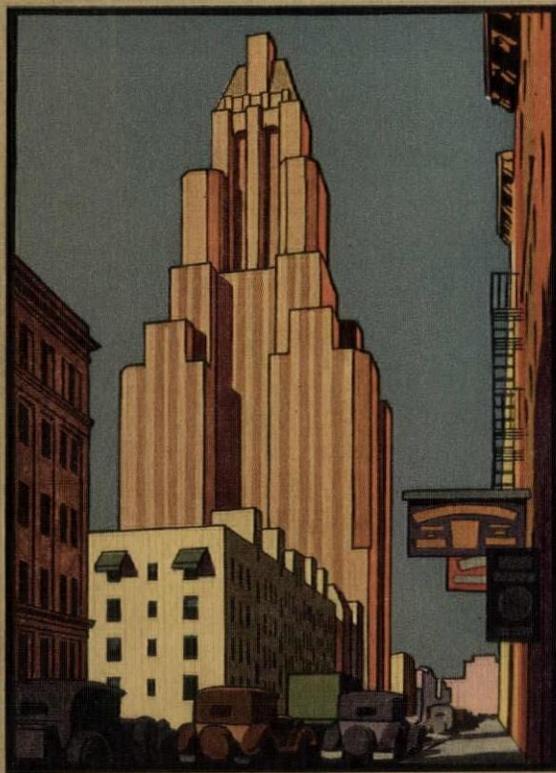


THE ARCHITECTURAL FORUM



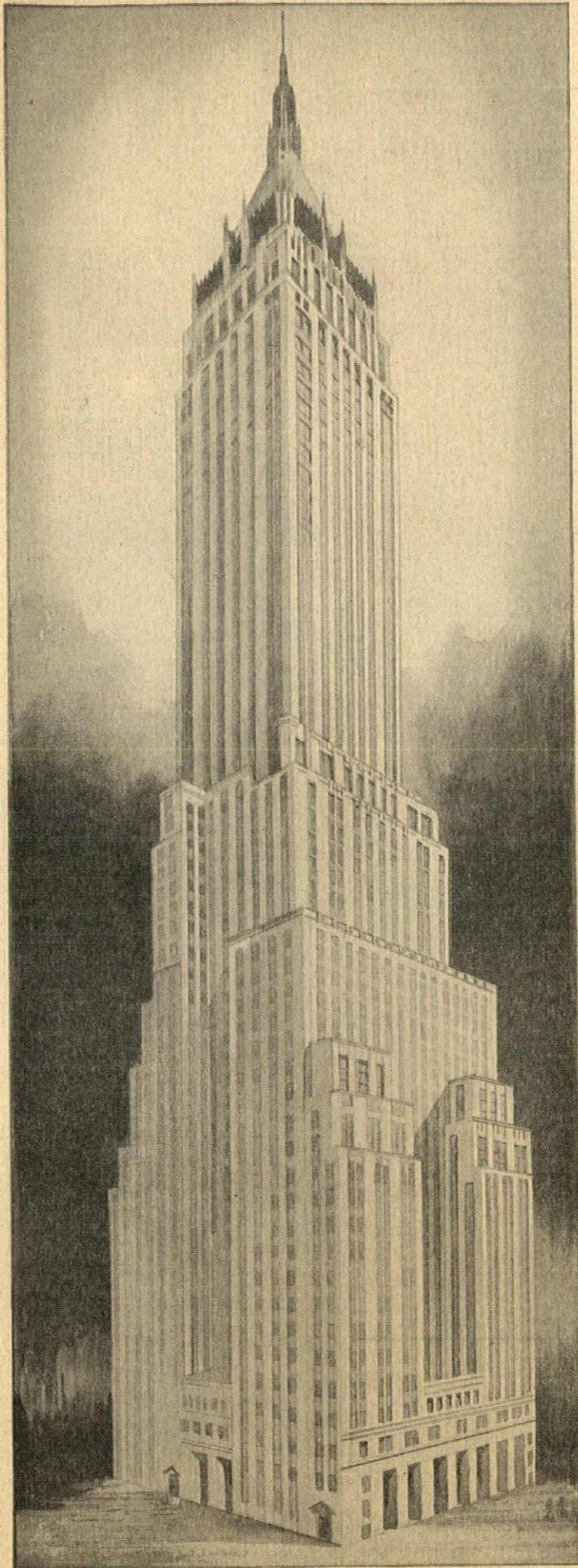
IN TWO PARTS PART ONE

ARCHITECTURAL DESIGN

PARLIMENT HOUSE REFERENCE NUMBER

SEPTEMBER 1930

PRICE \$3.00



H. Craig Severance
Architect
Yasuo Matsui
Associate Architect
Starrett Bros. & Eken, Inc.
General Contractor

Bank of Manhattan Building

40 WALL STREET
NEW YORK CITY

*Completely Equipped with
Tyler
Elevator Cars
and Entrances*

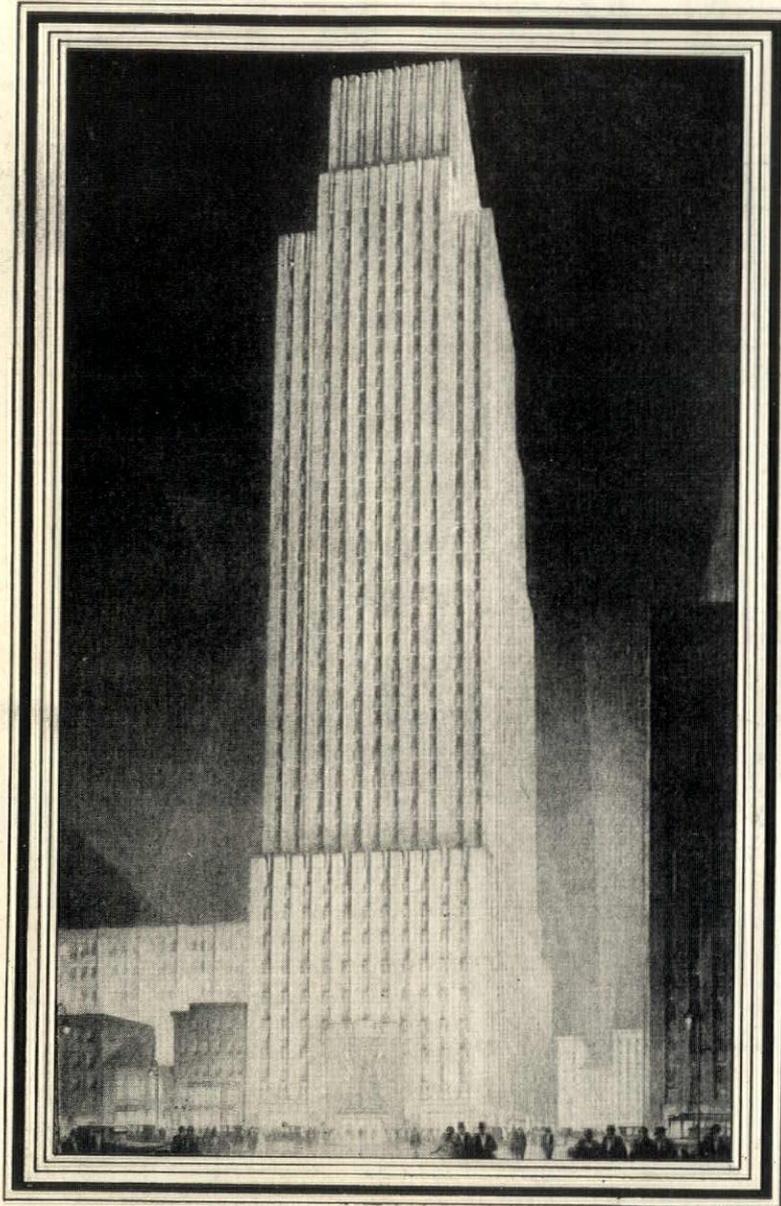
The Bank of Manhattan Building, 40 Wall Street, is the tallest office building in the world with one exception.

Thousands of people will make this their business home and millions will visit the building . . . These millions will be impressed by the beauty and attractiveness of the Tyler Elevator Cars and Entrances.

THE TYLER COMPANY
Cleveland, Ohio
New York • Chicago • Boston
Detroit • Philadelphia • Atlanta

Elevator Cars **T** *and Entrances*
tyler

HANLEY FACE BRICK



*Daily News Building, 41st—
42nd Street and 2nd Avenue;
John M. Howells, Raymond
M. Hood, Associate Architects;
Hegemen Harris Company, Inc.
Contractors*



Built to house present-day business, the News Building has abandoned every ancient formula of architecture, and made its own. It copies nothing, repeats nothing. It is bare of battlements, arches, pillars, cornices, cupolas. It professes to be only what it is—a business building.

The piers rise starkly to their appointed heights, and stop simply. Its setbacks make horizontal ledges that temper its vertical rise, give accent and proportion to its towering mass. Superbly planned, it nevertheless pleases the eye and intrigues the imagination . . . Hanley White Glazed Brick with rose and black brick spandrels.

ESTABLISHED 1893

HANLEY COMPANY

Largest Manufacturers and Distributors of Face Brick in the East

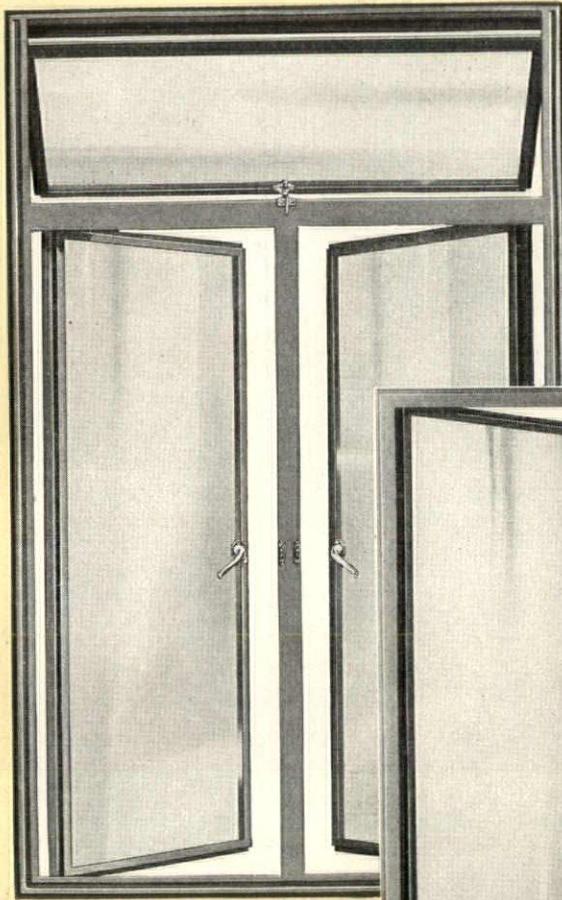
BOSTON—260 TREMONT ST.

BRADFORD, PA.

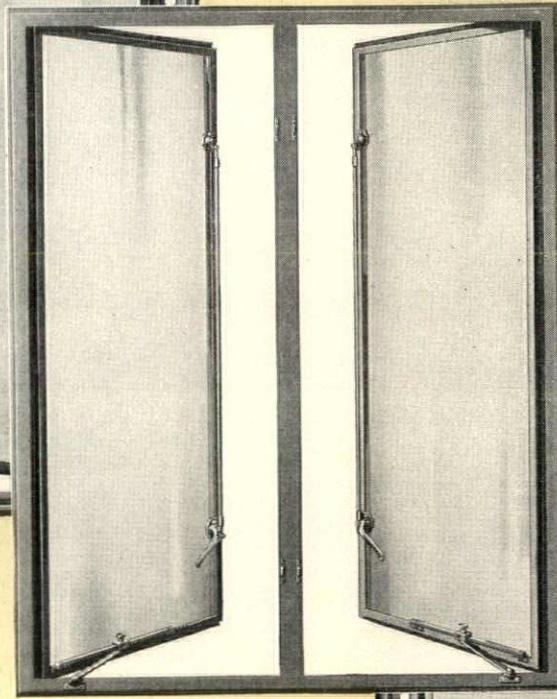
NEW YORK—565 FIFTH AVE.

New TRUSCON HEAVY

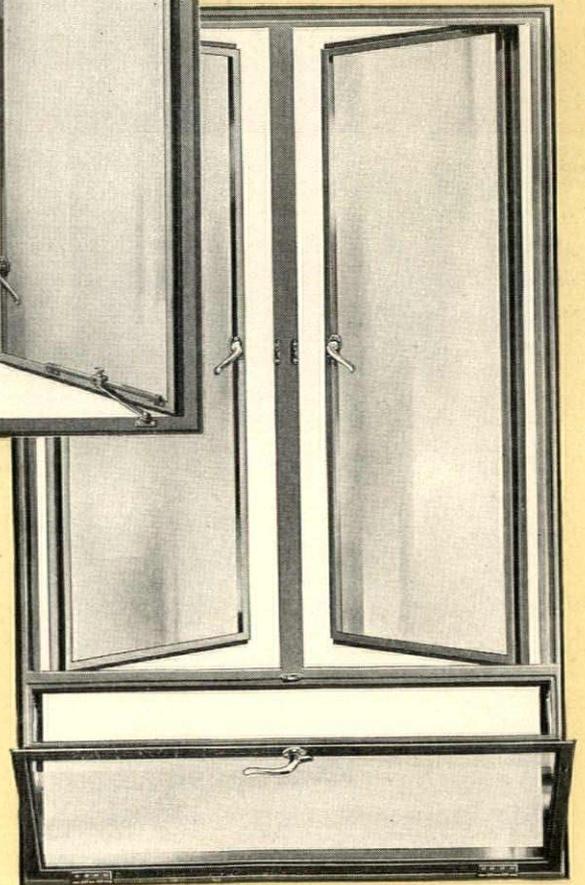
Thoroughly in keeping with modern requirements of faultless window service.



Double Casement with Transom



Double Casement



Double Casement with Hopper Vent

Superior Design
The Very Best of Hardware
Prompt Deliveries

STEEL CASEMENTS

TYPE

Truscon announces the development of a new and superior Heavy Type Steel Casement for use in fine residences, public buildings, offices and good buildings of all kinds.

The members throughout are constructed of extra heavy sections. The hardware is solid bronze of improved design. The workmanship and construction represent the last word in steelcraft.

Heavy Type Truscon Steel Casements can be made to open out or in. We recommend as a general practice that casements to open out be selected.

Glazing may be either on the outside with putty or on the inside with either putty or special hot-rolled glazing beads.

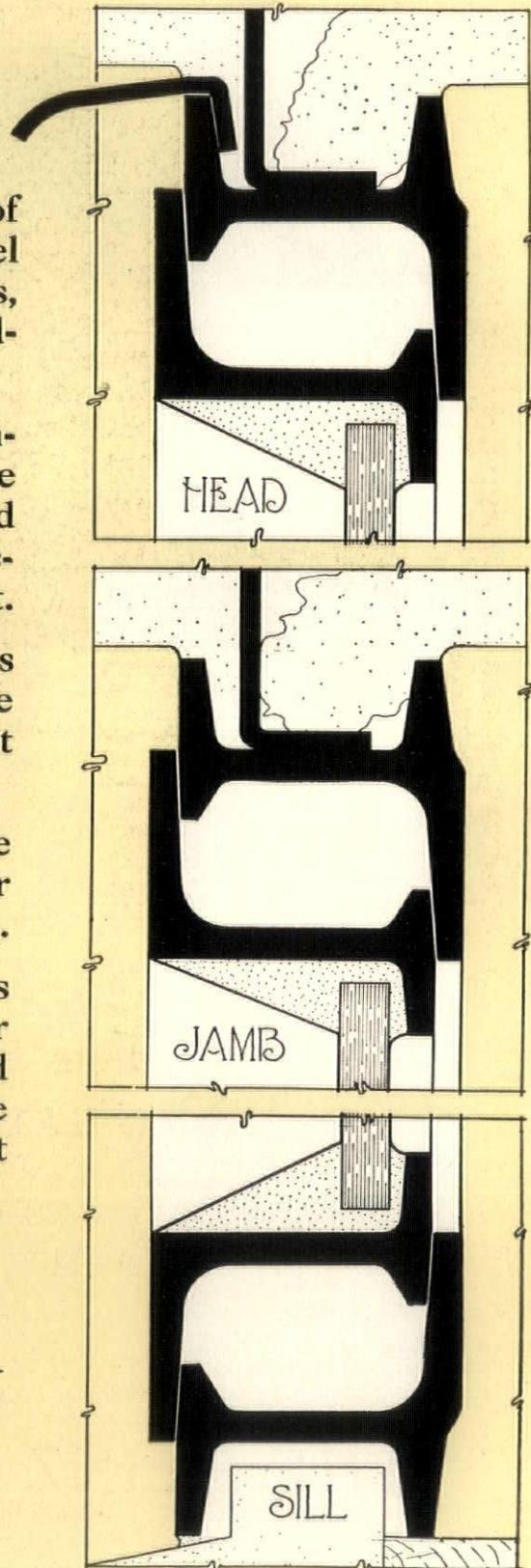
The complete line of Heavy Casements includes single or double units, with or without transoms and hopper vents, and with hinged or fixed sash. Units may be combined as desired to meet the exact specifications of architects.

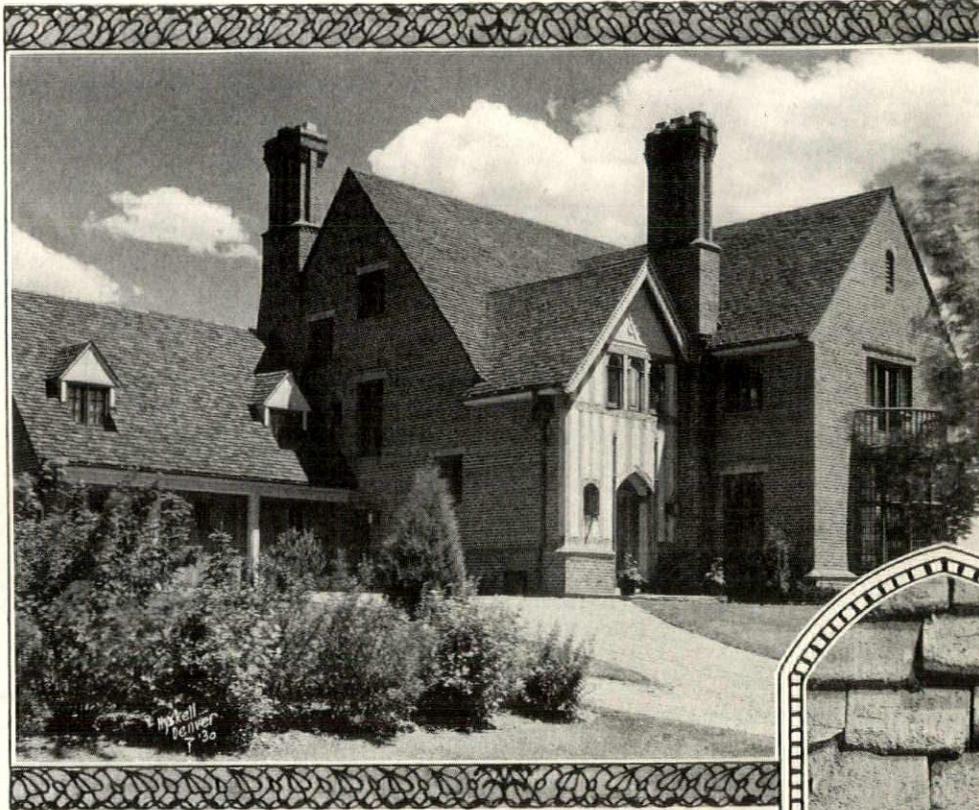
Details and information for application of Heavy Type Truscon Casements to individual projects furnished on request.

TRUSCON STEEL COMPANY

YOUNGSTOWN, OHIO

Sales and Service Offices in all Principal Cities





*Donald C. Bromfield Residence, Denver,
Colorado. M. H. and B. Hoyt, Architects.*



*Genuine hand made replicas of
OLD WORLD ROOFING TILES*



THE HEINZ TILE ROOFING CO

DENVER, COLORADO 3659 COUNCIL ST., LOS ANGELES, CALIF. 101 PARK AVE., NEW YORK



ALL the individual character of the architect's design, no matter how rhythmic the flow or modern the conception, can be faithfully reproduced in terra cotta. For symbolic figures and other forms of enrichment expressing the most cherished ideals of the American School, terra cotta is an exceptionally sympathetic material. The living, breathing spirit of the ornament is fully retained, as approved in the original model. Each unit, either in white or in full color, can be repeated without the slightest loss of feeling. Every detail is true to the creative impulse which transformed it from a lump of clay into a thing of lasting beauty.

Entrance detail is in NORTHWESTERN TERRA COTTA Color, Light Brown Mottled. School of St. Thomas the Apostle, Chicago. Architects: Shattuck & Layer.

THE NORTHWESTERN
TERRA COTTA COMPANY

DENVER • CHICAGO • ST. LOUIS

AN INSULATING *Concrete Roof Deck*

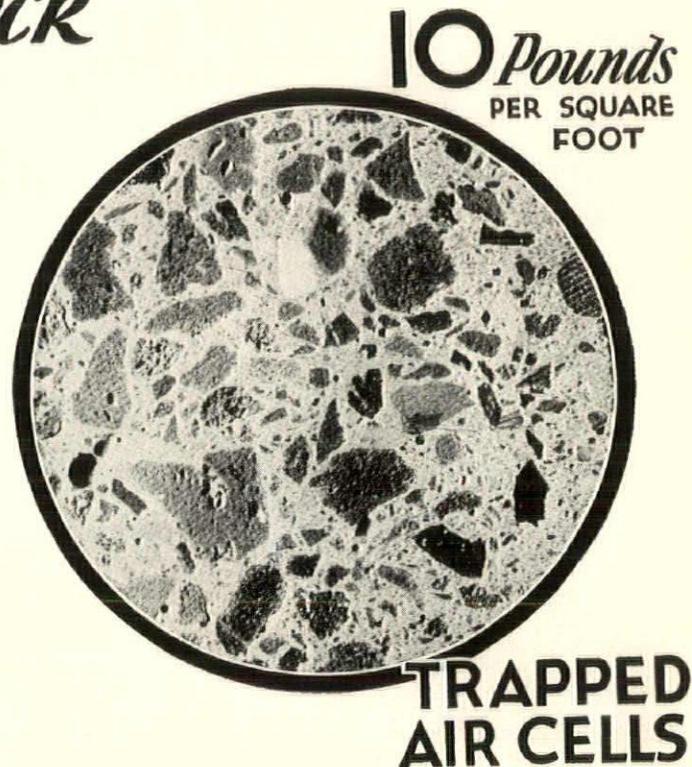
For the first time in its history, structural concrete has been endowed with the property of insulating against heat and cold.

The cause—

A structure of individual trapped air cells in the Haydite aggregate, that is vitrified, fused shale, impervious and strong.

The result—

A product that resists the passage of heat and cold and which at the same time brings the weight of concrete as low as 10 lbs. per sq. ft. All this with a strength as great as sand concrete — well above all building code requirements.



in the Haydite aggregate provide the light weight and insulation that distinguish these Featherweight Concrete slabs as foremost in roof value.

Featherweight Concrete INSULATING ROOF SLABS

are providing permanent, fireproof, no-maintenance service on all kinds of buildings—public, industrial and railroad—such as the Adler Planetarium, Chicago—Alexander Gymnasium, Appleton, Wis.—Detroit Municipal Hangar—C. M. & ST. P. R. R.—Oakland Motors—Dow Chemical—and many more. "Catalog and Roof Standards" on request.

Made, Laid and Guaranteed by

FEDERAL CEMENT TILE COMPANY

608 South Dearborn Street

Chicago

FOR OVER A QUARTER CENTURY

A Jet Black

P
O
L
I
S
H
E
D



FORMICA Store Front

This jet black high polished Formica store front is one of the most striking on Wabash avenue, Chicago.

The material is Formica $\frac{3}{8}$ of an inch thick with asbestos center. The material was screwed into place.

Both material and erection were much less expensive than most materials that could approach it in good looks and durability.

We shall be glad to send Formica samples and price lists on request.

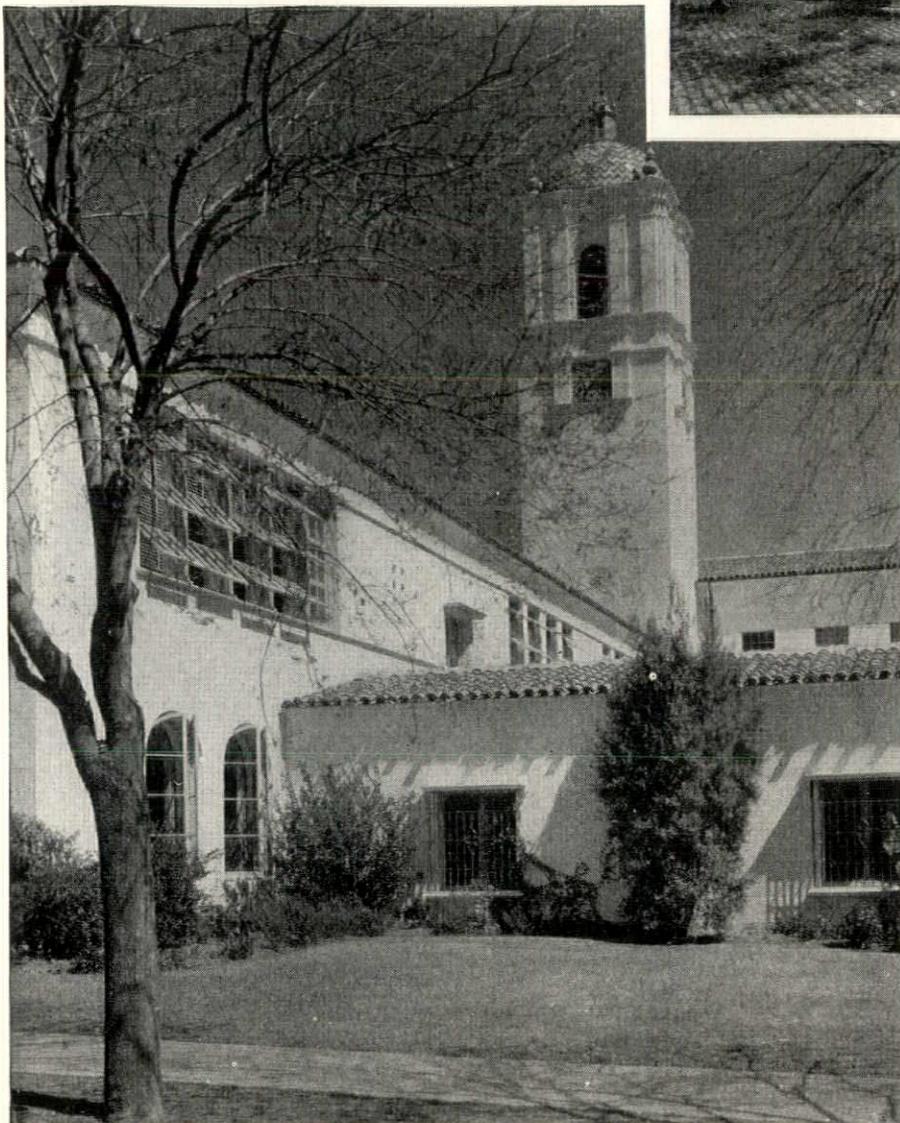
THE FORMICA INSULATION COMPANY
4618 Spring Grove Ave., Cincinnati, O.

FORMICA

FOR FURNITURE & FIXTURES

Concrete Structures Are the Heritage of Posterity

ARCHITECTURE
finds full expression
IN CONCRETE



Concrete imposes no restrictions upon the architect. He plans freely, knowing that in mold or form, in pre-cast block or cast-in-place structure, concrete will reproduce with utmost fidelity even the finest detail of his conception. The solidity of concrete assures *firesafety*, and endurance with little maintenance through generations. Concrete is a *complete* building material.

These views are of the Hawthorne School, Beverly Hills, California, of monolithic construction throughout, with decorative details cast in place. R. C. Flewelling, Architect.

PORTLAND CEMENT *Association*

Concrete for permanence and firesafety

33 WEST GRAND AVENUE
 C H I C A G O

“According to Specifications!”

A TIME honored phrase . . . but after your tile work has been completed do you ALWAYS find that your specifications have been carried through to the letter? Are you sure that first quality

material has been used? Are you certain that the price you accepted would permit of the best grade being furnished? SPECIFY PARDEE TILES and insist on a PARDEE BONDED INSTALLA-

TION. Backed by the workmanship of a reliable tile contractor, you could have no better form of “INSURANCE FOR YOUR SPECIFICATIONS.”

*Pardee Supplies
Whatever You Need in Tile*

THIS COUPON WILL ACT AS A USEFUL MESSENGER

The C. PARDEE WORKS
101 Park Avenue, New York City

Kindly send me without cost or obligation:

- Portfolio in color.
- Color sketch of enclosed area showing how it will look if tiled in Pardee.*

*I enclose (check one) sketch of tile area (with dimensions) blueprint with area indicated.

Color scheme is.....

Name.....

Street.....

City.....

State.....

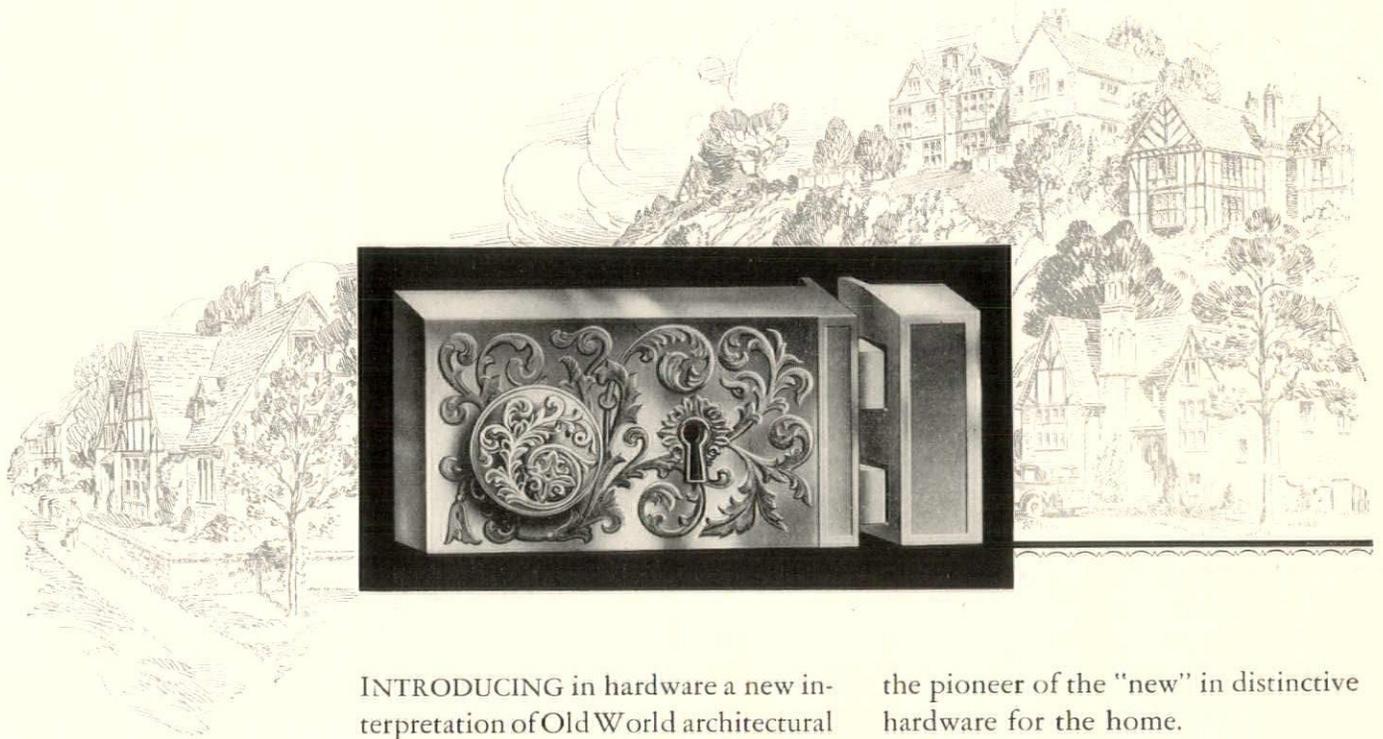
A. F. 9-3b



MATAWAN



CERAMICS



*Classic
Masterpieces
in Hardware*
by **RUSSWIN**

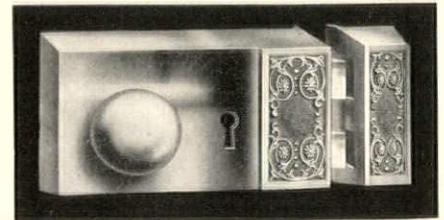
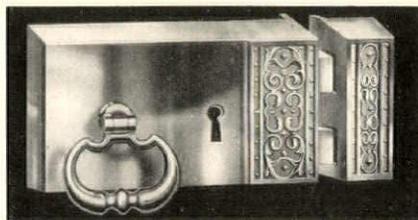
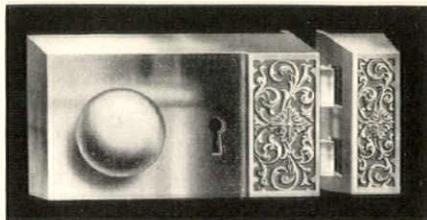
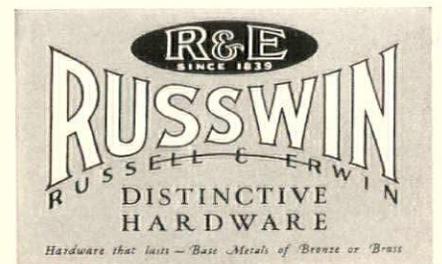
INTRODUCING in hardware a new interpretation of Old World architectural design—distinctly fitting for the exclusive suite, the restful foyer, the fine town house, country home or manor.

Massive in appearance with a rugged durability further enhanced by delicate arabesque traceries, RUSSWIN Rim-locks—like all RUSSWIN Hardware—are made of the finest metals, brass and bronze . . . every one of their component parts are hand-fitted by craftsmen, that their rare beauty and charm shall have a like perfection of workmanship.

The four designs shown herewith are the latest development of RUSSWIN, which for almost a century has been

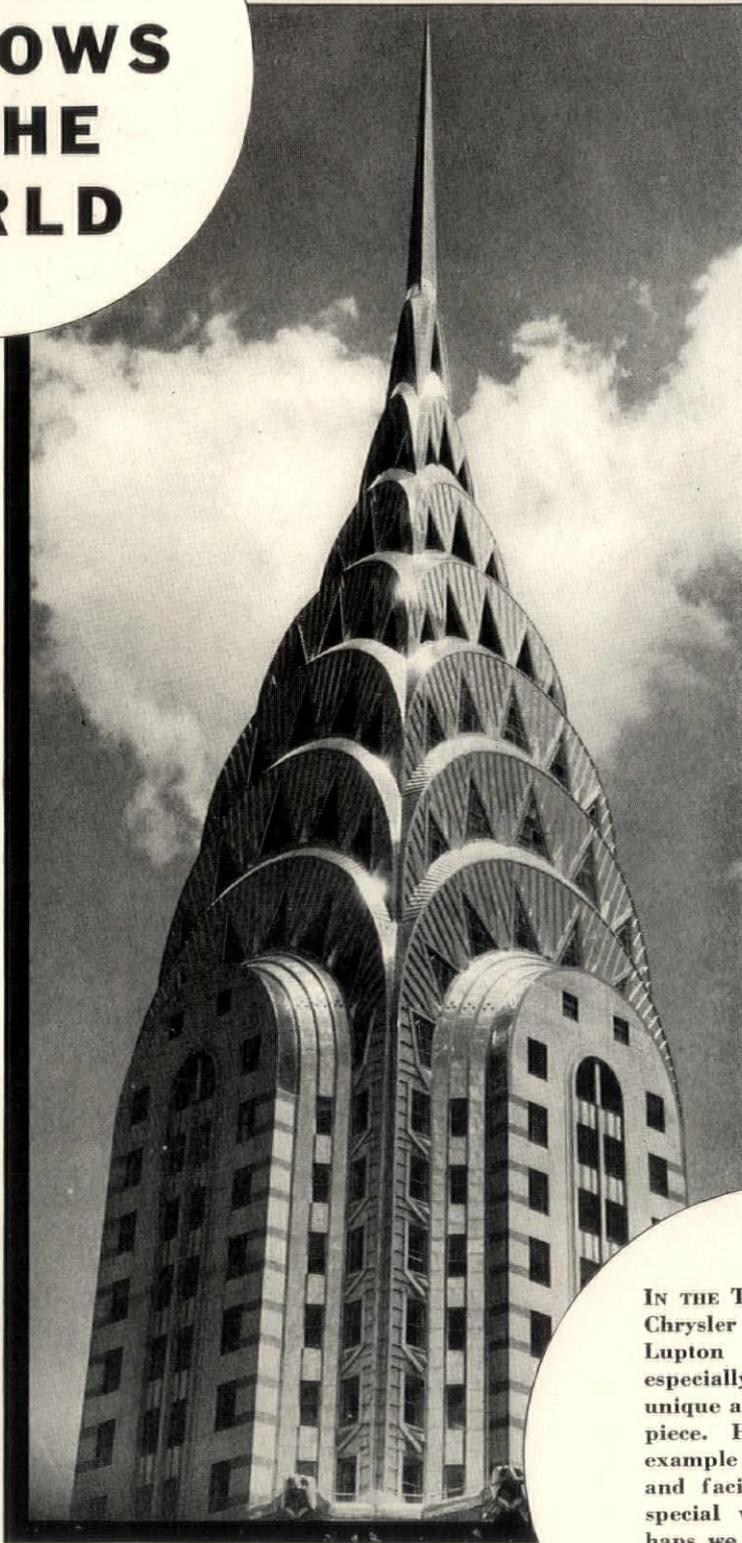
the pioneer of the "new" in distinctive hardware for the home.

Inside and out, the quality of RUSSWIN Rim-locks is built to give a lifetime of lasting, trouble-free service and satisfaction . . . hardware you will be proud to live with and which will be a fitting expression of good taste for all years to come. Russell & Erwin Manufacturing Company (The American Hardware Corporation, Successor) New Britain, Connecticut—New York, Chicago, London.



For the Architect's convenience RUSSWIN Hardware is illustrated and described in Sweet's catalogue, pages C-3137—C-3216.

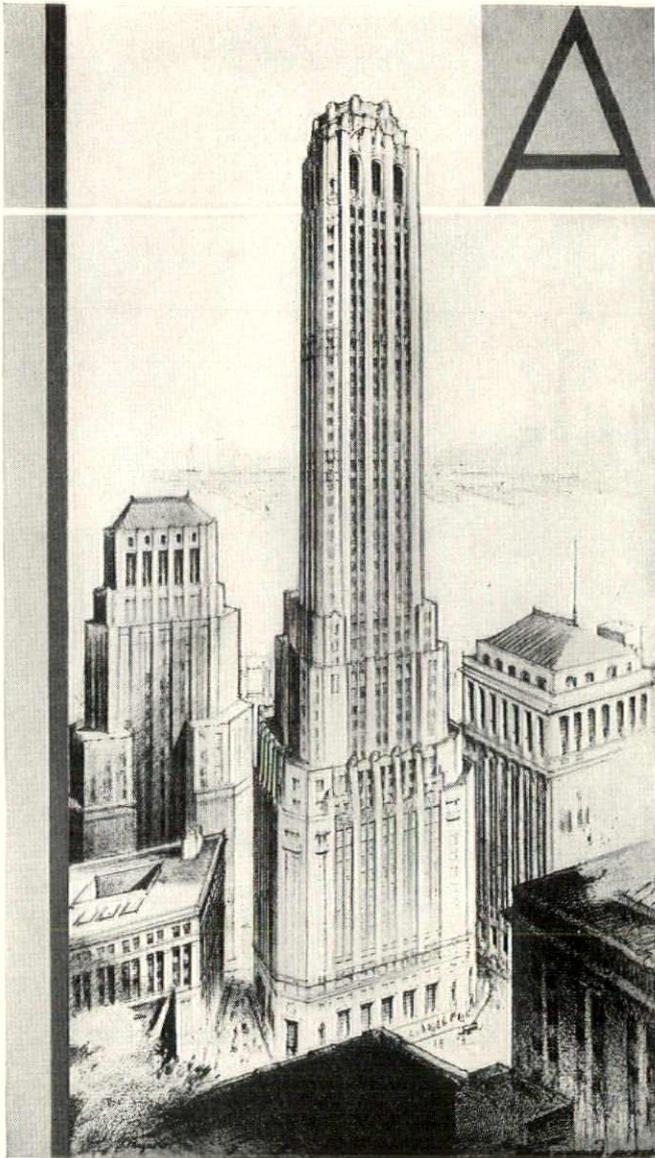
**THE
HIGHEST
WINDOWS
IN THE
WORLD**



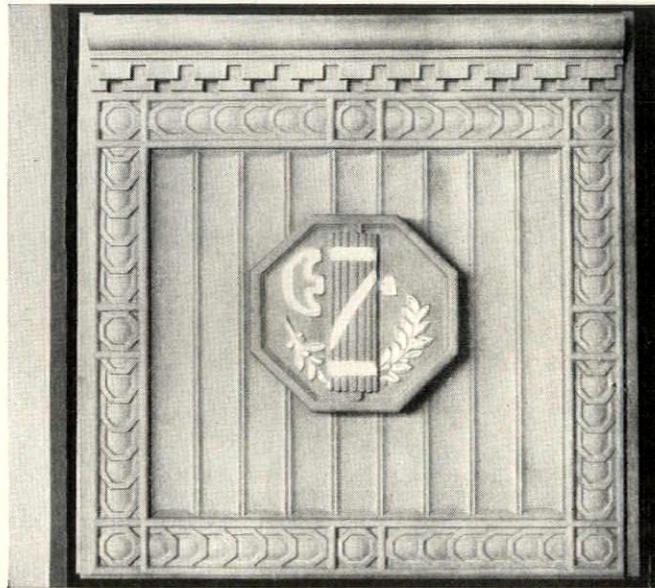
IN THE Tower Dome of the Chrysler Building are 78 Lupton Steel Windows — especially designed for this unique architectural masterpiece. Here is a practical example of Lupton's ability and facilities for handling special window-work. Perhaps we may be of help to you, as well. Write to David Lupton's Sons Co., 2207 E. Allegheny Ave., Phila., Pa.

L U P T O N

where steel is fused with sincerity



City Bank-Farmers Trust Building, New York, N. Y. Owner, National City Bank. Architects, Cross and Cross, of New York. General Contractor, Geo. A. Fuller Co., New York. Sub-Contractor, C. E. Halback and Co., Brooklyn, N. Y.



Alcoa Aluminum Spandrel Base with decorative ornament set in position over vent opening. Spandrel 4 ft. 5 1/2 in. x 4 ft. 11 3/4 in. Weighs 116 lbs.

Alcoa Aluminum reduce weight on City Bank—

By using Alcoa Aluminum, which weighs only $\frac{1}{3}$ as much as other materials commonly used, the weight of the City Bank-Farmers Trust Building is being reduced many tons without the expenditure of a penny extra. This great weight saving both reduces the cost of shipping, trucking and hauling, and speeds up work on the job.

Over 1,000 spandrels will be used; casement windows—more than 100 of them—on the second and third floors—thousands of feet of hand rail—all of these will be made of the light, strong Alloys of Alcoa Aluminum.

On this building six different decorative ornaments are being used on one spandrel base. Where ventilation was desired behind the spandrel, a vent has been cast in the base and the ornament placed to cover it.

Both the Architect and Builder have found Alcoa Aluminum a most helpful material for many architectural purposes. It is easily worked. It can be wrought, drawn or extruded. It can be cast accurately to any design. No design is too intricate. It can be readily fitted in place either on the exterior face of the structure or on the interior.

ALCOA

Ornaments and Spandrels 300,000 lbs. at no extra cost, Farmers Trust Building, N.Y.C.



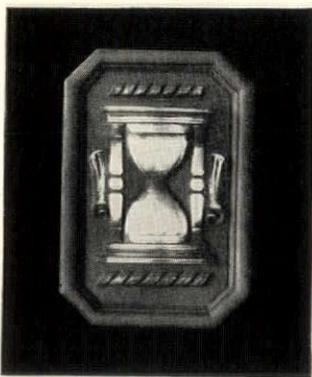
Alcoa Aluminum does not rust. It will not streak adjoining surfaces; never requires painting. Pleasing effects are obtained by deplating and high-lighting certain portions of the surface by polishing.

Specifications of these Spandrels and Ornaments

Our nearest office will gladly give you complete information on the many ways in which Alcoa Aluminum is being used as a building material. Let our representative advise with you on the use of Alcoa Aluminum for any specific architectural purpose you may have in mind. Address ALUMINUM COMPANY of AMERICA; 2412 Oliver Building, PITTSBURGH, PENNSYLVANIA.

"These Aluminum Spandrels and Ornaments shall be made of Alcoa No. 43 alloy, having a silicon content of 5%. The average tensile strength shall be 17,000 lbs. per sq. inch and the average elongation 5% in two inches. The weight shall not exceed .097 pounds per cubic inch. The surface shall be free from imperfections and in all respects equal to sample submitted."

4 of the 6 different Alcoa Aluminum Ornaments used on Spandrels in this Building



Alcoa Aluminum Spandrel Ornament—14 in. x 20³/₈ in. Weighs 10 lbs.



Alcoa Aluminum Spandrel Ornament—19¹/₂ in. x 20 in.—9 in. across bottom. Weighs 10³/₄ lbs.



