birch flooring have recently been issued by the Maple Flooring Manufacturers' Association.

A NEW MAIL BOX

The Patent Novelty Co. has introduced to architects an artistically designed mail-box which has met with great approval.

INSTITUTE OF CARPET MANUFACTURERS

The Institute is purely a fact-finding body, recently organized for the purpose of providing the industry with basic data relative to its productive facilities and distributive possibilities.

GOVERNMENT SPECIFICATIONS

Have recently been issued on brick and tile.

NEW FIXTURE DESIGNS

The Beardslee Chandelier Mfg. Co., of Chicago, is distributing a new edition of its Twenty-Four Hour Shipment Catalogue—Catalogue S8, replacing Catalogue S7 issued in 1925.

PARKER APPLIANCE CO.

A booklet describes the Parker Tube Coupling for copper-tube water and gas services.

PYRAMID GRATE

The Pyramid Iron Products Corp. has issued very interesting literature about the Pyramid Grate, which meets all the requirements for the burning of the smallest coals.

CORNING TERRA COTTA

A book shows numerous illustrations of Corning Terra Cotta used in buildings of various types.

METRO BRICK

A new A. I. A. folder and booklet give a handsome display of the various textures of Metro Brick. Panels in color are displayed.

NOVOID CORK COVERING

New literature thoroughly describes Novoid Corkboard Insulation, Stonewall Corkboard Finishes, Rubbercork Insulation, and Cork Tile.

COLONIAL ENTRANCES

Catalogue No. 52 shows numerous excellent examples of Colonial entrances. Published by Hartmann-Sanders Co.

YOUNGSTOWN PRESSED STEEL

Y. P. S. Fireproofing Products are completely described in an extremely valuable book from this concern. It goes thoroughly into specifications and details. Every reader should ask to be put on the list to receive the Y. P. S. "Oval."

ROOF INSULATION

An interesting four-page circular on cork roof insulation has just been published by L. Mundet & Son, Inc., of Hillside, N. J. It includes specifications for cork on wood deck construction, over concrete construction, and over steel roof decks.

"KELVINATOR ELECTRIC REFRIGERATION"

This book has been written to aid the architect or builder of to-day in arriving at a practical solution of the problem of refrigeration. The development of electric refrigeration to its present extent has made possible a source of cold which is silent, uniform, and completely automatic.

Kelvinator presents herein complete data to enable the architect or builder to select the proper Kelvinator equipment for all classes of refrigerating usage.

MINWAX CO.

A new folder discusses the function of waterproofing in connection with concrete exposed to the weather.

NATIONAL LIME ASSOCIATION

The following booklets are available: "Watertight Concrete," "The Fallacy of Unnecessary Strength—Mortars," "Out of the Mud with Lime—Pavements," "The Binder in Your Wall," "Cold Weather Mortar," "Better Concrete Roads—Pavements," "The Value of Hydrated Lime in Asphalt—Pavements," "Specifications for Lime Treatment of Earth Roads," "MacGregor Curve of Strength of Mortars," "Measurements of Sand," "A. S. T. M. Standard Specifications for Quicklime for Structural Purposes," "Report of A. S. T. M. Committee on Building Code for Requirements for Lime," "Substantial and Economical Construction—Mollenkoff," "There Is No Substitute for Lime."

FITZGIBBONS BOILERS

Bulletin No. H-7 describes Fitzgibbons Steel Heating Boilers, which are compact, brickless, and dependable.

SHOWERS AND FIXTURES

The Speakman Co. is issuing some very good leaflets on its new art line in shower and fixture designs.

JAMISON AND STEVENSON IN MERGER

A short time ago there was brought about the merging of the productive, distributive, and financial facilities of the two largest and oldest manufacturers of cold-storage doors and allied products. The parties figuring in this huge pooling of interests were the Jamison Cold Storage Door Company, Hagerstown, Md., and the Stevenson Cold Storage Door Company, Chester, Pa.

CELESTIALITE

Architects will find these samples and booklets from the Gleason-Tiebout Glass Co. of extreme value: A fragment of the glass to show the unique three-layer construction; Catalogue No. 72, illustrating plain Celestialite; Folder illustrating decorated Celestialite units; A. I. A. folder with descriptions and uses.

"ONONDAGA CUT CAST STONE"

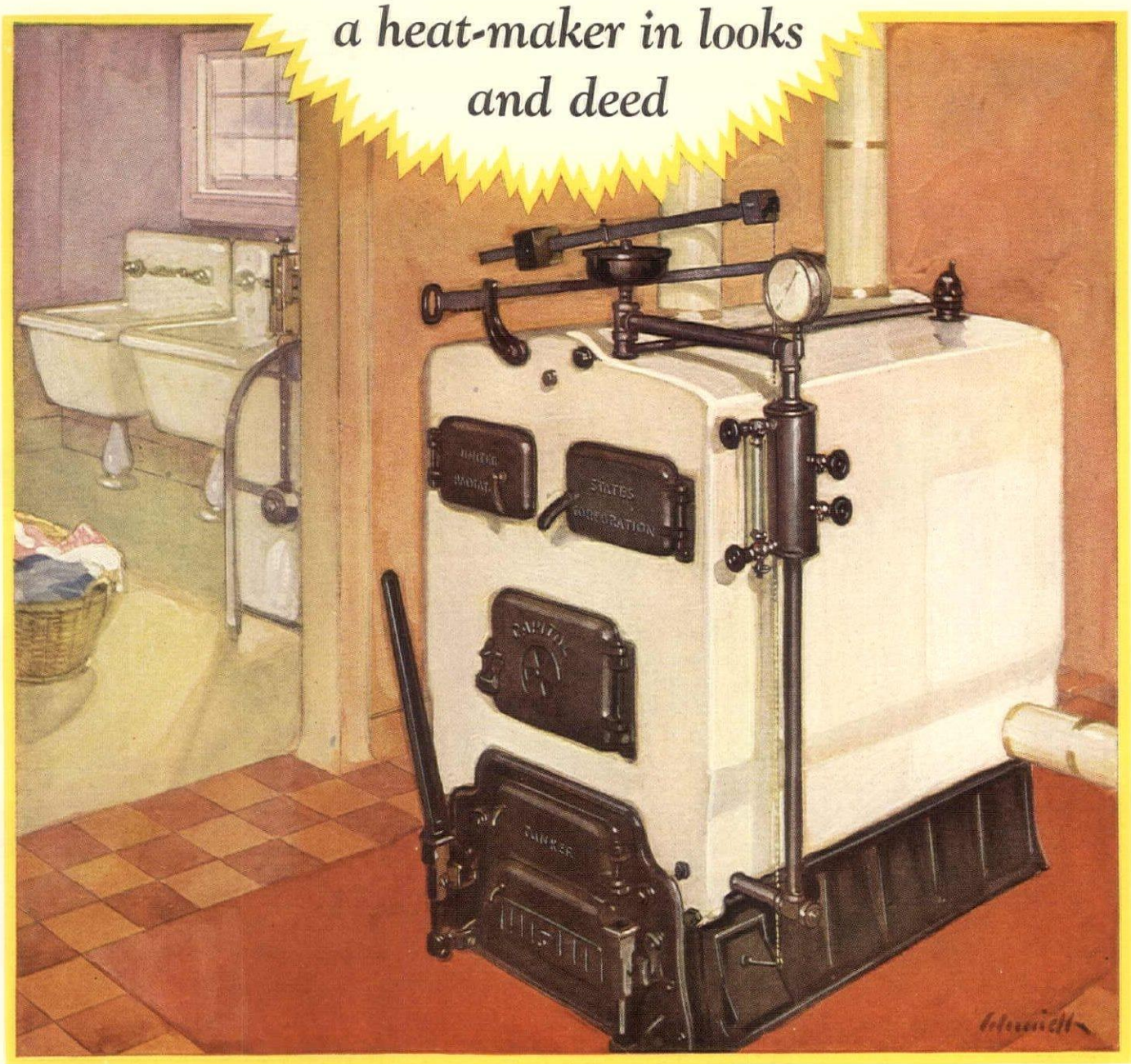
The Onondaga Litholite Co., pioneer in the manufacture of Cut Cast Stone, presents this new book to architects that they may have complete information on the characteristics and possibilities of this building material. Manufacturing processes, methods of finishing, and practical suggestions for its most efficient use are offered, with illustrations of the most popular finishes.

DURIRON CO.

This concern has recently issued a pamphlet, "Corrosion in Kitchen Waste Systems," by M. W. Smith. The writer discusses a wide variety of problems involving corrosion.

Shipshape and thrifty

a heat-maker in looks and deed



A GOOD boiler, a good looking boiler, a coal-saving boiler is this Capitol. There is in it that harmony of appearance with purpose which well foretells its efficiency. Designed to provide thrifty warmth, it looks the part openly and honestly, exhibiting the pleasing economy of line which inheres in all ably designed things.

The broad shoulders of fine-grained iron, the stout ribs of each section, the ample doors, and a generally satisfying air of competence, shine cleanly forth.

Smoothly covered with painted canvas over an insulation of asbestos cement, Capitol square boilers offer appearance more than equal to others and give savings in cost not possible in ornamented heat-makers. And insulated thus, the Capitol's lusty fire thrives on amounts of coal that would starve many another boiler. For none surpasses the Capitol in sparing the coal pile.

In addition, with every Capitol boiler is given a unique warrant of thrifty heating comfort and satisfaction, *Capitol guaranteed heating*. In writing* it assures all needed reserve power for winter's most rigorous days, because it definitely specifies the exact number of radiators that your Capitol boiler will heat.

Architects can secure particularly pleasing effects by using an economical Capitol square boiler for the basement den. On request, we will send complete installation data for your files.

UNITED STATES RADIATOR CORPORATION - DETROIT, MICHIGAN

6 factories and 32 assembling plants serve the country. For 37 years, builders of dependable heating equipment.

Guaranteed Heating WITH

Capitol Boilers

AND RADIATORS

* GUARANTEED HEATING

Your contractor receives a written guarantee on the heating capacity of every Capitol boiler. No other heating equipment assures you satisfaction so definitely.

Choose Any Color~~

it can now be yours in a floor of enduring Maple

Side and end matched to perfection—Maple makes a one-piece floor of lasting beauty.

MAPLE floors in color! Picture the charm and comfort they will lend to the rooms of your home. Today you can have them—at moderate cost.

By a process recently discovered, Maple flooring—hitherto available only in its natural golden hue—is made to take a permanent, even stain of any tone you choose.

From light, cool green to deep, mellow brown, from delicate sky blue to rich, rare ebony!

And with this transparent staining, the delightful natural pattern of the wood becomes more visible—develops a richness never before seen in any floor.

Thus Maple, long known to be the smoothest, most resilient and comfortable, most enduring of all fine flooring materials, now offers you a wealth of distinctive new opportunities for color harmony throughout your home.

If you are planning to build or re-floor, choose Maple for the floors . . . enjoy this element of color and the homelike atmosphere which only a product of nature can bring.

And know that, in selecting Maple, you are assured of flooring satisfaction that will last as long as the home itself. Write for the free illustrated booklet, "The New Color Enchantment in Hard Maple Floors."

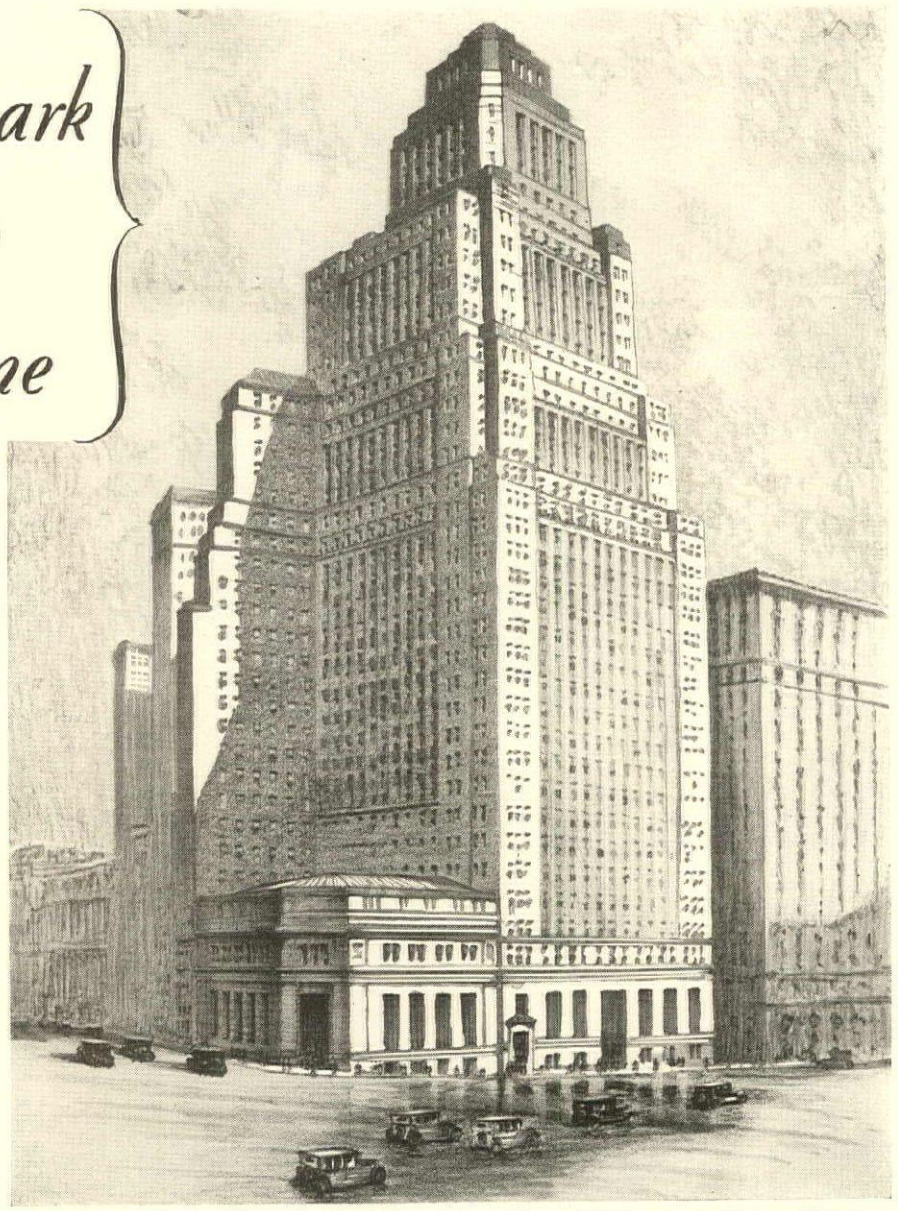
MAPLE FLOORING MANUFACTURERS ASSOCIATION
1766 McCormick Building, *Chicago, Illinois*

Guaranteed Floorings

MFMA The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture, and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade mark is for your protection. Look for it on the flooring you use.

Floor *with* Maple

A new landmark on the site of an old one



Equitable Trust Co. Building, New York City. Trowbridge and Livingston, architects. Thompson Starrett Co., General Contractors. W. G. Cornell Co., Plumbing Contractors.

A new 36-story skyscraper now towers 546 feet above the street in the very center of New York's financial district. Massive in design, constructed of granite, limestone and brick, the Equitable Trust Co. Building has already become a new landmark.

It stands on a well-known corner, the site of the historic red-brick Mills Building, in its day considered the largest and best-equipped office building in the world. Adjoining is the well-known structure of J. P. Morgan & Co.

In the Equitable Trust Building, every precaution is being taken also to safeguard the future tenants against unsatisfactory service of any sort. It is significant that genuine Jenkins Valves were chosen for use throughout the plumbing, as well as for the all-important fire protection service. Jenkins Bronze Valves, Jenkins Iron Body Valves, globe, gate and check types, in standard, medium and extra heavy patterns—all are represented in this building.

The specification of Jenkins Valves is well worth your while as it insures your clients of long trouble-free service. The Jenkins Diamond mark without which no valve is a Jenkins, signifies a valve of 60 years' good repute, a valve well designed and well made from analyses proved metals.

Many architects have found it wise, in order to avoid substitution to have their specifications read "all valves shall be genuine JENKINS, bearing the name 'JENKINS' within a Diamond Mark." It helps also to order by figure number, to prevent any possible misunderstanding.

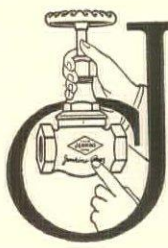
JENKINS BROS.

80 White Street . . . . . New York, N. Y.
524 Atlantic Avenue . . . . . Boston, Mass.
133 No. Seventh Street . . . . . Philadelphia, Pa.
646 Washington Boulevard . . . . . Chicago, Ill.

JENKINS BROS., LIMITED
Montreal, Canada London, England

FACTORIES
Bridgeport, Conn. Elizabeth, N. J.
Montreal, Canada

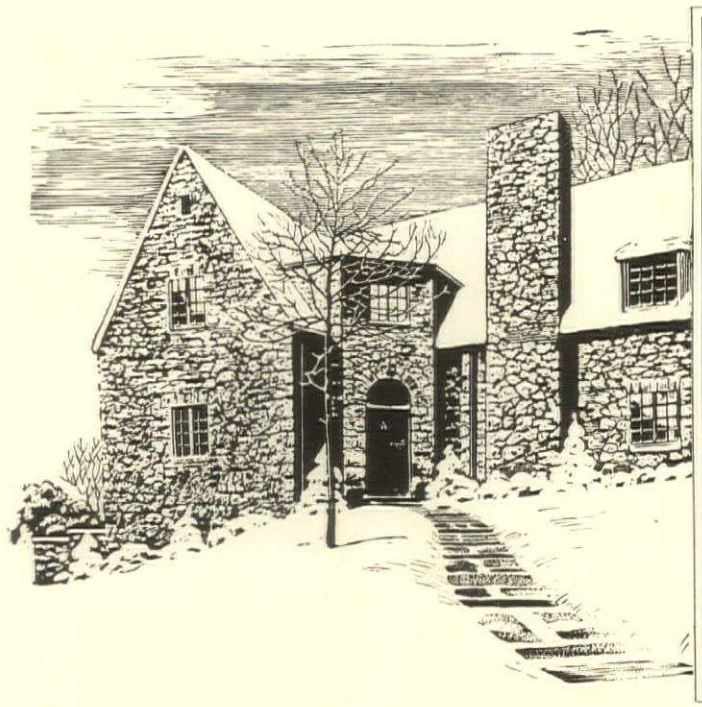
Fig. 815, Jenkins Bronze Hose Angle Valve with large red wheel. Used throughout the Equitable Trust Co.