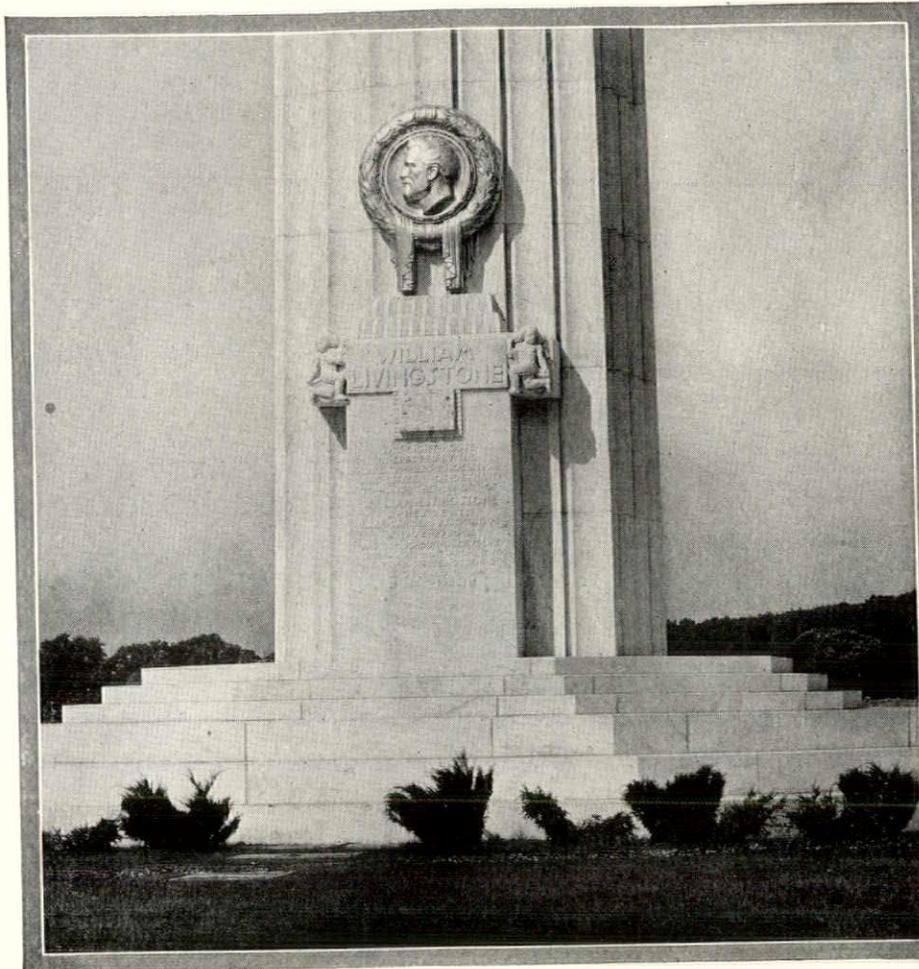
Alcoa Aluminum Spandrel Ornament—19¹/₂ in. x 20 in.—9 in. across bottom. Weighs 11 lbs.



Alcoa Aluminum Spandrel Ornament—21³/₄ in. x 21³/₄ in.—9 in. across bottom. Weighs 13 lbs.

A L U M I N U M

GEORGIA MARBLE



◆
LIGHT HOUSE
ON BELLE ISLE, NEAR DETROIT
Albert Kahn, Architect
◆

The inscription at the
base reads:

WILLIAM
LIVINGSTONE

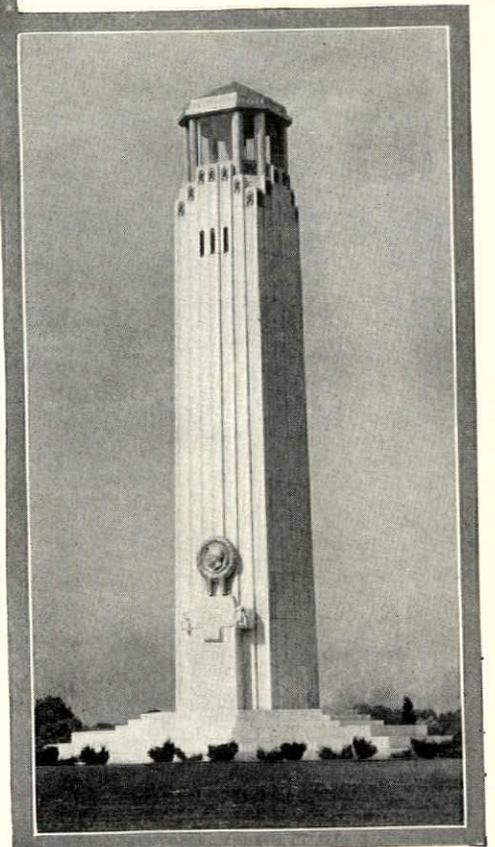
This light house is erected by the Lake Carriers Association and the citizens of Detroit to honor the memory of William Livingstone, President, Lake Carriers Association, 1902 — 1925, and throughout his active life one of the most prominent and public spirited citizens of Detroit.

1844 — 1925
◆

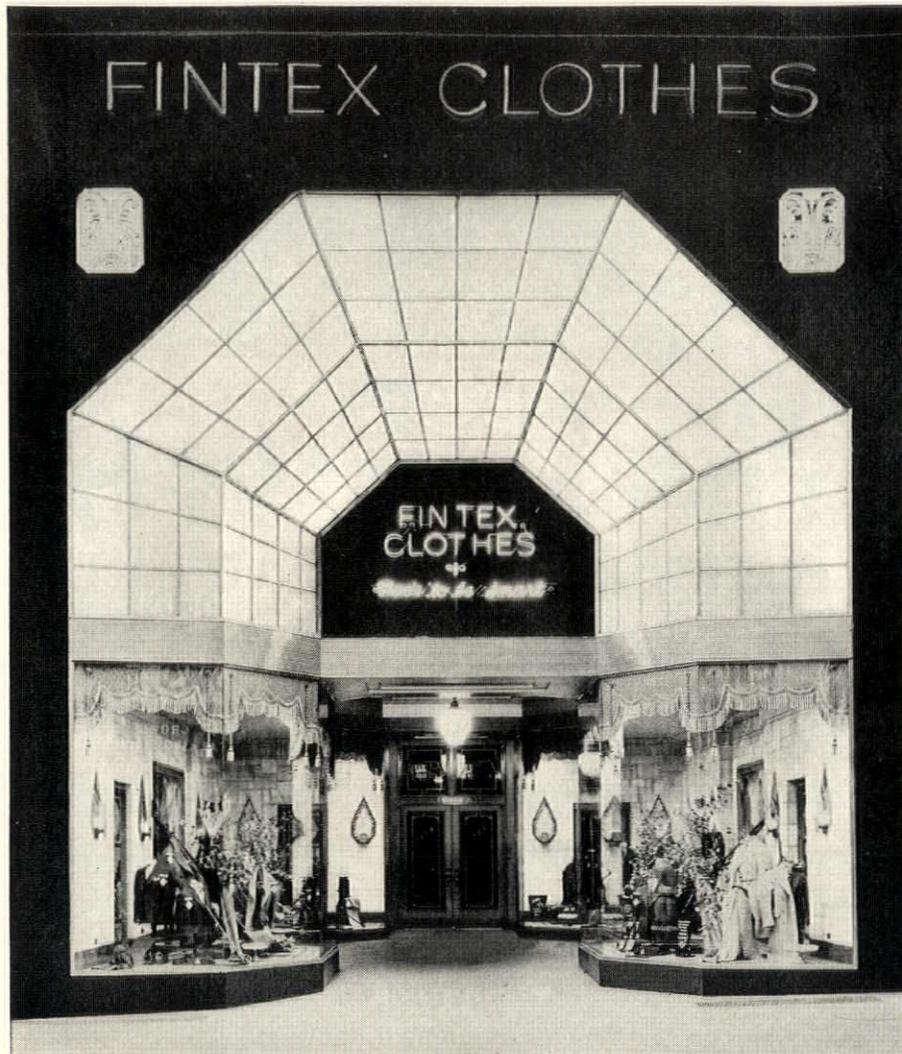
LIGHT HOUSE

This is the only light house under U. S. Government supervision built of marble. The *architect* and the *donors* were unwilling to permit any but a time tried material to be used for this project. Although Georgia Marble had never been used for a light house, it had been used for *fountains*, *statues* exposed to the weather, *memorials*, *mausoleums*, and hundreds of *monumental public buildings* and *commercial buildings* from Porto Rico to Canada, and coast to coast. Past performance gives ample assurance that Georgia Marble withstands punishing weather changes.

THE GEORGIA MARBLE CO. • TATE • GEORGIA
NEW YORK ATLANTA CHICAGO DALLAS CLEVELAND



STORE FRONTS BY ZOURI



FINSTERWALD CLOTHES SHOP, PITTSBURGH, PENNSYLVANIA

ARCHITECTS MARKS & KANN

— IN —
 COLD ROLLED COPPER, BRONZE
 OR ALUMINUM, CAST & EXTRUDED
 BRONZE

ARCHITECTURAL CASTINGS.
 ELECTROLYTIC FINISHES.

ENTRANCE DOORS.
 SHOWER STALL DOORS.

The Zouri Company

GENERAL OFFICES, CHICAGO HEIGHTS, ILLINOIS

ASSOCIATED COMPANIES

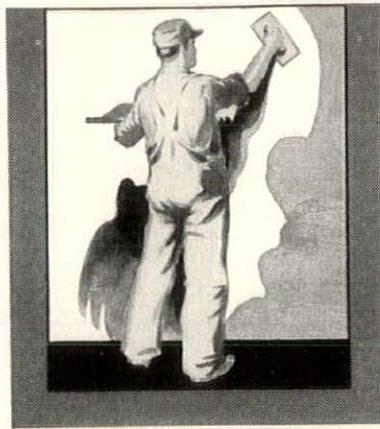
INTERNATIONAL

MODERN BRONZE STORE FRONT COMPANY
 STANDARD STORE FRONT CONSTRUCTION CO
 INTERNATIONAL STORE FRONT COMPANY

DISTRIBUTION

WRITE FOR CATALOG

NEW!



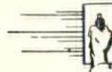
BEST BROS.

FAST FINISH

KEENE'S CEMENT



Again Best Bros. keep step with progress! A new product of merit . . . FAST FINISH Keene's Cement . . . is now ready to save time and work. Ready to produce plastering of a quality such as only genuine Best Bros. Keene's Cement will accomplish. Best Bros. FAST FINISH Keene's Cement needs no admixtures. Used with good aged lime-putty, it will set up fast enough for finish troweling without waiting.



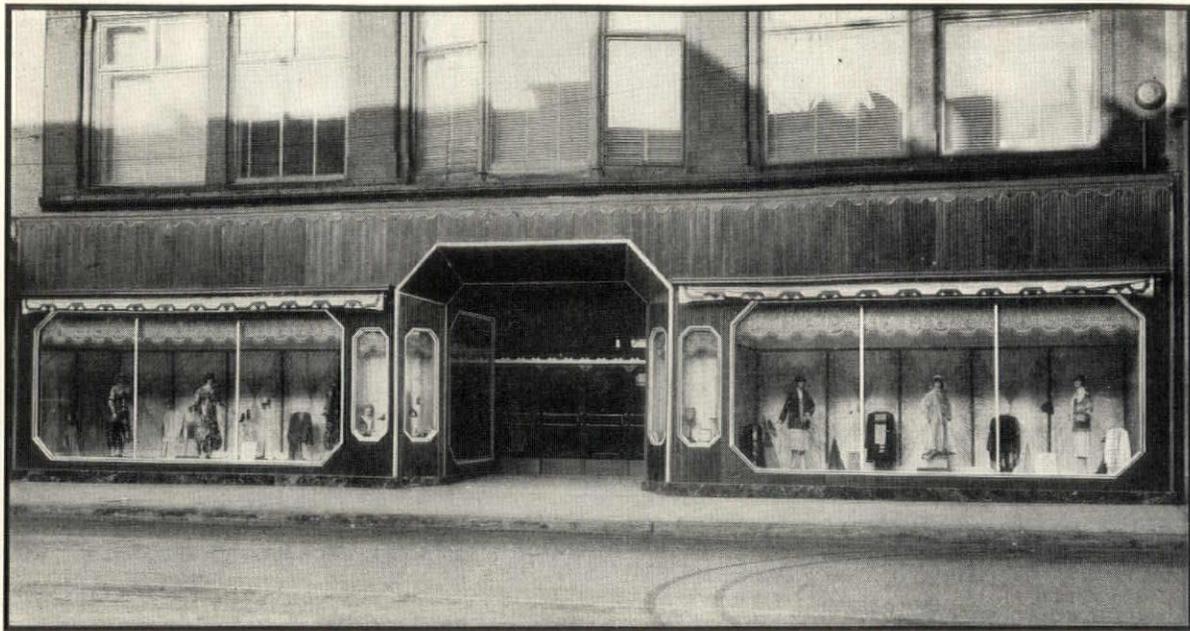
FAST FINISH sacrifices none of the characteristics of Best Bros. Keene's Cement. It produces the same durable, perfect ceilings and walls for which Best Bros. Keene's "Regular" Cement has, for more than 40 years, been famous. This fast-working gypsum cement is readily adaptable to all types of modern interior finishes and color effects. It assures that speed for which users of Keene's Cement have long waited. BEST BROS. KEENE'S CEMENT CO.—1050 West 2nd Ave., Medicine Lodge, Kans. Sales Offices in: New York, Chicago, Toledo, St. Louis, San Francisco, Atlanta, Philadelphia.

(35)



WRITE FOR COMPLETE DETAILS

We invite you to write for literature containing full particulars about this pure gypsum FAST FINISH Keene's Cement.



Note the appeal of this modern Brasco design in contrasting white and statuary finish—a construction of brilliance and permanence

20 Years of Continuous Quality Have Kept BRASCO *Foremost*

The tone of today's shop is determined by its front of modern design, of new metals and brilliant effects, built to withstand the action of vibration, time and the elements. ¶ Twenty years ago Brasco pioneered in the development of quality metal store fronts, *engineered* for strength, safety, permanent architectural beauty. Today, the same basic principles bring to your clients the very highest value in advanced store front construction. ¶ Such quality—and at moderate price—is made possible only because Brasco ability, experience and facilities have progressed with your demands. Complete data, with full-sized details and samples on all Brasco types, gladly sent on request.

BRASCO MANUFACTURING COMPANY

HARVEY (Chicago Suburb), ILLINOIS
36-07 to 36-11 33rd Street, Long Island City
Commonwealth Building, Philadelphia
DISTRIBUTORS EVERYWHERE

Brasco
STORE FRONTS

Brasco Store Fronts may be obtained in Monel Metal-Bronze-Copper-PermaWite-Davis Solid Bronze



● A charming time-worn texture was given the walls of this and other buildings on the place of Michael Gavin, Jericho, L. I., by using cinder blocks of varying size which had been sprayed with water while still soft. These walls called for a roof that also simulated age, so Hopkins and Dentz, the architects, chose IMPERIAL Shingle Tiles. In color and texture they are amazingly faithful reproductions of tiles which have seen centuries of use.

L U D O W I C I - C E L A D O N C O M P A N Y

Makers of IMPERIAL Roofing Tiles

NEW YORK: 565 FIFTH AVENUE

101 S. MICHIGAN AVENUE, CHICAGO

WASHINGTON: 738 FIFTEENTH ST., N. W.

NATCO *FRITTED GLAZE* VITRITILE

NOW OFFERS A NEW MEDIUM
OF EXPRESSION TO ARCHITECTS



8510-L

FRITTED GLAZE - A PLEDGE OF PERMANENCE

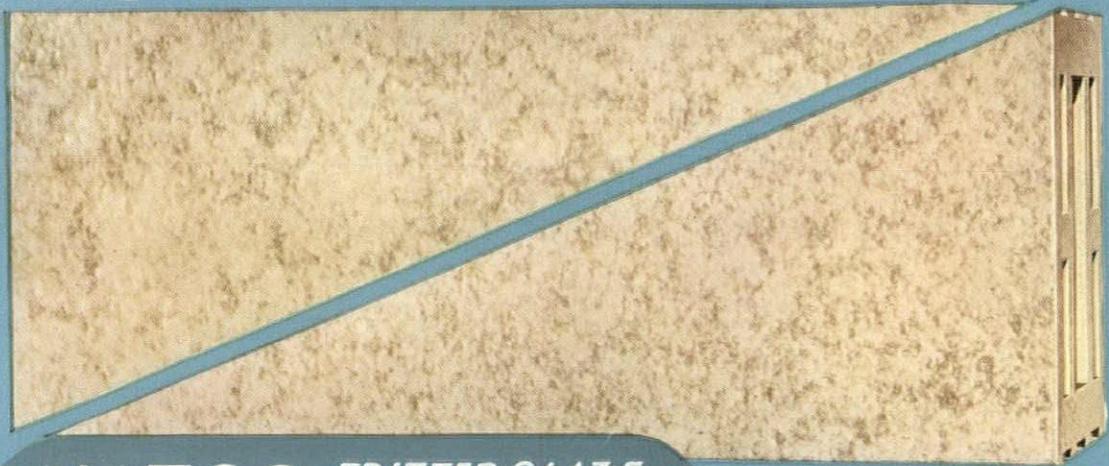
NEW fields of color composition, color harmony, are open with the advent of Natco Fritted Glaze Vitritile. The comprehensive line of structural units, suitable for interior or exterior walls and partitions, are painted with flame into beautiful luminous matt whites, striking blacks, and seven delightful and unique mottled effects, ranging through cream tans and cream browns.

Beautiful When Installed—the Beauty of this New Material Endures

The Natco Fritted Glaze process, scientifically developed, is a pledge of permanence. The glaze is as permanent as that on the finest English Glazed Brick—the standard of excellence in materials of this type.

SEVEN MOTTLED SHADES

8530-L



NATCO FRITTED GLAZE
VITRITILE
OPENS NEW FIELDS OF COLOR
COMPOSITION AND HARMONY

8530-S



8515-L

NATCO FRITTED GLAZE represents the successful culmination of a determined attempt to produce a glaze so permanent—so impervious—so immune to the destructive agencies of time, the elements, chemical attack, staining, checking, and crazing—that it will easily meet the most exacting requirements. The fritted glaze process is the most effective method science has devised of holding, crawling, peeling, blistering, cracking and pinholing to a microscopic minimum.

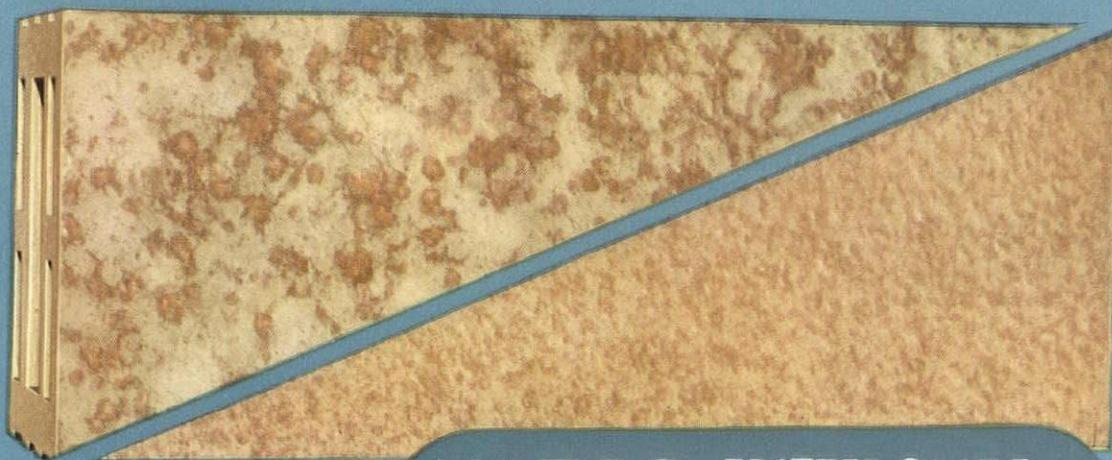
Tests and experiments early disclosed that the ordinary processes of raw mixing,

spraying, and kiln-burning which are in common use were powerless to attain these ideals. Only by the scientific fritted glaze process could they be realized.

Natco's frit is made of a number of various compounds, which are mixed, melted at 2300°, chilled and then ground to an impalpable powder. This powder represents a **new** and homogeneous compound, which melts at a much lower temperature. The successive coats of glaze material (sometimes as many as 7) are applied to the tile on a patented "G Mottling" machine, developed by a ceramic expert. This machine does its

SEVEN MOTTLED EFFECTS

8520-L



8520-S

NATCO FRITTED GLAZE
VITRITILE
IS FURNISHED IN A COMPLETE
VARIETY OF SHAPES AND SIZES



8535-L

work with absolute precision, substituting for the uncertainties of makeshift methods unvarying excellence of results. When the tile is kiln-burned, the frit causes the glaze to mature at a lower temperature; form a more intimate bond with the tile; give—because the various elements have been pre-melted, instead of merely fused, together—more uniform results; and yield a silica glaze equivalent to that on the finest English glazed brick—the accepted standard of excellence.

Colors are prepared in the same painstaking, scientific way. Instead of merely mixing a dye-powder with the glaze, Natco

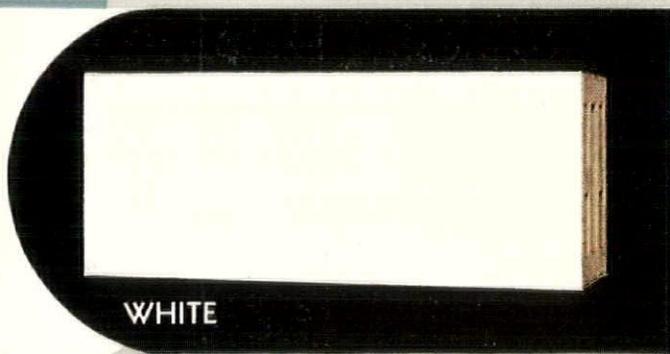
utilizes **calcined** colors; the various compounds required to produce the desired shade are blended, burned, wet-ground and the resulting powder screened, before it is added to the glaze. Color variation is thus reduced to a minimum.

The added care needed, the added expense, of the scientific Natco Fritted Glaze process is abundantly justified in the increased service, the assured satisfaction, the well-founded confidence that Natco's product offers to the user. Fritted glaze is a triumph of the ceramic art, a pledge of permanence to you.

In MATT FINISH BLACK AND WHITE



BLACK



WHITE

Coming! NATCO VITRIBRIK

The architects' cry for a new brick unit will soon be answered. Natco Vitribrik, shortly to be introduced, will offer a brick twice the height of the present standard. Its face will be finished in a beautiful and permanent salt glaze, which resists all agencies of destruction. Watch for the announcement, soon to come.

Natco Fritted Glaze Vitritile For Permanent Walls of Enduring Beauty

EXTERIOR USE

THE calcined colors and fritted glazing of Natco Fritted Glaze Vitritile are prepared by a scientific process, and then are **fired** in, making them immune to acids, to alkalis, to the attack of the elements. The most striking effects may be obtained through this material and the effect will endure year after year with no decrease in attractiveness.

INTERIOR USE

Beautiful, colorful finishes, hitherto obtainable only through costly decorating, now can be built into the wall. Instead of being faced with the necessity for frequent redecoration, the owner has a wall finish that will last as long as the wall itself. Dirt will not harm it, acids will not affect it. The glass hard fritted glaze repels dirt, is easily cleaned and kept clean.

NATCO

THE COMPLETE LINE of
STRUCTURAL CLAY TILE

NATIONAL FIREPROOFING CORPORATION

THE LARGEST CONCERN IN THE WORLD MAKING A COMPLETE LINE OF STRUCTURAL CLAY PRODUCTS
GENERAL OFFICES: FULTON BUILDING, PITTSBURGH, PA. BRANCHES: NEW YORK, CHANIN BUILDING, CHICAGO, BUILDERS BUILDING, PHILADELPHIA,
LAND TITLE BUILDING, BOSTON, TEXTILE BUILDING — NATIONAL FIRE PROOFING COMPANY OF CANADA, LTD., TORONTO, ONTARIO



"Open Acres"
Dix Hills, L. I.

Otto R. Kocchl
Architect

MONSON ROOFING SLATE

The requirements for beauty, strength, and long life are perfectly satisfied in Monson—the finest type of unfading black slate. Mined and shipped directly from our quarries to the project, Monson is given the same careful supervision and inspection that our other slate receives. Since this splendid black slate costs little more than inferior slates to quarry and no more to apply, the architect may specify a high class roof of Monson without appreciably increasing the cost of the building.

Rising and Nelson Slate Company

WEST PAWLET, VERMONT

Architects' Service Department: 101 Park Avenue, New York City

CHICAGO

DETROIT

PHILADELPHIA

BOSTON

**THIS
UNRUSTING
UNSTAINING
UNTARNISHING
ALLEGHENY
METAL . . .**

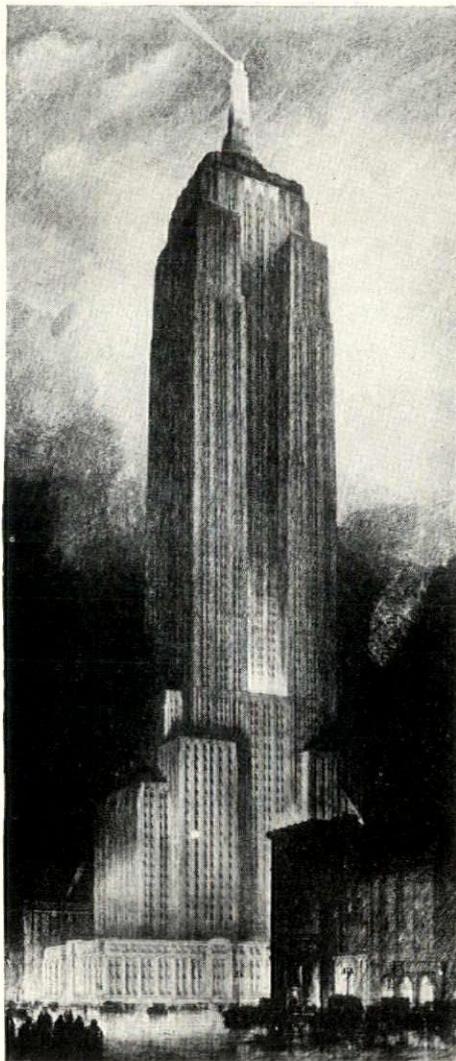
AN UNPLATED ALLOY, FAR STRONGER THAN MILD STEEL. THE IDEAL METAL FOR INTERIOR AND EXTERIOR TRIM, FOR KITCHEN, HOSPITAL AND LAUNDRY EQUIPMENT.

NO man can foretell how widely Allegheny Metal will be used. It finds its way into trims for many buildings . . . into pans for many humble kitchens. It has, in fact, a thousand and one uses.

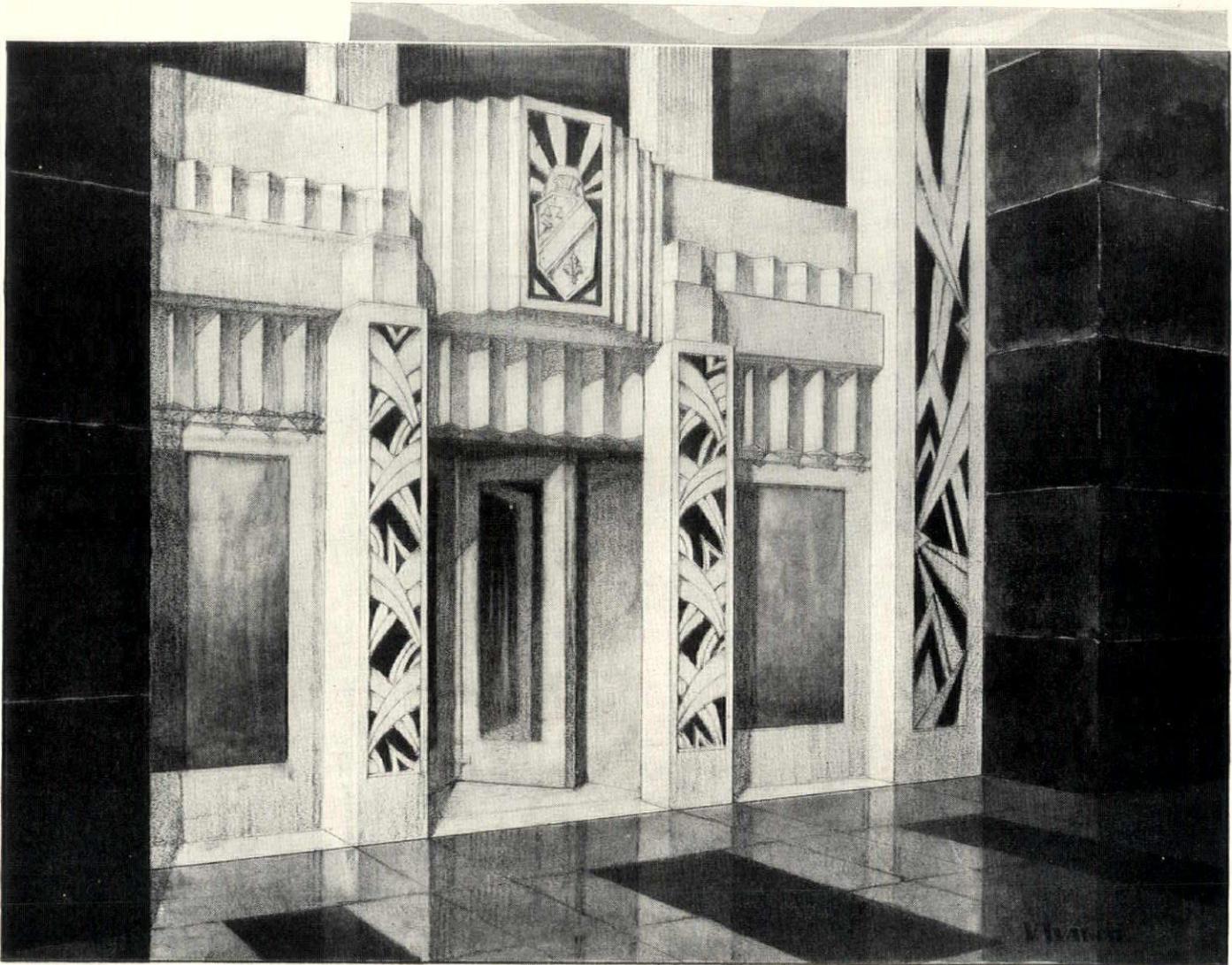
In many applications Allegheny Metal is new. Old and thoroughly tried in others.

In Chicago this lustrous alloy sheathes a bridge, the connection between the Daily News Building and the Chicago & Northwestern Station. After years of exposure to rain and winter cold, to smoke and parching heat, it remains untarnished and uncorroded . . . Other metals, exposed to similar conditions for the same length of time, cannot match Allegheny Metal.

Because it *does* have so many superior qualities, Allegheny Metal has been chosen recently by architects for three of the world's largest skyscrapers. First to use it is the Wacker-La Salle Building in Chicago. Rebori & Wentworth, the architects, specified tons of this alloy to trim the interior. Second, the Irving Trust Building on Wall Street in New York City (architects, Voorhees, Gmelin & Walker) will use Allegheny Metal in the same way. On the huge Empire



BRILLIANCE FOR YEARS — *Allegheny Metal pilasters will rise to the top of the Empire State Building, New York City, on the Fifth Avenue and 34th Street sides. The architects—Shreve, Lamb & Harmon—picked this Alloy to withstand the corrosive metropolitan atmosphere.*



LAI D OVER a darker substance or etched, Allegheny Metal offers a wide range of design.

State Building, Shreve, Lamb & Harmon, the architects, have chosen this alloy for window trim, ornamental sunbursts, store fronts and dirigible mooring mast. Allegheny Metal will rise from the fifth to the eighty-fifth stories of this building in mullions and window trim, affording brilliant contrast with the gray limestone piers and the darker vertical lines of the windows.

Architects on these structures chose Allegheny Metal from the multitude of available alloys for several reasons. First, it has a bright, silvery surface which lasts. Further, it is unrusting, unstaining, untarnishing even under many rigorous exposures.



CHOSEN BY Raymond Hood for this Apartment House Loggia, Allegheny Metal formed the overmantel, ceiling and window curtain.

It is easy to clean as glass, and should be cleaned in the same way as glass. It is far stronger than mild steel, resisting denting and scratching. It is unplated, with no thin coating to chip or peel. And it is readily available.

For decorative use, Allegheny Metal affords an interestingly wide range of finishes. Make it mirror smooth for brilliant bands of white. Use it dull for dignity in restrained design. Etch it with any pattern to harmonize. Alternate Allegheny Metal, brass and copper for still different effects. But never conceal it or paint it over—better use a baser metal instead.

Along with its decorative

functions, Allegheny Metal has strength. This brilliant alloy is far stronger than mild steel. Plans need not be made entirely to support Allegheny Metal on the structural frame. With such strength, it helps bear part of the load. With such strength, it is used for bolts, rivets and all necessary materials.

This alloy is specified on exteriors in present architectural plans for high, many-storied mullions. For roofs that will last for ages. For store fronts. For window casings that will never stick or jam from rust. For marquees and ornamental doorways. For glistening decoration.

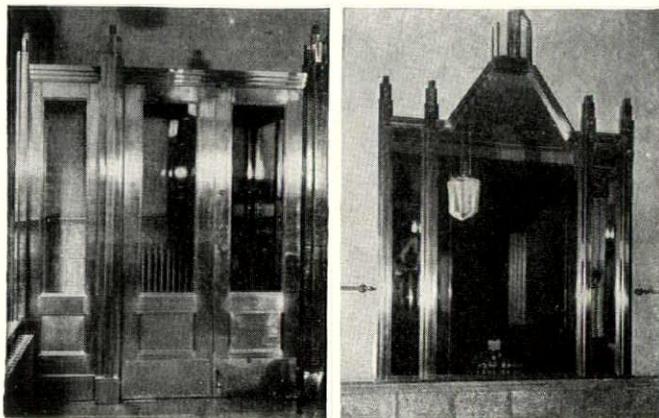
In interiors still more uses present themselves. Most important are elevator enclosures, grilles, trim, railings, mopstrip and door hardware. In this field particularly, no man can foretell how widely Allegheny Metal can be used.

A new type of design is thrown open by the use of Allegheny Metal because it is so easily kept clean. To illustrate, some building managers today instruct their maintenance crews to refrain from polishing escutcheon plates of brass. They do this because the harsh abrasives or powerful cleaning fluids required would also remove the paint adjacent to the plates, exposing base metal to corrosion.

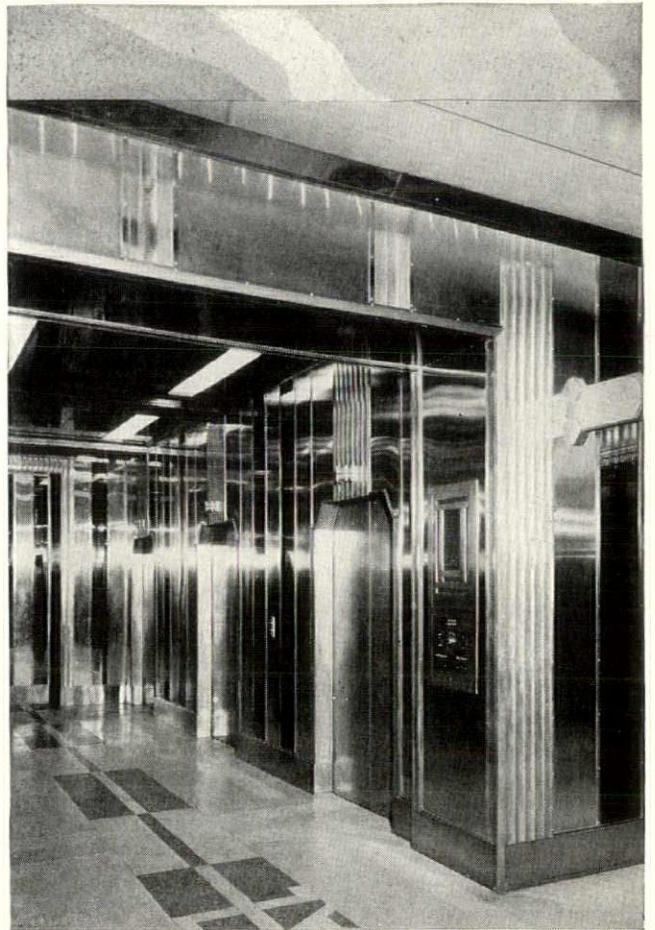
No strong cleaning fluids are needed to keep Allegheny Metal bright. Most users keep it shining with plain soap and water. And this humble cleaner will not scour off paint.

The type of design suggested by this description employs brilliant silvery stripes of Allegheny Metal immediately adjacent to a painted surface for any kind of flat design.

Even in homes, Allegheny Metal brightens design and eliminates laborious cleaning. Architects and interior decorators say it is the better material for



FOR EASE OF CLEANING, Allegheny Metal was used for the mirror frames and vestibule of the Waldorf Restaurant, New York City.



IT'S EASY to keep this lobby shining bright. In the Wacker-LaSalle Building, Chicago, panels of Allegheny Metal alternate with dark blue glass —one as easy to clean as the other.

lamps, lighting fixtures, radiator covers, fireplaces, kitchen and bathroom equipment.

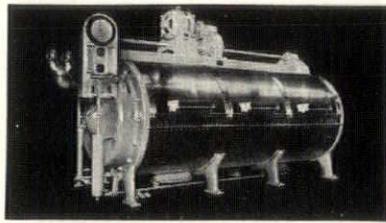
Mr. Raymond M. Hood, over a year ago, chose this alloy for the overmantel, ceiling and window curtain in an Apartment House Loggia. The loggia was built for the 1929 Exhibition of Contemporary Design at the Metropolitan Museum of Art, New York City.

This use indicated that style in living quarters today trends toward the use of plane metallic surfaces. And taste decrees that these surfaces be white and silvery, rather than of yellow-colored metals. Fortunately it is that Allegheny Metal is now available, that it is so nearly perfect for this use.

Even beyond the decorative parts of the home, Allegheny Metal has forged its way back to the kitchen and up to the bathroom. Here it lends new beauty because it is a bright metal, because it will not chip nor corrode.

For sheer kitchen utility, Allegheny Metal has years of experience to recommend it. Unrusting from water, unstaining from foods, untarnishing

from strong fruit acids. No strong cleaning fluids are needed to keep it bright. It cannot taint foods in taste, in color, or in any manner whatsoever. It is the safe metal. Enlarge the home kitchen tasks of Allegheny Metal, and one finds it used widely in the kitchens of restaurants, hotels, hospitals and all other types of institutions. For instance, the famed Haddon Hall kitchen in Atlantic City has complete kitchen equipment of this alloy. The kitchen of the Chateau Laurier, Ottawa, Canada, is completely furnished with it.



This General Laundry Machine is made of Allegheny Metal.

Among restaurants, Allegheny Metal is used by Childs, William R. Childs, Horn and Hardart, Acker, Merrall & Condit, John R. Thompson, Stouffer's and many other huge organizations. The Passavant Memorial Hospital in Chicago and the Montefiore Home in New York City are two of the

many institutions equipped with Allegheny Metal in their kitchens.

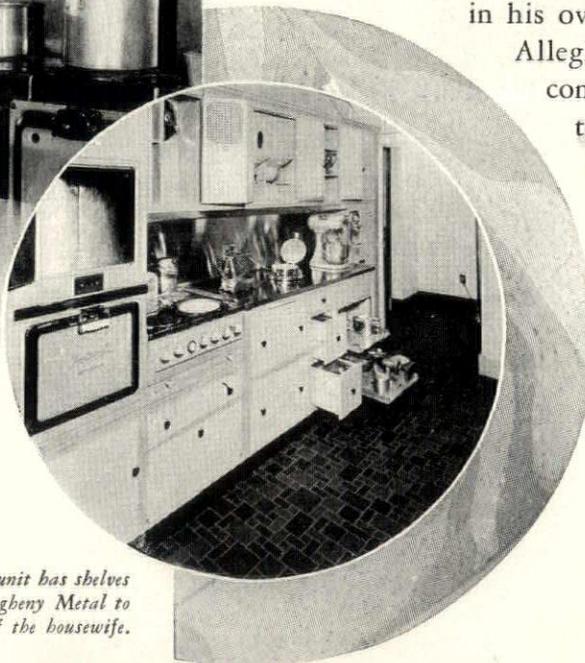
Not alone in the kitchens but in the laundries of large institutions, Allegheny Metal is showing its superior qualities. Here its advantages are many. It is easy to clean. It will not spot in the bleach. Its strength is a big factor. And its beauty again comes to the front, for institutional laundries are often inspected by visitors. Everyone appreciates the lustrous sheen of this alloy.

In working with Allegheny Metal, as with hundreds of other building materials, the wide experience of the manufacturer can help the architect toward economy, and toward proper use in his own design. The staff of the Allegheny Steel Company has consulted with many architects in the successful applications of their product. This staff is glad to be of use in this way at any time.

If you wish information on the use of Allegheny Metal, the ideal alloy for interior and exterior trim, for kitchen and laundry equipment, write direct to the manufacturer.



In William Childs' Restaurant, the Old Algiers, New York City, Allegheny Metal safeguards the food.



This home kitchen unit has shelves and lining of Allegheny Metal to lighten the work of the housewife.

ALLEGHENY METAL

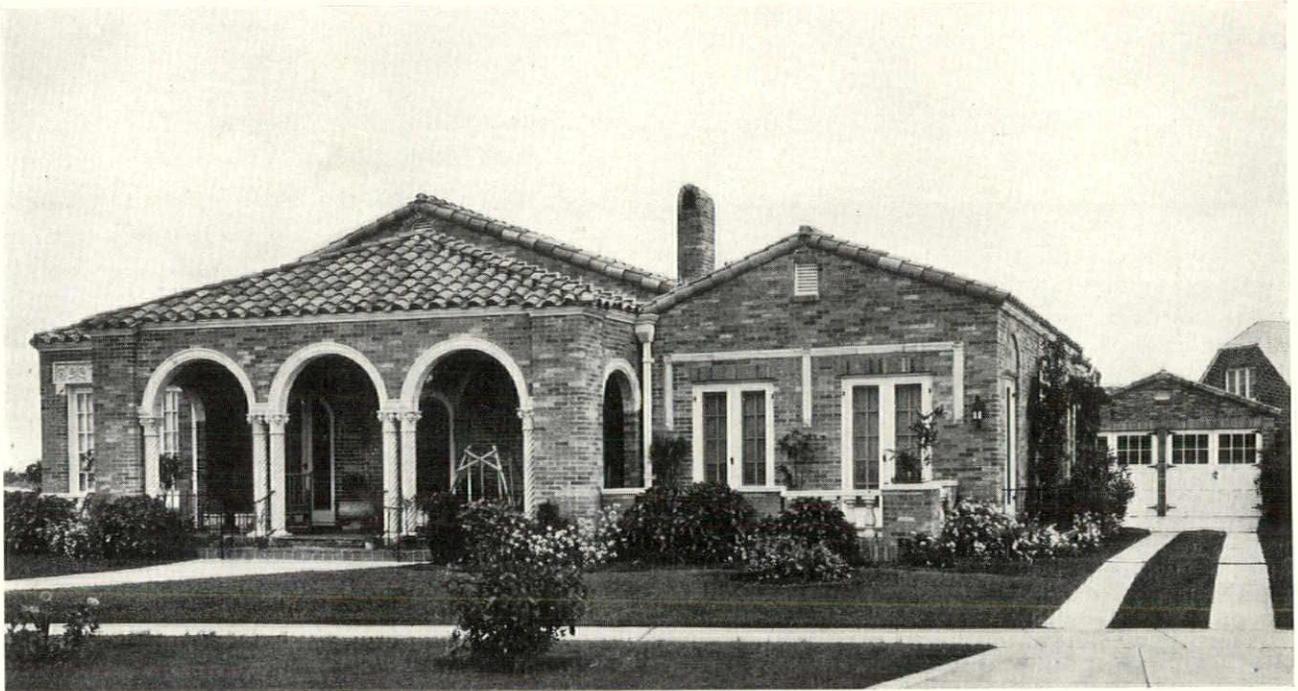


ALLEGHENY STEEL COMPANY . . . Brackenridge, Pa. . . Offices: New York, Buffalo, Chicago, Cleveland, Detroit, St. Louis, Milwaukee, Los Angeles. Warehouse Stocks: Joseph T. Ryerson & Son, Inc.—Chicago, Cleveland, Milwaukee, St. Louis, Cincinnati, Detroit, Buffalo, Boston, Jersey City, Philadelphia. In Canada: Samuel & Benjamin, Ltd., Toronto



Face Brick in Colorful Tones

Characteristic of Latin-Type Architecture



B. C. Bonfoey & Co.,
Architects

*Residence of Leonidas Arango, Davis Islands, Tampa, Fla.
These restful soft-toned walls are faced with characteristic Latin-type Mellow
Tinted, Weather-Resistive Acme Brick from our Perla Kilns*

J. Quiapo
Contractor

EXPERIENCE is rapidly converting home builders to the use of permanent and colorful face brick. The brick structure will not burn or wash away, and age serves only to enhance its colorful charm. Thirty-nine years in the art of brickmaking enables us to offer "a brick for every type—a color for every color scheme." Let us help solve your color problems in . . .