Always marked with the "Diamond"

Jenkins Valves

SINCE 1864



"Having tried your corkboard out on my own house, I am confidently recommending its use to my clients."

—Carina Eaglesfield Mortimer
Architect

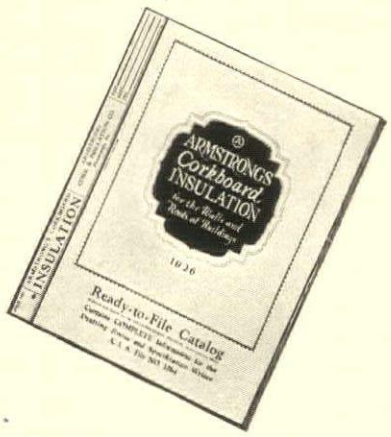
"I am confidently recommending its use to my clients"

CARINA EAGLESFIELD MORTIMER, Architect, of New Haven, Conn., used Armstrong's Corkboard for the insulation of her own home in New Haven. And after experiencing the benefits of cork insulation during both winter and summer, Mrs. Mortimer wrote:

"As you possibly remember, our house has a jacket on the walls and roof of your corkboard. Last winter the house heated very quickly and held the heat remarkably long, keeping the coal bills well below estimate. The hottest days this summer the house was cool, many degrees lower than any city house I have been in before in the summer, notwithstanding the fact that we have no attic and use the room under the roof for master bedrooms. *Having tried your corkboard out on my own house, I am confidently recommending its use to my clients.*"

The advantage of cork-lining the house for both comfort and economy is unquestionable. From the structural standpoint also, Armstrong's Corkboard meets every requirement. The recommended thicknesses—1½-inch for walls and 2-inch for roofs—are easily erected *in a single layer*. Plaster is applied directly to the cork without lath. Furthermore, corkboard is non-absorbent, vermin-proof, and fire retarding.

Both the stability and efficiency of Armstrong's Corkboard have behind them a record of service—the established proof of twenty-five years of industrial insulation.



Filing Catalog for Architects

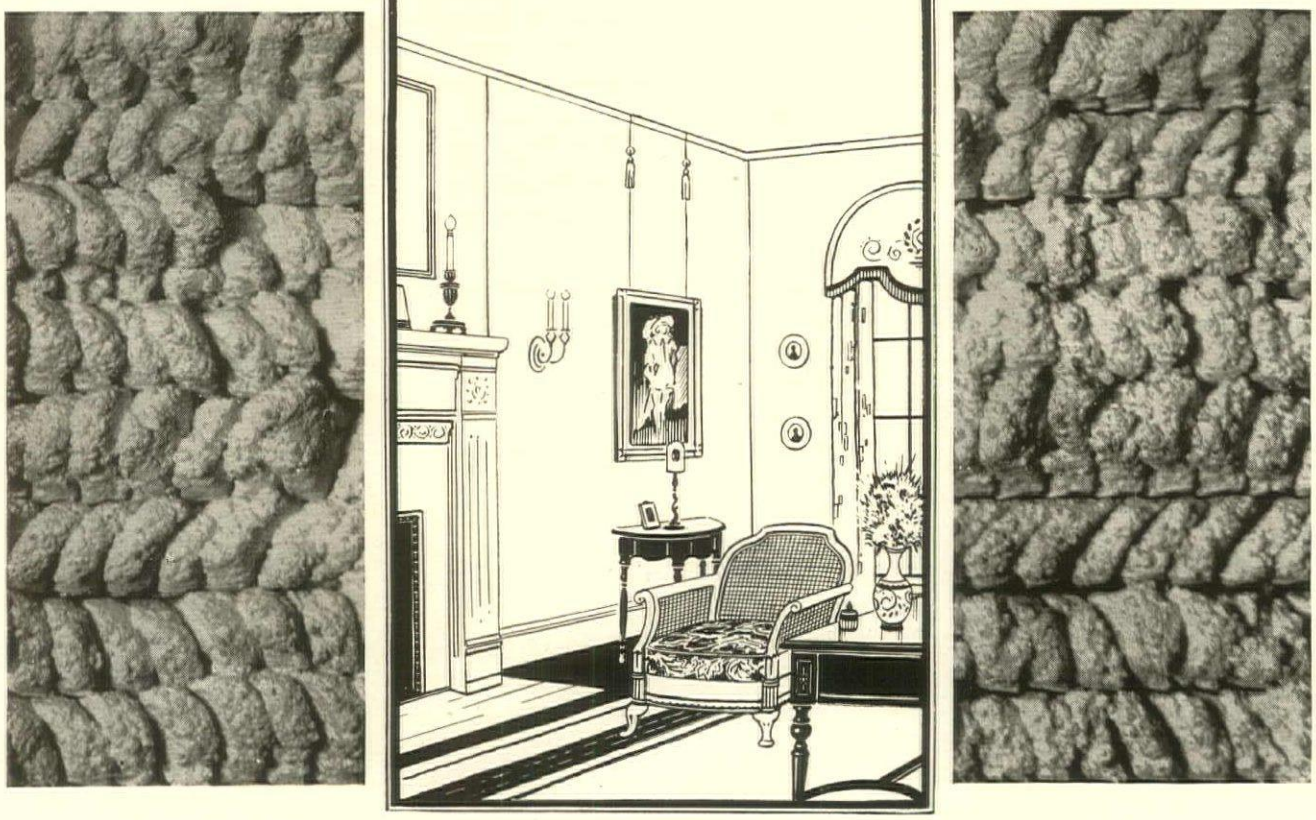
Contains practically everything you will want to know about the use of Armstrong's Corkboard for the insulation of walls and roofs of all kinds of buildings. Sent free on request. Write to Armstrong Cork & Insulation Company, 160 Twenty-fourth Street, Pittsburgh, Pa.

Armstrong's Corkboard Insulation

A Heatproof Lining for Walls and Roof

What's in back

No wonder the walls and ceilings retain their smooth and crackless beauty. The plaster is woven securely around every mesh of Herringbone Doublemesh.



The 7 products shown in this advertisement are those used in the famous "Genfire 7-point Houses" throughout the country. If you wish further information on all of these products write us and we will send complete literature.

1

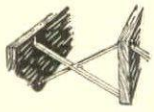
Herrin Doublemesh

ARMCO INGOT IRON

Galvanized or Painted Steel

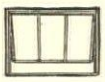
GF 16, a Waterproof Foundation Coating for Waterproofing Basement Walls

2



Duplex Steel Bridging —neater, cheaper and more rigid than wood bridging

3



GENFIRE Basement Windows of Steel for more light and ventilation

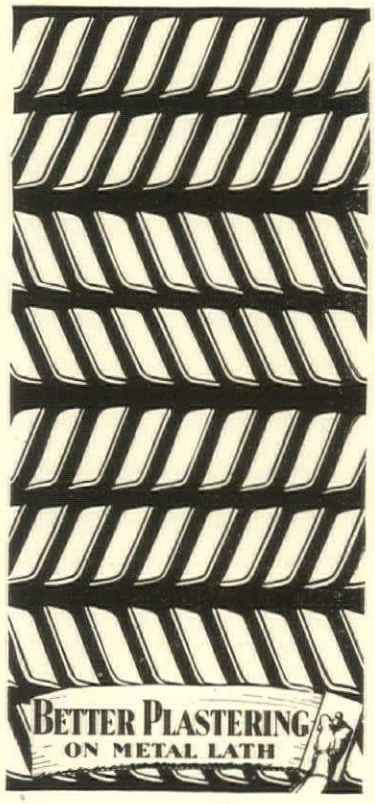
4

# of Your Plaster?

This is the famous Doublemesh — 8 plaster-gripping steel strands to the square inch. Your assurance of safety, beauty and long-time economy.

HERE on this page you can see the Herringbone mesh with its double rows of steel strands. The unretouched photograph on the opposite page shows the back of a wall plastered on Herringbone Doublemesh. This photograph illustrates how the plaster curls through and around the mesh in opposite directions forming a permanent bond.

The fact that Herringbone Doublemesh has withstood shocks such as the Santa Barbara, Mexican and Japanese earthquakes proves the superiority of the Doublemesh principle. When you use Herringbone you have positive assurance that your interiors will remain free from cracks and lath streaks. You know, too, that your walls are stronger, more rigid and firesafe. Actual use will point out construction economies in Herringbone. We will gladly furnish you full details of Herringbone construction. Complete literature will be sent on request.



GENFIRE STEEL COMPANY
YOUNGSTOWN, OHIO
{The General Fireproofing Building Products}

Manufacturers of a Complete Line of Firesafe Building Products, also Waterproofings and Concrete Preservatives. Members of the National Council for Better Plastering.

gbone-
Metal Lath

Genfire FIRESAFE BUILDING PRODUCTS

GENFIRE
Steel Lintels — sturdy and reliable for use over door and window openings and at fireplaces
5

GENFIRE
Casement Windows of steel have double weathering contacts insuring weather-tightness
6

GENFIRE
Expanded Metal Corner Bead prevents damage to exposed plaster corners.
7

PROTECTION
for Your Investment

THE home with a Richardson & Boynton boiler will thwart the attacks of winter and the ravages of depreciation for long years to come. A heating plant that means *more* than warmth and comfort. The Richardson & Boynton nameplate is a pledge to the home-seeker of Equity in the investment—Quality in the material —Economy in upkeep—Safety in operation.

Richardson & Boynton Steam or Hot Water Boilers are honestly and conservatively rated to deliver the utmost heat with a minimum of fuel. Their capacity and performance are personally guaranteed by the Richardson & Boynton Company.

RICHARDSON & BOYNTON CO.
Manufacturers of "Richardson" "Perfect" Heating and Cooking Apparatus Since 1837
260 Fifth Avenue · New York City
New York · Newark · Philadelphia · Boston · Chicago · Buffalo · Minneapolis

RICHARDSON & BOYNTON CO.
HEATING AND COOKING APPARATUS

What other Draperies can Promise so much?

Here is your final answer to a long cherished desire: exquisite beauty plus service that endures!

The reason that LESHER MOHAIRS are today the keynote of decoration in America's finest homes is not hard to discover . . . They owe their soft, silky texture partly to the superb Angora mohair yarn used in their making, and partly to their exclusive weave and unique processes of finish.

The result is remarkable beauty with washing and wearing qualities unmatched. In LESHER MOHAIRS are features that endear them to every lover of the Home. In addition to their sturdiness and distinguished charm, they present a totally different type of drapery and upholstery.

They shed the dust and dirt—they never crack or muss—they hang in perfect graceful folds—they need the least of attention—*yet win the most.*

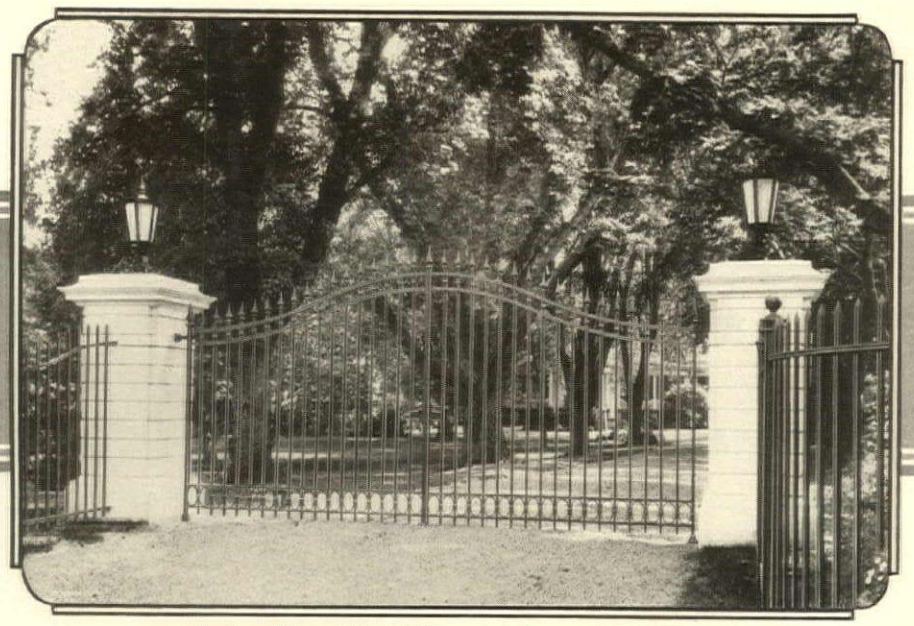
The beauty of the Lesher Period Designs has made these fabrics the choice of great decorators.

In their surprising variety they offer the ideal blending note for draperies, chairs, couches and bed-spreads. They are designed to create a symphony of rare radiance in the Home.

An interesting little brochure written by a well known authority will be sent you free on request. It describes LESHER MOHAIRS in full detail and brings you a world of helpful information concerning the Home Beautiful. Write for it.

Lesher, Whitman & Co.
Eight Eighty-one Broadway New York City

Lesher Mohairs are a Goodall Product, made by the Goodall Worsted Co. of Sanford, Maine. Their pledge of absolute satisfaction is backed by many years of splendid service.



Anchor Flange-Welded Entrance Gate and Railing on the property of Abel Hanson, Esquire, Metuchen, N. J.

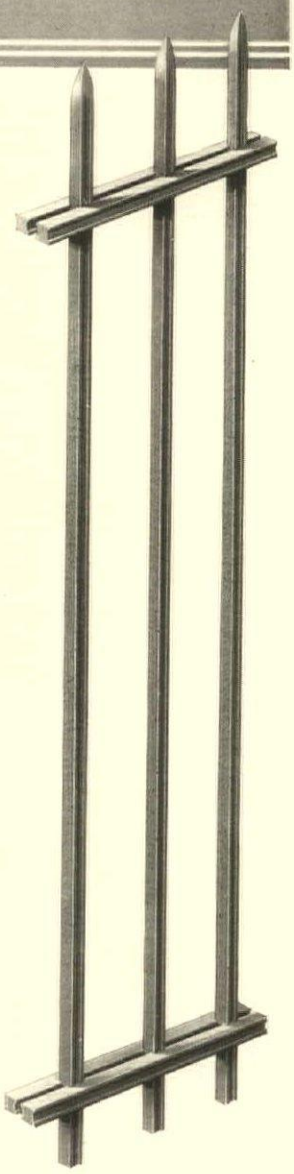
Beauty

—and amazing strength as well!

Five men—total weight 850 pounds—stood on a single ten-foot panel of Anchor *Flange-Welded* Railing to test its strength. Their weight caused a deflection of less than one-half inch—and when they stepped off the railing it returned to normal again!

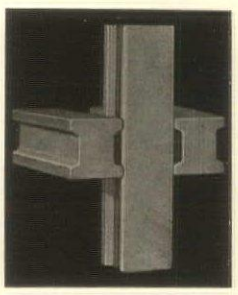
And it is because of this remarkable strength that an Anchor Railing or Gate is beautiful as well as enduring. With pickets and rails inseparably welded together, there is no need for unsightly braces, lugs or rivets. No re-enforcing of any kind mars the simple, clean-cut lines of this construction.

If you are interested in iron railings and gates for fine properties, the unique distinction of this Anchor Railing will be sure to appeal to you. We would welcome an opportunity to send you complete information including photographs of some of the hundreds of installations we have made.

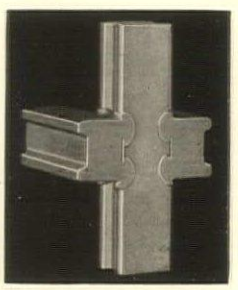


ANCHOR POST FENCE COMPANY
9 East 38th Street, New York, N. Y.
Branch Offices in Principal Cities

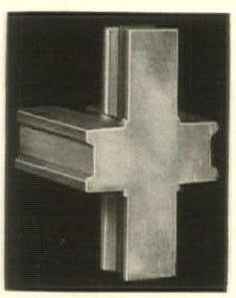
ANCHOR ELECTRICALLY FLANGE-WELDED
Railings & Gates



Showing picket and rails as assembled in jig, before passing through jaws of Electric Welding Press.



Showing picket and rails after welding has fused them together at eight points.



Same picket and rails, with ends of rails ground down to show perfect union of welded members.

EACH PICKET WELDED TO THE RAILS AT SIXTEEN POINTS

TRINITY M. E. CHURCH, OIL CITY, PA.
Chas. W. Bolton & Son, Architects

RACKLE ARTSTONE

for Churchly Effects

If there is one place more than another where Rackle Artstone is particularly useful it is in building churches. The material lends itself perfectly to the complications of window tracery, niches, canopies, pinnacles, and all the numerous forms of artistry that the Gothic order presents.

Quality is not sacrificed to cheapness in Rackle Artstone, and yet it is an economical material to use. Made for fifty-seven years. Lasts forever.

Specifying Rackle Artstone avoids experiments with unknown products.

The Geo. Rackle & Sons Co.
Cleveland, O.
Established 1870

autumn brown birch is equally appropriate. It gratifies the pride of the client and reflects lasting credit to the architect. **birch** permanently retains its fine appearance—interior trim, veneer paneling, doors and long-life floors—because of its practically "mar-proof" hardness.