150,000,000
Face Brick—
Yearly Capacity

ACME BRICK

Manufacturers
of the Products
We Sell

Manufactured by

Acme Brick Company, General Offices, Fort Worth, Texas

Established 1891

Plants, Offices, Displays and Dealers Through the South and Southwest

NEITHER BY FROST, FIRE, FLOOD NOR TIME ARE WELL BURNED CLAYS DESTROYED—SPECIFY ACME

IF YOU'RE OPEN TO NEW IDEAS



consider the advantages of the
new Collins & Aikman Carpet

COLLINS & AIKMAN CARPET is a quality pile carpet, coming in 54-inch widths only. On the back, instead of ordinary sizing, a material of permanent resiliency is used. This penetrates and locks the pile. By an exclusive process of joining, the carpet may be laid in a room of *any* size—even an entire hotel lobby—to give a seamless, broadloom effect. *And it sells at the price of ordinary narrow-width carpet!* With these revolutionary features in mind, what are the advantages of Collins & Aikman Carpet?

(1) Naturally, the main advantage is a luxurious, decorative effect at an economy price. The desirable appearance of seamless broadloom carpet, formerly obtainable only at relatively high cost, is now available at the regular narrow-carpet price.

(2) The beautiful unbroken surface of Collins & Aikman Carpet is possible even in places where broadloom carpet would have to be cut and sewed . . . for circular and odd-shaped stairways, around pillars or obstructions, in irregular corners . . . and for rooms over 18 feet in width, which is the limit of broadloom.

(3) You may choose any color combinations you desire, to harmonize with the decorative scheme of a room, and have them made up in Collins & Aikman Carpet without the prohibitive expense of special weaving. All sorts of designs, patterns and borders are possible without spoiling the seamless appearance.

(4) Collins & Aikman Carpet is protected by the best kind of insurance against burns and uncleanable stains. Spots may be quickly cut out and repaired by the insertion of new pieces, which cannot be detected.

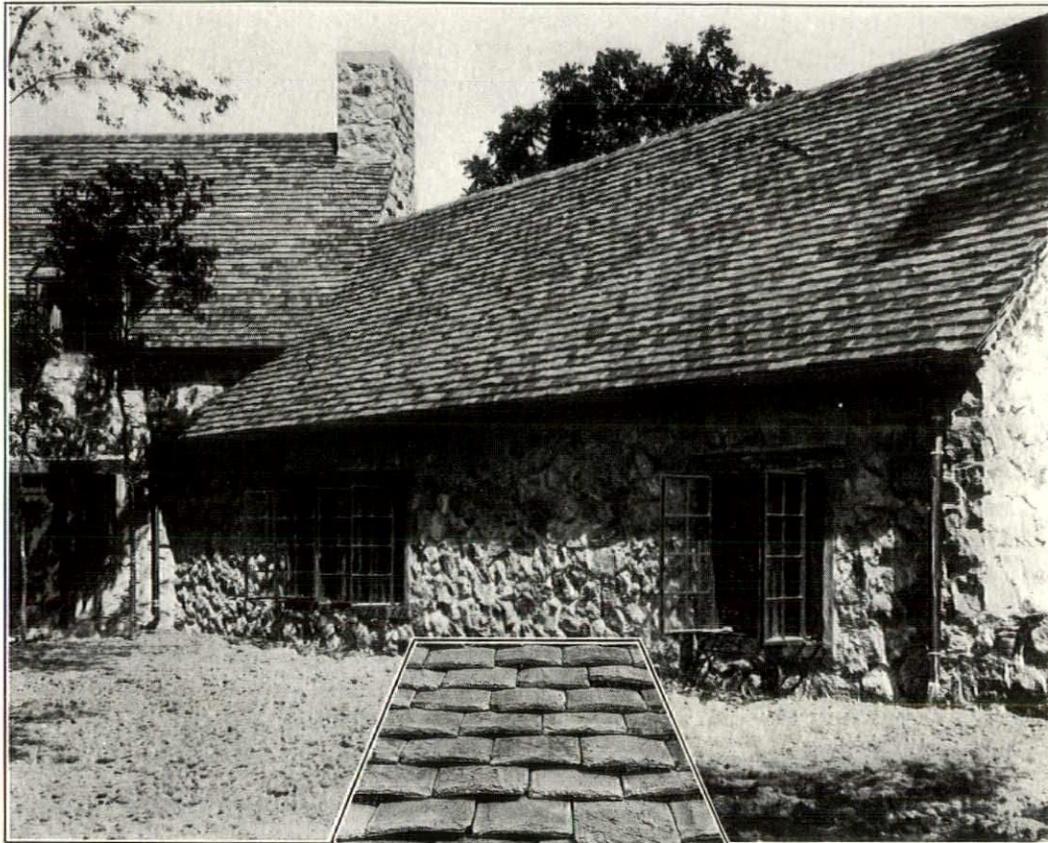
(5) The special resilient backing of Collins & Aikman Carpet is water-proof, and the carpet can be washed and scrubbed on the floor.

(6) You may have rugs of any size, as well as overall carpets, made up from Collins & Aikman Carpet . . . quality rugs in any special designs or color combinations you desire. The resilient backing of Collins & Aikman Carpet makes it unusually valuable in rugs, for it prevents them from slipping or skidding on the floor.

For illustrated booklet, giving full details, write to Collins & Aikman Corporation, 25 Madison Ave., New York City.

COLLINS & AIKMAN
CARPET

OLD EUROPE SHINGLE TILE



Barber & McMurry, Architects,
Knoxville, Tennessee

J. Humbar Residence
Knoxville, Tennessee

OLD EUROPE Shingle Tiles

are rapidly gaining recognition as the most suitable tile to simulate that hospitable charm of handmade slop-mould shingles of Old England. Elusive tinges of mossy patina, incidentally discovered among the darker values of weathered browns and gray mauve hues, form

through a natural graduation from eaves to the slightly grimy browns and pastel salmons at the ridge, a most pleasing char-

acterization of the actual aging of time-toned tiles. Comprehensive samples will be gladly submitted to the architect or his client. Address Dept. F, Daisy, Tenn.

B. Mifflin Hood Company

KIL-KRAFT TILES

TRADE MARK

DAISY, TENNESSEE

Above all things use Hood Roofing Tile

VALUE at your WINDOWS

isn't THAT what you want for your window shade money?

With all the shouting that's going on about "special features" of various window shadings, it is not always easy to remember that the one and only *vital* feature is . . . that your shades do, and *keep* doing, good work at your windows.

Compare a *Columbia* NIAGARA washable shade with any other, and you'll see just what we mean. We'll provide the NIAGARA shade any time.

NIAGARA does a splendid job at your windows. Its colorings are rich and even. Its texture and finish bespeak the thoroughbred. Its translucency gives a delightful effect . . . with no sacrifice of privacy.

Yet NIAGARA costs less than you'd guess. And its length of service is more than you've ever had reason to expect of a shade.*

NIAGARA doesn't "go dead" with exposure. It keeps its shape and appearance. *And it is washable . . . really washable . . . repeatedly washable.*

NIAGARA, sir, is the best performer you can buy, by a wide, wide margin . . . and *performance* is what you want, isn't it?

*NOTE: When you specify NIAGARA shades, be *sure* to get *Columbia* rollers, for it takes the world's best roller to match NIAGARA'S service.

Columbia

WINDOW SHADES

ROLLERS · VENETIAN BLINDS

THE *Columbia* MILLS, INC., 225 Fifth Avenue, New York. / / BRANCHES: Baltimore / Boston / Chicago / Cincinnati / Cleveland / Dallas / Denver / Detroit / Fresno / Kansas City, Mo. / Los Angeles / Minneapolis / New Orleans / Philadelphia / Pittsburgh / Portland, Ore. / St. Louis / Salt Lake City / San Francisco / Seattle

there's Greater Charm in Wood

● Wood is king . . . of good looks and good value. Walnut, Mahogany, Oak, Birch, Gum . . . so on and et cetera. They all make handsome office walls and add charm to every interior.

Wood withstands abuse . . . improves with age. When expressed in Circle A Partitions, wood serves a double purpose. It builds an office today that can be taken apart tonight . . . and rebuilt to new requirements tomorrow.

Doorways are changed. Two offices are made of one. The secretary has privacy at little cost. It is done quietly, with unbelievable speed. Send today for data on these versatile and eye-pleasing office walls.

CIRCLE A PRODUCTS CORPORATION

652 So. 25th Street, Newcastle, Indiana
New York Office: Farmers Loan and Trust Bldg.,
475 Fifth Avenue, New York, N. Y.

Also manufacturers of
Circle A Folding Partitions, Rolling Partitions,
Kitchen Units, Portable and Permanent Steel Grandstands,
Portable Wood Bleachers.



CIRCLE A PARTITION S
Sectional Movable

BOOK DEPARTMENT

THE PINE FURNITURE OF EARLY NEW ENGLAND

A REVIEW BY
CLIFFORD WAYNE SPENCER

THE charm of early American furniture lies largely in its primitive simplicity and in the fact that each piece is highly personal. It was made by an individual for another individual, with its ultimate use definitely in mind. It is an expression of that urge to produce beautiful things that is so strong in the makeup of all of us. If it be true that to be beautiful an article must be useful, these implements of every-day life in the homes of the early settlers certainly fulfilled all the requirements of true beauty. Added to the qualities of simplicity, utility and personality, there are the endearing influences of historical association, and the mellowing touch of time, sharp edges softened by the wear of long use, and above all the marvelous patina that can be acquired only by beautiful woods after a long period of use and with constant rubbing and waxing. These are the qualities that cannot be duplicated and that account for the great interest and love that so many people have come to have for the simple objects with which the early inhabitants of this country surrounded themselves. It is never claimed that the work of these early cabinet makers represented the last word in the furniture maker's art; it was too limited in the quality of its material, the nature of the tools with which the craftsmen worked, and the necessity of making articles to withstand hard usage, to attain anything even approaching perfection. In fact it was these very shortcomings that lend to their products their greatest charm,—soft woods worked by hand with simple moulding planes and workmanship not too skilled.

In the choice of the woods which the early craftsmen employed, they were probably interested primarily in those that were easily worked and durable. At first it was thought that only oak, of the native woods, would be sufficiently durable, but it was soon discovered that although quite soft and light, the wood of the white pine was capable of withstanding hard usage and long wear, and that where an especially hard wood was desired the so-called hard pines would answer very well. The smoothness of the grain of the white pine and its softness gave to it the added advantage of being easily worked, which in those days of primitive tools was a great advantage. Their choice of pine as the principal wood for building furniture and interior woodwork has proved very fortunate, for the centuries that have passed have demonstrated that the wood is capable of withstanding unlimited wear and that in varying lights it takes on a great number of rich and agreeable color variations ranging from a bright red to a light cream color, and that the wear and tear of rough usage only

serve to add to the general effect of softness and mellowness. The patina assumed by pine after a long period of use furnishes a clue to the genuineness of a piece, since it cannot be reproduced successfully by any modern method of finishing, and it adds still further to the mellow charm of an authentic old piece.

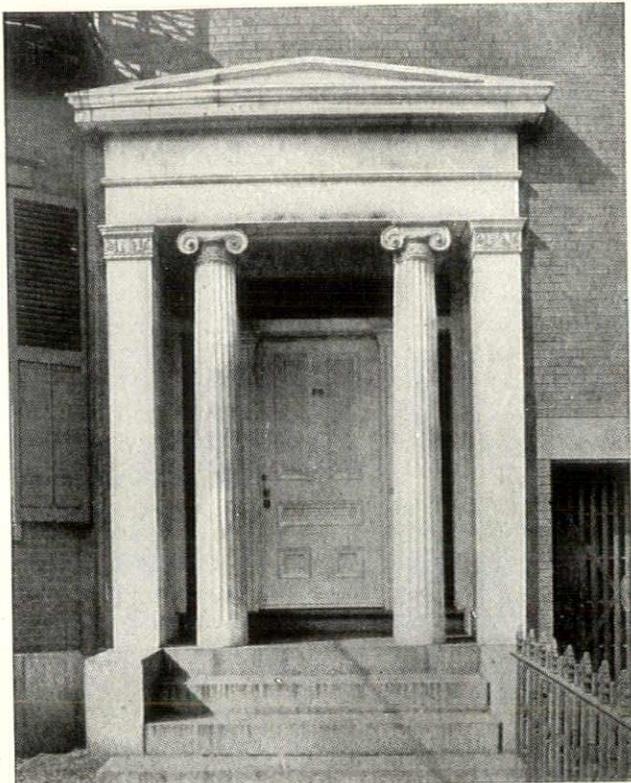
In the volume which is the subject of this review the author has selected his material carefully from examples of the colonial cabinet maker's art which were found in New England and which are constructed either wholly or largely of pine. In presenting a subject such as this the matter of careful selection is of the greatest importance, since it does not follow that because an object is old it is necessarily good. Probably the proportion of ugly pieces in relation to the beautiful was as great in those days as it is today, and while a great majority of the ugly pieces have ceased to exist for that very reason, there are still in existence large numbers of relics which are interesting only on account of their age and which have no place in a volume of this sort. In this case the selection seems to have been very well and carefully made, with an eye to their beauty and also to their adaptability to reproduction. The author evidently was inspired by a great love for his subject and a true understanding of the intrinsic beauty found in the furniture of this period and class. It is also evident that he or his photographer had access to many collections in private homes as well as to those in public museums. In most cases great care has been taken to present the objects in connection with their proper backgrounds of authentic early American interiors. In these instances the author's architectural training has stood him in good stead, and nothing is shown that is not in agreement with the dictates of good taste.

In addition to the plate section, which constitutes the major portion of the volume, an introduction by the author presents a general view of the subject to be discussed and will afford the reader, especially if he be comparatively unfamiliar with the subject, an adequate understanding on which to base his enjoyment of the volume. Some knowledge of the woods to be used is of prime importance to such an understanding, and the author discusses in the order of their importance the various woods which played a part in the construction of furniture in the early American period, especially in New England. In this classification white pine naturally takes first place. Its good qualities are explained, and the reader is shown how he can distinguish between the various kinds of pine in common use in this country prior to the Revolution. The second important phase

Unless otherwise noted, books reviewed or advertised in THE ARCHITECTURAL FORUM will be supplied at published prices. A remittance must accompany each order. Books so ordered are not returnable.

An Authoritative Work on
"THE GREEK REVIVAL"

By HOWARD MAJOR



THE search for effective types of architecture for domestic use led logically to the re-discovery of the style known as the "Greek Revival." In the hands of a few particularly skillful architects it is being used with marked success, their use being based largely upon study of such examples as have survived the period, just prior to the Civil War, when use of the type was widespread throughout the United States. It is an entirely American style, founded not upon a following of current English architecture but upon a study by Americans of classic types adapted to domestic uses.

Mr. Major's excellent work is the result of a careful study of the style as it was interpreted in the North and East, and particularly in the South. The illustrations of exteriors and interiors are full of suggestions for anyone seeking a variety of architecture bold, simple and effective, which supplies a fitting background for life in America. The book is richly illustrated, and shows existing work, large as well as small, in both city and country.

236 Pages; 7½ x 10¾ Inches. Price \$15

THE ARCHITECTURAL FORUM
 521 FIFTH AVENUE NEW YORK

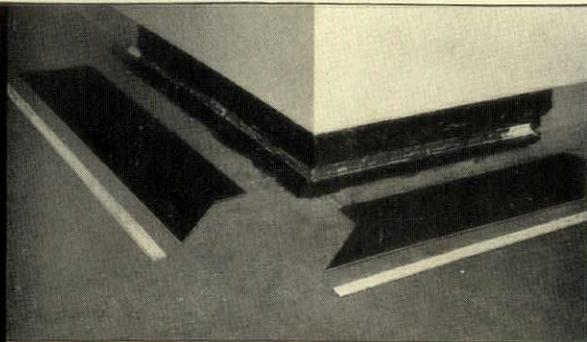
of the furniture maker's art which should be understood in order to be appreciated, includes the fundamental principles of the construction of furniture. In these there has been little change since the days of the Pilgrims, and while in some cases the workmanship is more crude than might be the case with modern machine methods, the same tricks of joinery and finish are still in use. Dovetails may now be concealed by the skilled cabinet maker, but the principle is the same, and the methods of paneling developed in finishing the homes of the seventeenth and eighteenth centuries have lent charm to the interior of many a modern home. Although the present work deals primarily with furniture of wood construction, these pieces would not be complete without the embellishment of their wrought iron hinges, latches, or other hardware accessories. In his description of this portion of the subject the author traces the development of hinges from the hardwood peg stage to the more elaborate wrought iron pieces in the making of which the colonial smiths attained considerable skill. In many of the more elaborate pieces, especially those of a slightly later date, brass hardware figured prominently, and the various patterns and styles are described in this portion of the volume.

The plate section of the work is remarkable for the beauty of the photography and printing as well as for the character of the subjects presented. There are 228 full-page plates, each showing a reproduction of a photograph of some unusual and interesting piece or group of pieces. Many of the photographs are by Charles Darling, and their soft, mysterious quality is in perfect keeping with the general feeling of the work. The simplest pieces are often the most beautiful, and the group of small wall boxes that forms the first section comes within this classification. The purposes of these boxes were varied, and their uses included the holding of candles, knives, and pipes. The more elaborate boxes include tiny drawers, some of them being veritable little chests of drawers. The collection of pipe boxes is especially interesting, and the ease with which they could be duplicated by anyone at all handy with tools suggests a pleasant occupation for rainy afternoons and Sundays. Chests formed an important part of the equipment of every colonial household, and the large collection shown here is quite representative of the different types that found favor with the early housekeepers as places for the storage of linens and clothing. They are made especially interesting to the architect by being shown in proper settings, often surmounted by some appropriate implement of household use. The author and his assistants must have gone to considerable trouble in finding just the proper background against which to show each of these objects. The natural development of the chest into the chest of drawers is followed, the "chest of drawers on frame" being developed still further to become the "highboy" and "lowboy." As is to be expected, many of these pieces are quite elaborate and surprisingly beautiful. The section covering stools and benches is replete with examples of the originality and ingenuity which characterized so much of the work of the early craftsmen. A bench formed of a plank and four straight legs is so well treated in detail that what might have been clumsy and ugly has taken on an extremely graceful appearance, while other pieces owe their claim to beauty to their sheer massiveness. An

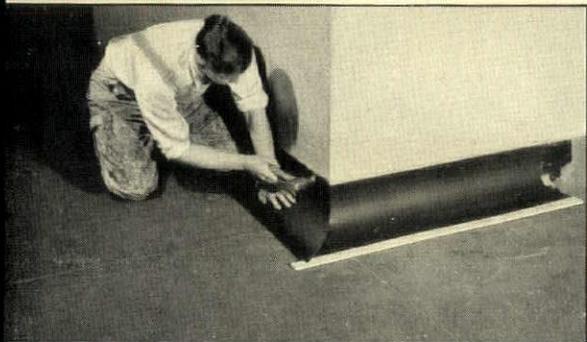
Unless otherwise noted, books reviewed or advertised in THE ARCHITECTURAL FORUM will be supplied at published prices. A remittance must accompany each order. Books so ordered are not returnable.

THINGS

every linoleum contractor doesn't know



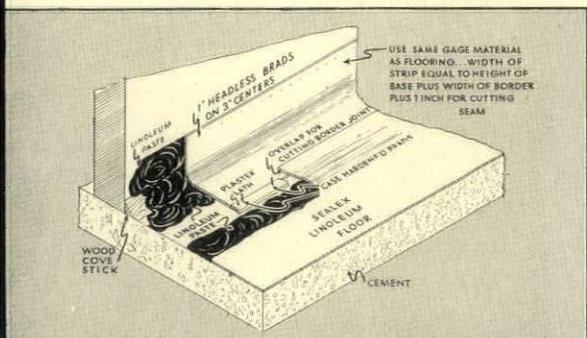
Materials assembled for laying one-piece cove-base and border in an "outside" corner. The cove-stick has been installed and Sealex Linoleum Paste has been applied on the wall.



Here we see the mechanic fixing the cove-base and border in place by means of headless brads, placed on 3'' centers, 1/4'' below top of base.



Picture shows mechanic completing the job, spreading linoleum paste under edge of the border and the patterned linoleum used for the floor.



The diagram above shows the materials required for a one-piece cove-base and border, and the mechanical details of assembly. The cove-stick is merely a piece of soft wood, triangular in shape, with 1 1/2'' legs rabbetted to a concave face. This method of construction gives a neat, sanitary effect at comparatively low cost. It was developed entirely within the Bonded Floors organization and is available through Authorized Contractors of Bonded Floors.

THE pictures on this page show three steps in the installation of a *one-piece border and sanitary cove-base* in Sealex Linoleum. Constructing this as one unit is one of those fine points of craftsmanship that mark the difference between a good floor and a fine floor.

This one-piece border and cove-base was developed by the engineers of the Bonded Floors organization. The men best qualified to install it are the Authorized Contractors of Bonded Floors, located in principal cities throughout the country.

Everyone admits that the customary factory-made cove-base furnishes a satisfactory job. The one-piece base, border and cove, however, possesses certain definite points of superiority. It lends itself to a much greater variety of decorative effects. It makes possible a border of any width, in any weight of material and in any color—as opposed to the strictly limited assortment of effects in the factory-made cove.

Furthermore, this Bonded Floors cove-and-border is structurally sounder than the old-style type. The number of cove cross-joints is reduced. It is less expensive to construct—and can readily be installed

(See next page)

on the job by a skilled mechanic. We recommend it for commercial and business installations and particularly for schools and hospitals. Not to mention kitchens in private homes.

We have described this Bonded Floors improvement in some detail because we consider it a typical example of the progressive flooring service offered by Authorized Contractors of Bonded Floors. The ready-cut borders illustrated on the right are another service feature available through Bonded Floors contractors. These strips can be combined into a great variety of attractive border effects—without the expense and wastage of material that is inevitable when the border is cut out by hand on the job.

Still another field in which our Authorized Contractors have a distinct edge on their competitors is in designing and laying custom-made floors. Our designers have had conspicuous success in creating floors for all types of buildings. The most conservative period design and the most radical modernistic effect can be carried out with equal ease in Bonded Floors.

May we send you the names of Authorized Contractors near you?

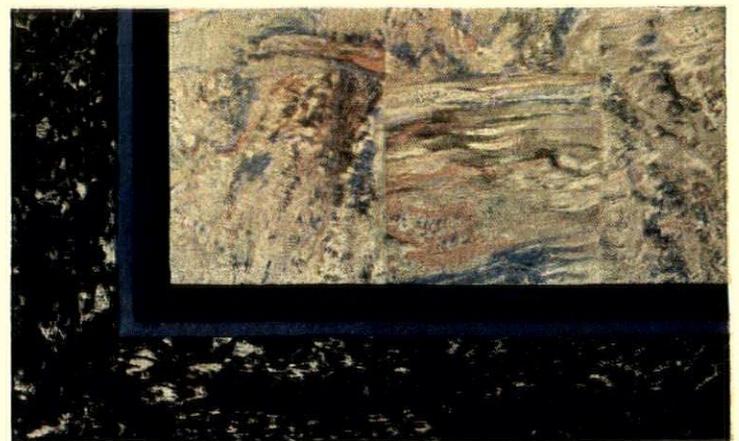
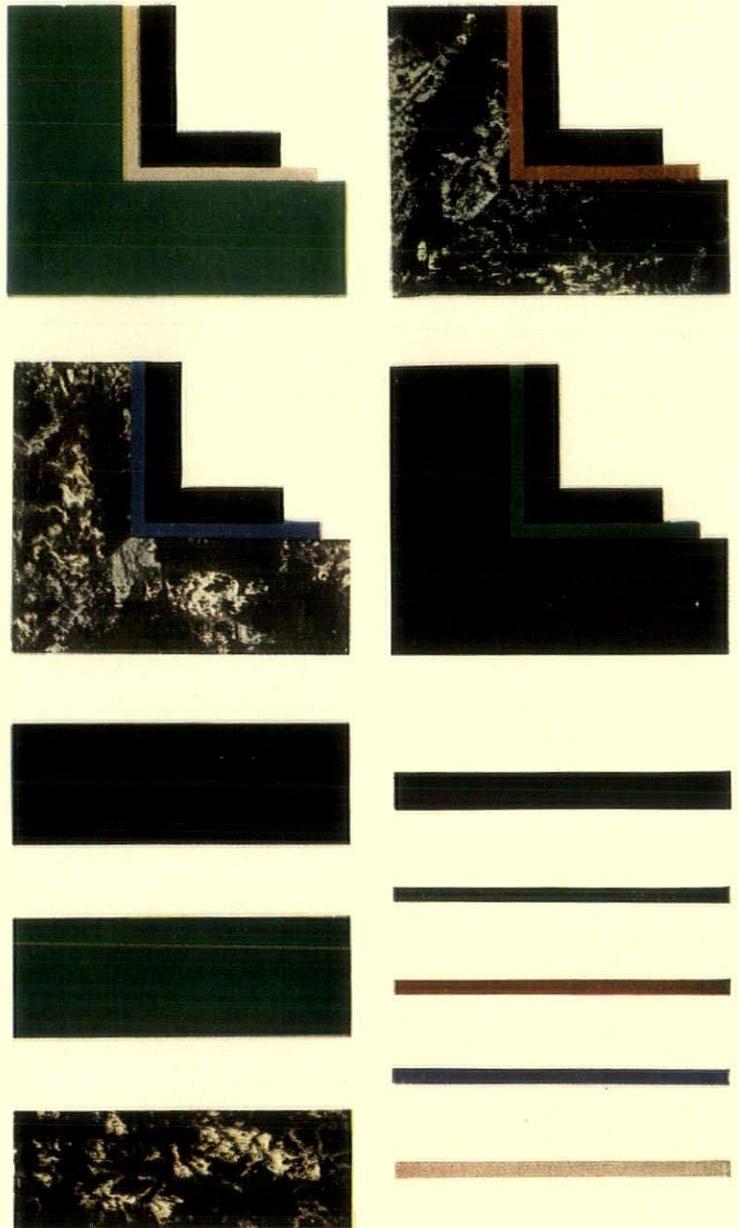
CONGOLEUM-NAIRN INC. . . . General Office: KEARNY, N. J.

BONDED FLOORS



Bonded Floors are floors of Sealex Linoleum and Sealex Treadlite Tile, backed by a Guaranty Bond issued by the U. S. Fidelity and Guaranty Company. Authorized Contractors of Bonded Floors are located in principal cities.

(See preceding page)



The decorative possibilities of linoleum floors may be greatly enhanced by the use of either ready-cut or custom-cut borders. Directly above, for example, is our "Leonardo" pattern (No. 3225) used with a ready-cut border assembly of black marbled, blue and plain black strips. Other border strips and border assembly suggestions may also be seen above.

interesting variation of the bench is the settee, often placed before an open fire, its high-boarded back evidently designed to prevent drafts. An unusually beautiful bench of this sort has an interesting paneled back and arm rests sawn to an amusing profile. Other variations of the bench were the "settle bed," the "chair table," and the "settle table."

The variety of tables shown here indeed covers all sorts. There are tiny stands for holding candles and huge trestle tables which might be taken apart and put away between meals; there are hutch tables with little chests beneath the top tops, and all sorts of gate-leg and butterfly tables in every shape and size. The desks illustrated are of many kinds. The section on cupboards and shelves includes some very fine old dressers, and one or two useful suggestions for the arrangement of shelves in paneled rooms are given. The sign boards which the author has included along with the furniture are amusingly quaint and no doubt will be a source of much inspiration to architects in the designing of similar decorative signs for their buildings. Although it is no longer customary to make weather vanes of wood, the pine vanes illustrated here are very good in design and their forms might be easily adapted for other materials.

In addition to all these variations in furniture, it seems that there was scarcely anything that the early settlers needed that could not be fashioned from pine. Mirror frames, lanterns and even chandeliers are shown, in the construction of which pine has been used, due no doubt largely to the fact that it is a wood that can easily be worked by amateurs, and this same quality will doubtless suggest to many who see these plates the possibility

of reproducing some of the pieces for themselves. For these and others who are interested in the actual design and construction of the pieces, there is included a section of 55 full-page plates of measured drawings, showing the details of construction and design of many of the pieces shown in the illustrations in the volume.

PINE FURNITURE OF EARLY NEW ENGLAND. By Russell Hawes Kettell. Plates and text, 9¼ x 12¾ ins. Price \$15. Doubleday, Doran & Co., Inc., Garden City, N. Y.

RATHER than to present an encyclopædic treatise on shadow projection, the author has confined this work to an analysis of methods employed for all forms, with demonstration of those considered most typical. In all cases the forms chosen have been designed to explain the principles of shadow projection, and for no other purpose. The first and second parts of the volume deal with the shade and shadows of points, lines, shapes and forms, and the third part with the shade and shadows of more complex forms; the fourth part gives a series of rapid methods for complex forms, and the last part shows methods of projecting shadows on interpenetrating forms which are designed so as to introduce minor complexities. Shadow projection is a means to an end. Its usefulness is limited to those forms which bear obvious geometrical analysis. The diagrams are simply presented and are very readily understood.

ARCHITECTURAL SHADOW PROJECTION. By John M. Holmes. 58 pages, 9½ x 13 inches. Illustrated, cloth. Price 10s/6d. The Architectural Press, 9 Queen Anne's Gate, Westminster, S.W. 1, London. To be ordered directly from publishers.

A NEW EDITION OF A STANDARD WORK

"A History of Architecture on the Comparative Method"

By SIR BANISTER FLETCHER, F.S.A., F.R.I.B.A.

IT is not necessary to point out to architects and architectural students the merits of this widely known work on the history of architecture. For several decades it has been read and studied or used as a work of reference because of its being authoritative, concise and well documented with references and bibliographies.

But it is sometimes possible to improve

even a well known and standard work, and the History of Architecture, now appearing in its Eighth Edition, has been revised and enlarged, and considerable new matter has been added. The Eighth Edition possesses every valuable characteristic of the earlier editions, and it includes, besides, the results of recent travel and research to increase its value.

929 pages; 6 x 9½ ins. About 3,500 illustrations.

—\$12 NET—

THE ARCHITECTURAL FORUM

521 FIFTH AVENUE

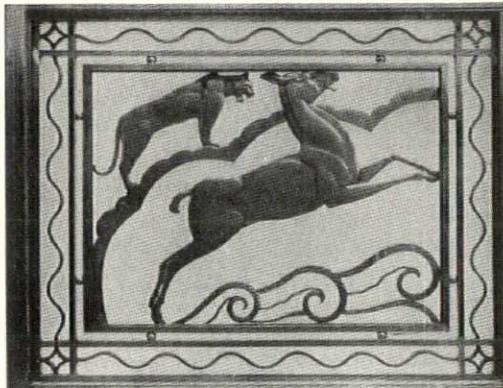
NEW YORK

Books That Should Be In Every Draughting Room—How Many Have You?

Geerling's Metal Crafts in Architecture

A practical reference guide to the best examples of metal work, ancient and modern, in architecture and interior decoration. 280 photographs, diagrams and measured detail studies of old and new work in Europe and America are reproduced in these well-printed illustrations; there is hardly a page without an idea or suggestion for those seeking suitable motifs and designs.

In addition to the text illustrations by the author there are examples of the work of 112 of the well known artists.



Contents: BRONZE, History, Craftsmanship, The Essentials of Casting, The Care of Bronze, Some Practical Aspects, Extruded Bronze, Illustrations; BRASS, History, Characteristics, Usages, Care and Coloring, Illustrations; CAST IRON, History, Craftsmanship, Introductory, The Essentials of Iron Casting, Characteristics Affecting Design, Painting, Estimate Drawings, Illustrations; COPPER, History, Metallic Properties and Architectural Usages, Modern Methods of Working Copper, Design Limitations and Shop Practice, Illustrations; LEAD, History, Craftsmanship, Characteristics, Architectural Design and Usage, Modern Methods of Working Lead, Illustrations; ZINC; TIN; LIGHTING FIXTURES; CURRENT DEVELOPMENTS, Enamelling, Monel Metal, Depositing Copper on Glass, Steel, Electroplating, Chemical Surface Action; SPECIFICATIONS; BIBLIOGRAPHY.

202 pages—9 x 12—318 figures. Cloth.....Price \$7.50

Knobloch's Good Practice in Construction, Part I

Over 200 different examples of building construction are detailed in this practical manual. Every detail has been tried and proven in actual construction. They were selected from the files of the executed work of ten leading architectural offices and combined and revised to make them applicable to construction work in general.

52 plate pages—9 x 12. Cloth.....Price \$4.00

Harbeson's Study of Architectural Design

This book, which follows the method of the Beaux Arts, allows the student to study at will the underlying principles of architectural design and serves to save a great deal of time for both student and instructor. An excellent textbook for the student and a reference book for the more advanced—a book to be kept at hand for ready reference.

300 pages—9 x 12—376 figures. Cloth.....Price \$7.50

Guptill's Drawing with Pen and Ink

Like its companion book, "Sketching and Rendering in Pencil," this book is based partly on lectures and instructions given by the author in his classes at Pratt Institute, Brooklyn, N. Y., and partly on his experience as a professional illustrator and as an architectural renderer. The student and draftsman will find it to be a sound and complete guide for the study of pen and ink and its various techniques, even through the use of colored inks.

Contents by chapters: 1. Some Introductory Considerations. 2. The Requisite Drawing Materials. 3. Early Practice in Pen Handling. 4. The Essentials of Tone Building. 5. Elementary Steps in Value Study. 6. Kinds of Outline and Their Uses. 7. First Thoughts on Light and Shade. 8. Object Drawing in Light and Shade. 9. Still More About Light and Shade. 10. Selection and Use of Plaster Casts. 11. A Few Rudiments of Life Drawing. 12. Basic Principles of Composition. 13. Photographs and How to Use Them. 14. Studying Work by Other Artists. 15. And So Why Not Go A'Sketching? 16. On the Representation of Trees. 17. Indicating Parts of Buildings. 18. Architectural Rendering Methods. 19. Rendering the Complete Building. 20. The Larger Architectural Problem. 21. Interiors and Their Accessories. 22. The Pen Combined with Other Mediums. 23. Suggestions on the Use of Color. 24. A Brief Discussion of Reproduction. 25. Additional Advice on Reproduction. 26. Special Materials and Odd Methods. 27. The Silhouette and Its Application. 28. Thoughts on Decorative Drawing. 29. Meeting the Advertiser's Demands. 30. Book and Magazine Illustration. 31. More About Illustrative Problems.

444 pages—9 x 12—over 800 Figures.....Price \$8.50

Guptill's Sketching and Rendering in Pencil

A complete course of instruction prepared especially for the author's use in his classes at Pratt Institute. Devoted to the study of drawing in pencil—from the elementary stages through outline, light and shade, free hand perspective, life drawing and architectural drawing. A textbook for the student and a reference book for those more advanced.

In addition to the text and illustrations by the author, there are numerous supplementary illustrations including life drawings by H. I. Stickroth, Jules Guerin, Taber Sears, Barry Faulkner, Eugene F. Savage, sketches and renderings by Otto R. Eggers, Birch Burdette Long, Chester B. Price, Hugh Ferriss, Troy Kinney, Keneth Conant, Frank Vincent DuMond, Albert Kahn, Otto F. Langmann, Schell Lewis, Robert A. Lockwood, C. D. Maginnis, Andre Smith and Charles Livingston Bull.

200 pages—9 x 12—200 figures.....Price \$5.00

Geerling's Wrought Iron in Architecture

This book combines for the first time a practical discussion of craftsmanship, of what can be justly expected of the metal with economic limitations, of the inter-relations of client, architect, and artisan, with historical data and a splendid collection of examples of the craft in the various countries. The first chapter treats of craftsmanship and the architect's design and drawings, while succeeding chapters deal separately with the ironwork of Italy, Spain, France, the Lombards, England, Germany, American Pre-Twentieth Century, and the modern. Detailed drawings are given opposite the photographs in many cases. The last chapter is given over to specifications.

Contents: Wrought Iron Craftsmanship; Properties of Wrought Iron; Texture, Legitimate and Otherwise; Tools and Terms; Architectural Design, Motifs and Ornamentation; Economic Aspects in Design; Wrought Iron Finish; The Architect's Drawings; Italian Wrought Iron; Spanish Wrought Iron; French Wrought Iron; Iron Work of Belgium and Holland; English Wrought Iron; German Wrought Iron; American Wrought Iron (Pre-Twentieth Century); Twentieth Century Wrought Iron; Lighting Fixtures and Knockers; Wrought Iron Specifications; Bibliography.

202 pages—9 x 12—324 figures. Cloth.....Price 7.50

Architectural Forum Book Service 521 Fifth Avenue, New York

Enclosed find \$..... to pay for the books checked.

Name

Address

City, etc.

List of Titles and Prices

- Drawing with Pen and Ink..... \$8.50
- Sketching and Rendering in Pencil..... 5.00
- Geerling's Metal Crafts in Architecture..... 7.50
- Geerling's Wrought Iron in Architecture.... 7.50
- Good Practice in Construction, Part I..... 4.00
- Good Practice in Construction, Part II..... 4.00
- The Study of Architectural Design..... 7.50

Unless otherwise noted, books reviewed or advertised in THE ARCHITECTURAL FORUM will be supplied at published prices. A remittance must accompany each order. Books so ordered are not returnable.

A MESSAGE TO ARCHITECTS FROM THE
UNITED STATES GYPSUM COMPANY



Acoustone Ceiling, Trust Department, Northern Trust Company, Chicago. Frost & Henderson, Chicago, Architects.

A Solution to the Difficult Problems in Architectural Acoustics

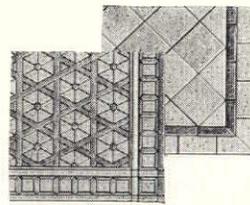
WHILE the problems in Architectural Acoustics have always been perplexing, the demand for comfortable noise levels has grown so rapidly that many architects realize, more than in the past, the need for an organization which can take full responsibility for the acoustical phases of its assignments.

Through the creation of many types of acoustical materials and methods of application and through the development of a competent staff of experts—as well as through the maintenance of skillful installation crews—the United States Gypsum Company has endeavored to make an exact science of what were once vague theories and unreliable opinions.

The result is that the United States Gypsum Company is well prepared to counsel with

you on all acoustical problems. We are in a position impartially to prescribe the type of material best suited to the job, to complete the installation in accordance with the specifications and to assure the specified results.

For jobs requiring reduction or complete elimination in the transmission of noise from one room to another, the USG System of Sound Insulation and USG Insulative Doors are employed. For the absorption of noise within the room in which it is created and for the correction of acoustical conditions in auditoriums, churches, theatres, and other public buildings, Sabinite Acoustical Plaster, or Acoustone, the USG Acoustical



The many designs, patterns and color combinations which may be obtained with Acoustone make its use highly desirable in connection with any type of masonry, as well as other interiors.

Tile, is usually prescribed.

Acoustone is a scientific sound-absorbent—light in weight and possessing a texture that resembles travertine. It is easily and quickly installed on new or old walls and ceilings without interruption to business. Supplied in a wide variety of shades, shapes and sizes, it readily lends itself to any architectural or decorative scheme.

Samples of Acoustone, a description of its uses as well as an explanation of the cooperation which is available to you on any problem in Architectural Acoustics, will be sent upon request. Please address the United States Gypsum Company, Dept. 27N, 300 West Adams St., Chicago.

A C O U S T O N E



The illustration above shows a line of 40 intercommunicating doors between offices of United States Attorneys. Additional doors open from each office onto a corridor.

THE new Internal Revenue Building at Washington is partitioned throughout by Hauserman. From among all other makes and types of partitions, government engineers selected Hauserman Partitions and made them standard for all subdividing work within this building—the government's newest and most modern large structure.

This installation involves over ten thousand linear feet of walnut-grained partitions and more than 500 doors. The entire installation was manufactured, shipped, and erected—all within 28 days!

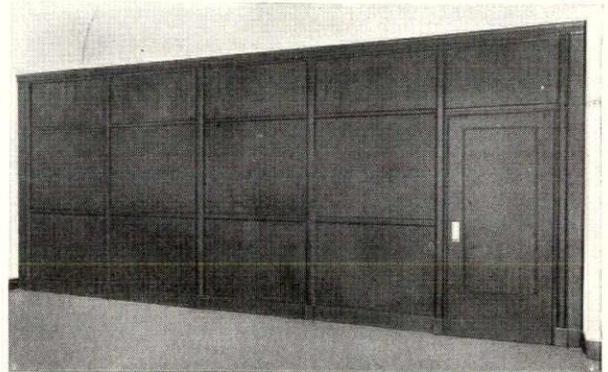
As long as this building stands, it will be modern, internally attractive, efficiently arranged. For Hauserman Partitions never wear out, lose their appearance, or decrease in value. They can be easily, quickly rearranged to meet every changing condition. Hauserman Partitions are Permanent Assets.

HAUSERMAN MOVABLE STEEL PARTITIONS

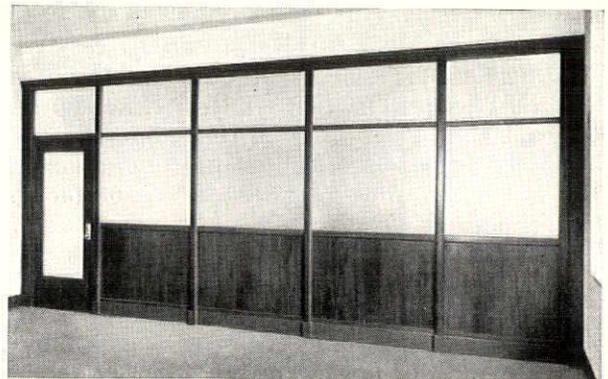
**THE
UNITED STATES
GOVERNMENT**
has standardized on

**HAUSERMAN
PARTITIONS**

**FOR ITS NEWEST AND MOST
MODERN LARGE BUILDING**



All-steel partitions and all-steel doors assure absolute privacy wherever privacy is needed. All partitions in this building are ceiling high.



Glass-steel partitions fitted with glass-steel doors permit the effective use of borrowed light. The entire building is subdivided with Hauserman Partitions.

THE E. F. HAUSERMAN COMPANY

A nation-wide organization of Partition Specialists
6879 GRANT AVENUE ✦ CLEVELAND, OHIO

Factory Directed Planning and Erection Service from these
Convenient Factory Branches

Newark Philadelphia Buffalo Detroit Boston
Kansas City, Mo. New York Chicago Pittsburgh
Cincinnati St. Louis Cleveland Washington, D. C.

THE EDITORS' FORUM

SIR ASTON WEBB
1849—1930

DURING the latter part of August, announcement was made of the death in London at the age of 81, of Sir Aston Webb, regarded by many as the foremost among British architects. Sir Aston was the recipient of many honors in both England and America. In addition to having served as president of the Royal Academy, in itself a distinction of high order, he was awarded the British Gold Medal in 1905. He was one of two British architects to receive from the American Institute of Architects its gold medal for distinguished architectural achievement. Born May 22, 1849, he was educated privately, received the honorary degree of Doctor of Laws from Cambridge, and was knighted by Edward VII in 1904. Sir Aston Webb was emphatic in expressing his aversion to the modern skyscraper, and was strongly opposed to its appearance in London, where he maintained that conditions for erecting such buildings are unfavorable. He will be best remembered as architect of the Admiralty Arch, the structure leading from Charing Cross to the Mall; the buildings of the Imperial College of Science, and the new buildings of the Victoria and Albert Museum at South Kensington; and particularly as the designer of the new exterior which some years ago was given to Buckingham Palace, the London home of the British sovereigns.

ENLARGED STAFF AT NEW YORK UNIVERSITY

DEAN BOSSANGE, of the Department of Architecture, New York University, announces the appointment of George A. Licht as an additional critic in design for the coming year. Mr. Licht, the winner of the first Paris Prize in 1904, has served with the faculties of Princeton and Columbia, and in addition has had for many years an atelier of his own, which has won many high awards in the Beaux Arts Institute competitions. This addition to the design staff of New York University, which already includes Burnham Hoyt, George S. Koyl, Will Rice Amon, A. C. Schweizer, and E. O. Holien, makes it one of the strongest departments in this country and will undoubtedly enable its students to maintain and probably excel the exceptional record established during the past year. DeWitt C. Pond, the well known architectural engineer, will be added to the staff in charge of construction, and will assist in developing the new option in architectural engineering. In view of the very great importance of construction in modern functional architecture, it is proposed to develop and strengthen the courses in that subject and to relate such courses very directly to the work in design.

The new quarters of the department, at 250 East 43d Street, are within a block of the Beaux Arts Institute of Design and in close proximity to many of the most important architectural offices in this country. High above the streets, the lecture rooms, library, atelier

and drafting rooms are admirably lighted and most commodious. Although much larger than the old quarters, they would be more than filled by the large number of applicants, and admission will be placed on a competitive basis; 75 students were enrolled in the summer session this season. A number of these students came from other institutions during their vacations in order to enjoy the exceptional opportunities offered in New York. To assist students in such study, it is proposed next year to offer a number of inspection visits, under the leadership of specialists, to many of the extraordinary examples of modern work which New York contains.