Entrance to dining room, Grand Canyon Hotel, Yellowstone National Park. Floors, pillars, ceiling and standing trim—all Beautiful Birch

Wisconsin and Michigan **birch** assures all-around satisfaction for large or small job. It lends itself to the finest workmanship, stays in place, and stands hard wear, as well as abuse, on account of its quality of extreme hardness. As Rotary cut **birch** veneer, it is unexcelled in beauty and its dense, close grain prevents all tendency toward checking.

Complete data upon request. May we also send you a copy of the new Birch Brochure with our compliments? Contains valuable tables upon Physical Properties of all American Hardwoods

THE BIRCH MANUFACTURERS
224 F. R. A. Building Oshkosh, Wisconsin

"Beautiful Birch for Beautiful Woodwork"

Make the windows of the buildings you design

"As Tight as a Bottle"

THEN a handkerchief held as shown in the picture will remain motionless even on a windy day. Higgin Weatherstrips enable you to obtain this air-tight condition.

See how the Higgin Spring Bronze **INSERT** Strip grips the zinc rib track and makes a metal-to-metal closure which drafts cannot pass. With Higgin Weatherstrips you can assure your clients

— that the home can be easily heated to a uniform temperature throughout on the coldest days;

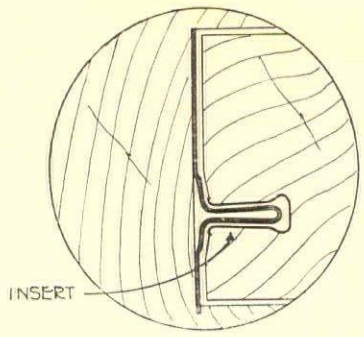
— that increased efficiency can be secured from the heating system;

— that their original cost will be quickly repaid in reduced fuel bills

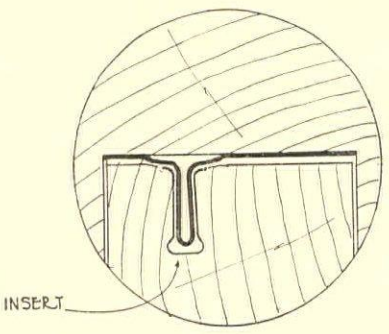
Higgin Weatherstrips are made for casement and double hung windows and for doors. They are installed only by Higgin trained mechanics. Let the Higgin expert in your vicinity give you the benefit of his experience and training in making up all your weatherstrip specifications. If you do not know him, ask the factory.

THE HIGGIN MANUFACTURING CO.
General Offices: 513 Washington Ave., Newport, Ky.
Kansas City, Mo. Toronto, Ont., Canada

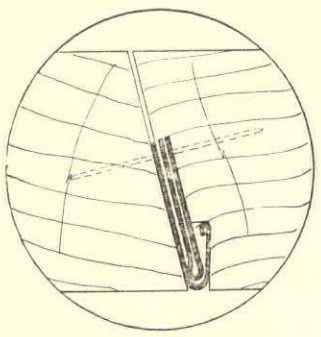
HIGGIN
ALL METAL
Weatherstrips



Track and **INSERT** for side rails. This equipment also used at sill.



Top rail of upper sash with track and **INSERT**.



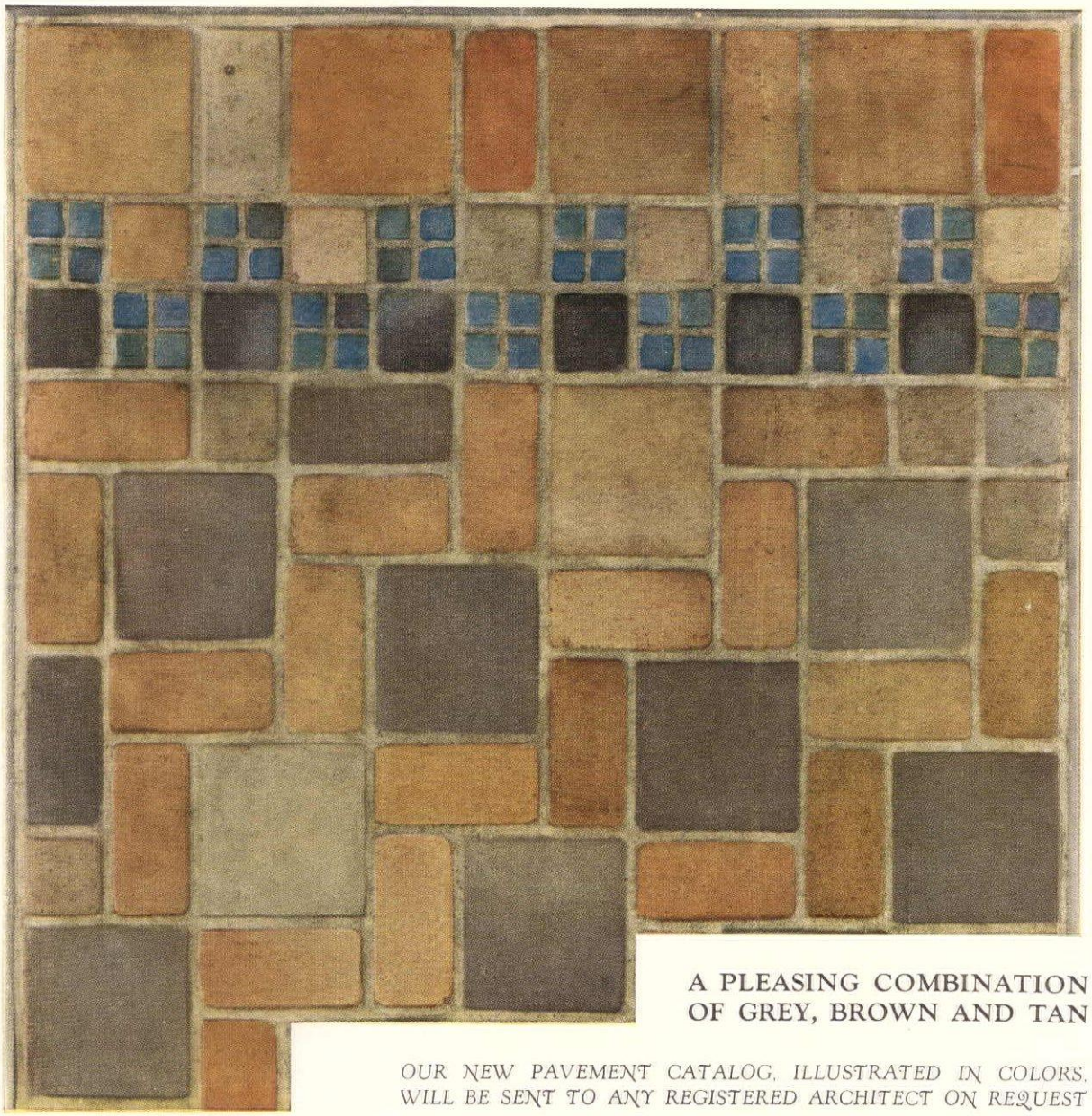
Type of equipment that may be used at meeting rail.

Equipment for out and in opening casements illustrated in Folder A.

A. I. A File No. 19e14 (Weatherstrips) sent on request.

BATCHELDER PAVERS

MADE IN U. S. A.



A PLEASING COMBINATION
OF GREY, BROWN AND TAN

OUR NEW PAVEMENT CATALOG, ILLUSTRATED IN COLORS, WILL BE SENT TO ANY REGISTERED ARCHITECT ON REQUEST

BATCHELDER PAVERS permit all the color subtleties of an Oriental Rug, or they may be used in contrasts to the extremes of "Velvet Black" and "Oyster White". These colors are the same throughout the thickness of the tile and will always remain the same. Our Pavers have the texture that comes only from a hand-made product. They may be obtained in many sizes and shapes.

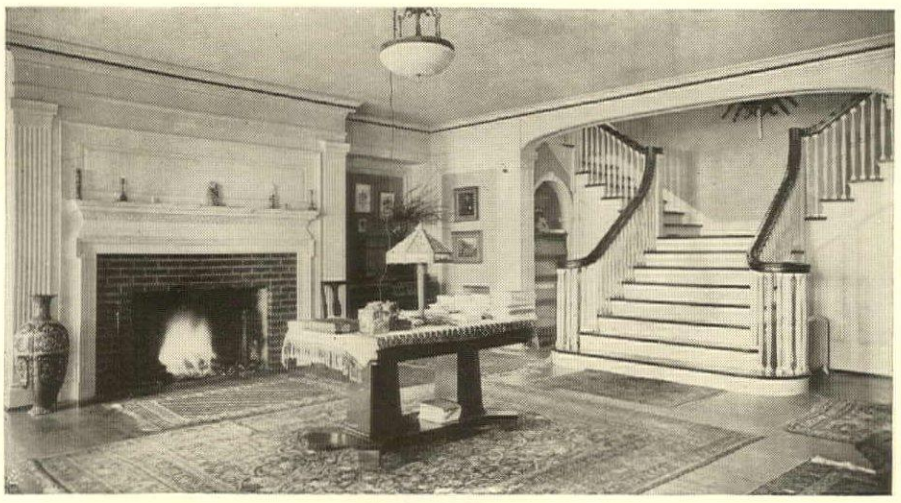
If color and texture are virtues, then permanence is equally desirable. These pavers are as nearly permanent as a clay product can be, —fired to high temperatures, semi-vitreous, non-slip. They have a tough, compact body that will challenge time and wear. With all these things to their credit they should lend dignity and charm to any environment. They are used for wainscots as well as pavements.