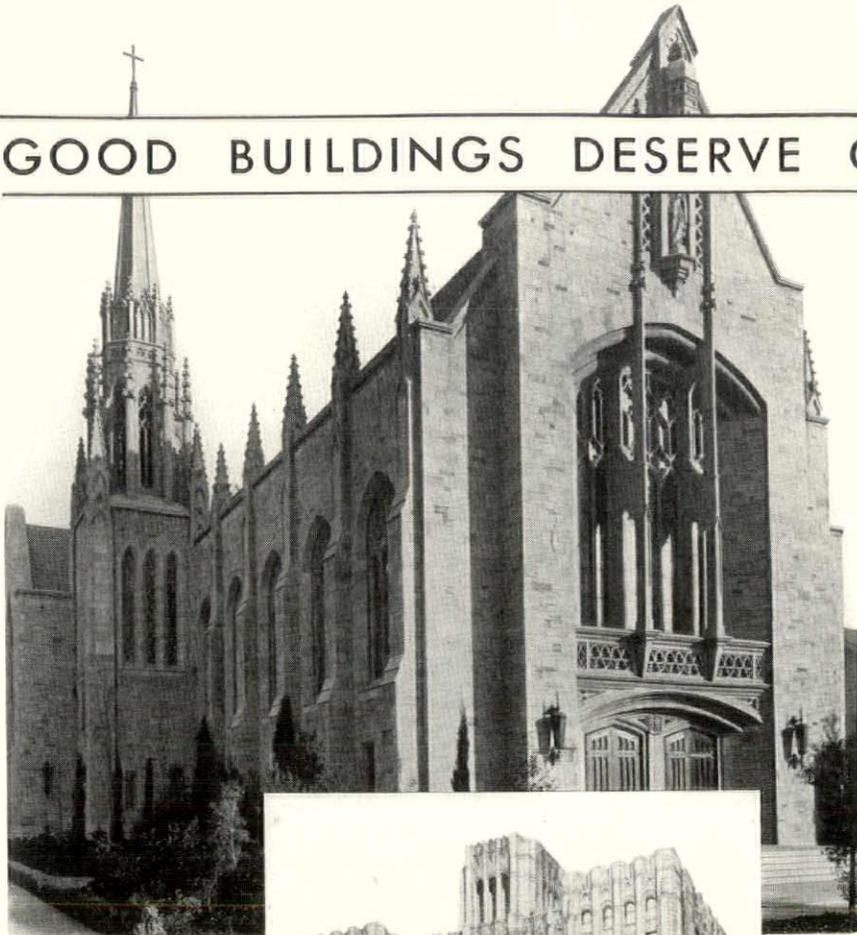
The great success of the course in "Modern American Problems," open to the public, which was given last spring, proves the importance of such study at this time. A second series will be offered during the coming year and also a new series on the "Promoting and Financing of Building Projects." Practicing architects recognize more and more the necessity of knowledge of these subjects, and interest shown in this course since it was announced assures its popularity.

In September, 1931, two new five-year courses will be inaugurated, leading to degrees. These courses will be added because it is becoming more and more difficult to give an architectural student adequate training in only four years. It is proposed also in 1931 to offer for women a special course in architecture leading to the degree. This course will be similar to the existing courses and will include the fundamental work in construction, meeting fully the requirements of this state. But it will recognize the special attitude and also the limitations of women for architectural work, and emphasis will be placed on residential work and interior decoration. Few women are numbered among the most successful architects, and yet the importance of the woman's point of view, experience and taste, when it comes to domestic architecture is recognized and commented upon. In this course a special series of problems in design will be given, including country and city houses, tenements, apartments and hotels.

JOSEPH EVANS SPERRY
1854—1930

THE death of Joseph Evans Sperry, one of the best known Baltimore architects, occurred August 7 at his home in Guilford, a Baltimore suburb. His name has been closely linked with the growth of the Johns Hopkins University and Medical School. He designed the civil and mechanical engineering buildings at Homewood. He also designed the dispensary, Institute of Pathology, Halstead and Osler clinics (now under construction), the Wilmer Eye Institute and the women's clinic in the medical and hospital group of the institution. The Union Memorial Hospital, together with the Johnston Children's Clinic and the Bauernschmidt Memorial, also were designed by Mr. Sperry. Other buildings he designed include the Equitable and Calvert Buildings, the Emerson Hotel, the Emerson Tower Building, and the Emersonian Apartments.

GOOD BUILDINGS DESERVE GOOD HARDWARE



ST. BRENDANS' CHURCH

Architect: E. G. Martin
Contractors: Mutter Bros.
Hardware: Corbin

SUN REALTY BUILDING

Architect: Claud Beelman
Contractors: Herbert M. Baruch Corporation
Hardware: Corbin

UNIVERSITY OF CALIFORNIA LIBRARY

Architect: Geo. W. Kelham
Contractor: J. C. Bannister
Hardware: Corbin



OVIATT BUILDING

Architects: Walker & Eisen
Contractors: P. J. Walker Co.
Hardware: Corbin



THIS distinguished new group of Los Angeles buildings indicates what architects and contractors in this territory think of Corbin hardware

P. & F. CORBIN SINCE 1849 New Britain, Connecticut, U. S. A.

New York

The American Hardware Corporation, Successor
Chicago

Philadelphia

THE ARCHITECTURAL FORUM

VOL. LIII, NO. 3

CONTENTS

SEPTEMBER, 1930

APARTMENT HOUSE REFERENCE NUMBER

PART ONE—ARCHITECTURAL DESIGN

Cover Design: One Fifth Avenue, New York	<i>From a Water Color by Roland A. Wank</i>	
The Editors' Forum		Page 37
10 Gracie Square, New York	<i>From a Water Color by Earl Horter</i>	Frontispiece
ARTICLES	Author	Page
The Modern Apartment House	<i>Francis S. Bancroft</i>	269
Criticism of Apartment Architecture		271
The New Multiple Dwelling Law of New York	<i>Arthur Gross</i>	273
The Moderate Priced Apartment Hotel	<i>H. Douglas Ives</i>	309
Coöperative Apartments	<i>Electus D. Litchfield</i>	313
Suburban Apartments	<i>Penrose Stout</i>	349
Opportunity in the Garden Apartment	<i>John Taylor Boyd, Jr.</i>	353
Paris Apartment Houses	<i>Kenneth M. Murchison</i>	361
PLATE ILLUSTRATIONS		
Sixteen Recent Apartment Houses in New York		277-307
<i>With Typical Plans, Cost and Construction Data and Comment</i>		
Twenty-nine Apartment Houses in Different Cities		317-347
<i>With Typical Plans and Cost and Construction Data</i>		

PART TWO—ARCHITECTURAL ENGINEERING AND BUSINESS

The Derrick	<i>From a Photograph by Van Anda</i>	Frontispiece
ARTICLES	Author	Page
Construction and Maintenance	<i>Eugene H. Klaber</i>	365
Financing Coöperative Apartments	<i>Louis G. Kibbe</i>	370
A Check List of Features that Make Apartments Popular	<i>J. O. Dahl</i>	371
Sound Insulation in Apartments	<i>Roger W. Sherman</i>	373
The Residential District Garage	<i>A. T. North</i>	379
Selecting Apartment Elevators	<i>W. T. White</i>	385
Policy and Opinion		388
Small Kitchens in Apartment Houses	<i>Roger W. Sherman</i>	389
Drafting Room Practice in Apartment Work	<i>Laurence and John Scacchetti</i>	395
Mechanical and Electrical Equipment	<i>Henry J. Nelson</i>	401

PARKER MORSE HOOPER, A.I.A., Editor
 KENNETH K. STOWELL, A.I.A., Managing Editor
 ARTHUR T. NORTH, A.I.A., Associate Editor

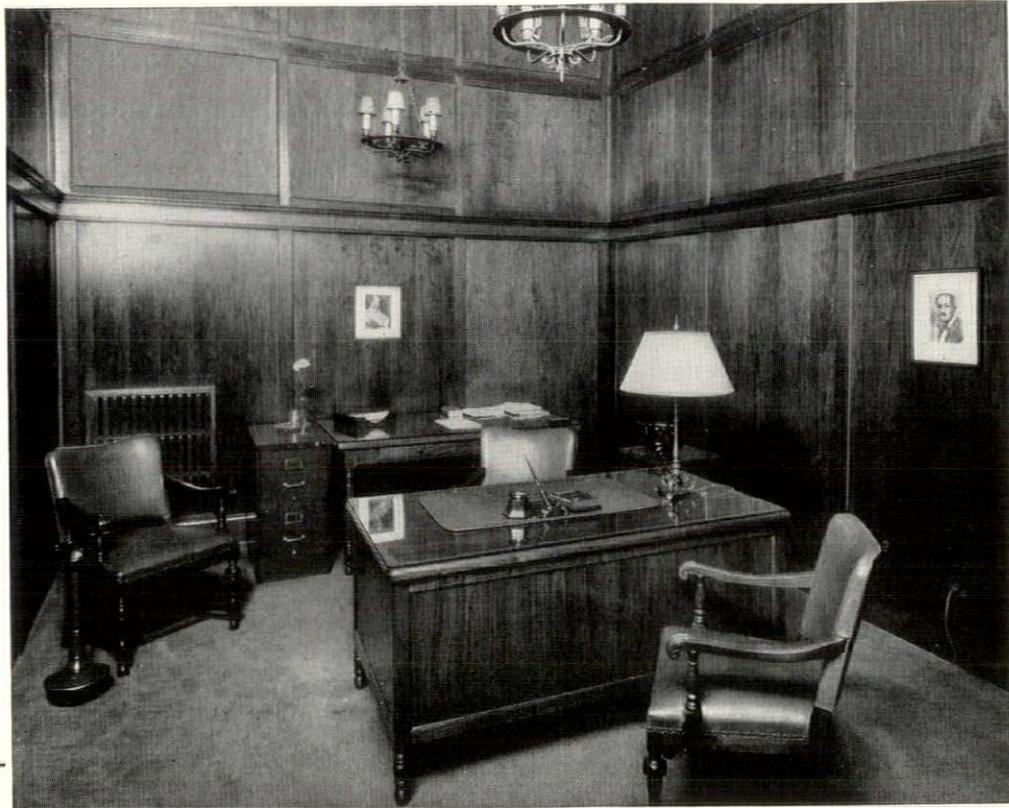
Contributing Editors:

Kenneth M. Murchison	Harvey Wiley Corbett	Charles G. Loring	Alexander B. Trowbridge
Royal Cortissoz	Aymar Embury II	Rexford Newcomb	C. Stanley Taylor

THE ARCHITECTURAL FORUM is published monthly by Building Division, National Trade Journals, Inc., 521 Fifth Avenue, New York, H. J. Redfield, Chairman of the Board and Treasurer; Howard Myers, President and General Manager; John Thomas Wilson, Vice-President; James A. Rice, Vice-President; C. Stanley Taylor, Vice-President; Henry J. Brown, Jr., Secretary.

Yearly Subscription, Payable in Advance, U. S. A., Insular Possessions and Cuba, \$7.00. Canada, \$8.00. Foreign Countries in the Postal Union, \$9.00. Single Copies: Quarterly Reference Numbers, \$3.00; Regular Issues, \$1.00. All Copies Mailed Flat. Trade Supplied by American News Company and its Branches. Copyright, 1930, by National Trade Journals, Inc.

A panelled executive office in the Consolidated Indemnity & Insurance Co., New York, formed by using Telesco's Walnut Wood Partition.



THE DIN OF TIN IS ABSENT THE WITCHERY OF WALNUT PREVAILS

TELESCO'S trump card is beauty. It has induced hundreds of architects to select Telesco Partition during the past year alone.

It has been fatal to imitators ... for unlike metal or cheaper woods, Telesco is no mere imitation of bewitching walnut wood ... but the real thing! Emphasizing and enhancing this natural wood beauty is the simple, classic Telesco design.

Telesco's trump card is beauty. But there are aces, too, in the Telesco deck. Its special lac-

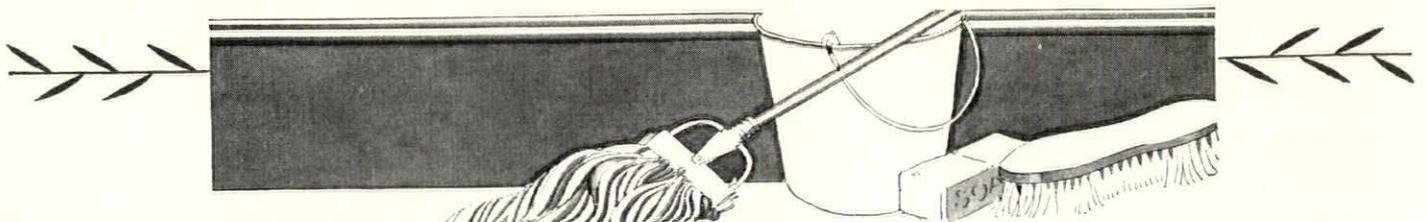
quer finish is practically scratch-proof. The units are sectional and interchangeable. Its screw-type construction speeds erection or re-arrangements with 100% salvage of partition. And unlike metal, which magnifies din, Telesco encourages quiet because it is made of wood!

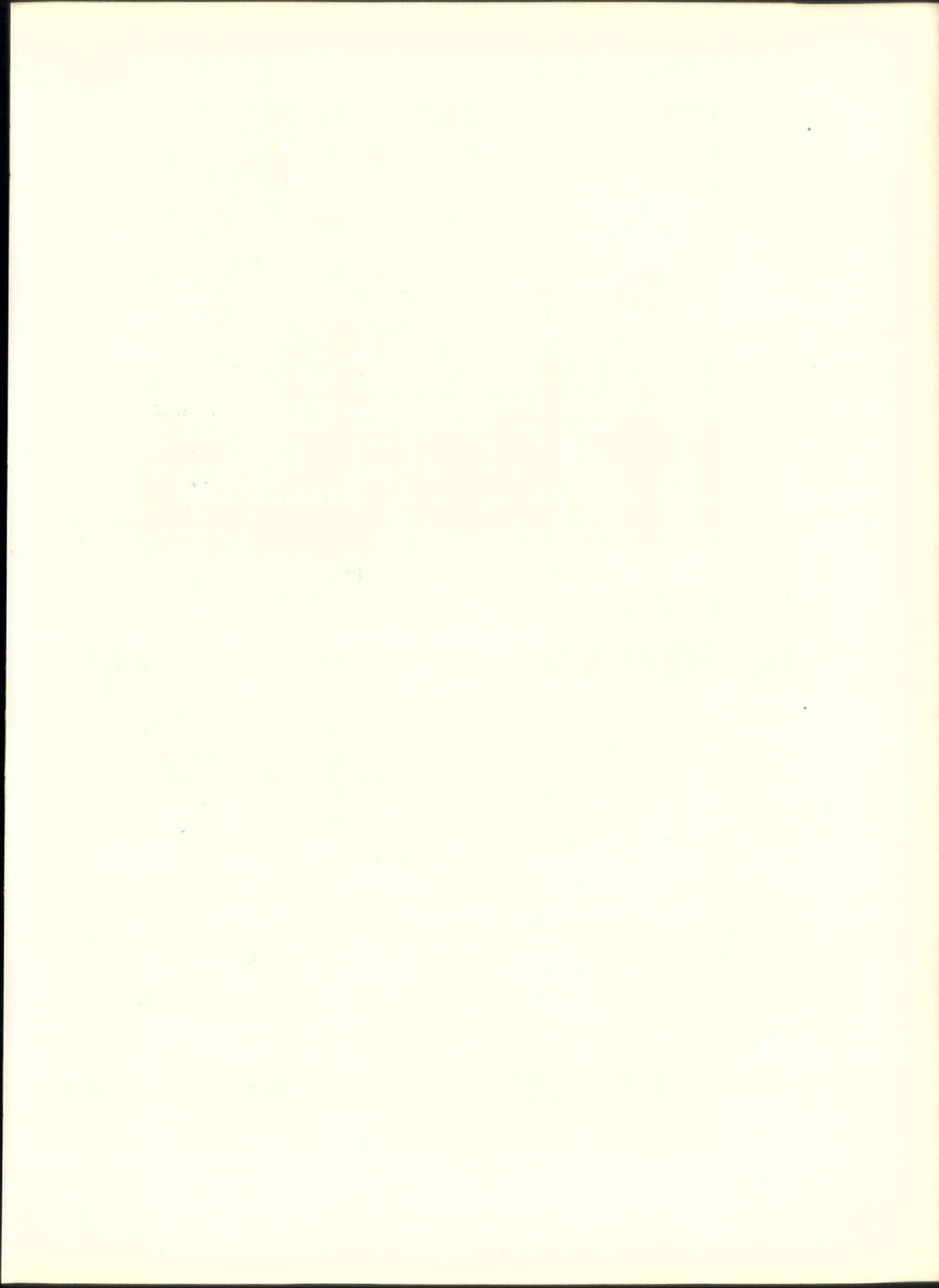
Illustrated below is a Telesco development born of 21 years' experience. It is Telesco's mop-proof base. It can't rust; it can't tarnish; it's finish can't be marred by years of washings with soap and water and chemicals.

No wonder such prominent buildings as the Title Guarantee and Trust Company Building, the Baltimore Trust Co. Building, the Ohio Bank Building, etc., have chosen Telesco. May we send you new booklet and full particulars?

HENRY KLEIN & CO., INC.
Established 1909
40-46 West 23rd Street, New York City
Branches or representatives in principal cities
Factory: Elmhurst, New York

**TELESCO
PARTITION**
IT TELESCOPES
REG. U. S. PAT. OFF.







TEN GRACIE SQUARE, NEW YORK
VAN WART AND WEIN, ARCHITECTS

FROM A WATERCOLOR DRAWING
BY EARL HORTER

THE ARCHITECTURAL FORUM

VOLUME LIII

NUMBER THREE

SEPTEMBER 1930

THE MODERN APARTMENT HOUSE

BY

FRANCIS S. BANCROFT

VICE-PRESIDENT OF PEASE & ELLIMAN, INC.

THERE is no doubt that the architect has exerted as strong an influence on the phenomenal development of the apartment house, which has been a feature of the past two decades, as any other one factor. Of course the fact that Manhattan, being an island, can never be spread out over more than the original area, has made it economically unsound for only one family to live on a plot of land which is continually increasing in value, and the scarcity of servants at reasonable wages has made it nearly impossible for any but the ultra-wealthy to run a large house efficiently. The result of these two difficulties would have become acute had not the architect gradually evolved an apartment design which was acceptable to a large portion of New York's population.

In the beginning, apartments which were then known as French flats, were not popular, and their occupancy was confined to those who desired or were forced to economize. It was the development of the coöperative which first gave a spur to and public recognition of apartments, a movement which was started about 1880 by T. G. Hubert, of Hubert and Pierson. These houses approximated as closely as possible the arrangement of an attractive private dwelling. In the early years of the present century, co-operatives, under the name of "Home Clubs," introduced the first duplex apartments.

By 1900 an apartment house plan was developed which appealed to those of moderate circumstances. The wealthy classes were still living in private dwellings, oblivious of the fact that within the next fifteen years they would themselves be apartment house tenants. The typical building then was of seven stories with an elevator, with a height restricted by law to not more than eighty-five feet. The usual family suites consisted of six rooms and a bath. The apart-

ment was entered through a very small foyer, opening on a long narrow hall off of which opened the parlor, three chambers and a bath. To enter the dining room it was necessary to go back through the long hall and turn on a passageway at right angles. The dining room was connected with the kitchen and an adjoining bath. Even in the few apartment houses which had suites renting at the then staggering sum of \$10,000 a year, the same long winding hall was introduced. The only essential difference between the two was the inclusion of more baths and a few small rooms such as a library, a billiard room, etc.

The plan introduced by J. E. R. Carpenter some years ago, where the rooms were regrouped with entertaining rooms on one side of a gallery and bedrooms on the other gave a great impetus to the increased popularity of the apartment house. This plan is to this day universally used. Since these beginnings the apartment house has so developed that it can now include features which could not be found in any private house.

The ideal way to erect an apartment house today is to have complete coöperation between the builder, the architect and the renting man. The builder can discuss a plan which would return him a satisfactory return on his investment, the architect one which will be aesthetically pleasing and utilize every foot of space advantageously, and the renting man one which will contain the features demanded by and most pleasing to prospective tenants. Without this complete understanding between the three forces behind any apartment building, the builder would perhaps indulge his wish to obtain the maximum number of apartments in a building to a point where there would be many unrentable apartments, the architect would be more likely to go to the other extreme, and the renting man would be left with

an impossible problem.

The first thing which is demanded by the apartment public today is spaciousness. Even if the rooms cannot be very large, a design giving the effect of space proves popular. Wide doors, ceilings as high as possible, windows placed to utilize every ray of the morning and afternoon sun, and permitting proper furniture placing, well-planned closets and bathrooms are a necessity today. No longer will a prospective tenant be satisfied with shallow and inadequate closet space, dark and poorly ventilated bedrooms, for the sake of roomy entertainment rooms. The same feeling of space must be applied to all of the rooms, with the possible exception of the kitchen, where, the introduction of so many mechanical devices and the desire of most servants to have all cooking equipment and cupboards as nearly contingent as possible make compactness desirable in this room. The introduction of the dining alcove in small apartments has proved popular as the subsequent saving of space enables these suites to have facilities not previously obtainable.

The builder and architect today must include in their buildings all of the modern conveniences if they wish to meet competition in renting. Mechanical refrigeration is today an absolute necessity. Bathrooms equipped with glass-enclosed showers attractively tiled in the modern manner are a renting aid. Radio outlets in all living rooms, a large supply of telephone and base electric light plugs, wood-burning fireplaces, cedar-lined closets, are all desirable. One of the most interesting developments in the last five years is the growth in popularity of pent-house and terrace suites.

In 1900 an apartment house on Riverside Drive was considered a wonder because it had on the roof two summer house pavilions which were open to all of the tenants in the building. Gradually the idea of utilizing this space for apartments where the tenants could have their private roof gardens in gardenless New York became popular. Today the pent-house suites are usually the first

to rent in a building. With the advent of the new Multiple Dwelling Law, with its required number of set-backs, the terraced suite has reached a new development. Today builders are including these terraces which furnish the equivalent of a front porch wherever possible. These are usually decoratively tiled, have ornamental railings, and, in some instances, connections for a fountain. Every builder and architect should include in their plans as many of these suites as possible. Even if they can only be large enough to include a few plants, the view furnished and the long French doors through which they are usually approached, have great public appeal.

There is still one respect in which apartments are undesirable, and that is the living quarters for servants. Even in some of the de luxe apartments the sleeping quarters for servants are little above the tenement house class. The efficient servant passed years ago out of the drudge class and today commands a respectable salary. The day will come when tenants in buildings will find the servant problem acute unless better accommodations for them can be offered. In many buildings it would take nothing short of magic to provide adequate service rooms as well as spacious apartments for the tenants, but this is a problem to which much care must be given both for economic and humanitarian reasons.

There are two extremes in apartment planning which the architect must avoid if he wishes his building to be a financial success. One is the growing tendency to provide very large rooms, a tendency which, in some cases, passes all economic necessity and wastes space which might be better utilized. The other is the complete acceptance of the builder's desire to include a certain number of rooms in a building. If a building is so standardized and commercialized that each floor must have a given number of apartments, regardless of the number of baths, closets or maids' rooms, the result is a number of unrentable suites and an unsatisfactory yearly return to the builder on his investment.



Sutton Place

CRITICISM OF APARTMENT ARCHITECTURE

A CRITICISM AND A PROPHECY

TO justly criticize American apartment houses one must consider the many sides of the problem. First there is the fact that, like the office building, the apartment house is, strictly speaking, a commercial proposition. To bring in a reasonable return on the money invested is the end to be sought in any apartment house project. Therefore, the all-essential factor is an economical, convenient, well arranged plan. Architects most surely have accomplished this during the past 20 years of intensive apartment house construction. Today there is no excuse for any architect's designing a poorly planned apartment house. The plans of countless successful buildings of this very specialized type and purpose are available for his information and inspiration. Architects have reduced to a formula the problem of planning a successful apartment house. The most difficult problem is that of the coöperative apartment, to fit together in a given amount of space the varying plans of the different privately owned apartments. To plan successfully such de luxe coöperative apartments is an architectural problem of the first magnitude,—buildings in which one-, two- and even three-story apartments have to be dove-tailed together.

Second, and of real importance because of its effect upon the public and the environment, is the exterior design of the apartment house. Subconsciously, architecture affects and moulds public artistic taste more than does any of the other arts. In apartment house design for the past 25 years there has been little or no change. Based upon an unsuccessful and unsatisfactory attempt to impose one or another of the traditional styles upon the exposed facades of these great and small rectangular boxes, the result has been dry, monotonous and uninspiring. Superimposed orders, elongated to fit several stories; classic cornices and string courses, horizontally dividing towering wall surfaces into layers of varying width, have characterized the designs. Great masonry cakes of thick and thin layers, always topped off with a generous, overhanging frosting in the shape of a colossal classic cornice, with or without a supporting frieze, are found everywhere. As in the design of the office building, so also in the design of the apartment house, its commercial sister, the advent of steel with its possibilities of limitless height found the American architect unprepared and uninspired. His training in traditional styles unfitted him for the novel and tremendous task of creating multi-storied structures.

Evolution in architectural design has made tremendous and encouraging progress during the past five years. The fetters of traditional adherence are fast falling away. Architectural design is entering upon a period of the greatest potentialities. With imagination and inspiration untrammelled and unimpeded by traditional prejudice, may not the architect of today and tomorrow achieve a new and genuine style expressive of, and appropriate to, the great new architectural problems which this scientific and commercial age has imposed upon architecture, the greatest of the creative arts?

FAILURES AND THE CAUSES

IT is evident, after a study of the exteriors of American apartment buildings in their architectural aspect, that the architect has failed to develop an appropriate design for the multiple-dwelling building. Again, there are two reasons for this obvious failure,—lack of rational appraisal of the problem, and the effect of speculative builder ownership.

The transition from the one-family to the multiple-family dwelling has altered many of the old social and family customs. Notwithstanding these radical changes, there has persisted a belief that the exterior and interior characteristic of the one-family dwelling should be incorporated in the apartment building. The architect has failed to appreciate the fact that an entirely new kind of design was required for an entirely new type of residence. What is the result? We find an attempt to apply the traditional features of the one-family dwelling or the palace to the multiple dwelling, regardless of its number of stories, shape, bulk, location and the altered sociological condition of the family. The apartment building is essentially a residential structure, but it is of such a specialized character that it requires a specialized treatment of its architectural design. Acknowledging the force of the tenant's preferences for certain architectural effects, it should be as easy to exploit the tenant's herd instinct in favor of the good as for the mediocre.

It was and is well within the architect's province to evolve and establish certain distinctive and appropriate modes and limitations for the design of this type of building. The method actually employed was to attach to the elevations and lobbies, with incomprehensible naïvete, fragments of one historical style or another, entirely disregarding the fact that these styles were developed exclusively for dwellings or palaces

of from one to four or five stories in height. The result is a lack of unity and clarity of design, involving a disproportion of inappropriate parts,—it could not be otherwise. The application of the traditional styles to the office building resulted in architectural mistakes that are now definitely recognized, and corrective measures are being employed by architects who understand function and character. The same process of intelligent thought must be used for the development of appropriate apartment house design.

By and large, the American apartment house in its architectural design is decidedly disappointing, especially when we realize the great importance of this type of building and the tremendous financial investments that it represents. Perhaps there is an extenuating circumstance applicable to the architect. It has been the policy of the ownership to concentrate on the rentable plan which is successfully developed. The architectural design is considered as secondary. If a building possessed pronounced renting qualities, however mediocre its architectural design, it was reproduced by the same or other owners because of the same herd instinct that characterizes the tenant.

In the opinion of the owner, the architect's only function is to produce a plan, with an elevation that is rentable and also acceptable to the building departments. Too often the owner resorts to the use of "free engineering" services provided by the various subcontractors. The architect is paid an inadequate remuneration which does not permit him to give a sufficient amount of his own time or to employ competent designers. It is a case of procuring the most, not the best, for the least money.

There are notable examples of appropriately designed apartment buildings found in every section of the country. They are the products of an understanding, cultured and appreciative ownership and of architects who have been adequately remunerated so as to enable them to render complete architectural service of the highest quality. A general improvement and eventual attainment of fine architectural designing of apartment buildings may result from the same causes that have produced the noticeable present-day improvement in office building design: greater competition for tenants; a more intelligent and cultured ownership; and, adequate remuneration for architects; more careful discrimination on the part of bankers in making loans.

The cooperative apartment building is a radical development in that the occupants are owners instead of tenants. An owner is more interested in the quality of the home than is a tenant and, perhaps, possesses more discrimination and knowledge. Owners of this type, at least, can

afford to employ competent and adequately paid architectural service. The cooperative apartment building, because of its increasing excellence, may force an improvement in the architectural design of the tenant-occupied apartment building.

JUSTIFICATION

WHILE there are many architects who deplore the "poor architecture" of the usual apartment house, it can hardly be denied that the buildings as we see them are an expression of American taste and American custom. We know this because it has been tested and is being tested every day by renting agents. The public is given what experience shows it wants enough to pay for. If the taste in the city is raised to a level at which it thinks it appreciates the charm of old English houses, this is soon reflected by fake "half-timber" and meaningless gables applied to the apartment exterior. A building in one so-called style which rents successfully will be copied by the next speculative builder in the vicinity. The taste expressed is not necessarily the taste which would be shown in answer to a questionnaire, and yet it is the taste which the American public is backing up with its dollars and cents.

Until recently practically all the apartment houses were of a speculative nature. The cooperative apartment has to some extent changed this, and many architects of outstanding ability have designed buildings in this field. Those who are thinking of architecture as dealing with either beauty or function, or both, must certainly deplore the paucity of imagination or anything simulating real design in all apartment buildings (with but few notable exceptions), from the long, monotonous Florentine fronts on Park Avenue to the pseudo half-timber and semi-Spanish of the cheap "rows." Yet they are all expressions of taste. The tenant of the de luxe apartment feels that his home is in good taste if there is enough Italian detail and a few car-touches. Whether or not the detail is well placed or whether it is a mere arbitrary collection of ornament and motif makes no difference to him, and therefore makes no difference to the renting agent, and consequently to the architect who must turn out his drawings in the shortest possible time.

The architect is usually receiving too small a fee to justify a thorough study of the problem, so the plan is given the benefit of some cumulative renting experience (if not scientific analysis), and the exterior is ornamented rather than made an integral part of the design. Until architects can demonstrate the money value of plan analysis and studied design throughout, we can hardly hope for better apartment architecture.

THE NEW MULTIPLE DWELLING LAW OF NEW YORK

BY

ARTHUR GROSS

OF SCHWARTZ & GROSS, ARCHITECTS

IN commenting on the new Multiple Dwelling Law of New York, it is well to consider conditions which brought about its passage. Previous to 1909, tenements, as occupied in New York, were real tenements (as generally understood by the word); that is, such accommodations were the most crowded and unsanitary. The building code covered these buildings so far as construction was concerned, and the Health Department had sanitary regulations, but all in all these laws produced most unsatisfactory results. The present New York slums are largely the result of the insufficient regulation of these tenements.

In the year 1909 the Tenement House Law was passed, and from that time on the tenement house took on a different aspect. While there had been

a few good "apartments" built before that time, they were a negligible number, but following this change in the law the advantages of well planned and well constructed tenements became evident. The change from the private dwelling to the multiple-family dwelling was brought about mainly through domestic and economic necessities, and before long we found the finest private homes abandoned for the most luxurious "tenements," as they were then classified.

During the latter years of the existence of the Tenement House Law there sprang up another form of multiple-family dwelling, the apartment hotel, commonly known as the "bootleg hotel." These hotels supplied housing in most cases of the best and most expensive character, but they did not fit the classification of the Tenement House



Wurts Bros.

888 Park Avenue, New York
Schwartz & Gross, Architects



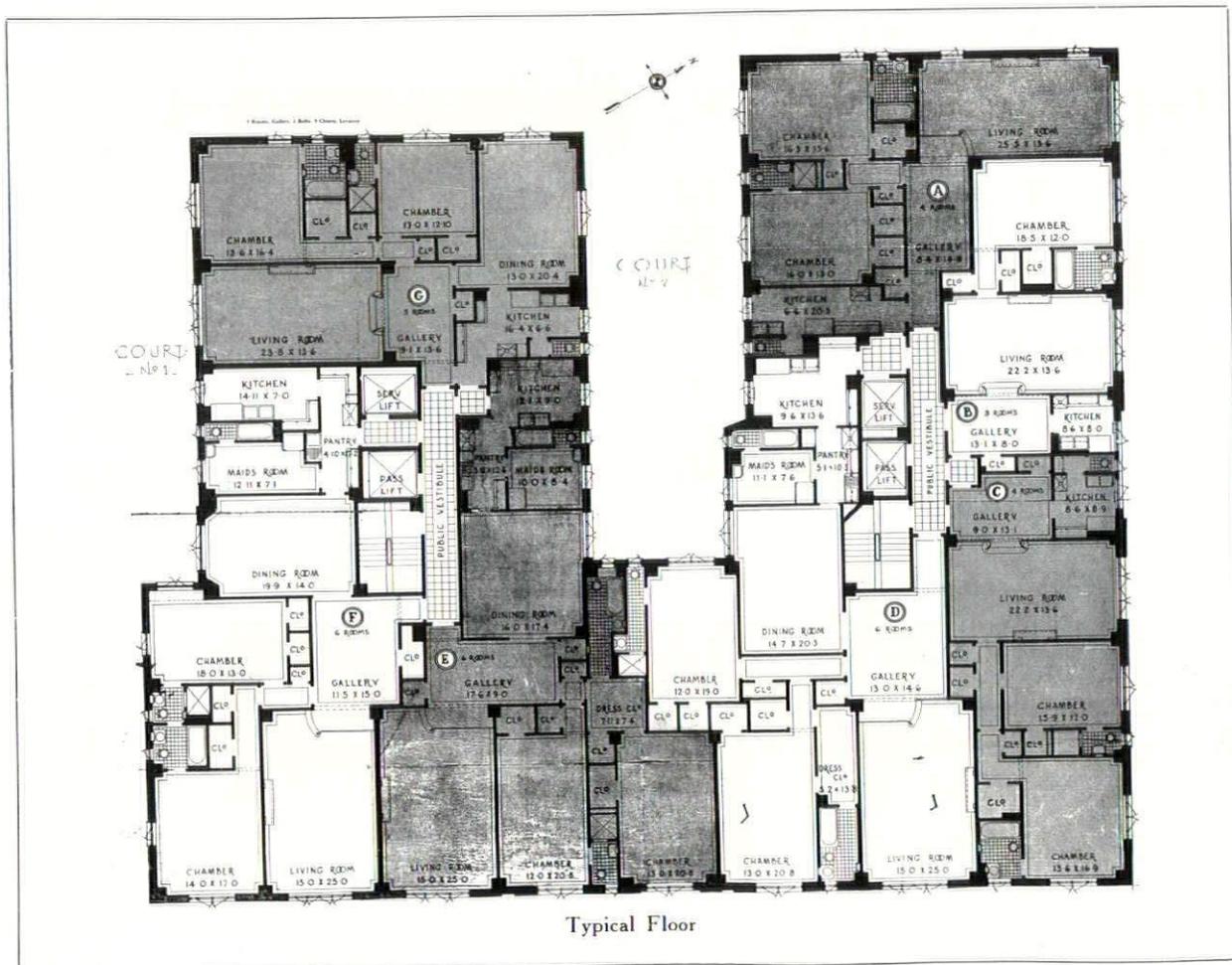
Wurts Bros.

885 Park Avenue, New York
Schwartz & Gross, Architects

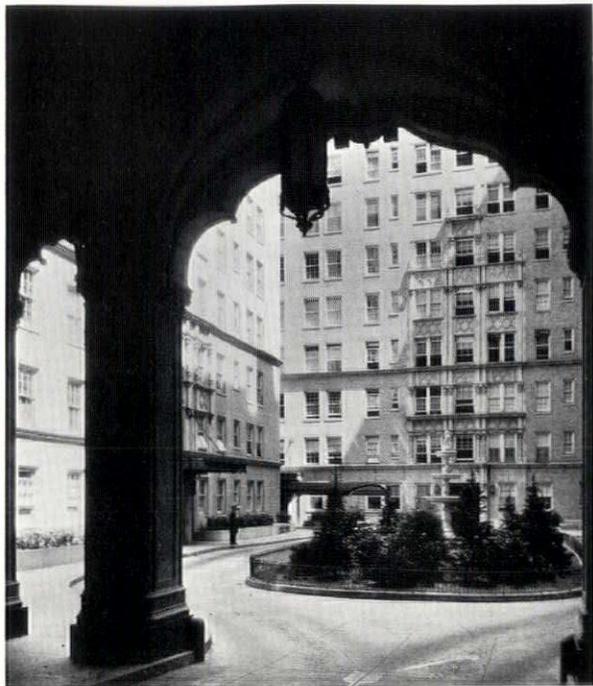


S. W. Cor. 66th St. and Central Park West
Schwartz & Gross, Architects

Law. Many families of means who had country homes, who traveled a great deal, or who did not want to be bothered with the details of house-keeping, moved into these hotels, furnished their own apartments, did occasional cooking in the small serving pantries provided for the purpose, or took their meals in the restaurants within or outside the buildings. The Tenement House Law defined a tenement house "as the home or residence of three families or more, living independently of each other, and doing their cooking upon the premises." Since these people did not live independently of one another and did not do their cooking on the premises, but generally used the restaurants in the houses, these buildings were permitted, although recently the courts decided they were not within the law. These houses were built according to the local Zoning Law and were carried to a greater height, with smaller-sized yards and courts than tenement houses, so that where these buildings were built within a residence district much damage was done to the light and ventilation of adjoining tenements.



Typical Floor

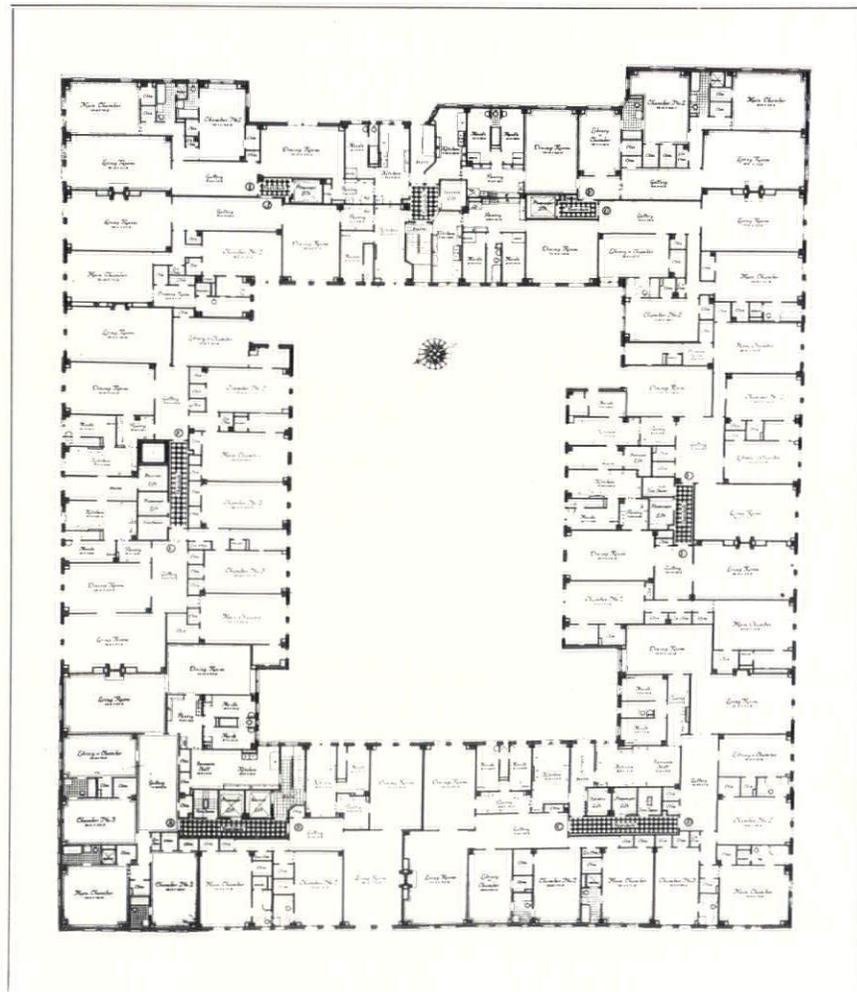


Van Anda



Van Anda

(Upper Left) Interior Court and Driveway. (Upper Right) Perspective View of Park Avenue. (Right) Typical Floor Plan



1185 Park Avenue, New York
Schwartz & Gross, Architects



101 Central Park West, New York
Schwartz & Gross, Architects

After considerable agitation over a period of years, this matter was brought to a head in the legislature where finally the new Multiple Dwelling Law was passed which put these buildings within the scope of the Dwelling House Law. There were several points where these buildings had the advantage of the tenements, but the new Multiple Dwelling Law practically eliminates these and puts both the tenement and the hotel, that is, Class A (Tenements and Apartment Hotels) and Class B (Transient Hotels) Multiple Dwelling, on an equal footing as far as yards, courts, exits and most of the details are concerned, the one exception being that where a transient hotel is erected in a business block, the height and bulk are governed by the local Zoning Law and not by the Multiple Dwelling Law. If it were not for this exception it would hardly be possible (for commercial reasons) to erect a transient hotel on expensive land in the down town business districts of New York, as the limitation of bulk is too severe.

Comparing the Dwelling Law with the Tenement House Law, we find the changes in non-fireproof houses have not been very radical. Yards and courts generally have been increased, and stair requirements have been changed to comply with the number of rooms instead of the number of families, which somewhat eases the situation where many small apartments are built. The greater change has occurred in tall fireproof structures, and for a very good comparison I will cite two buildings planned by my firm, one completed last year under the Tenement Law and the other completed this year under the Multiple Dwelling Law located within a short distance of each other, and built for the same owners, and where the general requirements are about the same.

	69th Street & Central Park W. 15-Story Tenement House Law Plan	66th Street & Central Park W. 18-Story Multiple Dwelling Law Plan
Area of plot.....	16,052 sq. ft.	16,678 sq. ft.
Total cubic contents..	2,204,200 cu. ft.	2,395,800 cu. ft.
Number of rooms....	514	576
Number of apartments	91	116
Average net room size	219.5 sq. ft.	226.2 sq. ft.

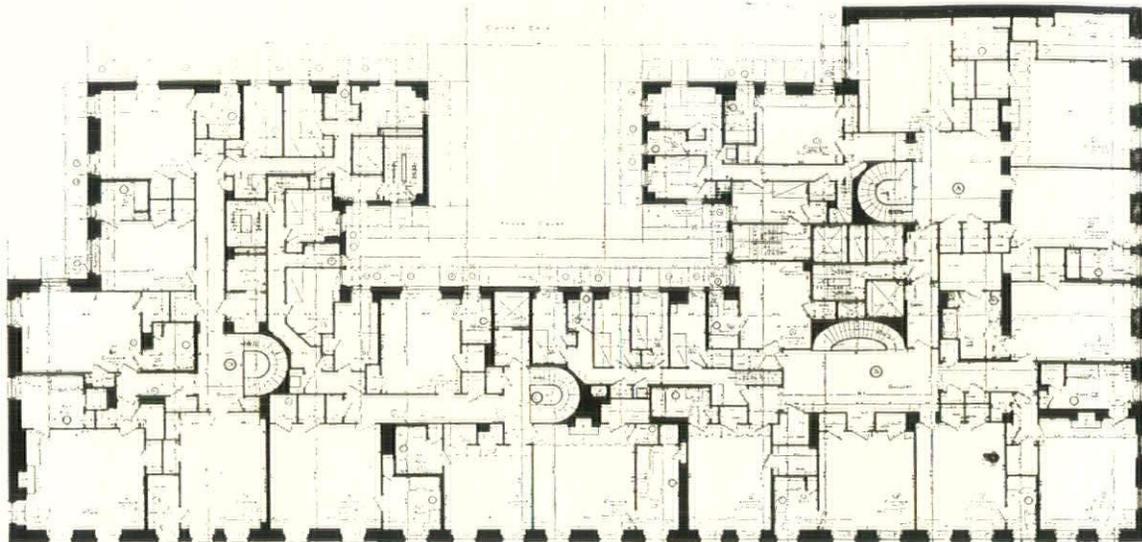
We find on the Tenement House Law plan the average coverage of lot from the first to the 15th floor is 77.9 per cent with a 40.3 per cent area in a pent house, giving an average of 75.5 per cent. We find on the Dwelling Law plan that the coverage from the first to the ninth floor is 75.2 per cent and then varies to 52.2 per cent on the 18th floor with 36.1 per cent for the pent house, making an average coverage of 68.2 per cent. The greater number of stories and economies in lighting the stair halls and public halls more than make up for the decrease in area per floor to allow for the greater number of rooms noted here. The rear and court walls of the building run up straight to the ninth floor, and above this floor the walls are set back in two-story units; the front walls run straight to the 15th floor and are similarly set back above the 15th floor in two-story units. The other Dwelling Law houses planned by our firm have shown rather small variation in the average coverage of lot, varying from 67.4 per cent to 72.2 per cent, the greater coverage being for the larger plots. I should say on a 60-foot street, inside lots less than 75 feet wide would be uneconomical, and on a 100-foot street inside lots of less than 100-foot frontage would be uneconomical if the house is built to the maximum allowed by law, one and three-quarters times width of street plus a 12-foot pent house. Corner lots, of course, can be somewhat smaller, but the small size lot suffers considerably through the Dwelling Law.

To the architect who is not familiar with the working of our New York laws governing multiple dwellings, some of the details of the plan may seem curious; in fact he may even say that they are clumsily planned, but when he has waded through our many laws governing these buildings he will understand the difficulties and the many "tricks" necessary to produce a livable and commercially successful multiple dwelling. I may give the reader some idea of this condition when I say that in order to build a multiple dwelling in New York it is generally necessary to secure 15 or 20 permits from many departments having jurisdiction. Add to this the requirements of economy of space, construction, and materials demanded by the builder, and some idea may be formed of the difficulties of the architect in designing and executing this highly commercial type of architecture.