BATCHELDER-WILSON COMPANY

LOS ANGELES
2633 ARTESIAN ST.

CHICAGO
38 SO. DEARBORN ST.

NEW YORK
101 PARK AVE.



The beauty of interior trim and other millwork must eventually depend on the integrity of the material. The stability of Douglas Fir makes it safe material for such work as this, living room and stairway.

Schack, Young and Myers, Architects

Add the finishing touches with West Coast woods

FINISH and trim—interior and exterior—exact careful adherence to correct curve and line—and should last as well and as long as the structural portions of the building. For no matter how beautiful the proportions of cornice and trim, they become defacements if they show deterioration.

Douglas Fir has a texture that enables the millwork man to follow your details accurately—gives you sharp, clean corners, smooth curves and flat surfaces. West Coast Hemlock has a smooth, close-grained texture that takes a finish like a hardwood. It is a splendid base for enamel. Douglas Fir and West Coast Hemlock flooring are light and even in color—and remain so—are smooth wearing, and long wearing. The wide, clear sizes of Sitka Spruce are desirable for drain boards in the kitchen—any use where there is a need for wide, clear pieces that will lay flat and stay flat.

The charm of Douglas Fir exterior trim is permanent because the wood is durable.

Chester A. Patterson Architect

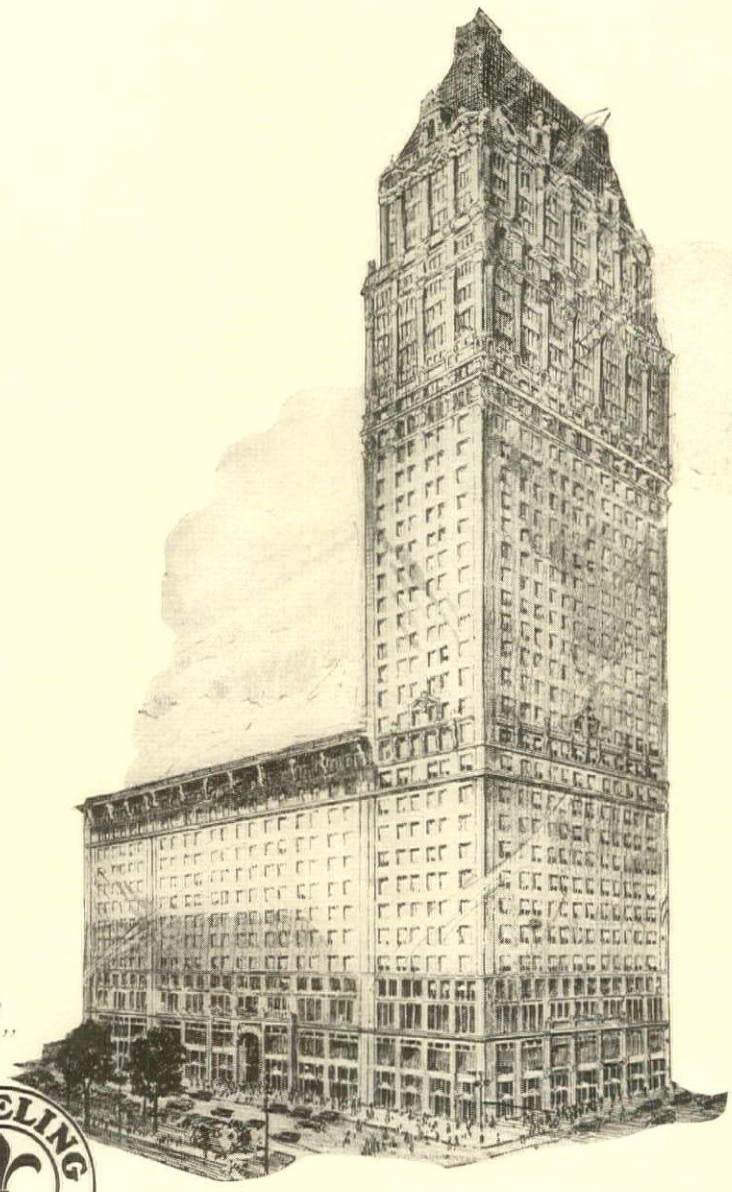
Douglas Fir millwork resists decay—retains its charm. It need not even be all heartwood, although that is an easy specification to meet in Douglas Fir. Sapwood of Douglas Fir has exceptional durability even in exposed places such as exterior trim, verge boards, cornices and gutters, when it is well drained and well ventilated.

Douglas Fir, West Coast Hemlock, Sitka Spruce and Western Red Cedar all make good siding. The Fir is inherently more durable, but the soft and resin-free Hemlock and Spruce are equally durable on a well-painted house. The Cedar, as siding or shingles, will outwear the house, whether painted, stained, or left to weather to its own soft tones.

Paint, stain, varnish, enamel and wax finishing are equally successful on Douglas Fir, West Coast Hemlock, Sitka Spruce and Western Red Cedar. Nails and screws hold tightly—hardware stays in place. Your local millwork concerns can supply finish in West Coast woods to your details or in good stock patterns—at a reasonable price. Why not have specific, technical information on these woods in your files? We will be glad to send it to you. Just address West Coast Lumber Bureau, 12-D Mt. Hood Bldg., Longview, Washington.

Durable Douglas Fir
America's Permanent Lumber Supply

Important West Coast Woods — Douglas Fir - Sitka Spruce - West Coast Hemlock - Western Red Cedar

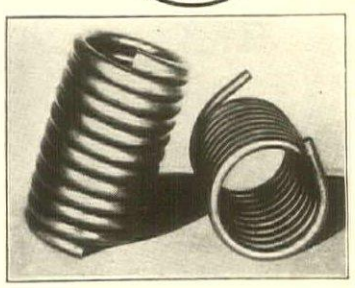


Wheeling Standard Pipe was used in the New Book Tower, Detroit, Michigan. 26 years of proven pipe performance is behind every installation.

Architect:
Louis Kamper, Detroit

"From Mine to Market"

WHEELING STEEL



Coils such as these, formed cold, illustrate the ductility of Wheeling Standard Pipe which journeymen call "dead-soft."

Quality "From Mine to Market"

ALONG the route of "Mine to Market" manufacture, Wheeling Standard Pipe accumulates the qualities essential to continued trouble-free performance at lowest cost.

It possesses 30% more tensile strength than iron pipe—50% greater ductility—and is entirely free from hard spots. The production exceeds the total iron pipe tonnage by thousands of tons per annum.

Because of its distinct economy in both first and last cost, Wheeling Standard Pipe is being used in many of America's finest office buildings, factories, apartment buildings and in thousands of homes, large and small.

You can write "Wheeling Standard Pipe" into the specifications and *know* that installations will be uniformly satisfactory. The builder and pipefitter benefit, too.

WHEELING STEEL CORPORATION, WHEELING, WEST VIRGINIA

Only with Tiles . . . *can you secure this unique eave effect*

Observe the fascinating shadow cast by the irregular eaves of this roof of IMPERIAL Roofing Tiles. Only by employing tiles can you obtain this and other equally interesting effects.

Aside from making a home more picturesque and colorful, IMPERIAL Roofing Tiles have further advantages you ought to know. They keep a house cooler in summer and warmer in winter; provide protection from fire as well as from the elements, and seldom if ever need repairs.

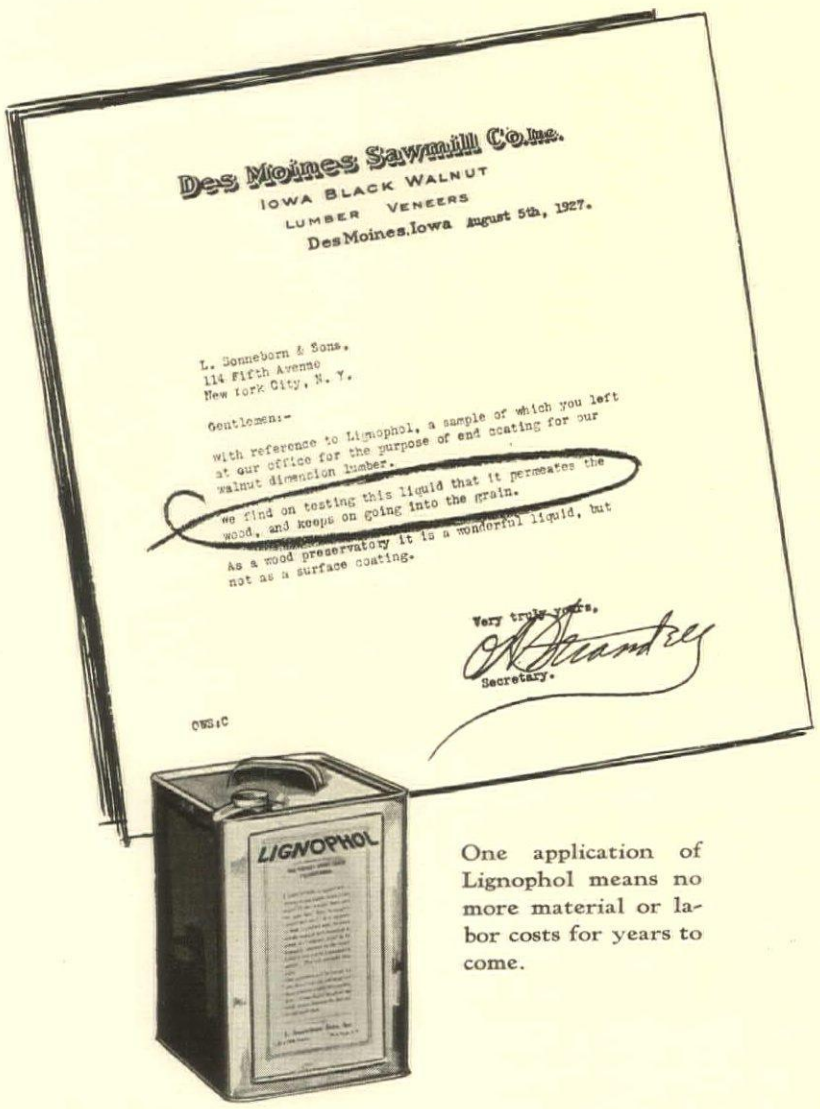
Thus, in the end, they prove themselves the most economical roofing material you can possibly specify. Write for color folder which pictures and describes a wide variety of shapes and shades.

Chicago, 104 S. Michigan Ave. LUDOWICI-CELADON COMPANY *New York, 565 Fifth Ave.*

IMPERIAL Roofing Tiles

LIGNOPHOL

is a penetrating preservative for wood floors



One application of Lignophol means no more material or labor costs for years to come.

ARCHITECTS and Engineers will be interested in this letter, shown here. It proves Lignophol is no mere surface dressing. This penetrating preservative gets into the interior wood cells and fibres, filling them with natural life-giving gums and oils.

Lignophol protects new and old wood floors against splintering, cracking, warping and rotting.

Linseed oil, shellac, varnish and so-called preservatives cannot do this. They quickly evaporate or wear away and must be renewed ever so often.

You can assure your clients that Lignophol for a period of years will keep their floors looking new and strong. They will appreciate its economy when they know that it saves considerable money that would otherwise be expended in frequent renewals and repairs.

Lignophol Wax Finish—for floors in residences, apartments and for dance floors. Produces a medium or high polish. Already contains wax and need only be polished six hours after applied.

Lignophol is manufactured in four standard colors: Natural, Light Brown, Medium Brown and Dark Brown. Easily and quickly applied with long-handled or flat, wide brush at minimum labor cost. One application lasts for years.

Be sure to specify Lignophol—a Sonneborn Product.

Some Other SONNEBORN Products

LAPIDOLITH
The original concrete floor hardener. Adds years to life of concrete floors. Applied like water with a brush. Hardens overnight.

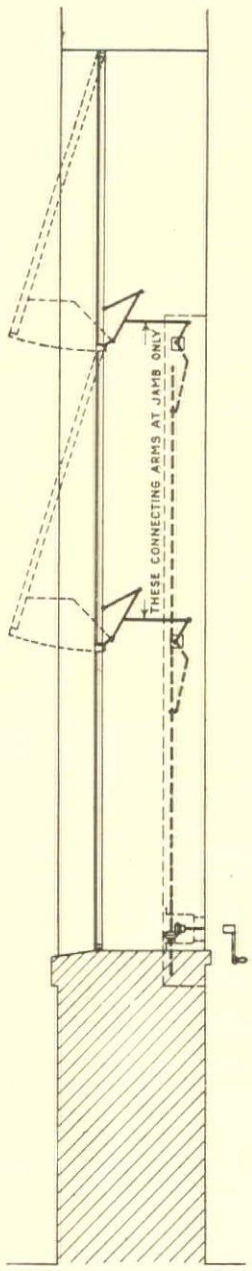
HYDROCIDE
A complete line of water and dampproofing products for walls, copings, foundations.

CEMCOAT
The paint that stays white when others turn yellow. Can be washed again and again. Adheres to brick or concrete as easily as wood.

L. SONNEBORN SONS, Inc.
114 Fifth Avenue, New York

MAIL THIS COUPON TODAY
L. SONNEBORN SONS, Inc., 114 Fifth Ave., New York
Please send me, without obligation, demonstration samples and literature on: — Lapidolith ....; Lignophol ....; Cemcoat ....; Hydrocide Colorless ..... (Check products that interest you.)
Name .....
Address .....
Company .....
Position .....
A-11

Sash Operating Problem No. 22



Section showing how top hung sash at the Corn Exchange Bank are operated.

Exterior of the Corn Exchange Bank, New York City

Architects—Feltheimer & Wagner
Contractor—The Neckerman Company
Bronze Sash—Renaissance Bronze & Iron Works
Steel Sash—David Lupton Sons Company

Operating Top Hung Bank Sash

At the Corn Exchange Bank, the sash are light-weight bronze, some in single and some in double row. All operating parts except those across the face of the windows were to be concealed in the walls.

The shafts were kept on a line with the bottom rail and all exposed parts constructed of solid bronze to correspond with the sash.

Because of the depth of the window jambs at some points, it was necessary to make a special connecting arrangement so that the shaft and vertical rods could be kept close to the sash.

Thus the chases would not have to be of excessive depth.

This is one of a group of differing window operating problems that will be presented each month. Reprints of this series of problems will be mailed on request. Likewise a special American Institute File Folder to contain them.

Lord & Burnham Co.

IRVINGTON, N. Y.

Representatives in all principal cities

A Modern Invention for Modern Interiors

A Combined Air Circulating and Lighting Unit

Mr. Emory Roth, Architect, designed the Fandolier-Chandeliers used in one of New York City's smartest restaurants

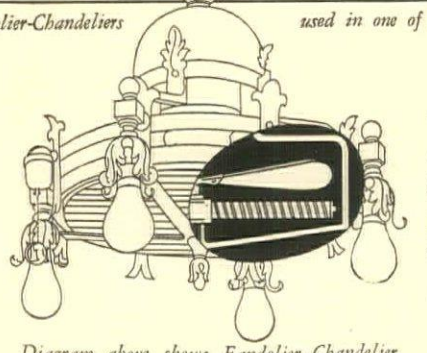


Diagram above shows Fandolier-Chandelier, stock type, ready for installation, which may be ordered direct from us

NO LONGER need you have the old-fashioned, draft-creating, after-thought fan. Within your chandelier fixture you may have a fan to turn on and off at will—to circulate the air. No drafts result from the FANDOLIER because the moving air is gently diffused by a patented deflector.

Chandelier manufacturers recognize the importance of the FANDOLIER by designing their latest models around it. In many hotels, bank offices, restaurants, clubs and private dwellings throughout the United States are to be found the new FANDOLIER—fan and chandelier. This invention does away with duplication of interior equipment . . . The FANDOLIER may be ordered through any fixture manufacturer, or you may order direct from us stock units as illustrated in the FANDOLIER Catalog (A. I. A. File No. 31*f*23). Truly the FANDOLIER is a modern invention for modern interiors.

***Fixture Manufacturers from whom you may order your* FANDOLIER-CHANDELIER**

Chicago, Illinois
Beardslee Chandelier Co.
Crown Electric Mfg. Co.
Curtis Lighting, Inc.
C. G. Everson Co.
Henkel & Best Co.
Walter G. Warren

Cleveland, Ohio
The Kayline Co.
Milwaukee, Wisconsin
Compo Lighting Products Co.
Chas. Palacheck & Bros. Co.
New York, New York
Black & Boyd Mfg. Co.

New York, New York
Cassidy & Co., Inc.
Ferro Art Lighting Fixture Co.
Mitchell Vance Co.
Robert Philips Co., Inc.
L. Plaut & Co.
Sterling Bronze Co.

Philadelphia, Pennsylvania
Biddle-Gaumer Co.
Horn & Brannen Mfg. Co.
The Voigt Co.
St. Louis, Missouri
Gross Chandelier Co.
Edwin F. Guth Co.