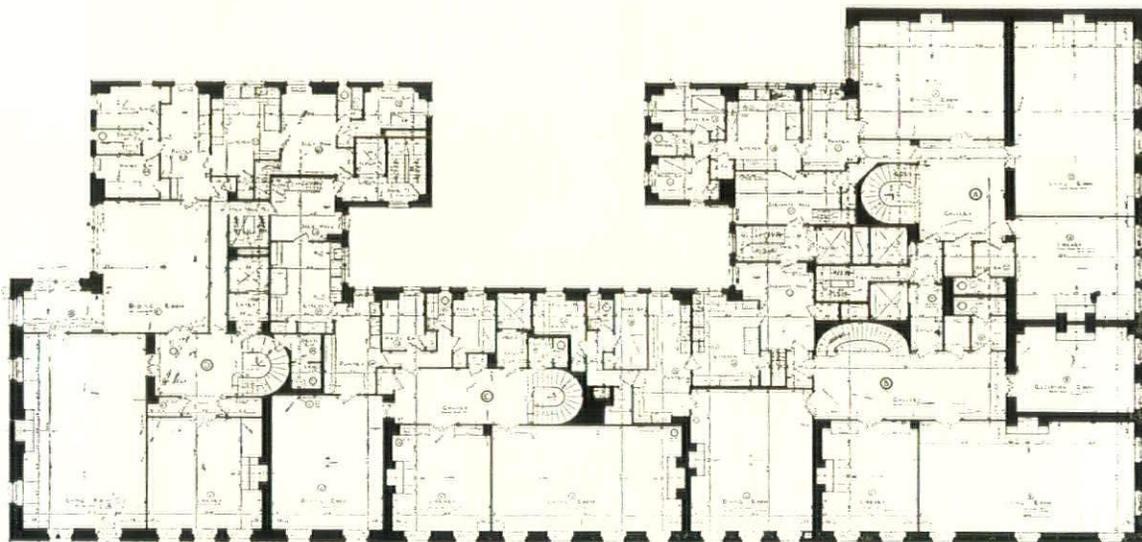
RECENT APARTMENT HOUSES IN NEW YORK



740 PARK AVENUE, NEW YORK.
ROSARIO CANDELA AND ARTHUR
LOOMIS HARMON, ARCHITECTS



5TH AND 7TH FLOORS



4TH AND 6TH FLOORS

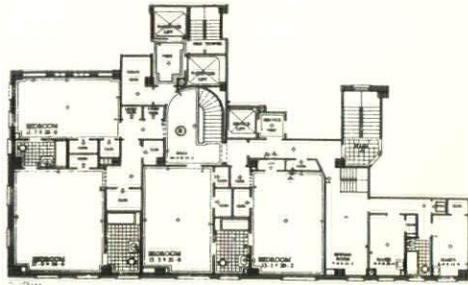
PRACTICALLY all of the apartments are duplex, with sizeable and well proportioned rooms, unusually well arranged for convenience and comfort. From the accompanying architects' sketch of the exterior, there is evident a conservative expression of contemporary freedom in architectural design. String and belt courses are used to delimit the principal parts of the facade, and

not at all in a classical or traditional manner. The setbacks above the twelfth story suggest the varied arrangement of the several large and important apartments occupying the upper stories of the building. In these setbacks there is a pleasing variation in the size and arrangement of the various windows opening on the small garden terraces made possible by the different setbacks.

740 PARK AVENUE, NEW YORK.
 ROSARIO CANDELA AND ARTHUR
 LOOMIS HARMON, ARCHITECTS



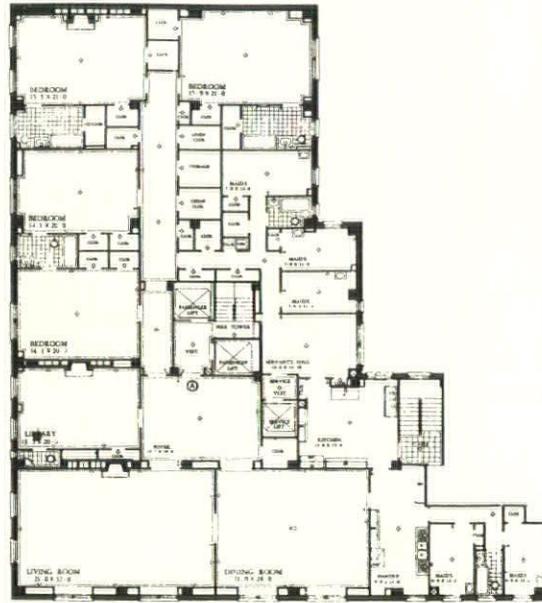
730 PARK AVENUE, NEW YORK.
F. BURRALL HOFFMAN, JR. AND
LAFAYETTE A. GOLDSTONE, ARCHITECTS



UPPER FLOOR OF DUPLEX
4TH, 6TH AND 8TH FLOORS



LOWER FLOOR OF DUPLEX
3RD, 5TH AND 7TH FLOORS



TYPICAL APARTMENT
9TH, 11TH AND 13TH FLOORS

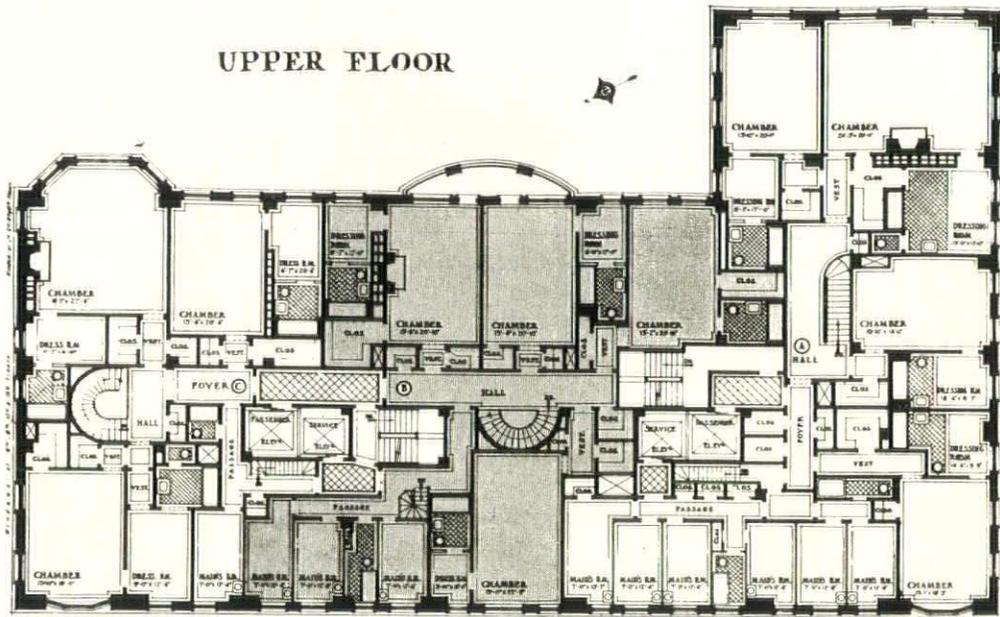
THE exterior design shows a legitimate simplicity appropriate to a building erected as an investment proposition. Above a two-story stone basement, the next eleven stories show a plain brick wall surface broken by windows, some of which differ in size and arrangement. This variation in the windows gives a pleasing character to the design and obviates the usual monotony of window arrangement and size found in most apartment-house designs. Above the thirteenth story the setbacks, with the exception of the five-story gables which serve as finials to the street facade, are varied in size and design, piling up one above the other in picturesque irregularity. It is evident from this design that the Dwelling Act is bringing about as great a change in the exterior design of apartment houses as the Zoning Law of several years ago produced in the architectural appearance of office buildings. These two New York laws which are exercising such tremendous effect upon office building and apartment house design in New York, are already being adopted either as a whole or in part in many of the other large cities in this country. So the result during the next few years may presage consistent architectural development throughout the entire United States.

730 PARK AVENUE, NEW YORK.
F. BURRALL HOFFMAN, JR. AND
LAFAYETTE A. GOLDSTONE, ARCHITECTS



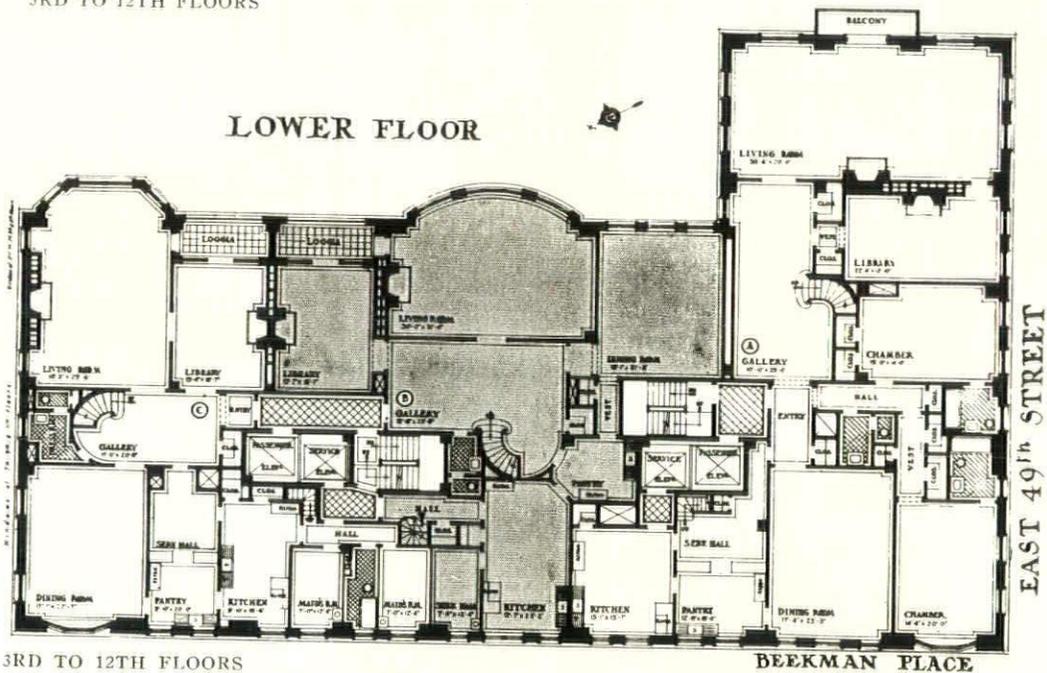
ONE BEEKMAN PLACE, NEW YORK.
SLOAN & ROBERTSON, ARCHITECTS

UPPER FLOOR



3RD TO 12TH FLOORS

LOWER FLOOR



3RD TO 12TH FLOORS

BEEKMAN PLACE

EAST 49th STREET

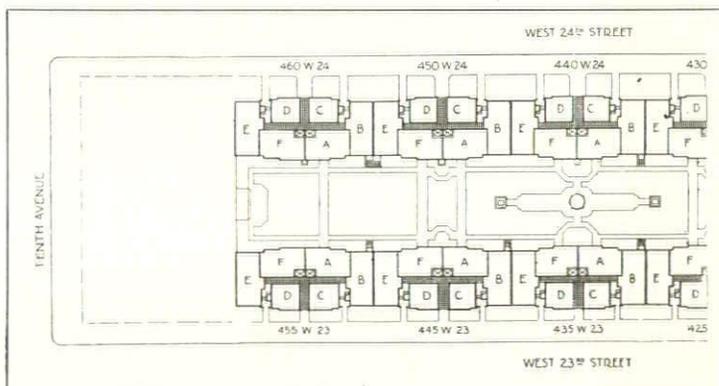
IT is hardly fair to criticize the design of any building from preliminary sketches because almost always the completed building varies considerably in design from the architect's early conception. However, this sketch quite accurately suggests the appearance of the building as it will look when completed. In this design there is a pleasing simplicity. The size and the grouping of the windows break the plain wall surfaces in a balanced arrangement. In the treatment of the entrance door and the two stories above it, as well as of the façade of the upper setbacks, a simple decorative treatment has been carried out, obviating any possible monotony. The typical floor plans of the three duplex apartments show the principal living rooms are overhanging the East River.

ONE BEEKMAN PLACE, NEW YORK.
SLOAN & ROBERTSON, ARCHITECTS



Van Anda

LONDON TERRACE,
NEW YORK. FARRAR &
WATMOUGH, ARCHITECTS



AS these buildings were designed and accepted by the Building Department before the Multiple Dwelling Act went into effect, no setbacks above the twelfth story were required. Therefore, sixteen stories rise formidably from the building line. It seems unfortunate that the famous London Terrace of old times should be replaced by a group of apartment houses in which financial return has necessitated the erection of such tremendous buildings, suggesting in no way the quiet charm and dignified refinement of the Greek Revival style which distinguished the original London Terrace. It might have been an interesting and successful experiment to design this great unbroken group of apartment houses in a style suggestive of the Neo-Grec period in American architecture.

COST AND CONSTRUCTION DATA

Date of Completion: 10 units, Summer 1930; Avenue buildings, early 1931.

Total Number of Apartments: 1671.

Total Number of Apartments per Floor: 106 typical.

Total Number of Rooms per Apartment: 1-8.

Structural Frame: Steel.

Structural Floor System: Cinder concrete with mesh reinforcing.

Heating: Vapor vacuum.

Ventilating: Mechanical.

Elevators: 28 passenger, 2 service.

Lighting: Rigid conduit.

Plumbing: Soil pipe, cast iron, brass hot and cold.

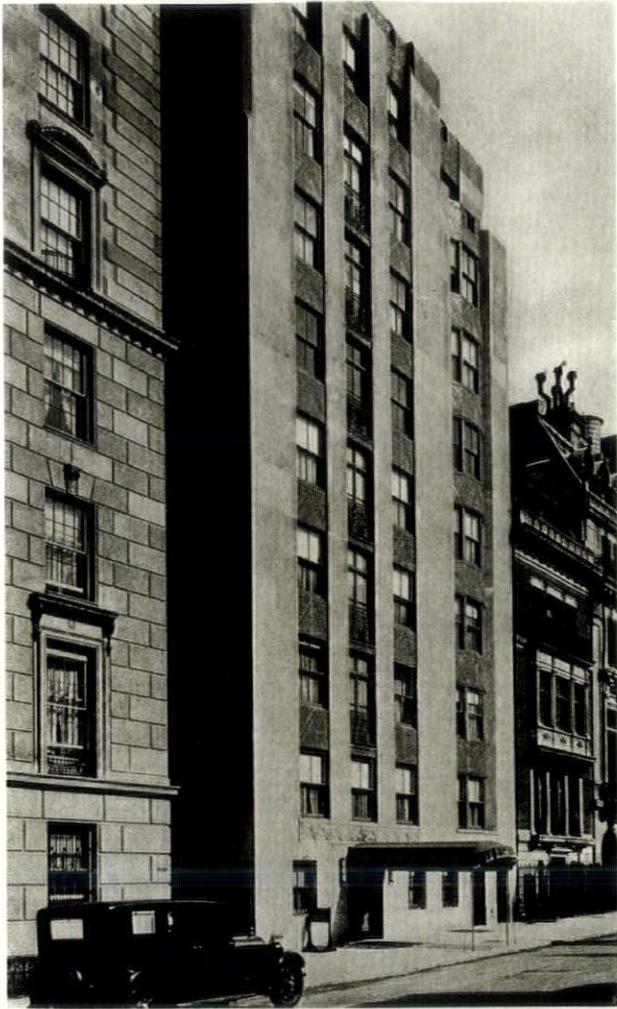
Windows: Steel casements.

Trim: Metal.

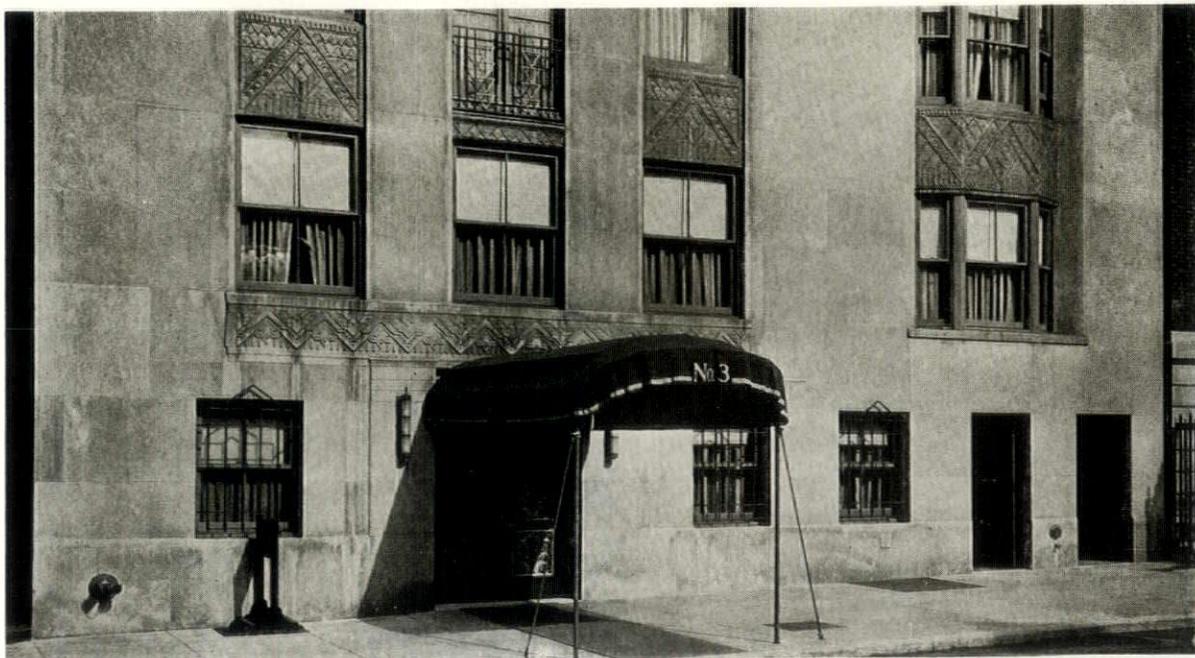
Cubical Contents: 16,821,000 ft.

Total Cost: Valuation, \$20,000,000.

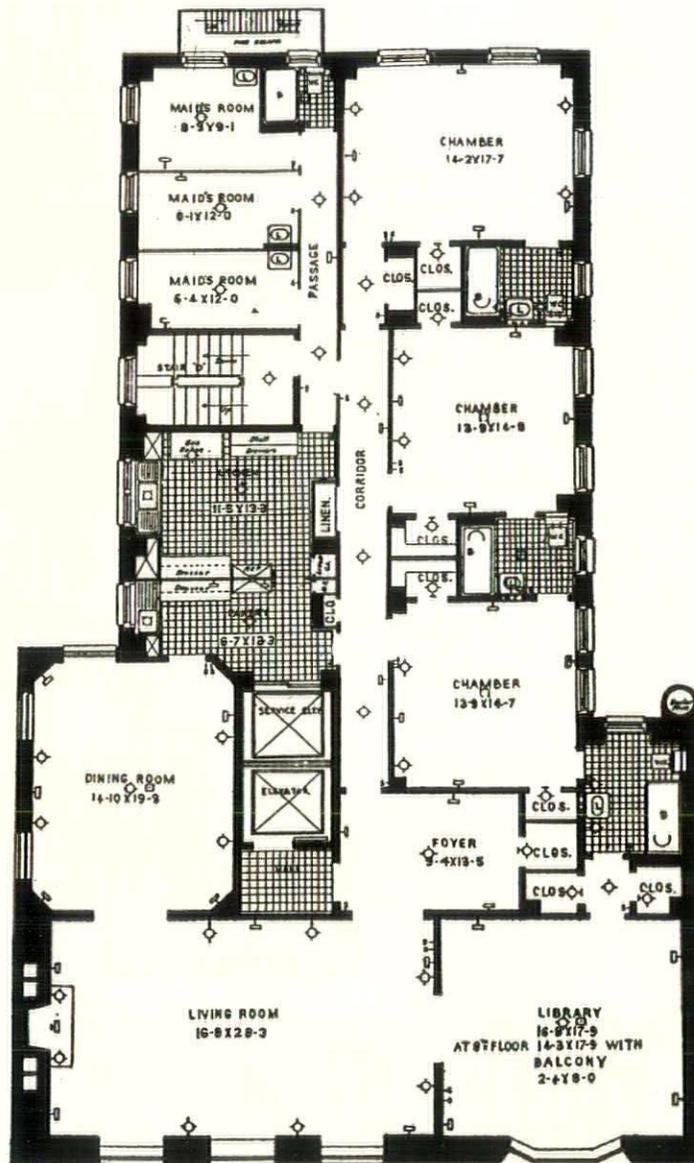
LONDON TERRACE, NEW YORK.
FARRAR & WATMOUGH, ARCHITECTS



3 EAST 84TH STREET, NEW YORK.
JOHN M. HOWELLS—RAYMOND M.
HOOD, ASSOCIATED, ARCHITECTS



Gottscho

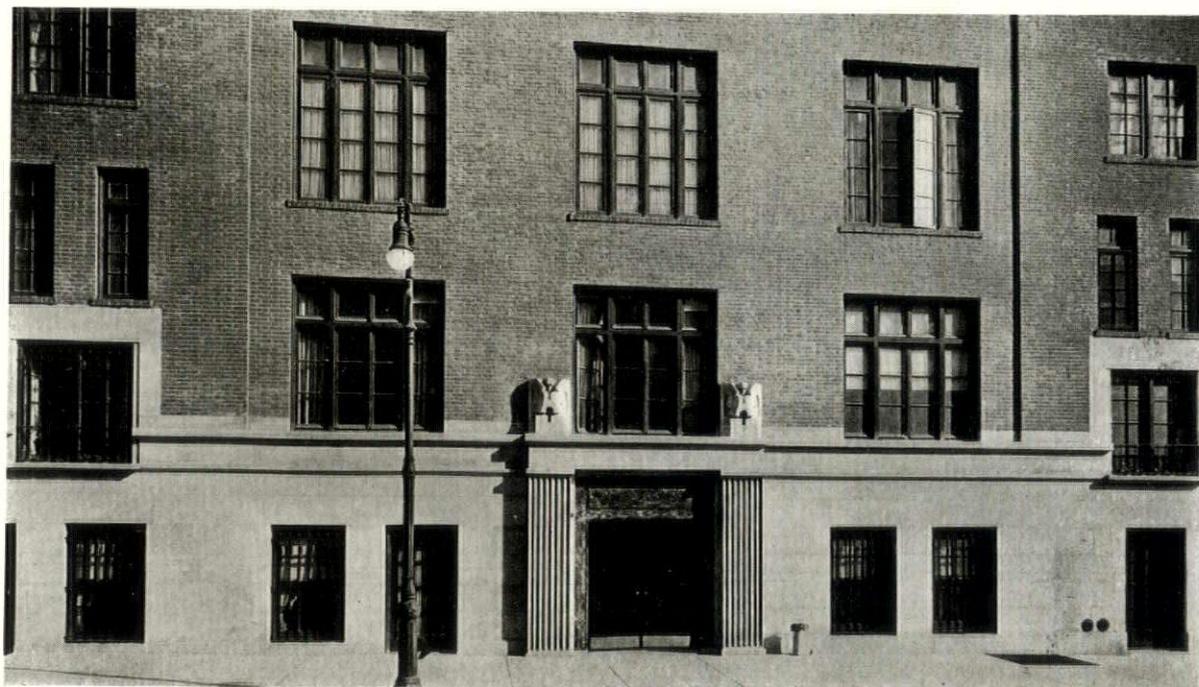


TYPICAL FLOOR

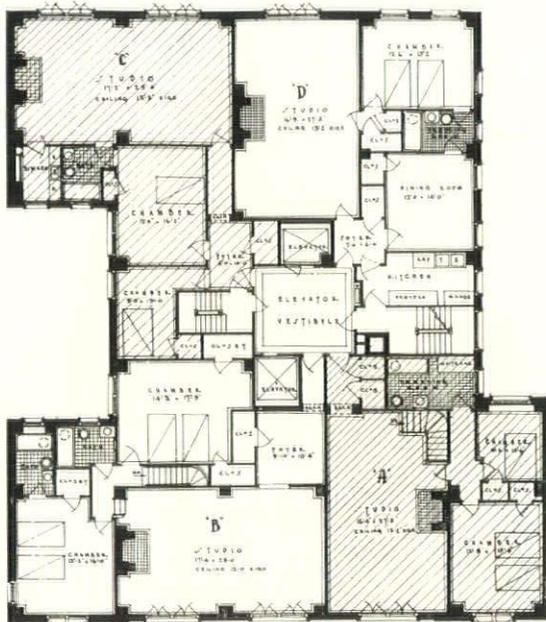
FOR a small apartment house on a side street this building is pleasingly simple and straightforward in design. What little architectural decoration there is has been used in the spandrels below the windows. These have a geometrical design typical of the contemporary style. The accompanying plan shows a typical one floor apartment layout. The arrangement and location of the various rooms could hardly be improved upon. The location of the kitchen and pantry in relation to the service elevator floor and service stairs is excellent. One of the most difficult problems in laying out a one floor apartment is the proper location of the service end of the establishment.

3 EAST 84TH STREET, NEW YORK.
 JOHN M. HOWELLS—RAYMOND M. HOOD,
 ASSOCIATED ARCHITECTS

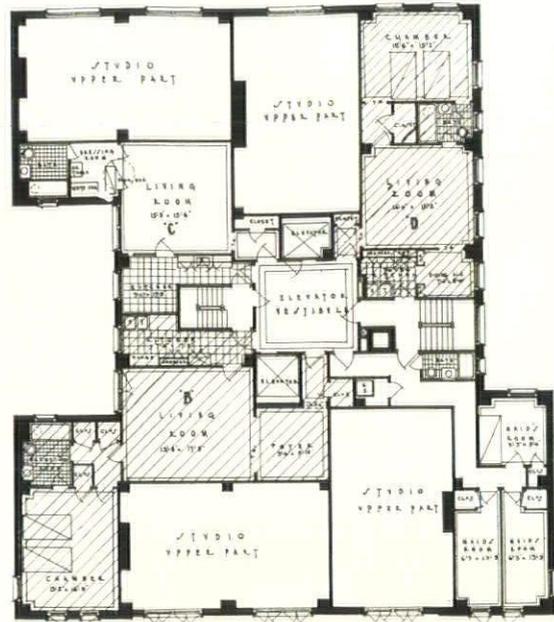
169 EAST 78TH STREET, NEW YORK.
ROBERT P. RODGERS AND
ALFRED E. POOR, ARCHITECTS



Gottscho



SECOND FLOOR



THIRD AND SIXTH FLOORS

COST AND CONSTRUCTION DATA

Date of Completion: September, 1928.
 Total Number of Apartments: 35
 Total Number of Apartments Per Floor:
 Varies.
 Total Number of Rooms Per Apartment: 1,
 9-room; 1, 8-room; 16, 3-room; 3, 2-room;
 3, 6-room; 10, 4-room.
 Structural Frame: Steel.
 Structural Floor System: Concrete floor slab.
 Studio floors soundproofed.
 Heating: Steam.
 Lighting: Direct electric from side brackets.
 Radiators: Concealed in studios.
 Plumbing: Showers over bathtubs.
 Windows: Wood casement.
 Trim: Steel.
 Cubical Contents: 603,271 cu. ft.
 Cubic Foot Cost: 85 cents.
 Total Cost: \$518,525.36.

JUSTIFIABLE simplicity marks the design of this recently completed studio apartment house. Although this building occupies a plot of land almost equal in size to the apartment house by the same architects across the street, it is smaller on account of grouping together the three large windows of the studios on each floor. The small windows at each side, alternating in size and shape, give the effect of balancing piers, which break up the facade in a successful manner. The low studded bedrooms and dining rooms are cleverly dove-tailed in with the high-studded studios. There are four studio apartments on each of the six principal floors, the arrangement of which shows ingenious and thoughtful planning.

169 EAST 78TH STREET, NEW YORK.
 ROBERT P. RODGERS AND
 ALFRED E. POOR, ARCHITECTS

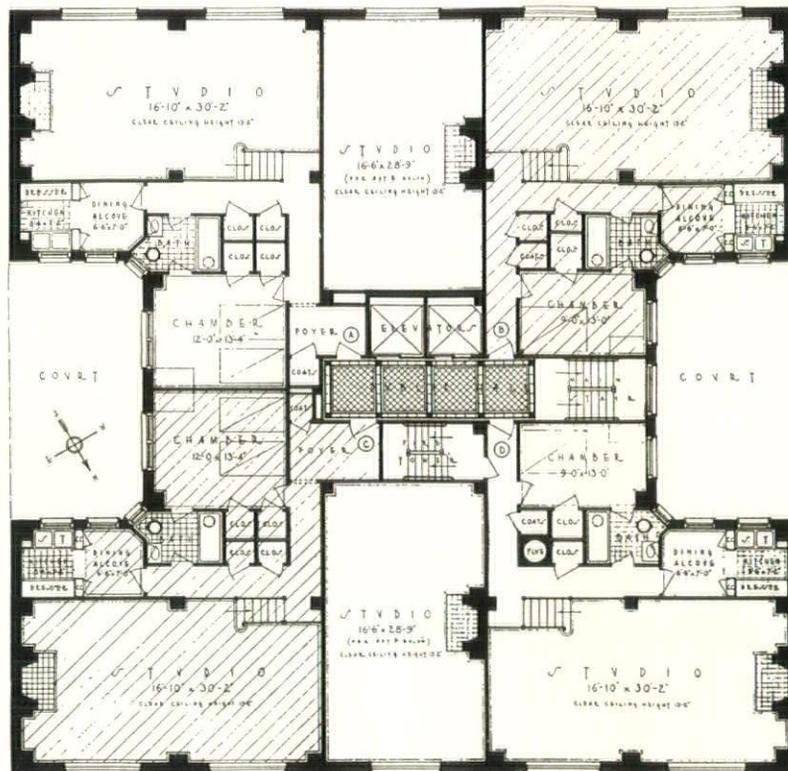


Gillie



Gottscho

170 EAST 78TH STREET, NEW YORK.
ROBERT P. RODGERS AND
ALFRED E. POOR, ARCHITECTS



THIRD FLOOR

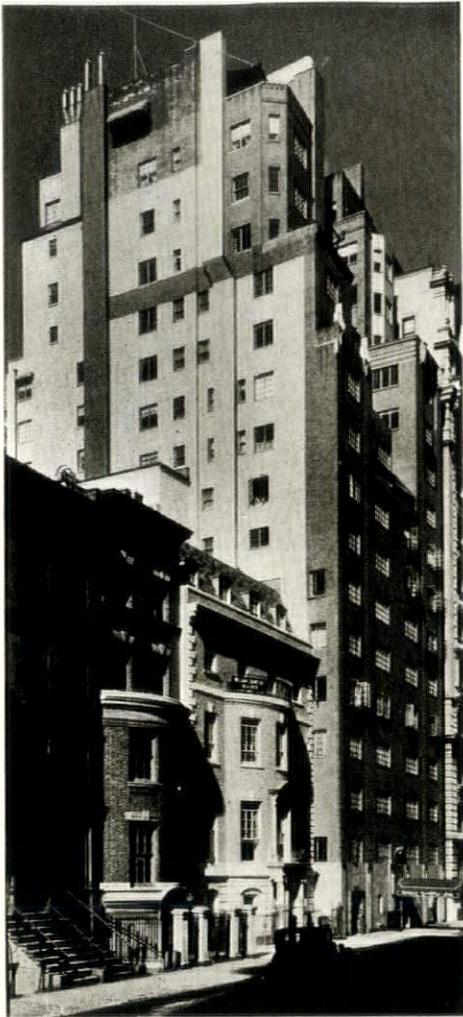
COST AND CONSTRUCTION DATA

Date of Completion: December, 1927.
 Total Number of Apartments: 33.
 Total Number of Apartments per Floor:
 Varies as some are duplex, others simplex.
 Total Number of Rooms per Apartment: 2,
 9-room; 1, 8-room; 2, 6-room; 6, 5-room; 7,
 4-room; 15, 3-room.
 Structural Frame: Steel.
 Structural Floor System: Concrete floor slab.
 Studio floors soundproofed.
 Heating: Steam.
 Lighting: Direct electric from side brackets.
 Radiators: Concealed in studios.
 Plumbing: Showers over bathtubs.
 Windows: Steel casement.
 Trim: Steel.
 Cubical Contents: 648,000 ft.
 Cubic Foot Cost: 77 cents.
 Total Cost: \$507,571.06.

CRITICISM

SIMPLICITY bordering on austerity is here evident. The building looks thoroughly practical and utilitarian. All of the wall space possible, between the unbroken brick piers, is occupied by windows equal in width but varying in height. Were it not for the applied Neo-Grec decoration above the entrance motif, and the original iron lamp posts on either side of it, the severity of this design would suggest a loft rather than a studio building. But here again it must be remembered that studio as well as apartment buildings are erected as financial investments, so the minimum of architectural ornamentation and decoration is advisable. In the plan the arrangement of the six studios on each of the six principal floors is excellent. Buildings of this type, where high studded studio rooms are combined with low studded bedrooms and dining rooms, require great ingenuity in successfully and economically fitting together the various parts of the plan.

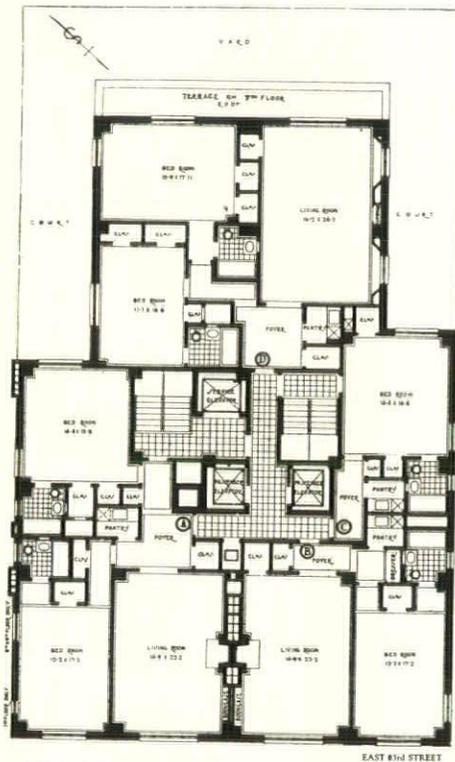
170 EAST 78TH STREET, NEW YORK.
 ROBERT P. RODGERS AND
 ALFRED E. POOR, ARCHITECTS



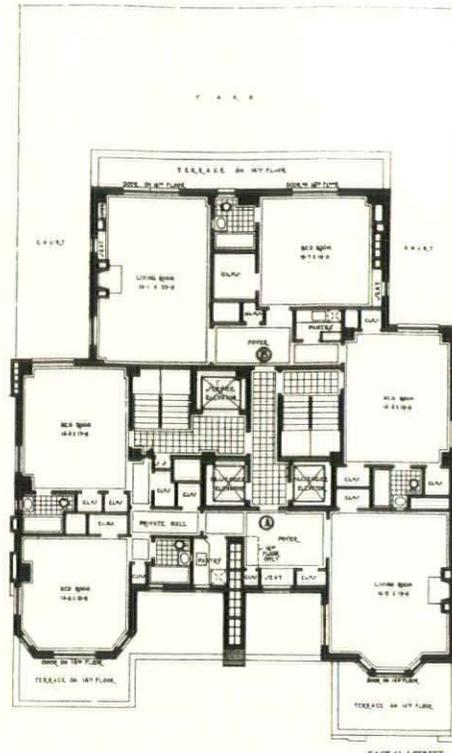
28 EAST 63RD STREET, NEW YORK.
HENRY S. CHURCHILL, ARCHITECT.
HERBERT LIPPMANN, ASSOCIATED



Van Anda



7TH TO 9TH FLOORS



14TH TO 16TH FLOORS

CRITICISM

THIS apartment is unusually interesting and successful in plan and elevation. The apartment was built three years before the Multiple Dwelling Law was enacted. Above the ninth story there are eight stories of setbacks. Each one of the three apartments on each floor has a pantry of sufficient size to permit its use as a kitchenette, a very popular plan feature. The color of the terra cotta and brickwork, as well as the method of laying the brick, gives the design of this building a pleasing individuality. The color of the terra cotta of the basement story contrasts and harmonizes in an artistic and successful manner with the color of the brick walls above. An excellent feature in the design of this building is the unusual width of the openings.

COST AND CONSTRUCTION DATA

- Year of Completion: 1927.
- Total Number of Apartments: 45, 138 rooms.
- Total Number of Apartments per Floor: Varies.
- Total Number of Rooms per Apartment:
Ones, twos, threes, fours, fives, sixes.
- Structural Frame: Steel.
- Structural Floor System: Cinder arch.
- Heating: Steam.
- Elevators: Two passenger, one service.
- Windows: Steel casement.
- Trim: Metal.
- Cubical Contents: About 978,000 ft.
- Cubic Foot Cost: 75 cents.

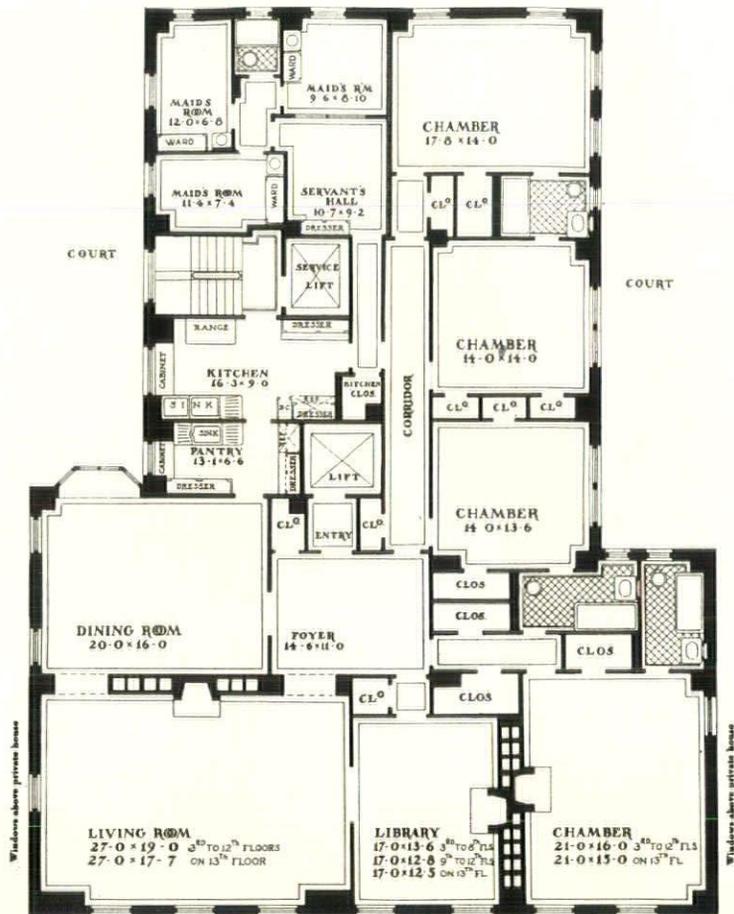
28 EAST 63RD STREET, NEW YORK.
HENRY S. CHURCHILL, ARCHITECT.
HERBERT LIPPMANN, ASSOCIATED

21 EAST 79TH STREET, NEW YORK.
VAN WART & WEIN AND BREED,
FULLER & DICK, ASSOCIATED, ARCHITECTS



Nyholm & Lincoln





TYPICAL FLOOR

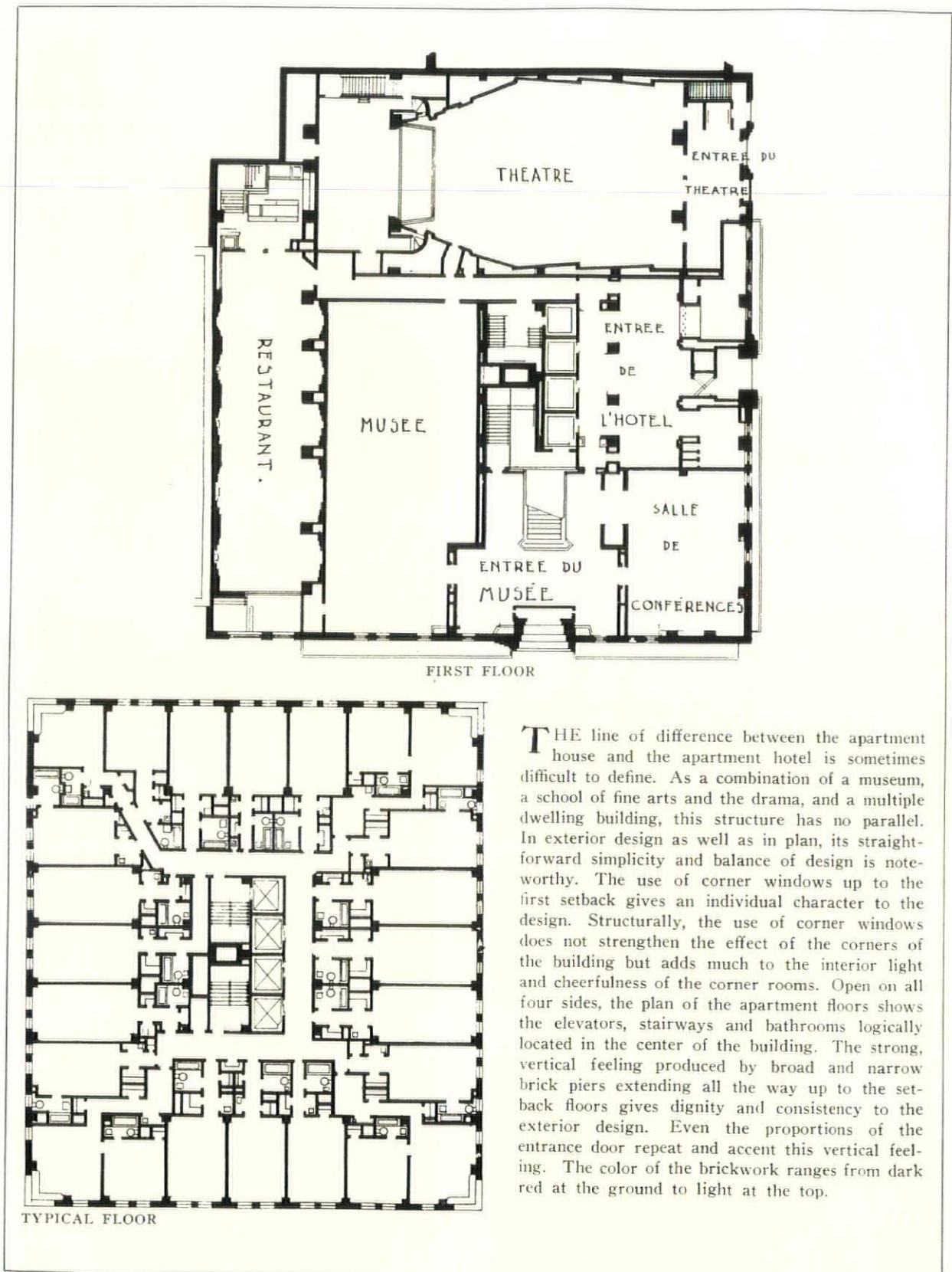
TO find a plain and unadorned façade for a mid-block apartment house is a welcome experience. To give solidity to the base of the building, as well as a little architectural decoration within the visual range of the spectator, black marble and an ornamental entrance door have been used. Freedom and originality in architectural expression is evident. From a careful study of the emphasis of the entrance door and the center window above, it would appear perhaps the heavy enframement of this window too closely crowds upon the windows on each side. The severity of the design as a whole might have permitted the black marble of the basement story to have continued unbroken across the lower part of the façade. A heavy reed moulding acts as a belt course above the third story and at the top of the building. Below is an iron railing of delicate design. This makes a decorative note as the crowning feature. Each of the twelve floors contains a single apartment, one of which is shown in the plan above. The principal rooms are logically located on the front of the building which faces south. The arrangement is compact and convenient with the four bedrooms well shut off from the living part of the apartment, as is also the case with the service end which occupies one corner of the plan. The sizes of the several principal rooms vary according to their importance and their use.

21 EAST 79TH STREET, NEW YORK.
VAN WART & WEIN AND BREED,
FULLER & DICK, ASSOCIATED ARCHITECTS



Palmer Shannon

THE ROERICH MUSEUM, NEW YORK.
HELMLE, CORBETT & HARRISON, ARCHITECTS



THE line of difference between the apartment house and the apartment hotel is sometimes difficult to define. As a combination of a museum, a school of fine arts and the drama, and a multiple dwelling building, this structure has no parallel. In exterior design as well as in plan, its straightforward simplicity and balance of design is noteworthy. The use of corner windows up to the first setback gives an individual character to the design. Structurally, the use of corner windows does not strengthen the effect of the corners of the building but adds much to the interior light and cheerfulness of the corner rooms. Open on all four sides, the plan of the apartment floors shows the elevators, stairways and bathrooms logically located in the center of the building. The strong, vertical feeling produced by broad and narrow brick piers extending all the way up to the setback floors gives dignity and consistency to the exterior design. Even the proportions of the entrance door repeat and accent this vertical feeling. The color of the brickwork ranges from dark red at the ground to light at the top.