FANDOLIER-CHANDELIERS

FANDOLIER DIVISION

THE SAFETY CAR HEATING AND LIGHTING COMPANY

75 West Street, New York City

Fort George Presbyterian Church

New York City

C. W. Brazer
Architect

Interior Woodwork and Seating by

D LONG

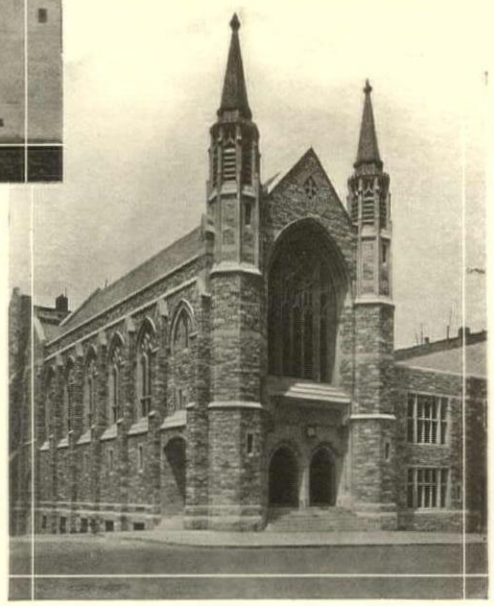
Department S

DE LONG FURNITURE CO.

1505 Race St., Philadelphia

Allentown, Pa.

Topton, Pa.



THE dignified beauty of the interior of Fort George Presbyterian Church well reflects the craftsmanship of De Long.

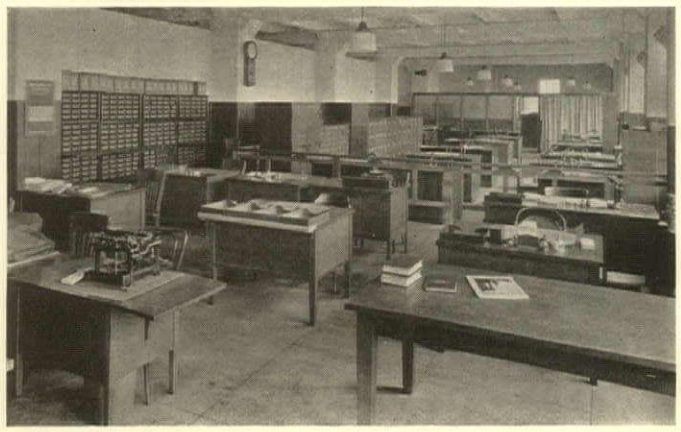
All woodwork from the church seating to the delicate hand-carving on the organ case was designed, executed and installed by us. In this, as in all De Long installations, a responsible officer of our organization personally followed each detail from the time of the first contact with the architect to the final completion of the work.

FURNITURE BY DE LONG

FOR CHURCHES • LODGE BUILDINGS • PUBLIC BUILDINGS

ARCHITECTURE'S SERVICE BUREAU FOR ARCHITECTS

WHAT TO SPECIFY



WHERE TO BUY IT

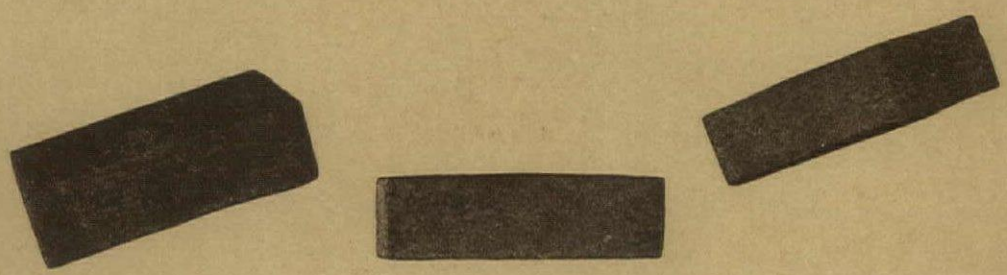
IF YOU ARE INTERESTED IN OBTAINING THE CATALOGUES OF ANY OF THE ADVERTISERS IN THIS ISSUE OF ARCHITECTURE (AS LISTED BELOW) LET ARCHITECTURE'S SERVICE BUREAU SEND THEM TO YOU. ANY ADDITIONAL DATA CONCERNING THE INDUSTRY THAT THE READERS OF ARCHITECTURE REQUIRE WILL GLADLY BE COMPILED FOR THEM BY OUR SERVICE BUREAU.

REFER TO PAGE 42 FOR ANNOUNCEMENTS OF THE MOST UP-TO-DATE PUBLICATIONS OF MANUFACTURERS.

The Hand-Madeness

That's Made In Today's Old Virginia Brick

Being Tale Telling Five



BEING once more frank with you, frankly we just don't happen to know of any other brick, that has the hand-madeness of our Old Virginias. And even if we should be misinformed, or rather uninformed, still we can say without the least danger of contradiction, that these Old Virginias have a rare range of colorings, likewise an indescribable texture, that you'll admit compares very favorably with the hand-made brick of Colonial days.

In truth, we do use exactly the same kind of hand moulds, made of solid cherry or maple. Each mould is sanded with a special sand as in those days of long ago.

The genuine old Colonial bricks, were burned to around 7 or 800 degrees; while ours have 3 or 4 days at 2,000. And what colors that great heat does bring out! Colors, and an utterly indescribable range of soft, rich time-tones, such as you would delight to get your hands on for some of your clients.

No one makes bricks strictly by hand today. But here's one that has all the ear marks of being so made. Natural ear marks. Not the forced, abnormal artificial ones.

You may feel I am overenthusiastic. Well, maybe you are right. One way to tell, would be to let us send you free of charge, 10 or 20 half size Old Virginias to "play with" and then see who's the enthusiastic one. You will be glad to learn that we also make Old Virginias in the ½ inch thicker oversize, such as were used in Monticello, Westover and all the early Virginian homes.

OLD VIRGINIA BRICK

Old Virginia Brick Company
Salem, Virginia

THE SCRIBNER PRESS

Church of Holy Rosary

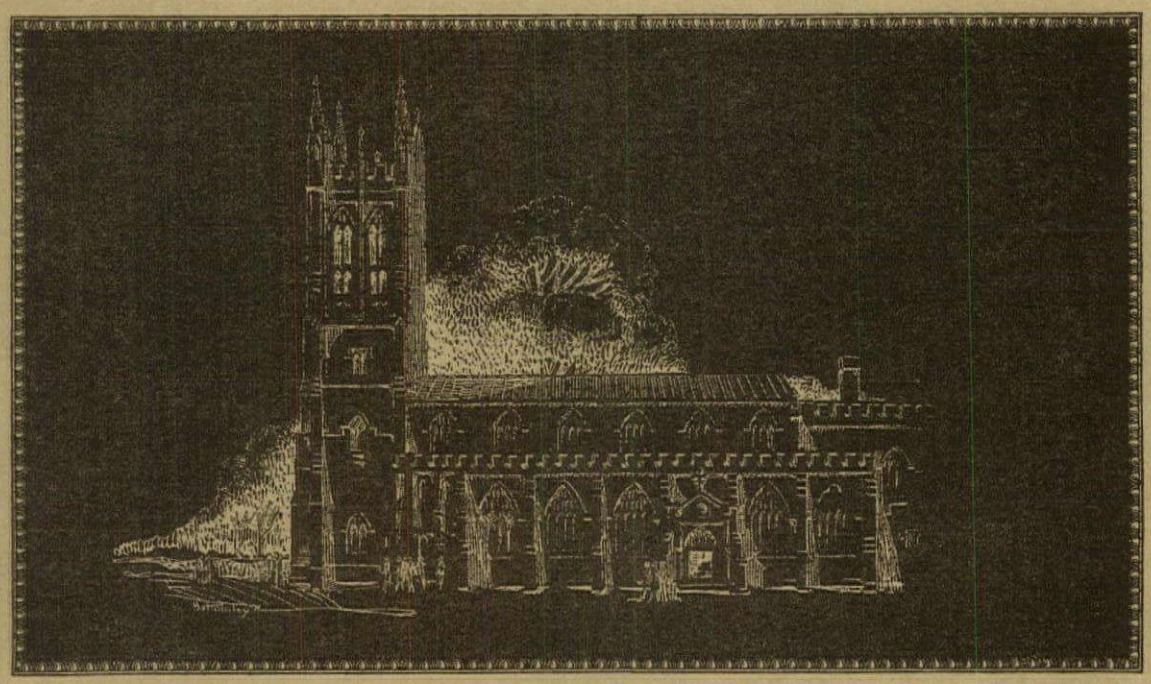
at Toronto, Canada

Is Twin Burnham Heated

By Twin Burnham, we mean the big 50 inch twin section one. The one in which the sections were so big they had to be made little—or in twins.

Made twins, to make installations easy and economical. You at once see the distinct advantage of such a boiler in replacement jobs. It can be put through practically any opening big enough for a man to slide through.

No tearing out need be done.



This Big Twin used has a 50 inch grate and has 6 twin sections—really 12 sections in all

A. W. Holmes, Architect
H. H. Angus, Consulting Engineer
P. J. Hayes, Heating Contractor

Burnham Boiler Corporation

IRVINGTON, N. Y.

New York City
30 East 42d St.

Representatives and Branch Offices in Principal Cities of United States and Canada