ROERICH MUSEUM, NEW YORK.
HELMLE, CORBETT & HARRISON, ARCHITECTS

160 EAST 72ND STREET, NEW YORK.
TAYLOR AND LEVI, ARCHITECTS.
KENNETH M. MURCHISON, CONSULTANT

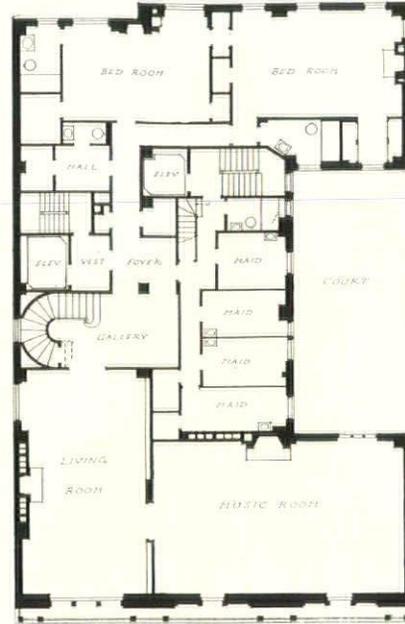


Gottscho

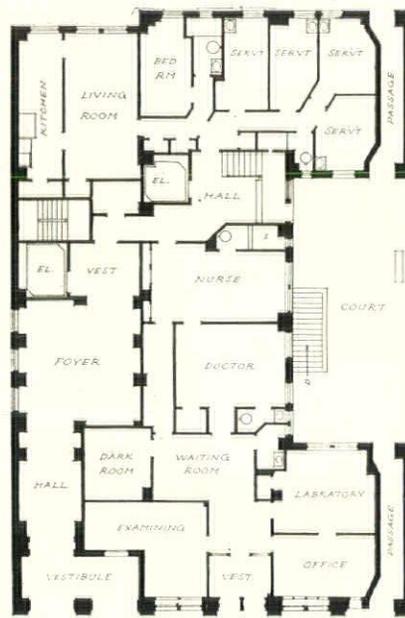




11TH AND 13TH FLOORS



12TH AND 14TH FLOORS



1ST FLOOR

CRITICISM

AN interesting solution of an unusual apartment house problem is found in this mid-block building designed for the occupancy of an individual and some of his friends. The exterior design shows a more informal, although balanced, use of Italian Romanesque detail. Especially in the two lower stories is this expression evidenced. The several floors are laid out as duplex apartments with sizeable rooms for living and entertaining. Each apartment has master bedrooms on the south side of each of the floors. On the top floor are located a squash court, studio, dressing rooms and play room belonging to the owner of the building. There is an individuality in the design of this building which almost places it in the private residential class.

COST AND CONSTRUCTION DATA

Date of Completion: October, 1928.
 Total Number of Apartments: 14 in all; 6, 2 to a floor; 6, 1 to a floor; 1 duplex; 1 triplex.
 Structural Frame: Steel skeleton construction.
 Structural Floor System: Cinder concrete.
 Heating: Modulation vapor system.
 Ventilating: Individual fans in kitchens.
 Elevators: Traction, manually operated.
 Lighting: Direct.

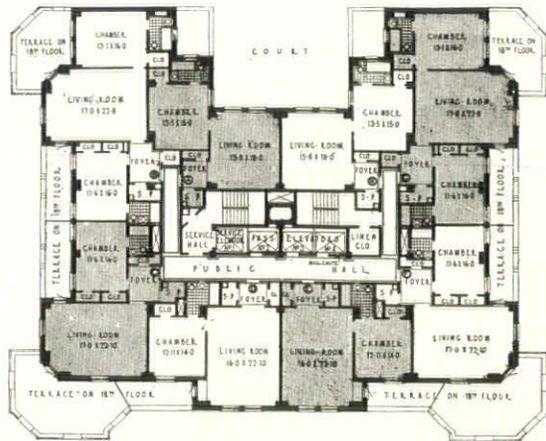
Radiators: Cast iron.
 Plumbing: Brass water pipe.
 Windows: Steel casements entire front and part of rear; double-hung for others.
 Trim: Wood.
 Cubical Contents: 712,500 ft.
 Cubic Foot Cost: 64½ cents.
 Total Cost: \$460,000.

160 EAST 72ND STREET, NEW YORK.
 TAYLOR AND LEVI, ARCHITECTS.
 KENNETH M. MURCHISON, CONSULTANT

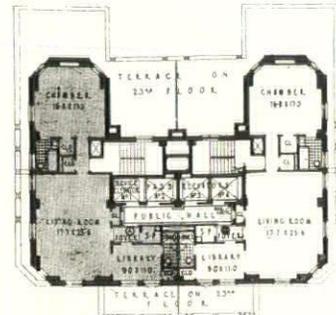


Brown Bros.

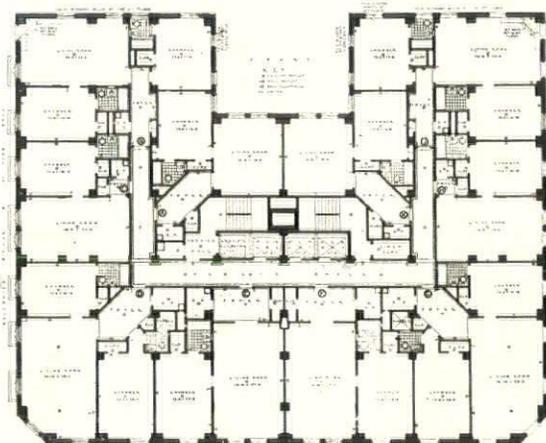
ONE FIFTH AVENUE, NEW YORK.
HELMLE, CORBETT & HARRISON,
SUGARMAN & BERGER, ARCHITECTS



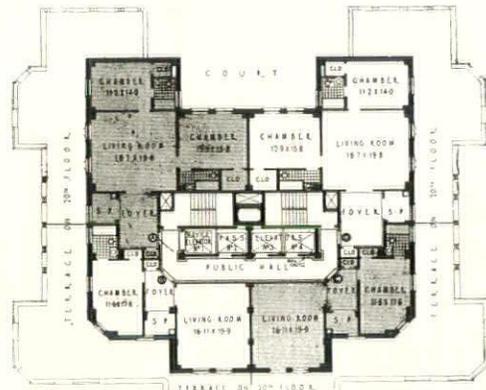
18TH TO 19TH FLOORS



23RD TO 27TH FLOORS



3RD TO 15TH FLOORS



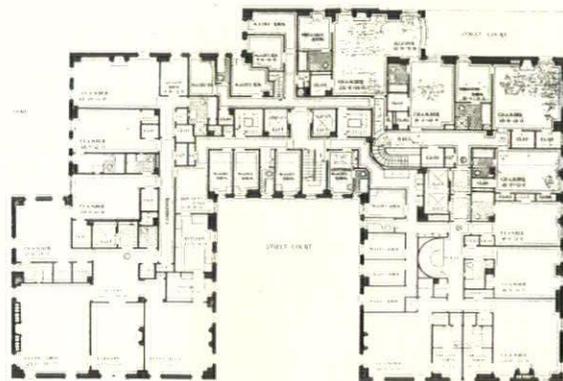
20TH TO 22ND FLOORS

AS in the case of the Roerich Museum Apartment Building designed by the same architects, One Fifth Avenue is a combination apartment house and apartment hotel. Practically every apartment has a large closet containing an electric ice box and electric connections for cooking use. The elevators and service stairways as usual occupy the center of the rectangular plan. The setbacks necessitate smaller rooms but provide outside terrace facilities. The design is symmetrical and free. Again emphasis has been laid on the vertical lines of the building by using light and dark brick simulating shadows. Strength has been added to the design by cutting off the corners and carrying them up one story above the first setback in a turret effect. Above the 16th story the several setbacks form a strong base to the towering central shaft of the design. This in turn is crowned by a picturesque arrangement of pent houses and chimney stack. The building as a whole has solidity and dignity.

ONE FIFTH AVENUE, NEW YORK.
HELMLE, CORBETT & HARRISON,
SUGARMAN & BERGER, ARCHITECTS



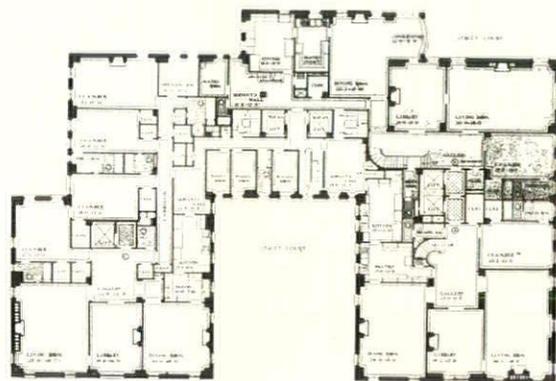
895 PARK AVENUE, NEW YORK.
SLOAN & ROBERTSON, ARCHITECTS



3RD, 5TH, 7TH, 9TH, 11TH AND 13TH FLOORS



17TH FLOOR



2ND, 4TH, 6TH, 8TH, 10TH AND 12TH FLOORS



16TH FLOOR

CONSTRUCTION DATA

Total Number of Apartments: 35 suites in simplex, duplex and triplex arrangements of 12 to 15 rooms.

Heating: Two pipe low pressure vacuum steam system.

Ventilating: Mechanical in kitchens and interior bathrooms.

Elevators: Three passenger, two service.

Lighting: Electric.

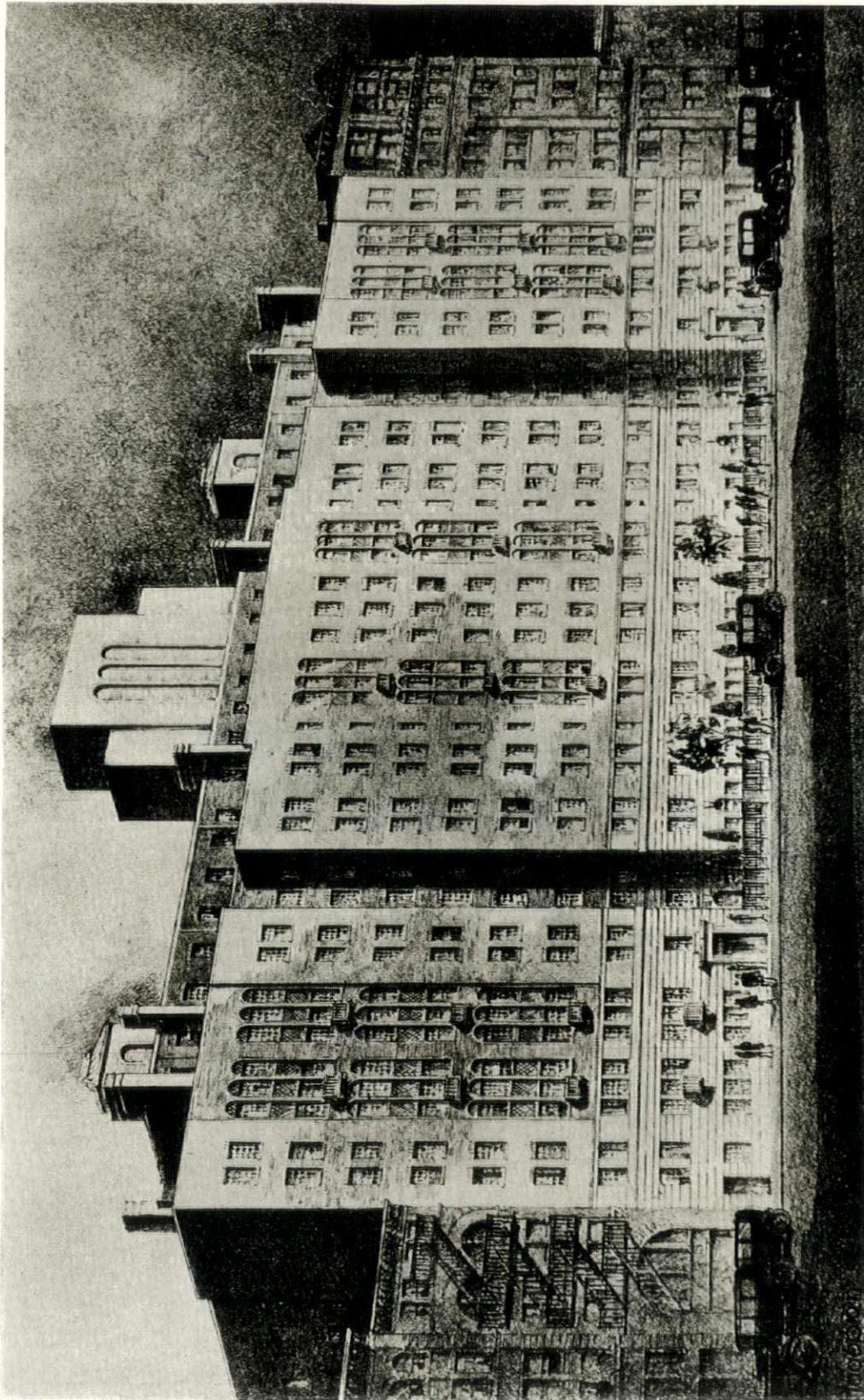
Radiators: Recessed within walls and enclosed.

Plumbing: Cast iron for main soil and waste lines; copper bearing steel for inside leaders; brass for both hot and cold water supply pipes.

Windows: Wood and metal, double hung.

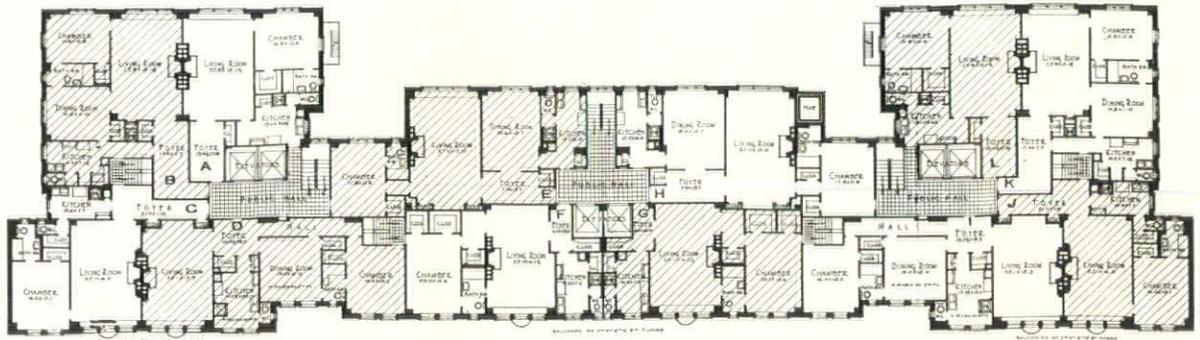
THE design as a whole is dignified, simple and straightforward. Above three lower stories of stone tower nine stories of brick walls, relieved by broad vertical bands of brick work and the doubling of the center windows. The delightful simplicity of the design as a whole particularly evidenced in the severe but balanced setbacks of the upper stories is not improved by the modernized type of cornice introduced above the twelfth story. The setbacks above the thirteenth story make a sufficient break and change in the design to obviate the necessity of so sharp and heavy a horizontal line. On the upper floors the de luxe apartments have some rooms of tremendous size. As the top apartments are always the highest priced as well as the most desirable from the point of view of light and air, it is practical as well as desirable to include at least one great room for entertaining purposes in each apartment.

895 PARK AVENUE, NEW YORK.
SLOAN & ROBERTSON, ARCHITECTS

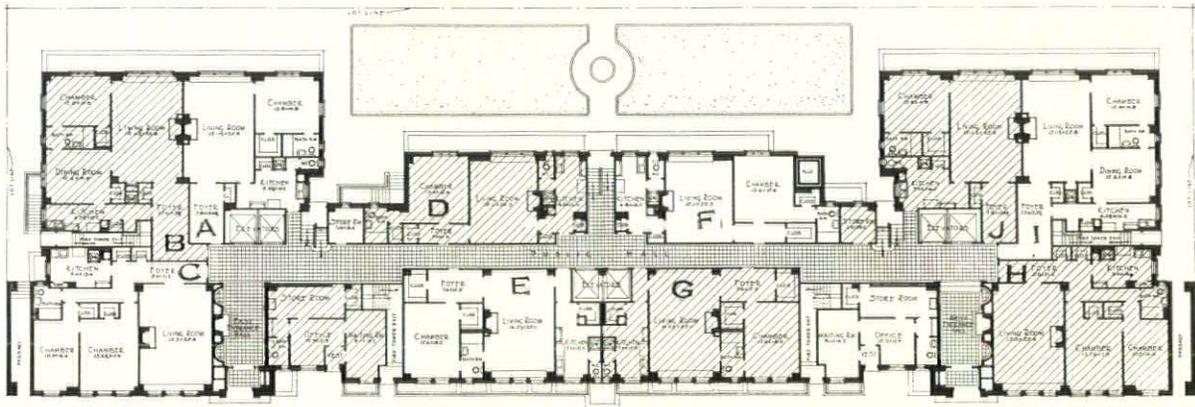


Brown Bros.

40-50 EAST 10TH STREET, NEW YORK.
HELMLE, CORBETT & HARRISON, ARCHITECTS



TYPICAL FLOOR



FIRST FLOOR

IN exterior design the deep breaks which divide the façade into three different parts are fortunate. Also the restriction of the main façade to nine stories adds much to the pleasing quality of the design. A general freedom of expression is also evident in the use of triple windows which give emphasis at certain points on the façade. The emphasis of the horizontal lines still further helps to reduce the apparent height. The straightforward simplicity of the design requires no ornamental crowning feature. In plan, the layout is excellent. By setting the building back from the rear lot and still further recessing the center portion of the structure a small open space which may have a fenced-in garden was made possible. Every apartment has a kitchen of adequate size and some of the larger apartments include a dining room. Today in moderate priced apartments of a living room, kitchen and two bedrooms, dining rooms are seldom considered necessary. As they are rooms used only three times a day for usually less than an hour at a time it seems more economical to throw this dining space into the general living room which may especially be used for dining as well as living purposes.

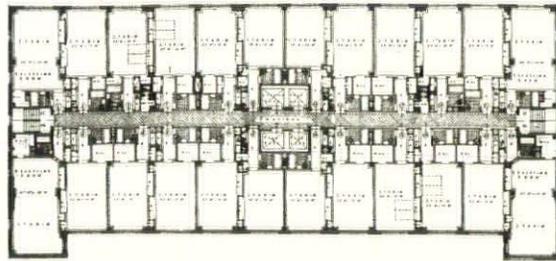
40-50 EAST 10TH STREET, NEW YORK.
HELMLE, CORBETT & HARRISON, ARCHITECTS



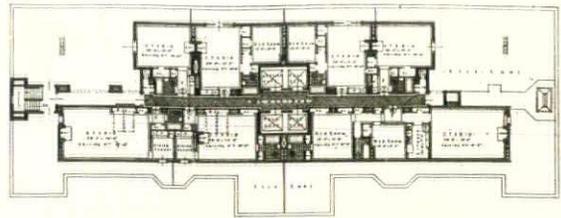
BEAUX ARTS APARTMENTS, NEW YORK. THE FIRM OF KENNETH M. MURCHISON, AND RAYMOND HOOD, GODLEY & FOUILHOX, ASSOCIATED, ARCHITECTS

Duryea

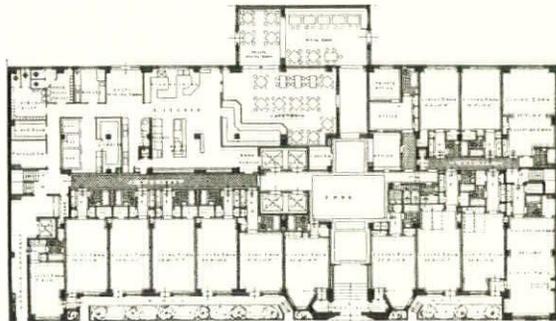




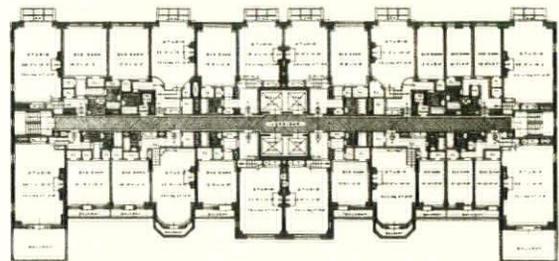
2ND TO 12TH FLOORS



PENT HOUSE FLOOR



GROUND FLOOR



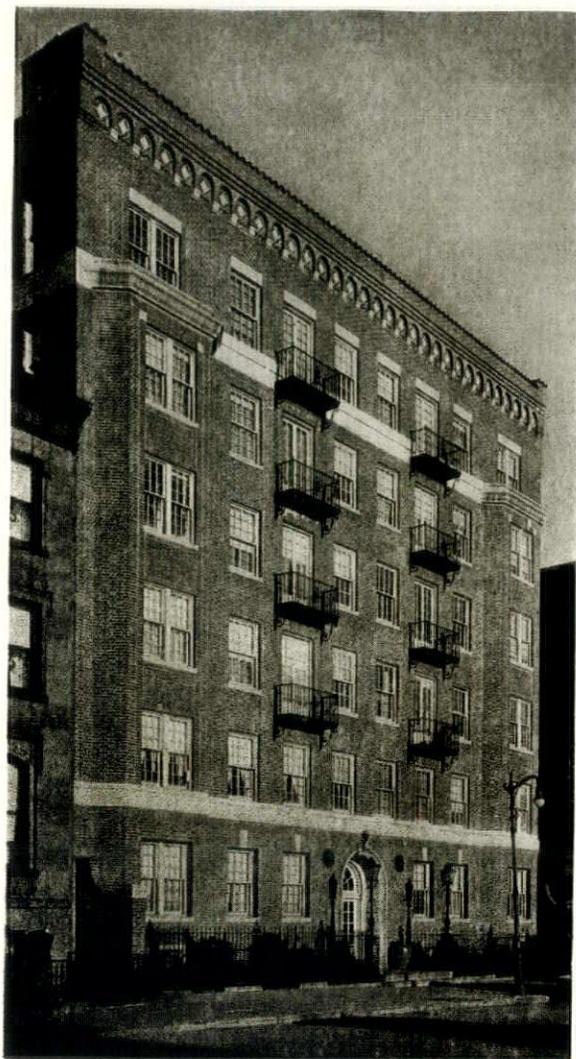
16TH FLOOR

COST AND CONSTRUCTION DATA

- Date of Completion: January, 1930.
 Total Number of Apartments: 816.
 Total Number of Apartments per Floor: 22
 in each of the buildings.
 Total Number of Rooms per Apartment:
 Ones, twos and threes.
 Structural Frame: Steel.
 Structural Floor System: Concrete.
 Heating: Steam.
 Ventilating: Only in kitchens.
 Elevators: Electric.
 Lighting: Electric.
 Radiators: Covered.
 Windows: Metal casements.
 Trim: Metal.
 Cubic Foot Cost: About 76 cents.

THE demands of sophisticated tenants who wish to live close to the center of New York social and business activity are satisfied in this most modern of New York apartments. The plan provides for the most efficient type of modern living, as the large rooms are used as living rooms and bedrooms and, on occasion, as dining rooms. The building reflects in its entire design (i. e., both plan, exterior and interior treatments) the spirit of the modern American. The dominance of horizontal lines is the result of the use of broad casement windows and bands of dark brick between. There is a freshness in the use of materials and the freedom of decorative motif that shows a new conception of design possibilities. Excellence of plan is here equaled by imaginative and pleasing decorative treatment.

BEAUX ARTS APARTMENTS, NEW YORK.
 THE FIRM OF KENNETH M. MURCHISON,
 AND RAYMOND HOOD, GODLEY &
 FOUILHOX, ASSOCIATED, ARCHITECTS

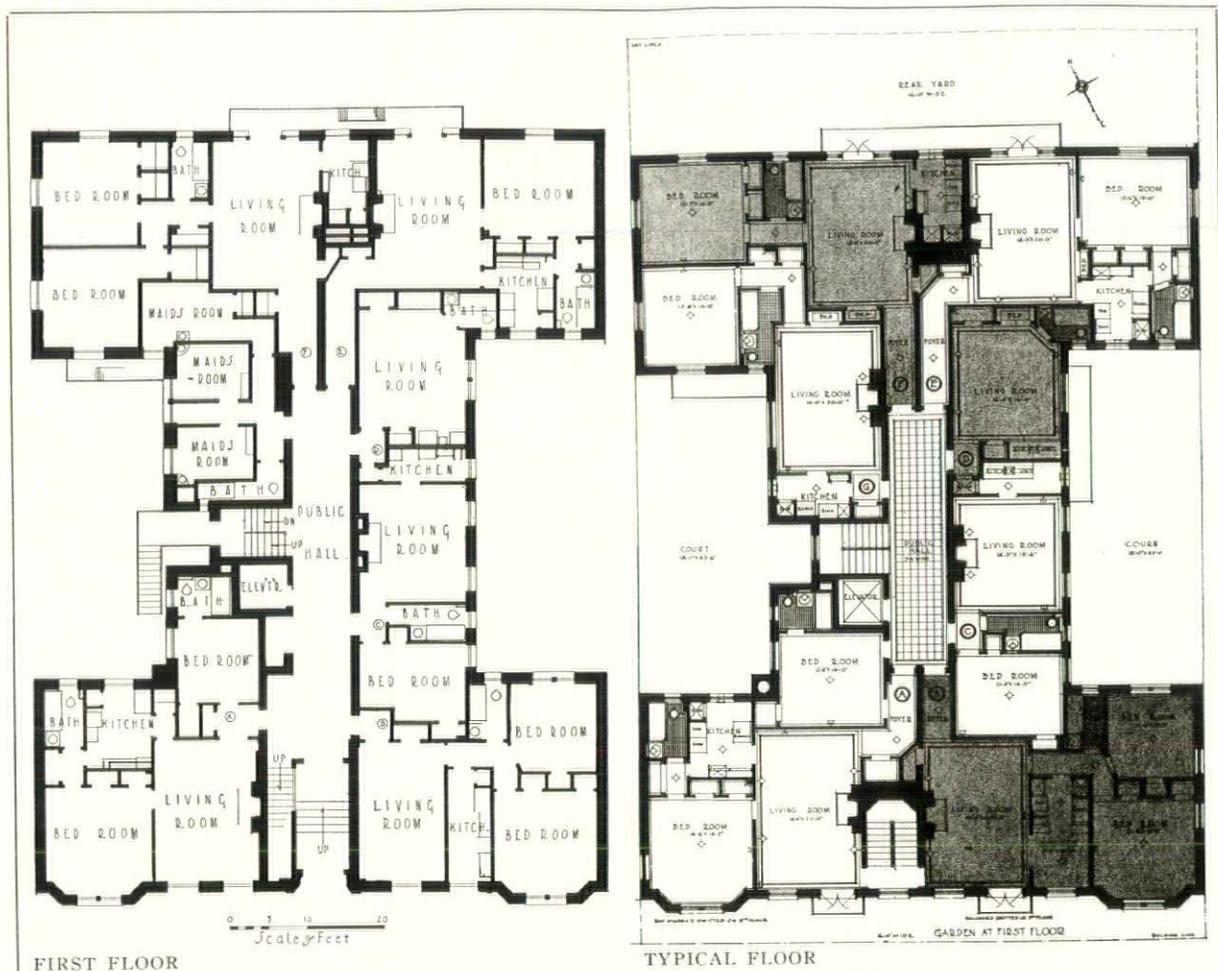


Gillies

345 EAST 68TH STREET, NEW YORK.
EMILIO LEVY, ARCHITECT



ARCHED ENTRANCE



THE design of the facade of this building is a peculiar mixture of motifs from various styles with perhaps a dominance of English Georgian. It is hard to understand why an adapted Lombardy Romanesque brick cornice should be used in this connection. The iron balconies do not seem to enhance the beauty of the facade, as they suggest fire escapes. It is unfortunate that it was found necessary to place three of the living rooms on courts and to use such long, narrow corridors. The fact that most of the living rooms have real fireplaces undoubtedly adds to their attractiveness.

345 EAST 68TH STREET, NEW YORK.
EMILIO LEVY, ARCHITECT

THE MODERATE PRICED APARTMENT HOTEL

BY

H. DOUGLAS IVES

OF FRED F. FRENCH COMPANY

THE increasing difficulties of transportation, the overcrowded subways, and the traffic jams that occur on the streets during the rush hours, are rapidly causing workers of moderate means who are employed either in the Grand Central Zone or in Wall Street, to wonder whether it is economy to live farther and farther from their places of employment for the sake of living in one of the traditional type of apartments, or whether they might not be much better off living in one of the newer type of "efficiency" apartments, of two or possibly of only one room, whose aim is to relieve the burden of the housewife or business woman, most of whose daylight hours must be spent in acquiring the means necessary to live.

In New York the apartment hotel has been developed to meet this specific need from both the owner's and the tenant's viewpoint. The high and increasing cost of land and construction precludes the possibility of producing a profitable investment in or near the center of the city if the usual

type of five or six rooms must be rented at a rate within the means of the vast majority, so that complete and attractive living facilities must be provided within a smaller floor area. Generally speaking, apartment hotels may be divided into two groups,—those on Fifth and upper Park Avenues, which cater to a wealthy and exclusive class, owners, perhaps, of large estates in the country who require a *pied-a-terre* in town and wish to be surrounded by their own furnishings and belongings during their comparatively short stay, and with consequently greater comfort and feeling of security than would be the case in a purely transient hotel, and to whom a low rental is not a vital consideration; and those buildings such as Prospect, Windsor and Woodstock Towers in Tudor City, whose tenants are those of more moderate means, but to whom ease of living and accessibility are of prime importance. These buildings consist largely of "one-room apartments," for which there appears to be a large and growing demand, and which may be occupied more or less



Tudor City Development, New York. Fred F. French Co., Architects

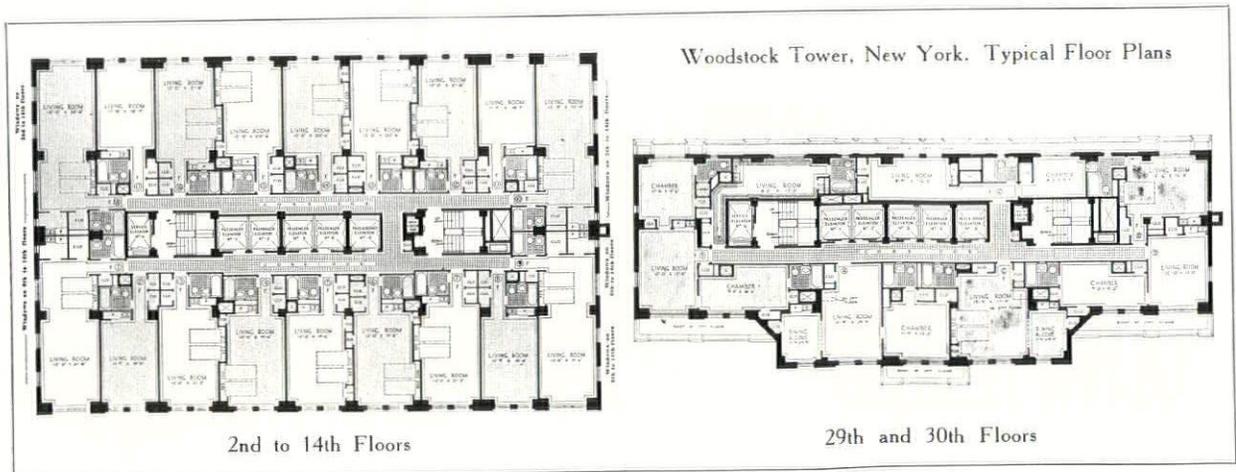


Woodstock Tower, New York. Fred F. French Co., Architects

transiently by the busy executive or others who maintain residences in the country but who find it necessary to spend one or two evenings in town each week, and by the very large number of young men and women starting their great adventure in the great city, but who heretofore have found living quarters in that rapidly disappearing symbol of "The Age of Innocence,"—the brown-stone-fronted boarding house.

In planning a building of this type, the project as a whole must be studied somewhat more carefully than the ordinary apartment house, as features must be provided that belong to both the apartment house and the purely transient type of hotel. The requirements of each individual building vary somewhat due to location and probable type of tenant, and where space is so strictly limited the greatest ingenuity is often required to provide the maximum amount of comfort and convenience for the lowest possible rental returns at which the building can be made a profitable investment for the owner.

The typical floor plan should be arranged as simply as possible, and interior courts must be avoided, as they are noisy and the rooms on the lower floors are inevitably dark and consequently difficult to rent. If a suitable piece of property can be obtained, a plan such as that of Woodstock Tower in Tudor City, with the utilities such as stairs and elevators grouped at the center and the rooms facing on the street and rear yard, provides a most economical arrangement from the point of view of service and maintenance and allows for the maximum amount of light and ventilation for each apartment. The "setbacks" on the upper floors which are required under the Zoning and Multiple Dwelling Laws can be utilized as terraces and are a renting feature which appeals to many. There should, however, be an iron railing between each of the two separate apartment terraces, giving each tenant a greater feeling of security. Access to it should be by a



Woodstock Tower, New York. Typical Floor Plans

2nd to 14th Floors

29th and 30th Floors

door instead of,—or in addition to,—the regular window. Steel casement doors and windows have been used throughout Tudor City and have been found eminently satisfactory for buildings of this type.

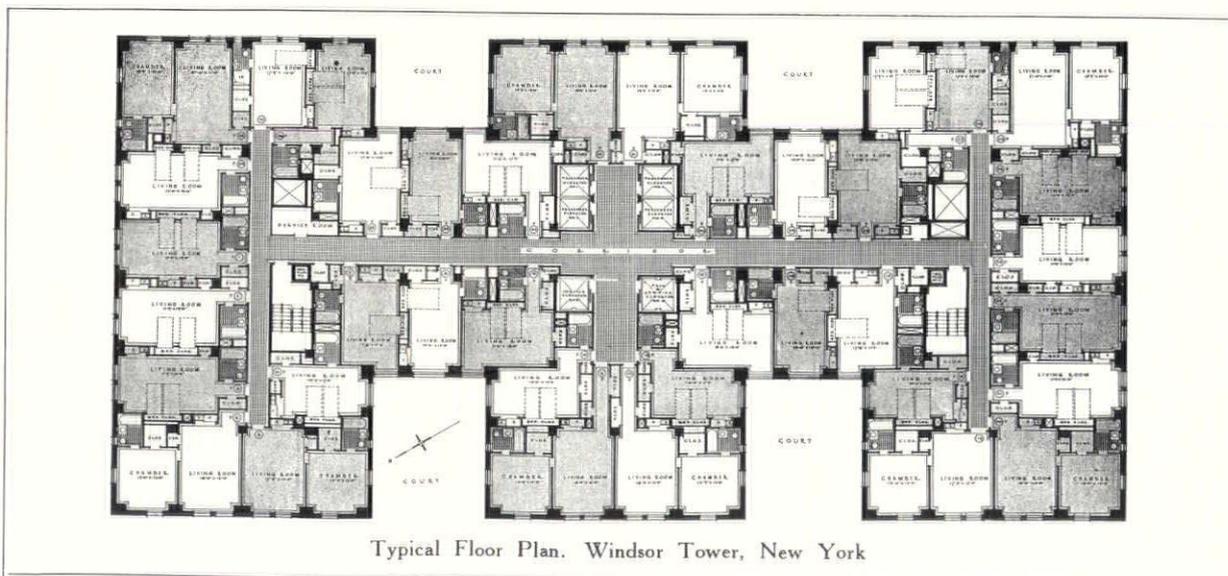
The general arrangement of "one-room" apartments has become more or less standardized, in that door beds, kitchenettes and interior bathrooms are common to all. The space for the first of these should be so located that little moving of furniture will be necessary when the beds are in use, and it must be large enough to provide adequate ventilation when they are not. Twin beds are always preferable to one large bed, as these rooms are frequently rented by two persons; for the same reason two closets are desirable,—more if space is available. According to the new Multiple Dwelling Law a kitchenette when it is of the recess or closet type, that customarily is found in "one-roomers," must not be over 10 feet in length, but it has been found that half this is sufficient to contain all the equipment necessary; a small sink with a drain board over which there should be a dresser large enough to contain dishes for a simple meal for five or six persons; mechanical or electrical refrigeration is of course essential, and there are machines now on the market which have been designed to meet these conditions and still provide enough space to meet the requirements of the average tenant whose cooking is usually limited to preparing a light breakfast of coffee and eggs. On top of the refrigerator may be set a small electric or gas stove of the open-burner type. Space under the sink should be provided for the temporary disposal of garbage before it can be removed to the incinerator, and this can best be done by the use of oiled or waxed paper bags which fit into con-



Windsor Tower, New York. Fred F. French Co., Architects

tainers, various types and sizes of which are easily obtainable.

Exterior bathrooms are of course a little more desirable, but it is not always possible to provide them without utilizing space which might better be used for increasing the sizes of the rooms. The interior type has become common practice, and is thoroughly satisfactory, as the Building Department requires proper ventilation. Tile floors and



Typical Floor Plan. Windsor Tower, New York

wainscots are a standard treatment, and the walls and ceilings above the latter can be effectively decorated by the use of waterproof wall paper, which is not only economical to maintain but helps to relieve the institutional feeling found in so many buildings of this kind. The fixtures should be of the regulation sizes, and a 5-foot tub with a shower above will be found satisfactory.

It seems needless to say that every effort within reason should be made to soundproof the partitions between apartments, and much can be done by the use of heavy quilting or felt, but as far as the writer is aware, this problem has not as yet been satisfactorily and yet economically solved. The desirability of using floor and table lamps is becoming increasingly evident,—they are more flexible and tend to give a more homelike appearance to the room than wall brackets, which are difficult to locate in positions that will give satisfactory results and not be damaged by the hurried opening of doors or interfere with the wall decorations; consequently a close-up ceiling fixture for general lighting and three or more base outlets constitute a better arrangement. If there is a foyer, this should also have a ceiling light,—in fact the only wall brackets necessary are one in the kitchenette and one over or on either side of the medicine cabinet in the bathroom.

A width of 5 feet will usually be found ample for the public corridors on the typical floor. Carpets are advisable if only for the purely practical reason that they help to deaden sound,—an important consideration, as the entrance doors to apartments are required to have some form of ventilating louver to the detriment of their soundproofing quality.

An incinerator is a necessity and should be located as centrally as possible. The collection of garbage is a matter to be decided upon by the management of the building, but in many cases the tenant prefers to dispose of it himself rather than wait for a regular collection at an hour which may not be convenient. The incinerator must not open directly into a public hall, but into a well ventilated space equipped with shelves to receive empty bottles or boxes which are too large or too dangerous to be disposed of other than by being collected and taken down in the service elevator.

The elevator requirements must be figured in much the same manner as for an office building, in that a peak load is reached both in the morning and in the evening, and a further burden is also placed upon the system during these "rush hours" by the demand for room service. One or more purely service cars, depending upon the size of the building, must be provided in addition to one which can be used for both passengers and service. There should also be a freight ele-

vator at the service entrance running from the street level to the basement or sub-basement to facilitate the handling of heavy baggage and supplies, and for removal of ashes and rubbish.

The public space requirements of an apartment hotel approximate very closely those of the transient hotel in that offices, restaurants, and lounge rooms are common to both, although of course in the former on a somewhat smaller scale; and the architect, when called upon to design such a building, must be prepared to find space on the first floor for news and cigar stands, telegraph office, and possibly a theater or tourist agency,—features which add greatly to the comfort and convenience of the tenants.

The location, equipment and arrangement of the restaurant and kitchen should be given the most careful thought, as the management will be called upon to provide a wide choice of club breakfasts and table d'hote luncheons and dinners, as well as a la carte, in addition to the room service. In Tudor City, which has at present five apartment hotels containing over 2,000 apartments, it has been found necessary to vary the type of restaurants to meet the extensive range in the tastes and desires of so many tenants.

In the basement or sub-basement, in addition to the space requirements of mechanical equipment, store rooms for the kitchen, meter rooms, etc., ample accommodation must be provided for trunks which must also be easily accessible to the tenants, as naturally the size of the apartments does not allow for any of these, nor many bags, being kept in them. Space must also be found for the valet service, locker rooms and toilets for both male and female attendants, and a parcel room. This latter should be located as near as possible to the service entrance, so as to make for better control. To sum up, the requirements for this floor are almost identical to those for the transient type of hotel.

The architectural treatment of the exterior or the decorative feature of the public spaces of the interior is a matter for the personal taste of the architect and owner, and many an architect will, at times, suffer acutely in trying to develop an interesting composition for the facade, and will find that beauty must in a sense give precedence to the economical arrangement and lighting of the rooms, and to the exigencies of the budget.

As the apartment hotel is essentially a residential building occupied by permanent tenants, some effort should be made to introduce a domestic note into the furnishings and decorations of the lounge and reception rooms, in contrast to the impersonal and formal arrangement which must of necessity be the case in the purely transient hotel, and where this has been done it has been appreciated by the tenants, who are tempted to linger.

COÖPERATIVE APARTMENTS

BY

ELECTUS D. LITCHFIELD

FOR the average New Yorker, and in particular for one who lives in the Borough of Manhattan, a coöperative apartment provides the most practical embodiment of the city home. There are still those who prefer the luxury and prestige, even coupled with the attendant troubles, of the private house; but taxes and servant troubles have become so much of a burden that, in Manhattan at least, the private house bids fair to soon become extinct. Everyone knows that the wages of domestic servants have increased tremendously since the war, and the great difficulty there is in obtaining well trained and adequate servants. Gone are those paragons who served in our mothers' houses. The invention of labor-saving devices for cleaning, cooking and for the laundry have seemed to reduce, rather than to increase, what the average maid considers a full day's work. Less space and less waste space in the home seem a necessity.

One after another of the notable New York mansions has disappeared, and in its stead has risen a great apartment house in which quite often the owner of the original house has purchased an apartment. The papers have headlines when, as still, but very occasionally, happens, plans are filed for a private house in Manhattan. Hundreds, if not thousands of apartments are rented and sold to one individual residence.

ADVANTAGES OF THE COÖPERATIVE APARTMENT

The coöperative is the aristocrat among apartments,—not that it costs more, for in the long run it undoubtedly costs less than the nearest approach to equal value in a rented apartment. Its popularity is due to the fact that it usually does, and always should, approach the old private

residence in prestige, convenience and in individual and homelike quality. The disadvantages of a coöperative apartment are few. The present financial depression has so far provided the answer to a fear which many had,—that when times were bad, many of these coöperative apartments would be offered for resale with few takers. But so far neither the number of the apartments so offered, nor the difficulty of finding a market has been found greater than was found with a private house in previous periods of financial stringency. Among the various advantages of a coöperatively owned apartment are permanence of location among satisfactory neighbors and a more or less definitely fixed and moderate annual expense. The reason for the latter is obvious, for several of the various profits which go into the construction and operation of a rented apartment are avoided in a coöperative undertaking, so that, except in the most costly locations, it is possible to keep the annual maintenance, plus the interest on the investment, below the

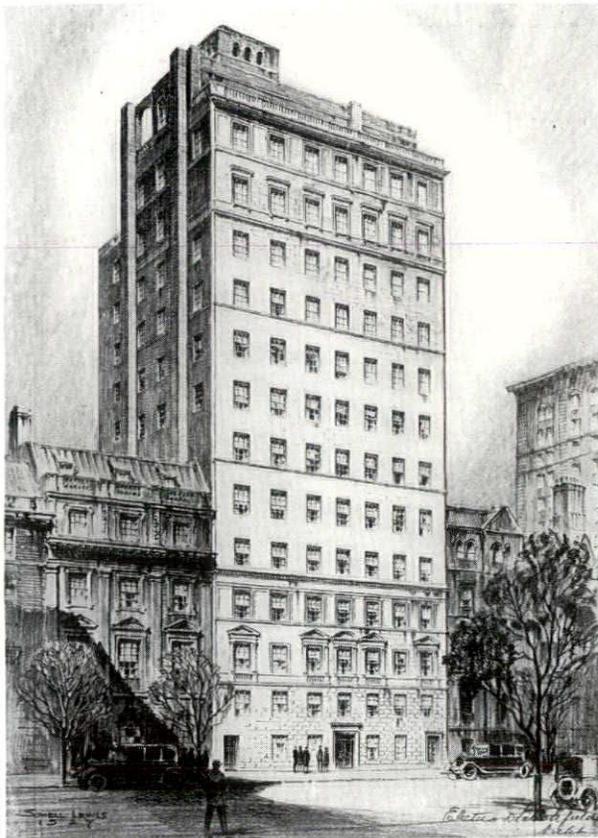
rental which would be normally asked for a similar rented apartment. There are, it is true, coöperative apartments in Manhattan where the first cost of the land and elaboration of the building have resulted in excessive annual cost of ownership as compared to the nearest approach in a rented apartment; but, on the other hand, it must be said that there probably are no rented apartments having an equally satisfactory location and being equally satisfactory in plan and arrangement. In other words, these apartments are unique in location and design and, like all unusual things, demand a special price.

RESIDENTIAL CHARACTER

Whether located on the most expensive corner

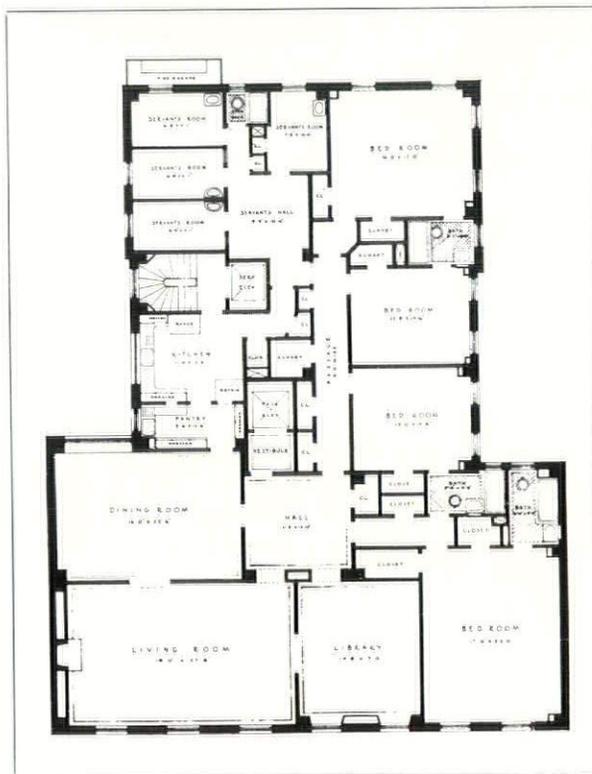


No. 50 East 79th Street, New York.
Electus D. Litchfield, Architect



No. 79 East 79th Street, New York.
Electus D. Litchfield, Architect

Typical Floor Plan Below



or in a less desirable part of town, the cooperative apartment should have much more for the owner than any rented apartment which he is likely to obtain. In the first place, the plans for cooperative apartments are made, as a rule, by architects specially trained and familiar with the social and living requirements of the purchasers; and particular care has been given to the disposition, size and details of the rooms, so as to make them conform as nearly as possible to the wants of persons of means and education. In addition to this, minor changes, and often very extensive changes, have been made to meet the personal taste of the purchasers, and the decoration has been done, either by, or under the direction of, the purchasing owner himself. These apartments are, therefore, much more personal and individual than the rented apartment. Many of them have the very desirable feature of the duplex plan, and sometimes occupy even three stories, and reflect, in a very considerable degree, the atmosphere of a well planned private house. The planning of a cooperative apartment building is, in consequence, a much more difficult problem than that of the rented apartment, and this is particularly so if, as it seems to me should always be the case, a real effort is made to give to its exterior a logical, pleasing and definitely residential character.

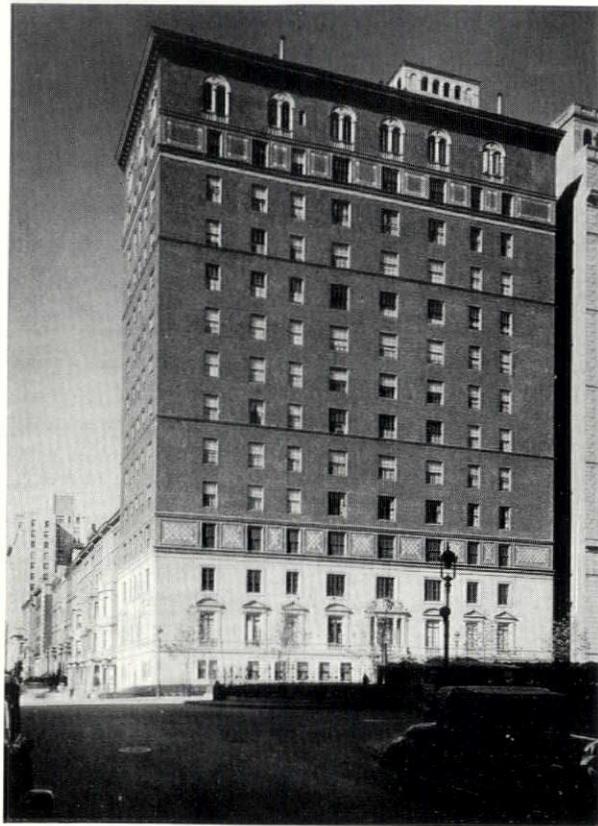
EXTERIOR DESIGN

It has always seemed to me that the horizontal belt courses, so characteristic of the Italian palace, the ancient prototype of the modern apartment house, go far toward giving a residential character to these buildings. The perfectly natural trend toward verticality in towering office buildings seems to emphasize that in the residential type of structure the horizontal should be the important element of the design. The entirely original shape, however, which the new Multiple Dwelling Law in New York imposes upon the apartment building, seems to demand a complete breaking away from precedent and tradition in its design. The height, lot coverage, and setbacks are all specified under this law, and economic considerations usually demand that the building have all of the volume possible which the law permits. The law having been written with very little regard to aesthetics, the maximum possible envelope of the structure does not usually produce a symmetrical mass. Coupled with the difficulties which are a result of the law, there are the difficulties which are inherent in the normal layout of the American home; there are the large living room, with preferably not more than two windows on a side; the dining room, which should also have two windows, somewhat smaller; the library, with one or two windows;

the bedrooms with two windows where possible, and with space between for bed or bureau; numerous bathrooms; a kitchen, which should have at least one large window; and the small servants' rooms with one window each. It is apparent that the windows in the living room must be larger than those in the maids' rooms and must be much farther apart center to center. Where there is but one apartment to each entire floor in the building, the difficulties of producing a symmetrical exterior design are apparent.

AN IDEAL BUILDING OPERATION

The coöperative apartment in New York, when the market conditions are satisfactory, is the ideal building operation from the operator's standpoint. When, as so often has been the case, the apartments are all sold by, or before, the completion of the construction of the building, the operator, or operating syndicate, has all of its investment out of the undertaking and its profit in hand within a year or 18 months from the inception of the operation. It is greatly to be desired, therefore, that the individual apartments and the entire building shall be so attractive in location, planning and in financial set-up that it shall be completely sold at as early a date as possible. If the sale of many of the apartments is long deferred, the maintenance, which starts with the completion of the building, soon eats into the profits of the undertaking. The maintenance is usually somewhere around 10 per cent of the cash price of the apartments, and the total sales price is likely to approximate 50 per cent of the entire cost, including the estimated profit of the transaction. The other 50 per cent would be in a mortgage. If the sale of all of the apartments should be deferred one year, the operator would have no return from his invested funds and, in addition, would have to supply more than 10 per cent of his original investment in cash, in order to maintain the building. If the estimated profit of the transaction had been 15 per cent on the total cost of land and building, and the cash sales prices of the apartments were set at

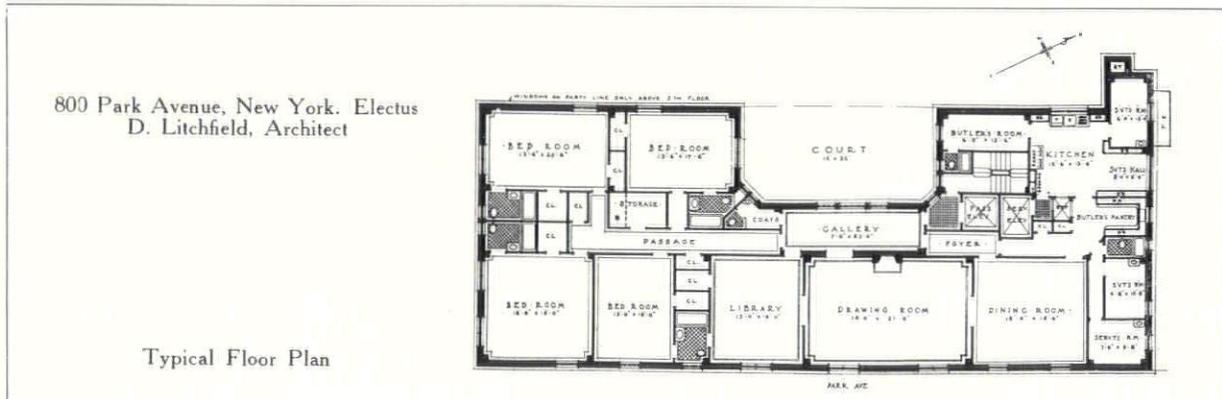


800 Park Avenue, New York

50 per cent, it is obvious that 5 per cent must be expended per annum for maintenance and the total 15 per cent profit would disappear in three years. It is, therefore, of the greatest importance to the operator that everything within reason be done to make the plan of the prospective building so attractive as to expedite the sales in every way. From the architect's standpoint it is a thrilling game, particularly if, as is often the case, he decides to have a financial interest in the undertaking.

ONE APARTMENT TO A FLOOR

Many things besides skill in planning go into



making the success of the undertaking. From the purchaser's standpoint the building having but one apartment to a floor, or, in any case, with but one apartment entrance on a floor to a single bank of elevators, is most desirable; but from the standpoint of cost, the larger the building the cheaper per room it can be built, and the more apartments to a single bank of elevators the more economical the operation. On the other hand, a building with but one apartment to a floor requires but few sales for the completion of the undertaking, and in that respect it has for the operator more value than the multi-apartment building.

NO. 800 PARK AVENUE, NEW YORK

No. 800 Park Avenue occupies a plot 44 feet by 120 feet, irregular, at the northwest corner of Park Avenue and 74th Street. A few feet more of length on Park Avenue would have made possible a somewhat more generous layout for the service portion of the apartments, which would have been more desirable; but aside from this, the size and disposition of the plot were almost ideal for the planning of an adequate apartment for the usual sized family of social position. The plot lent itself to the provision of a desirable number of rooms of comfortable sizes, all well lighted. One of its particular virtues is the lighting of the foyer hall from the court on the west side of the plot, which borrows light from the yards of adjoining buildings. There was space enough to provide a bath for each room and also the very necessary guest toilet and coat closet off the foyer hall. In the service portion of the building it was possible to have the butler's room, with its own bath, entirely apart from the maids' suite. In the design of the exterior we were influenced by the precedent of the fifteenth century Italian palace. The architectural interest is concentrated on the three lower stories, which were made of limestone, surmounted by a tall shaft of an almost lavender colored Holland brick, with an interesting texture given by cross bond, unornamented except by the simply moulded band courses; the shaft being crowned by two decorative stories in brick, stone and terra cotta. It was desirable, of course, that the elevation should be as symmetrical as possible in effect and, with the asymmetrical plan, a very interesting adjustment had to be made of window sizes and piers to adequately meet the plan requirements and yet obtain a quiet and reserved facade. The problem might, perhaps, have been solved by having a greater number of small windows; but we felt that the larger wall surfaces and the larger windows were more satisfactory for the exterior and for the interior as well. In order that the wall surface of the shaft should be broken up as little

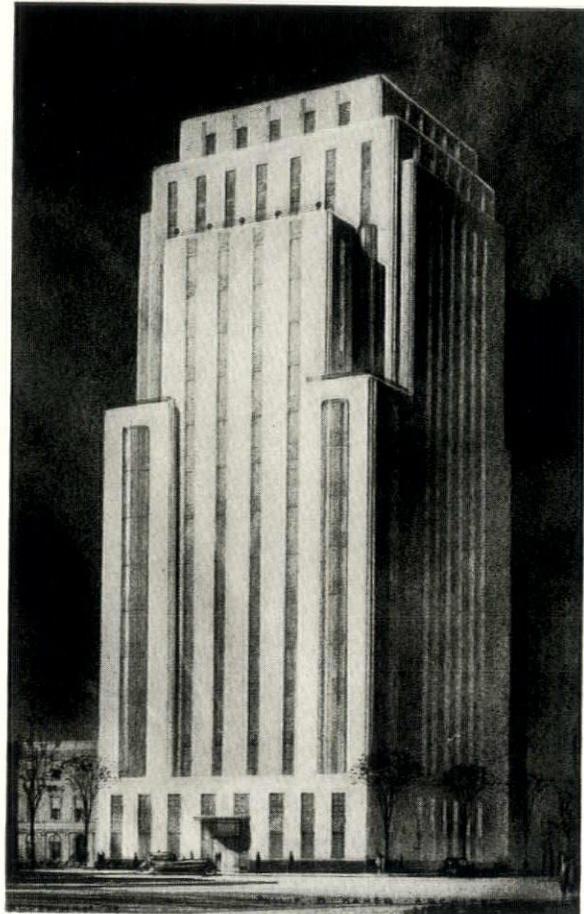
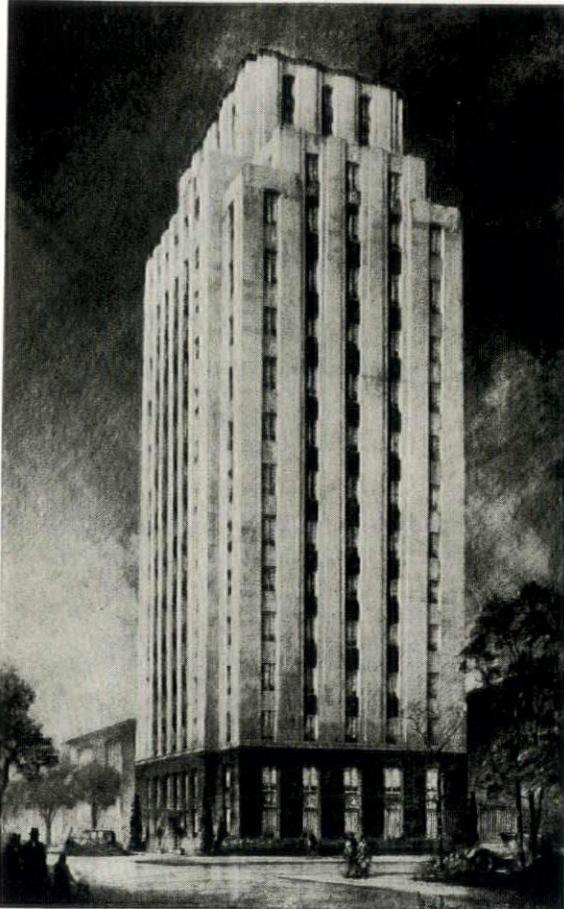
as possible, stone lintels were omitted and sills, also, except for a 1-inch slab of slate which was practically invisible. As the actual work proceeded I felt a demand for an easy transition from the limestone of the lower stories to the simple shaft of brick, and I finally hit upon the idea of the checker board panels made of brick and softly contrasting cement, which seemed to adequately accomplish the purpose.

NO. 79 EAST 79TH STREET

No. 79 East 79th Street, like 800 Park Avenue, has but one apartment to a floor. Unlike 800 Park Avenue, it was not built on a corner but on an inside rectangular plot 63 feet in width and 102 feet in depth. The apartments in this building were planned to meet the wants of very much the same sort of families as those to which 800 Park Avenue was sold,—families of reasonable size with several, but no great retinue, of servants, and not over-extravagant in their tastes. These families require three or four master's bedrooms, each with its own bath; a living room as large as possible; a good sized dining room, not less than 16 by 22; if possible, a library; and the usual pantry, kitchen, maids' rooms and service hall. As at 800 Park Avenue, the disposition of living room, library and bedrooms in plan, demanded an asymmetrical arrangement of windows on the exterior, if the interior was to be properly served. Here again, therefore, it was necessary to very carefully study the widths and centering of windows and piers to produce an agreeable facade. For one reason or another both of these buildings seemed to meet the popular demand and were completely sold at about the time of their completion; and in both of them resales have been made at a considerable advance upon the original prices.

NO. 50 EAST 79TH STREET

No. 50 East 79th Street is planned for two apartments on a floor, and the whole building is to be carried with setbacks to the greater height permitted under the Multiple Dwelling Law, to the requirements of which it is of course subject. The site is approximately 100 by 100, and most floors are planned with two apartments of ten or eleven rooms each. As I have said, the building designed under the Multiple Dwelling Law has a mass which is quite its own. It cannot be built to the great heights possible for the office building, and the setbacks, which are required under the Law, if it is to be carried to its new maximum height, give it a mass entirely different from that of any class of buildings heretofore built. It is interesting that this is the case, and it will no doubt result in the creation of a type of multiple residence building here in New York which will become characteristic of the city and unique in appearance.

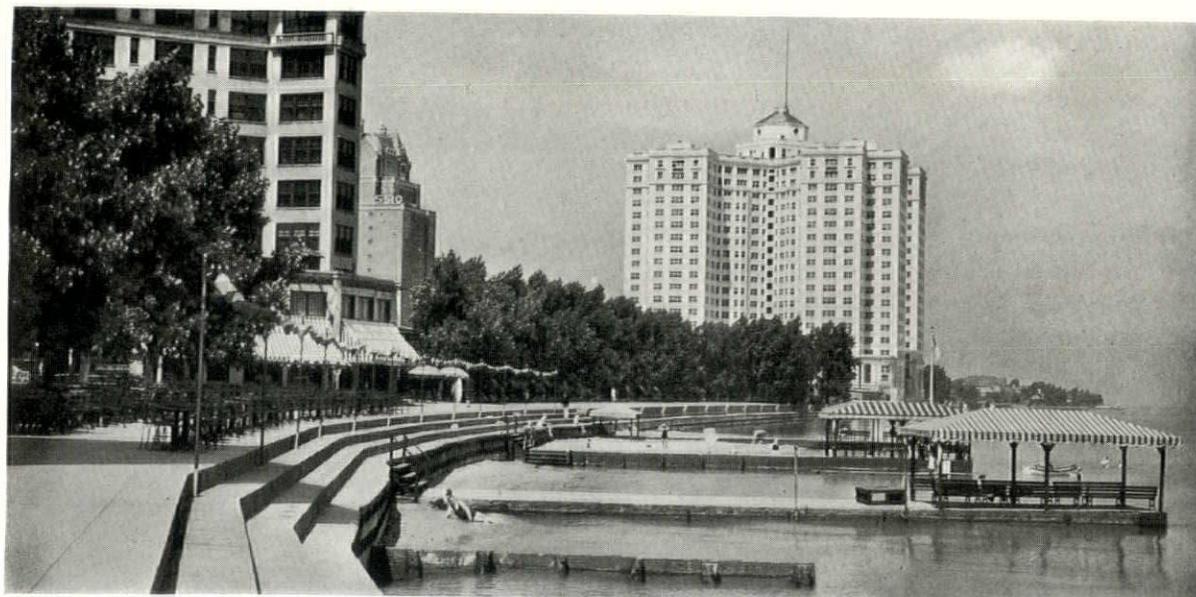


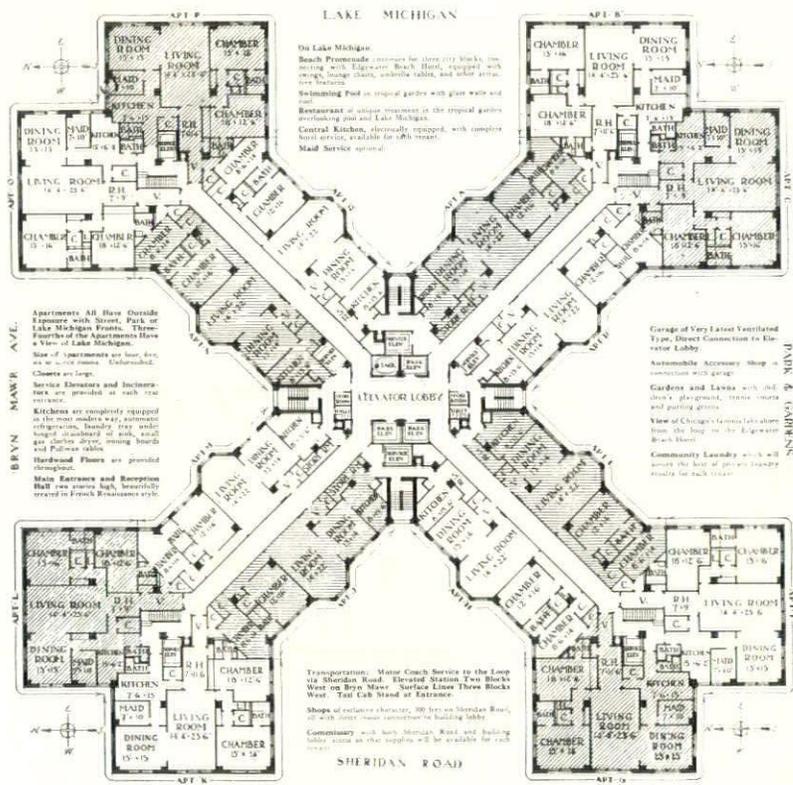
PRELIMINARY STUDIES FOR TWO MODERN
APARTMENT HOUSES ON ASTOR STREET,
CHICAGO. PHILIP B. MAHER, ARCHITECT





EDGEWATER BEACH
APARTMENTS, CHICAGO.
BENJAMIN H.
MARSHALL, ARCHITECT



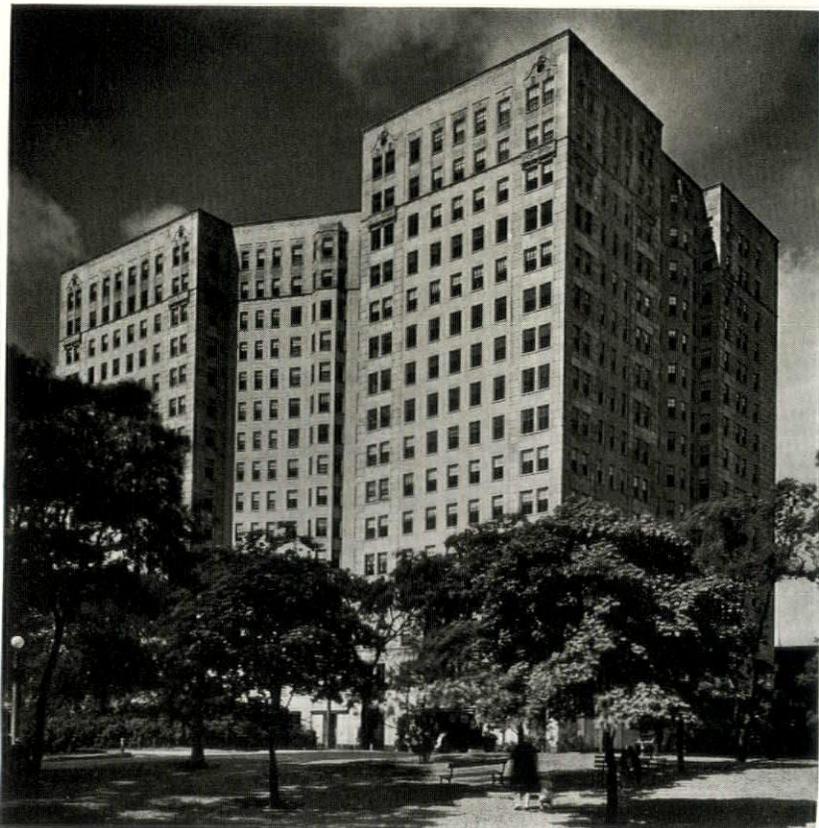


BEVAN MARSH AVE.

SHERIDAN RD.

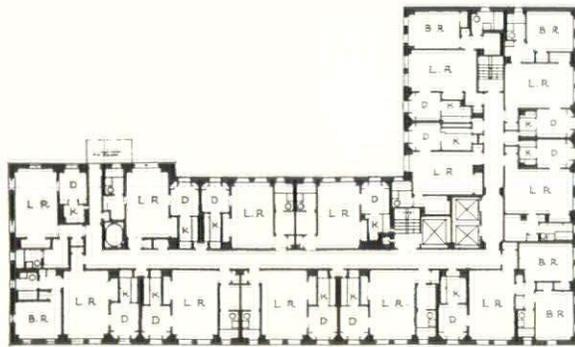
EDGEWATER BEACH APARTMENTS, CHICAGO.
BENJAMIN H. MARSHALL, ARCHITECT

1100 NORTH DEARBORN STREET, CHICAGO. McNALLY AND QUINN, ARCHITECTS



Fuermann

2000 LINCOLN PARK WEST, CHICAGO. McNALLY AND QUINN, ARCHITECTS



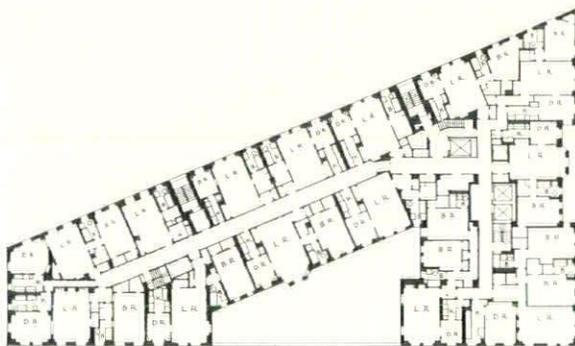
TYPICAL FLOOR

1100 NORTH DEARBORN STREET, CHICAGO.
McNALLY & QUINN, ARCHITECTS

CONSTRUCTION DATA

Date of Completion: April, 1930.
Total Number of Apartments: 211.
Total Number of Apartments per Floor: 14.
Total Number of Rooms per Apartment: 2, 3, 4, 5.
Structural Frame: Reinforced concrete.
Structural Floor System: Concrete joists, pan forms.
Heating: Vapor vacuum steam, coal burning.
Ventilating: Mechanical ventilation in kitchens, corridors, stair halls.

Elevators: Two passenger, car switch control; one service, combination car, switch and collective push button control.
Lighting: All wiring in conduit.
Radiators: Cabinet type.
Plumbing: Water pipe, galvanized wrought iron; soil pipe, cast iron.
Windows: Double hung wood.
Trim: Birch.
Cubical Contents: 3,061,014 ft.



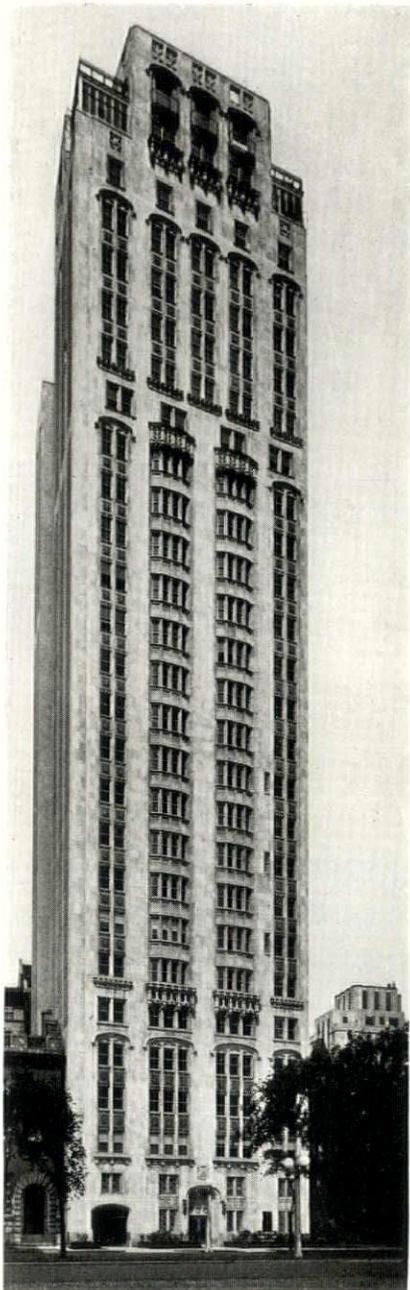
TYPICAL FLOOR

2000 LINCOLN PARK WEST, CHICAGO.
McNALLY & QUINN, ARCHITECTS

CONSTRUCTION DATA

Date of Completion: April, 1930.
Total Number of Apartments: 247.
Total Number of Apartments per Floor: 13.
Total Number of Rooms per Apartment: 2, 3, 4.
Structural Frame: Reinforced concrete.
Structural Floor System: Concrete joists, pan forms.
Heating: Vapor—vacuum steam, coal burning.
Ventilating: Mechanical ventilation in kitchens and stair halls.

Elevators: Two passenger, car switch control; one service, collective push button control.
Lighting: All wiring in conduit.
Radiators: Cast iron.
Plumbing: Water pipe, galvanized wrought iron; soil pipe, cast iron.
Windows: Double hung wood.
Trim: Birch.
Cubical Contents: 2,043,160 ft.

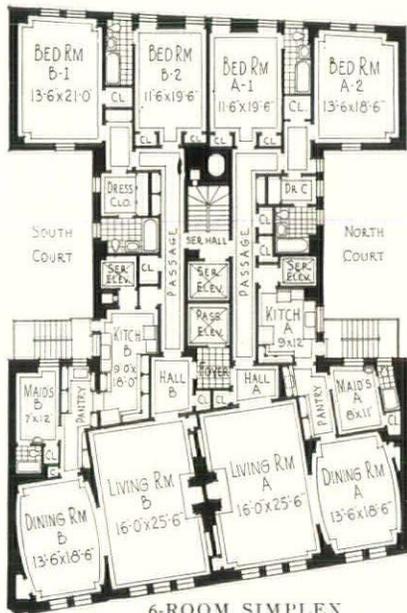


1242 LAKE SHORE DRIVE,
CHICAGO. ROBERT S.
DE GOLYER & CO., ARCHITECTS

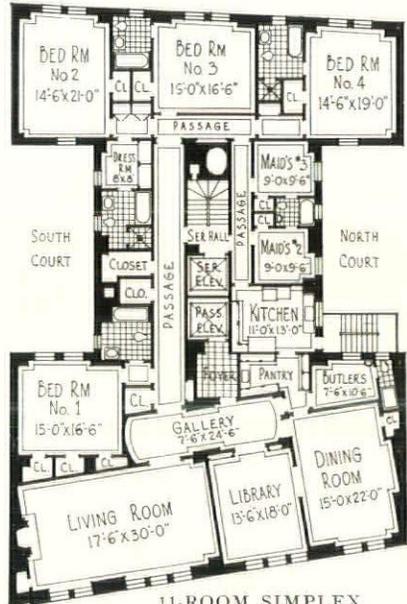


1648 EAST 50TH STREET,
CHICAGO. ROBERT S.
DE GOLYER & CO., ARCHITECTS.
CHARLES MORGAN, ASSOCIATE

Bowman

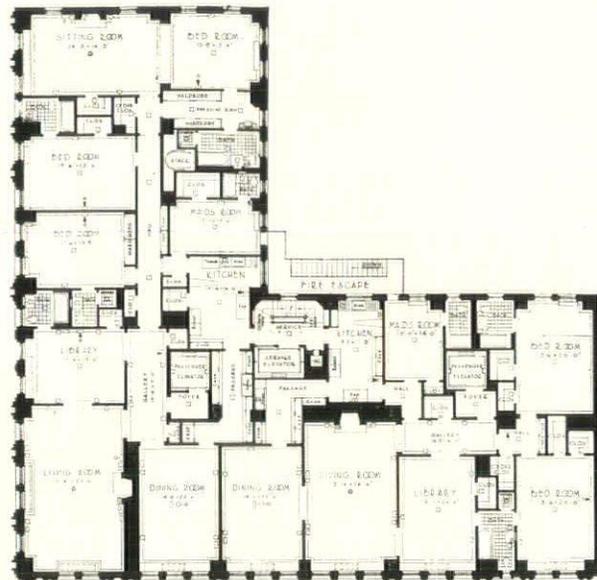


6-ROOM SIMPLEX

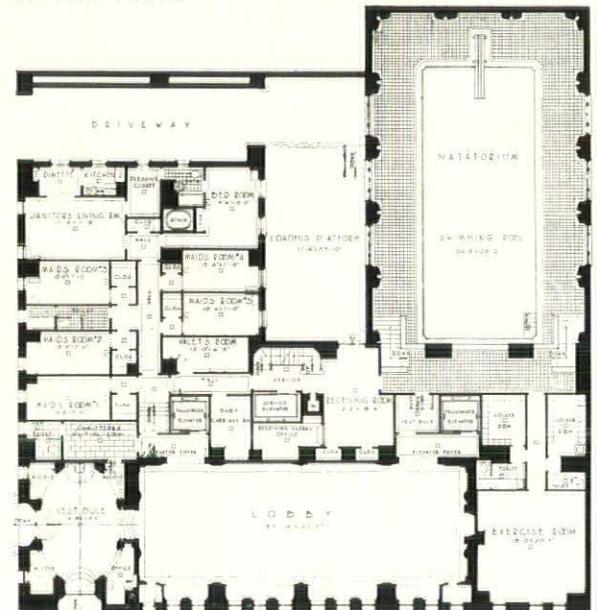


11-ROOM SIMPLEX
CONSTRUCTION DATA

Date of Completion: 1930.
 Total Number of Apartments: 35.
 Total Number of Apartments per Floor: 1, 1½, 2.
 Total Number of Rooms per Apartment: 6, 8 (simplex and duplex), 10, 11 and special layouts up to 16.
 Structural Frame: Steel.
 Structural Floor System: Concrete joist.
 Heating: Vapor.
 Ventilating: Kitchens and elevator foyers.
 Radiators: Concealed.
 Windows: Wood, double-hung.
 Trim: Birch.
 Cubical Contents: 1,445,000 ft.



TYPICAL FLOOR



FIRST FLOOR

CONSTRUCTION DATA

Date of Completion: 1929.
 Total Number of Apartments: 20.
 Total Number of Apartments per Floor: 2.
 Total Number of Rooms per Apartment: 7 and 9.
 Structural Frame: Concrete.
 Structural Floor System: Concrete joist.
 Heating: Vapor.
 Ventilating: Laundries and kitchens.
 Windows: Steel, lower floors: wood above.
 Trim: Birch.
 Cubical Contents: 1,940,000 ft.

1242 LAKE SHORE DRIVE, CHICAGO.

1648 EAST 50TH STREET, CHICAGO.

ROBERT S. DE GOLYER & CO., ARCHITECTS

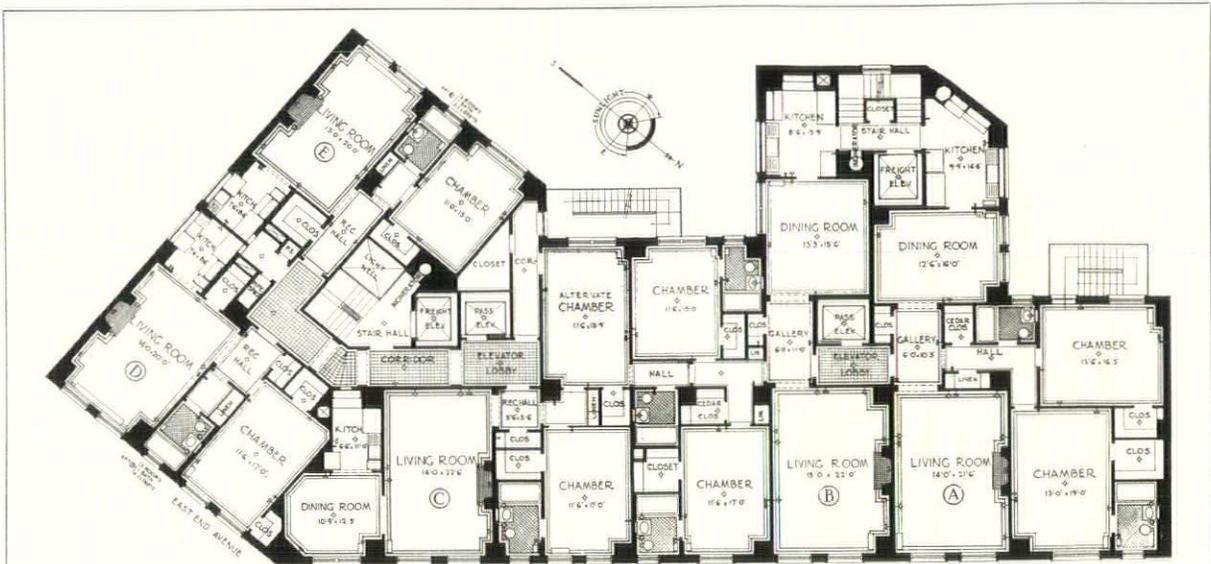


4940 EAST END AVENUE, CHICAGO. B. LEO STEIF & CO., ARCHITECTS



3800 SHERIDAN ROAD
CHICAGO. B. LEO STEIF
& CO., ARCHITECTS

Puermann



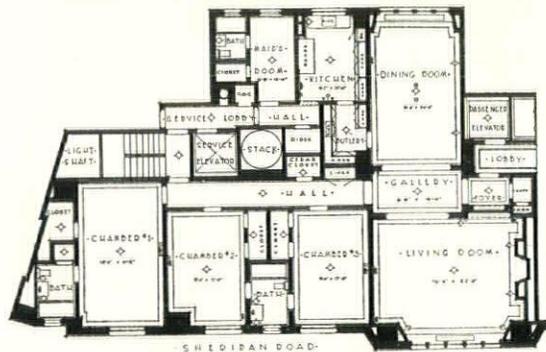
TYPICAL FLOOR

COST AND CONSTRUCTION DATA

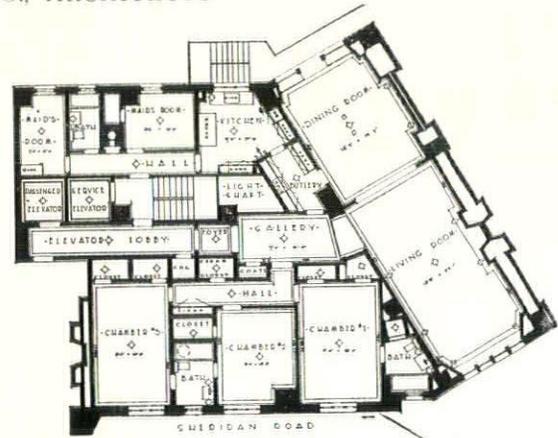
Date of Completion: May, 1929.
 Total Number of Apartments: 99.
 Total Number of Apartments per Floor: 5.
 Total Number of Rooms per Apartment: 3, 4, 5 and 6.
 Structural Frame: Reinforced concrete on wood pile foundations.
 Structural Floor System: Reinforced concrete joists.
 Heating: Vacuum.
 Ventilating: Exhaust system in kitchens.
 Elevators: Gearless.

Lighting: In galvanized conduit.
 Radiators: Slim type.
 Plumbing: Enameled tubs, china lavatories and water closets; black tarred wastes and galvanized water piping.
 Windows: Wood double hung with steel casements in kitchens.
 Trim: Birch and unit metal bucks.
 Cubical Contents: 1,612,000 ft.
 Cubic Foot Cost: 63 cents.
 Total Cost: \$1,015,560.

4940 EAST END AVENUE, CHICAGO.
 B. LEO STEIF & CO., ARCHITECTS



APARTMENT "B" TYPICAL FLOOR



APARTMENT "C" TYPICAL FLOOR

COST AND CONSTRUCTION DATA

Date of Completion: October, 1927.
 Total Number of Apartments: 101.
 Total Number of Apartments per Floor: 5.
 Total Number of Rooms per Apartment: 5, 6, 7, 8, 9 and 11.
 Structural Floor System: Reinforced concrete joists.
 Heating: Vacuum.
 Ventilating: Exhaust system in kitchens.
 Elevators: Gearless micro-drive.
 Lighting: In galvanized conduit.

Radiators: Cast iron concealed.
 Plumbing: Enameled tubs, china lavatories and water closets; black tarred wastes and galvanized water piping.
 Windows: Steel casements.
 Trim: Birch.
 Cubical Contents: 2,750,000 ft.
 Cubic Foot Cost: 66 cents.
 Total Cost: \$1,815,000.

4940 EAST END AVENUE, CHICAGO.
 B. LEO STEIF & CO., ARCHITECTS

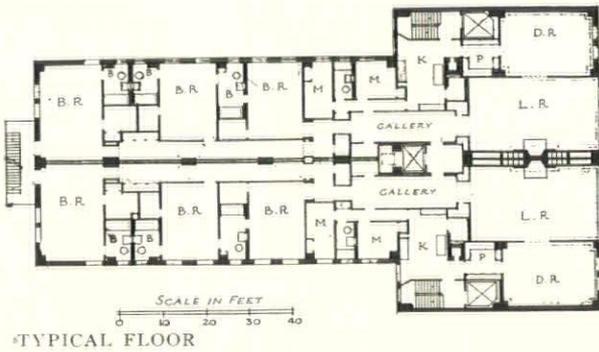


1540 LAKE SHORE DRIVE,
CHICAGO. HUSZAGH & HILL,
ARCHITECTS. J. W. McCARTHY,
CONSULTING ARCHITECT



210 EAST PEARSON
STREET, CHICAGO. HUSZAGH
& HILL, ARCHITECTS

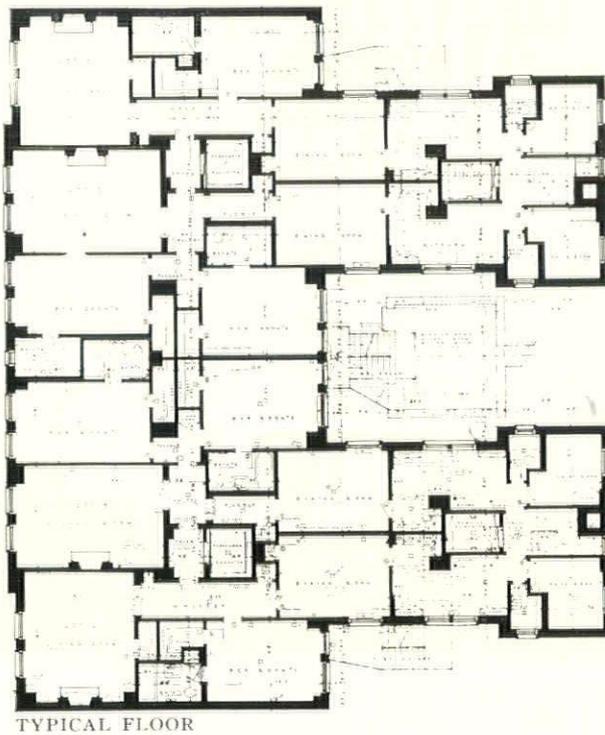
Trowbridge



1540 LAKE SHORE DRIVE, CHICAGO.
 HUSZAGH & HILL, ARCHITECTS;
 J. W. McCARTHY, CONSULTING ARCHITECT

COST AND CONSTRUCTION DATA

Date of Completion: July, 1926.
 Total Number of Apartments: 30, 8-room.
 Total Number of Apartments per Floor: 2.
 Total Number of Rooms per Apartment: 8.
 Structural Frame: Reinforced concrete.
 Structural Floor System: Concrete joists.
 Heating: Steam.
 Elevators: Electric.
 Lighting: Electric.
 Radiators: Cast iron, concealed.
 Windows: Metal casement.
 Trim: Wood.
 Cubical Contents: 1,511,000 ft.
 Cubic Foot Cost: 61 cents.
 Total Cost: \$1,521,265.



COST AND CONSTRUCTION DATA

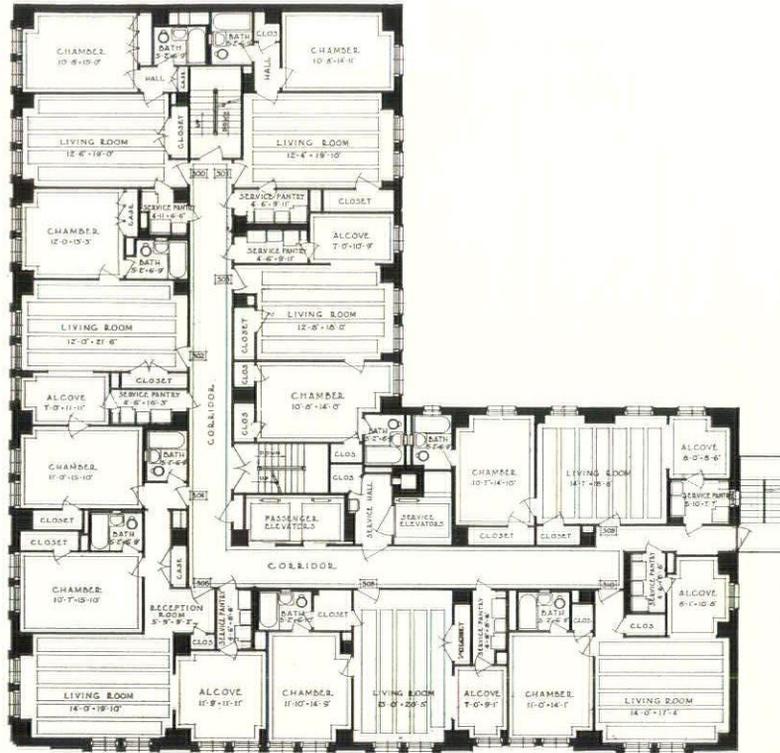
Date of Completion: October, 1927.
 Total Number of Apartments: 62.
 Total Number of Apartments per Floor: 4.
 Total Number of Rooms per Apartment:
 30, 5-room; 30, 6-room; 2, 2-room.
 Structural Frame: Concrete.
 Structural Floor System: Concrete joists.
 Heating: Steam.
 Ventilating: Bathrooms only.
 Elevators: Electric.
 Lighting: Electric.
 Radiators: Cast iron, concealed.
 Windows: Wood, double-hung.
 Trim: Wood.
 Cubical Contents: 1,230,000 ft.
 Cubic Foot Cost: 63 cents.
 Total Cost: \$1,216,926.

210 EAST PEARSON
 STREET, CHICAGO. HUSZAGH
 & HILL, ARCHITECTS



Trowbridge

201 EAST DELAWARE PLACE, CHICAGO.
THIELBAR & FUGARD, ARCHITECTS



TYPICAL FLOOR

COST AND CONSTRUCTION DATA

Date of Completion: 1926.

Total Number of Apartments: 115, including seven-room bungalow on roof.

Total Number of Apartments per Floor: 8.

Total Number of Rooms per Apartment: 2, 3, 4.

Structural Frame: Reinforced concrete.

Structural Floor System: Reinforced concrete.

Heating: Vacuum steam.

Ventilating: Bathroom exhaust only.

Elevator: Variable speed.

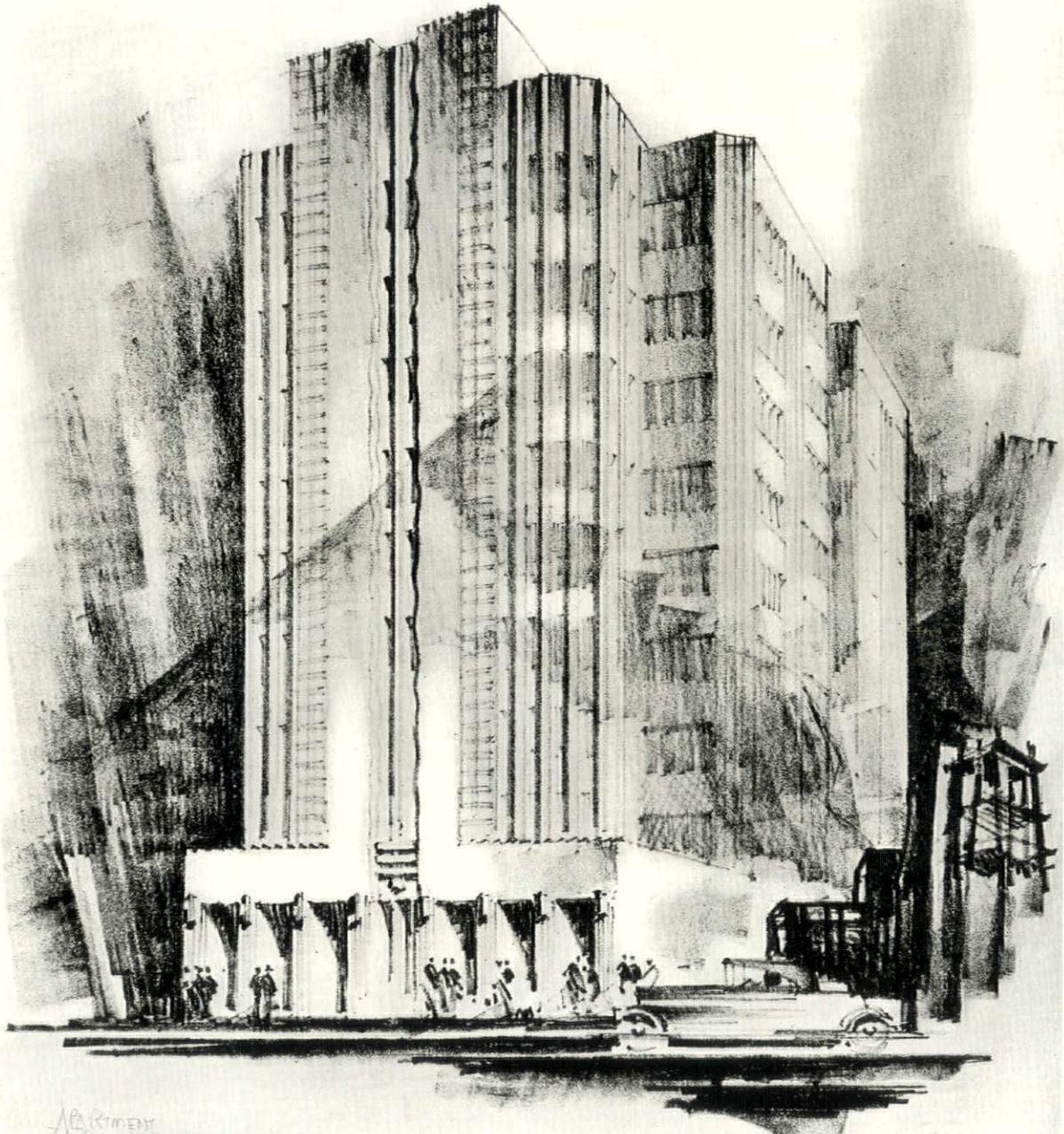
Radiators: Standard floor type.

Windows: Wood, double-hung.

Trim: Birch.

Cubic Foot Cost: 62.8 cents.

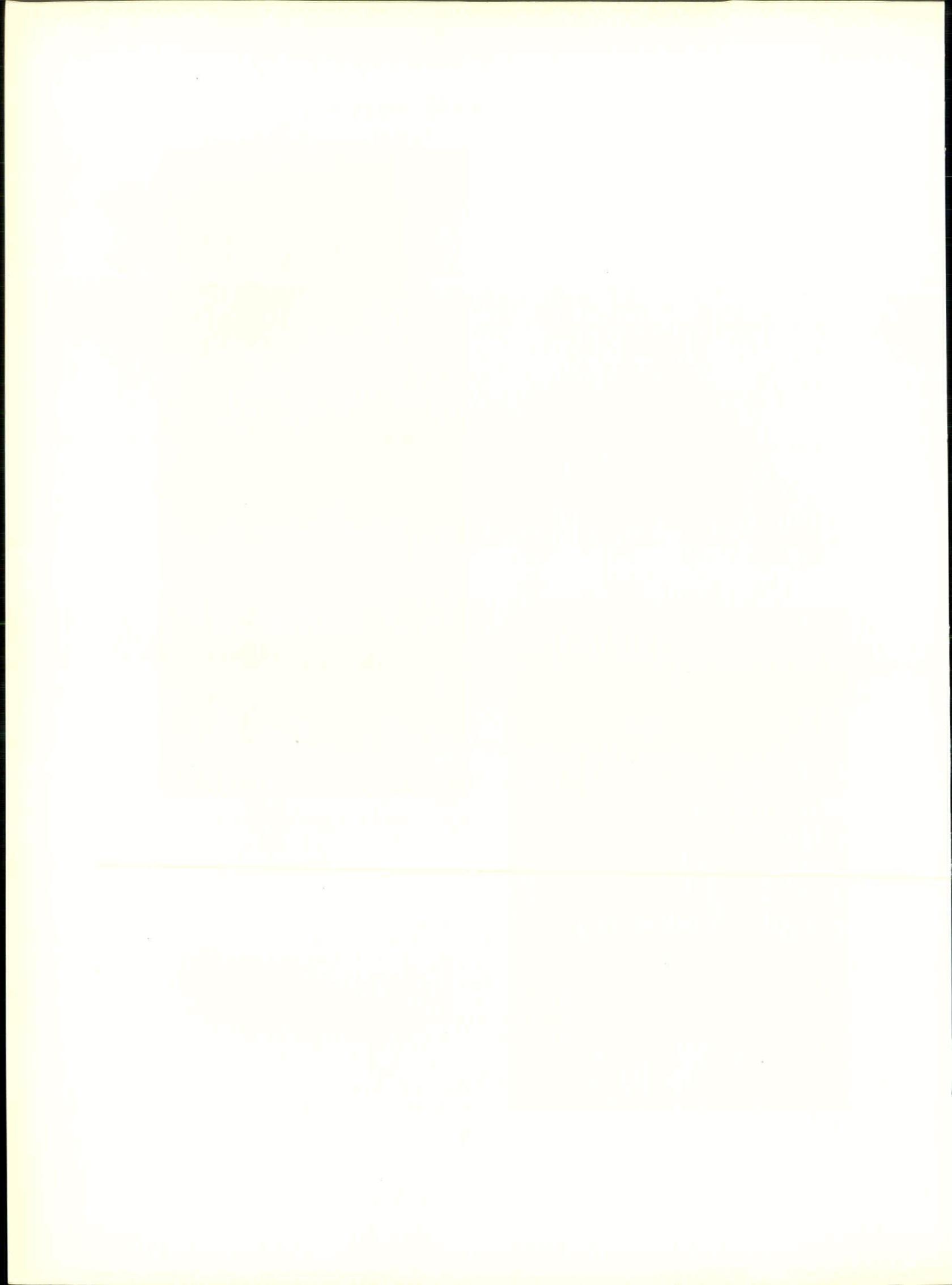
201 EAST DELAWARE PLACE, CHICAGO.
THIELBAR & FUGARD, ARCHITECTS



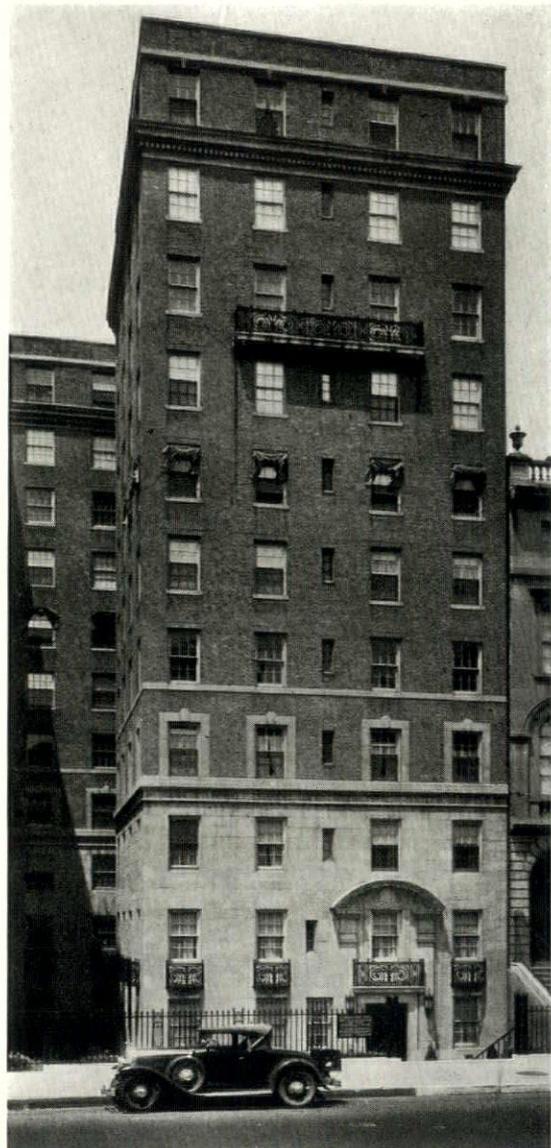
APARTMENT
FOR C. E. HAMILTON
WASHINGTON AT KINGSTONWAY
ST. LOUIS, MO.

Bowling & Shank
Archts.

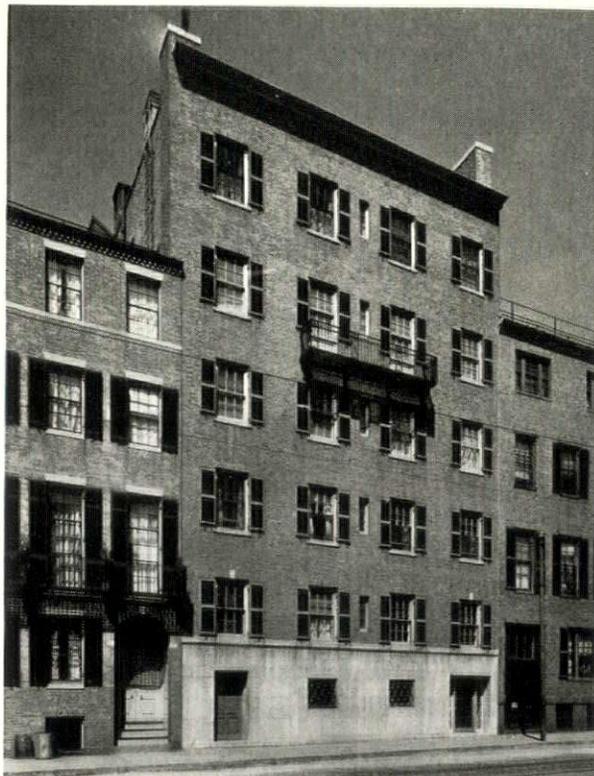
APARTMENT FOR C. E. HAMILTON, ST. LOUIS.
BOWLING & SHANK, ARCHITECTS



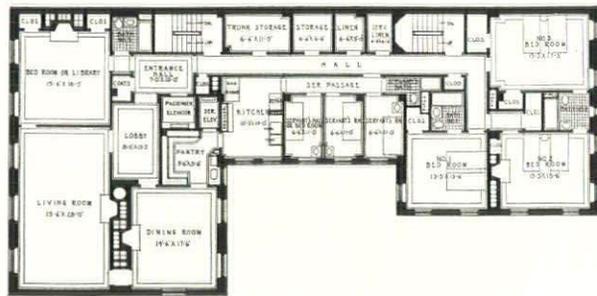
172 BEACON STREET, BOSTON.
BIGELOW & WADSWORTH, ARCHITECTS



Weber



116 CHARLES STREET, BOSTON.
BIGELOW & WADSWORTH, ARCHITECTS

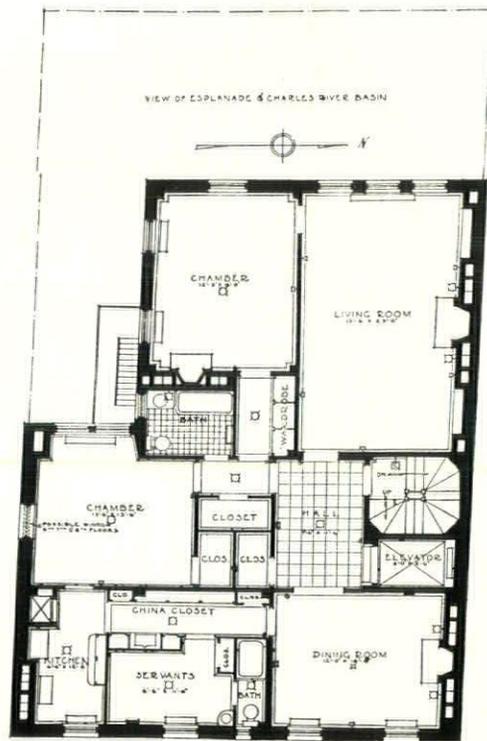


TYPICAL FLOOR

COST AND CONSTRUCTION DATA

Date of Completion: November, 1928.
 Total Number of Apartments: 10.
 Total Number of Apartments per Floor: 1.
 Total Number of Rooms per Apartment: 15.
 Structural Frame: Steel.
 Heating: Vapor.
 Elevators: Electric.
 Lighting: Electric.
 Radiators: Cast iron.
 Plumbing: Brass pipe.
 Windows: Wood.
 Trim: Wood.
 Cubical Contents: 398,230 ft.
 Cubic Foot Cost: 90 cents.
 Total Cost: \$358,407.

172 BEACON STREET, BOSTON.
 BIGELOW & WADSWORTH, ARCHITECTS

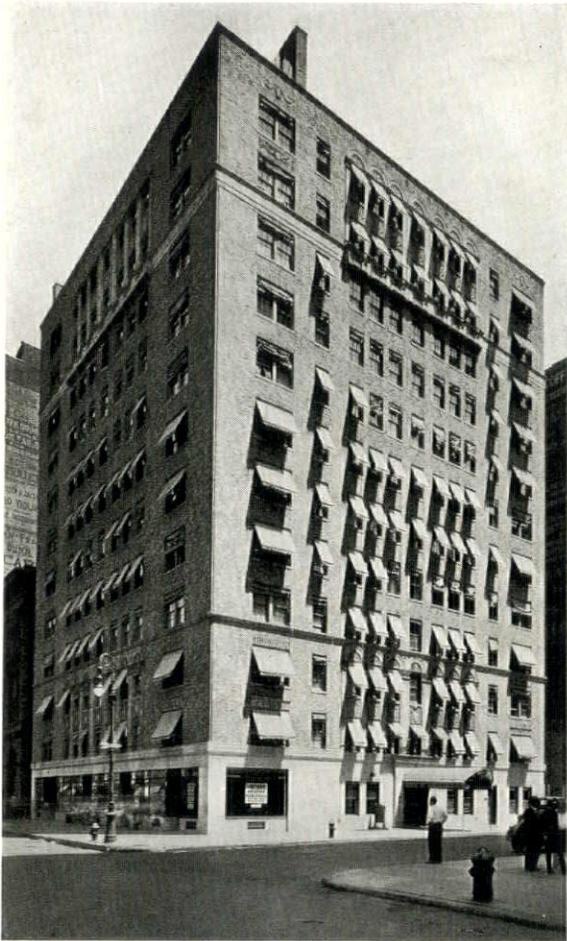


TYPICAL FLOOR

COST AND CONSTRUCTION DATA

Date of Completion: January, 1925.
 Total Number of Apartments: 5.
 Total Number of Apartments per Floor: 1.
 Total Number of Rooms per Apartment: 8.
 Structural Frame: Wood.
 Structural Floor System: Wood.
 Heating: Vapor.
 Elevators: Electric.
 Lighting: Electric.
 Radiators: Cast iron.
 Plumbing: Brass pipe.
 Windows: Wood.
 Trim: Wood.
 Cubical Contents: 96,560 ft.
 Cubic Foot Cost: 86 cents.
 Total Cost: \$82,866.

116 CHARLES STREET, BOSTON.
 BIGELOW & WADSWORTH, ARCHITECTS



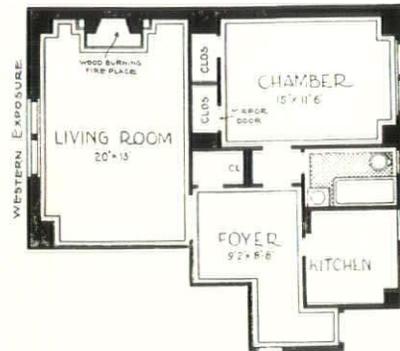
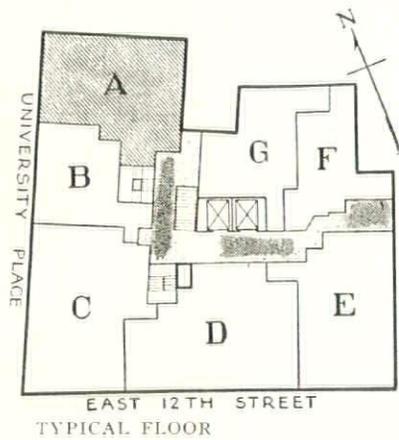
Nyholm & Lincoln

31 EAST 12TH STREET, NEW YORK.
SUGARMAN & BERGER, ARCHITECTS

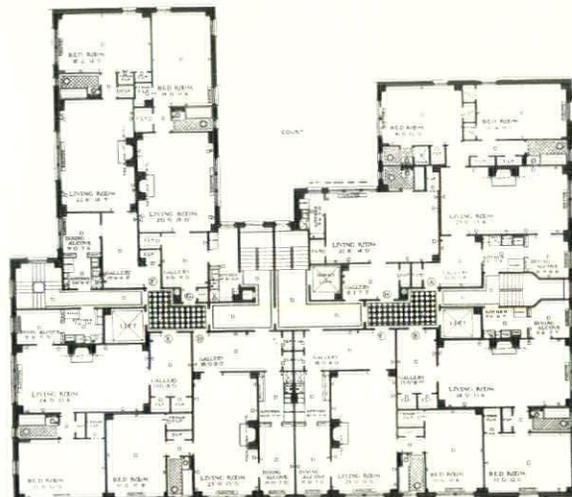


400 EAST 58TH STREET, NEW YORK.
GEORGE FRED PELHAM, ARCHITECT

Wurts



31 EAST 12TH STREET, NEW YORK.
SUGARMAN & BERGER, ARCHITECTS



400 EAST 58TH STREET, NEW YORK.
GEORGE FRED PELHAM, ARCHITECT

325 EAST 72ND STREET, NEW YORK.
LEONARD COX, ARTHUR C. HOLDEN
& ASSOCIATES, ARCHITECTS;
ALFRED BUSSELLE, CONSULTANT

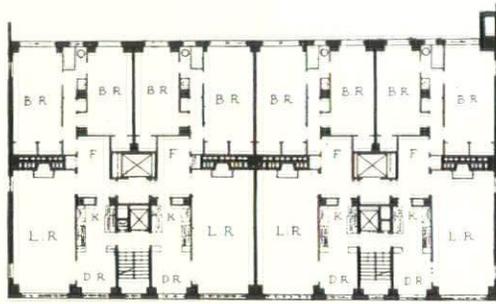


Tebbs & Knell, Inc.



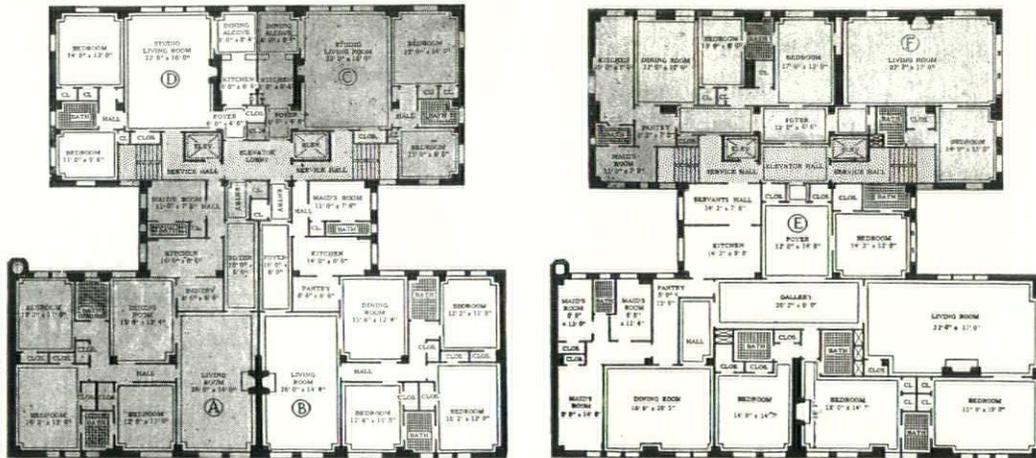
Anemya

BEEKMAN MANSION, NEW YORK.
VAN WART & WEIN, AND TREANOR
& FATIO, ASSOCIATED, ARCHITECTS



TYPICAL FLOOR

325 EAST 72ND STREET, NEW YORK.
LEONARD COX, ARTHUR C. HOLDEN
& ASSOCIATES, ARCHITECTS;
ALFRED BUSSELLE, CONSULTANT

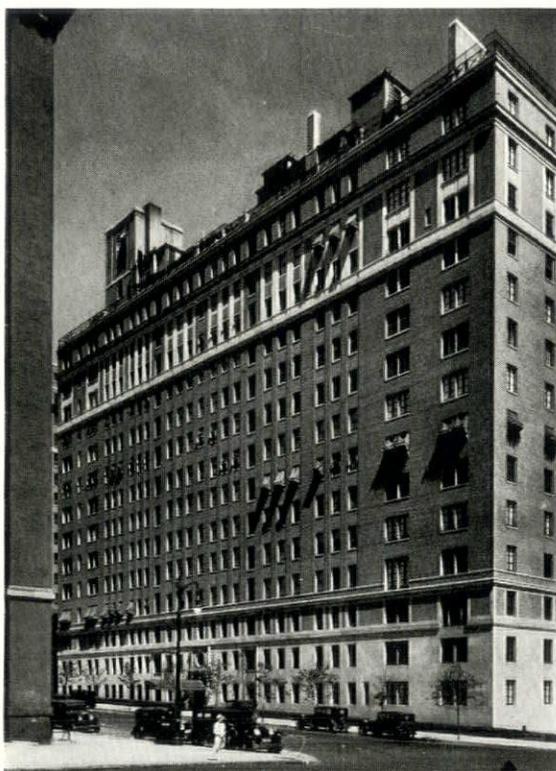


THIRD TO SEVENTH FLOORS

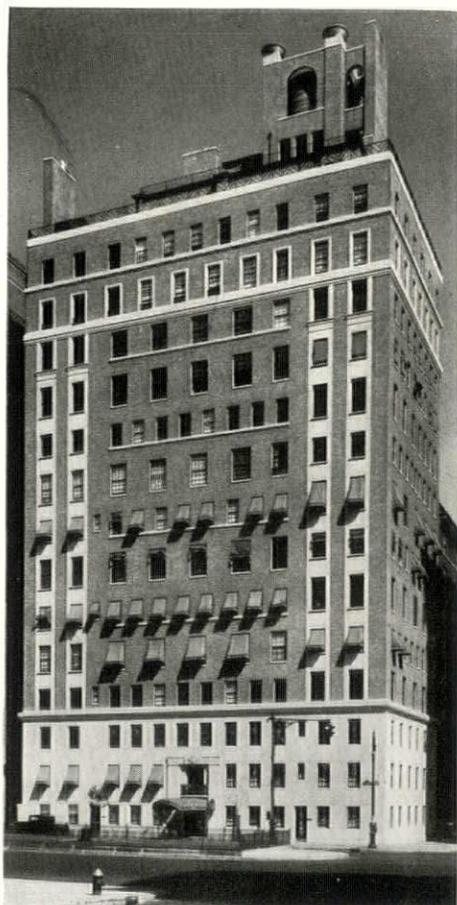
EIGHTH AND NINTH FLOORS

BEEKMAN MANSION, NEW YORK.
VAN WART & WEIN AND TREANOR
& FATIO, ASSOCIATED ARCHITECTS

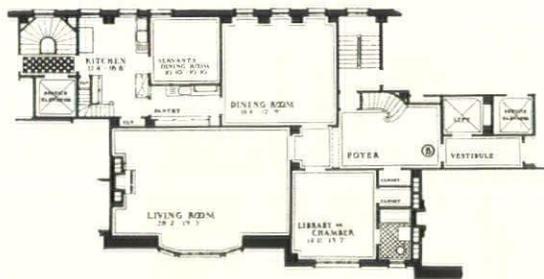
ONE EAST END AVENUE, NEW YORK.
PLEASANTS PENNINGTON AND ALBERT
W. LEWIS, ARCHITECTS. McKIM, MEAD
& WHITE, SUPERVISING ARCHITECTS



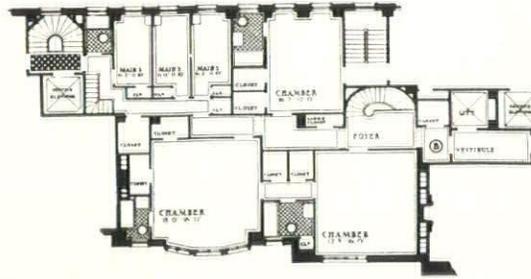
Van Anda



1001 PARK AVENUE, NEW YORK.
PLEASANTS PENNINGTON AND
ALBERT W. LEWIS, ARCHITECTS



APT. "B" DUPLEX



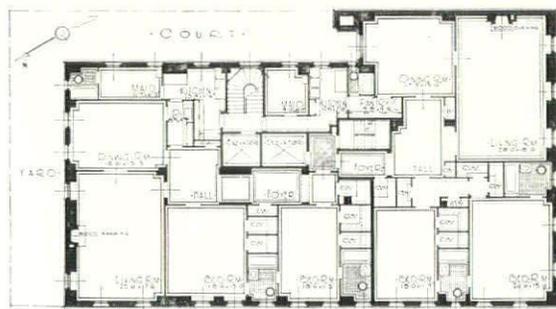
UPPER FLOOR APT. "B"

COST AND CONSTRUCTION DATA

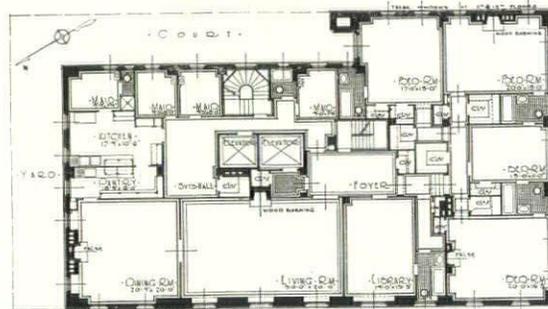
Date of Completion: October, 1929.
 Total Number of Apartments: 35.
 Total Number of Apartments per Floor: 3, varying.
 Total Number of Rooms per Apartment: 8 to 14, varying.
 Structural Frame: Steel.
 Structural Floor System: Cinder arch.
 Heating: Vapor.
 Ventilating: Ranges only.

Elevators: Electric.
 Lighting: Electric.
 Radiators: Copper.
 Plumbing: Brass piping, hot.
 Windows: Wood.
 Trim: Steel and wood.
 Cubical Contents: 1,375,000 ft.
 Cubic Foot Cost: 90 cents.
 Total Cost: \$1,239,000.

ONE EAST END AVENUE, NEW YORK.
 PLEASANTS PENNINGTON AND ALBERT W. LEWIS, ARCHITECTS; McKIM, MEAD & WHITE, SUPERVISING ARCHITECTS



3RD FLOOR



5TH, 7TH, 11TH AND 12TH FLOORS

COST AND CONSTRUCTION DATA

Date of Completion: October, 1929.
 Total Number of Apartments: 16.
 Total Number of Apartments per Floor: 1, varying.
 Total Number of Rooms per Apartment: 5 to 18.
 Structural Frame: Steel.
 Structural Floor System: Cinder arch.
 Heating: Vapor.
 Ventilating: Ranges and special cases only.
 Elevators: Electric.

Lighting: Electric.
 Radiators: Copper.
 Plumbing: Brass pipe.
 Windows: Wood.
 Trim: Steel and wood.
 Cubical Contents: 835,600 ft.
 Cubic Foot Cost: 82 cents.
 Total Cost: \$682,750.

1001 PARK AVENUE, NEW YORK.
 PLEASANTS PENNINGTON AND ALBERT W. LEWIS, ARCHITECTS

623 PARK AVENUE,
NEW YORK, J. E. R. CAR-
PENTER, ARCHITECT



Knickerbocker



Wurts

856 FIFTH AVENUE, NEW YORK,
WARREN & WETMORE, AND ROSARIO
CANDELA, ASSOCIATED, ARCHITECTS

1020 FIFTH AVENUE, NEW YORK.
WARREN & WETMORE, ARCHITECTS



Wurts



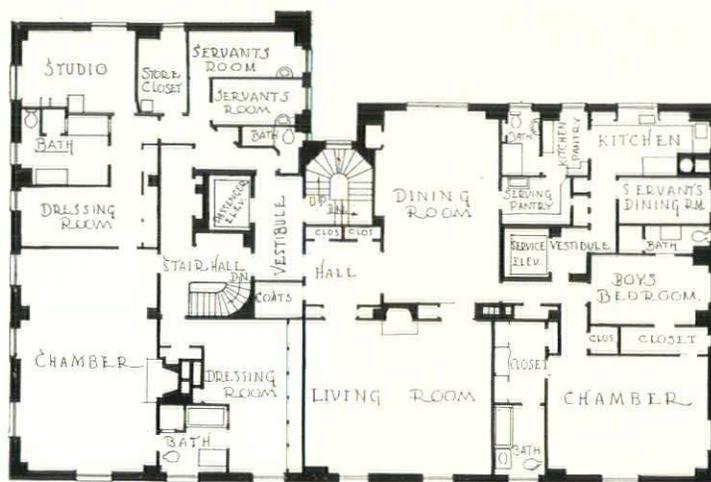
660 PARK AVENUE, NEW YORK.
YORK & SAWYER, ARCHITECTS



5TH, 7TH, 8TH, 10TH AND 11TH FLOORS

6TH, 9TH AND 12TH FLOORS

1020 FIFTH AVENUE, NEW YORK.
WARREN & WETMORE, ARCHITECTS



8TH FLOOR

Scale in Feet

660 PARK AVENUE, NEW YORK.
YORK & SAWYER, ARCHITECTS

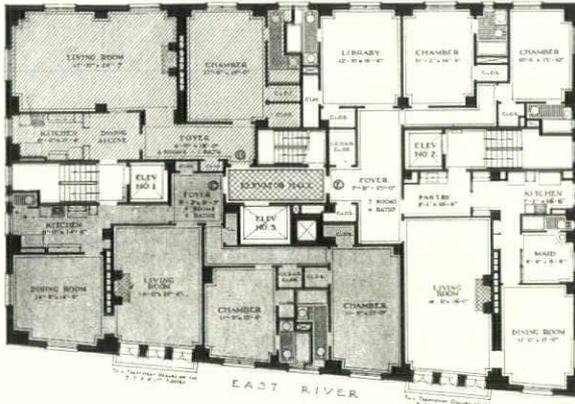
25 EAST END AVENUE, NEW YORK.
CROSS & CROSS, ARCHITECTS



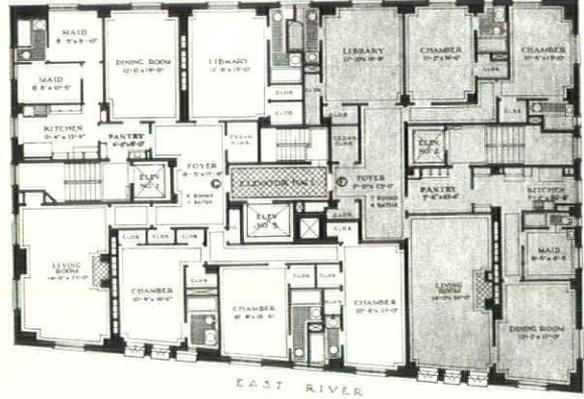
Wurts



155 EAST 72ND STREET, NEW YORK.
CROSS & CROSS, ARCHITECTS

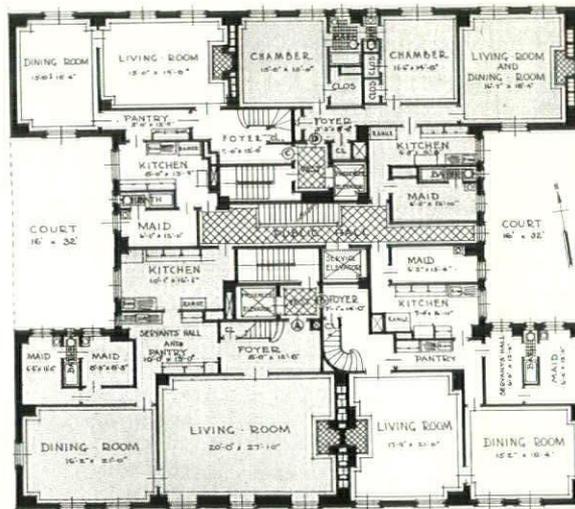


4TH TO 12TH FLOORS

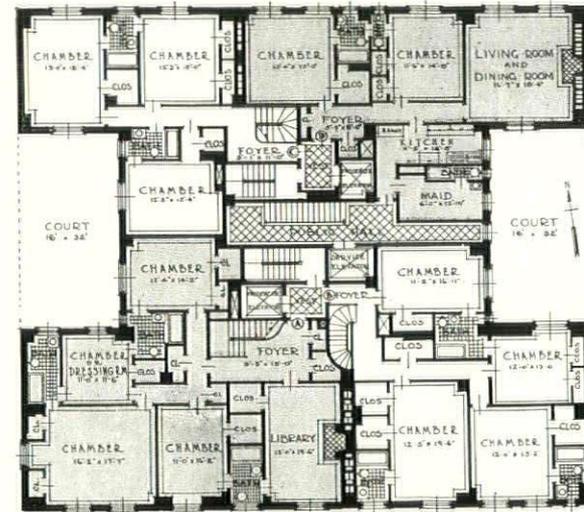


13TH AND 14TH FLOORS

25 EAST END AVENUE, NEW YORK.
CROSS & CROSS, ARCHITECTS



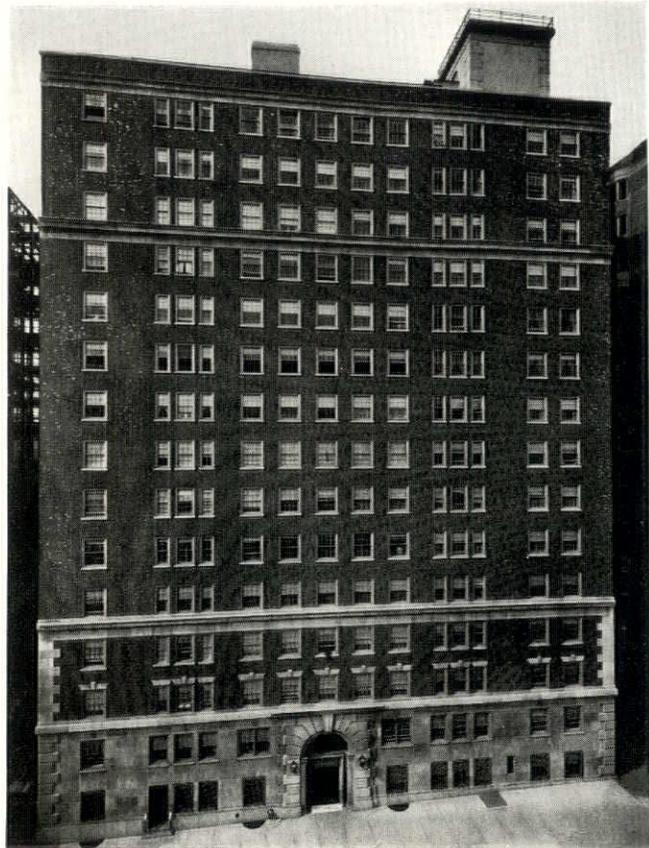
TYPICAL LIVING ROOM FLOOR



TYPICAL BEDROOM FLOOR

155 EAST 72ND STREET, NEW YORK.
CROSS & CROSS, ARCHITECTS

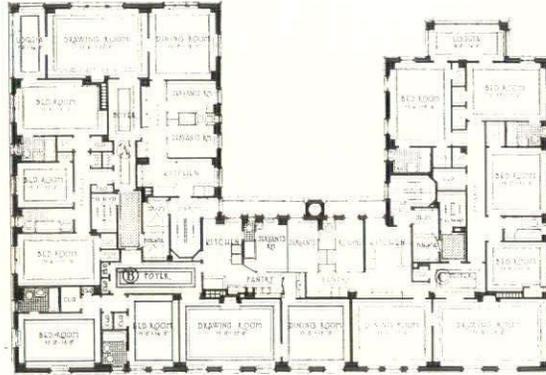
530 EAST 86TH STREET, NEW YORK.
CHARLES A. PLATT, ARCHITECT



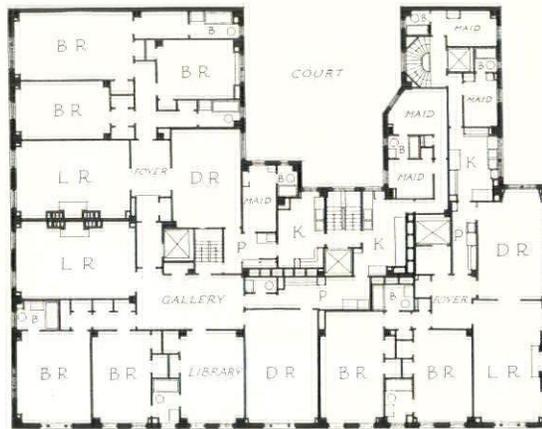
Wurts



30 SUTTON PLACE, NEW YORK.
ROSARIO CANDELA, ARCHITECT.
PEABODY, WILSON & BROWN,
SUPERVISING ARCHITECTS



530 EAST 86TH STREET, NEW YORK.
CHARLES A. PLATT, ARCHITECT



30 SUTTON PLACE, NEW YORK.
ROSARIO CANDELA, ARCHITECT;
PEABODY, WILSON & BROWN,
SUPERVISING ARCHITECTS

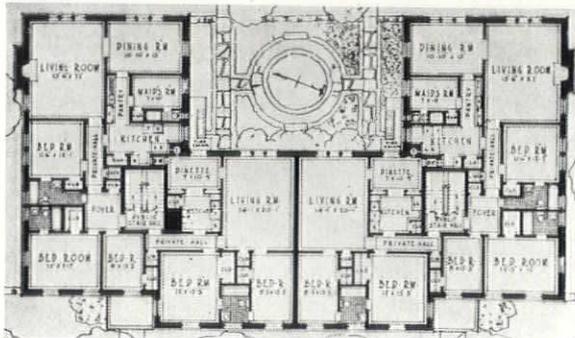
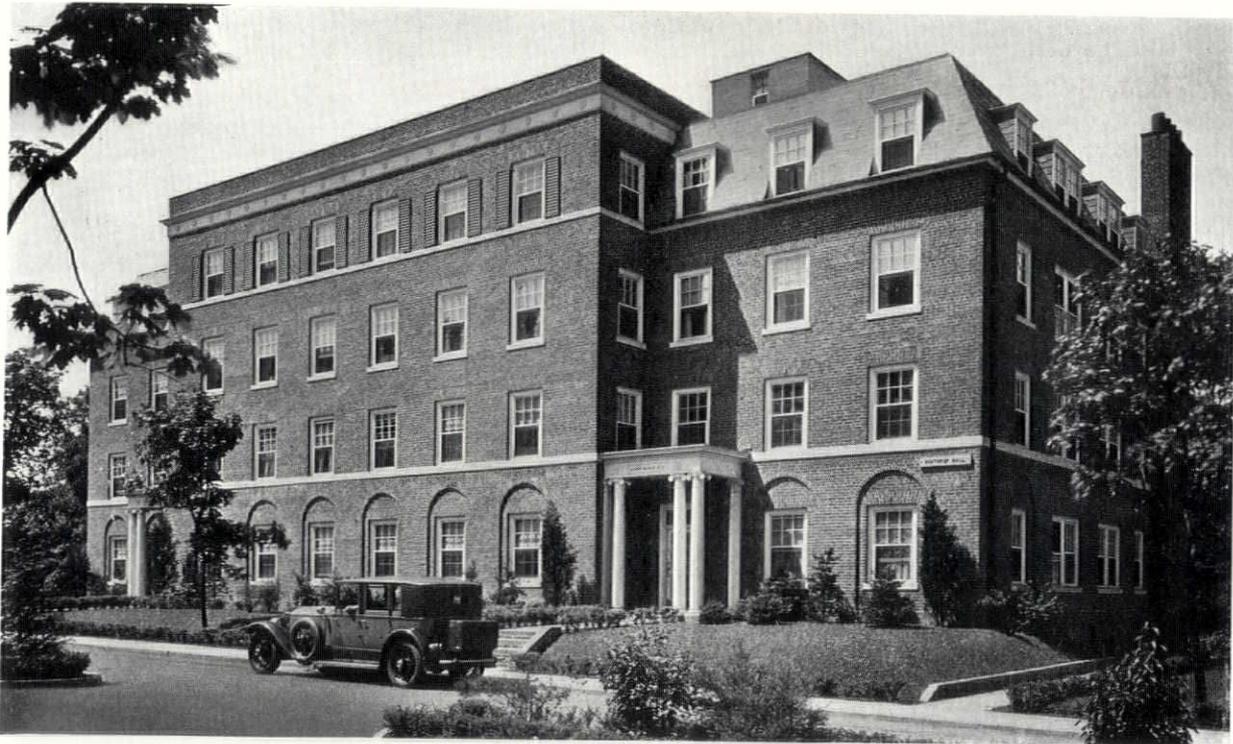
SUBURBAN APARTMENTS

BY
PENROSE STOUT

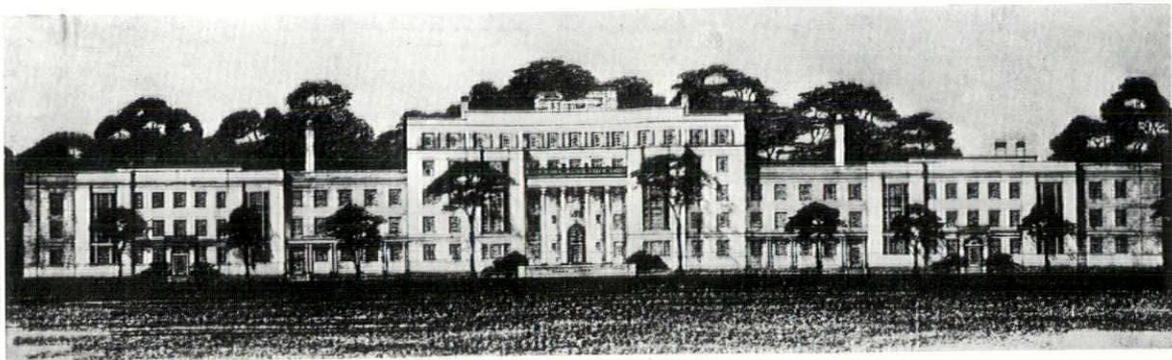
THE suburban apartment house is a matter of recent evolution. It is only in the last twenty years that any real progress has been made in the development of such multi-family groups of a definite suburban character. The movement began with the adaptation of old mansions to house several families. Alger Court, in Bronxville, New York, is reputed to be one of the first, if not the first of these adaptations, and it is significant that this has been fully rented ever since it was changed from the old Swain mansion into its present form. Definite attempts soon followed to design suburban apartment dwellings which would have the same advantages of fresh air, sunlight, and attractive landscape settings, as are concomitants of suburban private residences.

SUBURBAN ADVANTAGES

The reasons for the ever-increasing demand for the right kind of suburban apartments are obvious, but should be carefully borne in mind in approaching the problem of design. Improved railroad transit, new roads and parkways, and the multiplication of automobiles have all helped to increase the commuting population of the larger cities. The suburbs usually have good schools and they are free from the dangers of heavy traffic to which the children in city schools are exposed. Finally, there are the recreational facilities such as golf and tennis, bathing beaches and bridle paths, country clubs and open spaces, which are not found in urban centers. Hence, it is not surprising that people are being attracted to apart-



Exterior and Plan of
Winthrop Hall, Bronxville.
Penrose Stout, Architect



Pencil Sketch of the Apartment House at Bronxville, Called "The Colonnade." Penrose Stout, Architect

Below: First Floor Plan of an Apartment House at Bronxville, Called "The Colonnade." Penrose Stout, Architect

ment houses outside the city, providing these structures can satisfy the wants of their discriminating tenants. The advantages which they expect are more light and air, less noise, cross ventilation, and an attractive outlook—and all this at a rental below that which they would have to pay for the same number of rooms in town. Experience has shown that, in order to meet their expectations, the buildings should be set well back from the street, with attractively landscaped grounds, and ample provision for both parking and housing automobiles.

HIGH UNITS DESIRABLE

That these conditions can be fulfilled on a financially profitable basis is due, of course, to the lower cost of land in suburban areas. It is doubtful whether enough advantage of this fact has been taken, and it might be mentioned here that such advantage does not necessarily preclude high apartment units. There is much to be said in favor of suburban apartments of six or more stories, provided the coverage of the site is limited proportionately. The upper floors gain in light and air, and every tenant has the advantage of an increase in the surrounding garden space.

LAYOUT AND OUTLOOK

To insure a low rate of vacancies, which is essential for a fair return on the investment, a suburban apartment house should have in abundance the advantages that building in the suburbs makes possible. Zoning regulations have undoubtedly helped to encourage open types of apartment houses, but a limited coverage does not completely solve the problem. The garden spaces must be effectively arranged so that each apartment in the building may have a pleasant outlook.

MODERN EQUIPMENT INDISPENSABLE

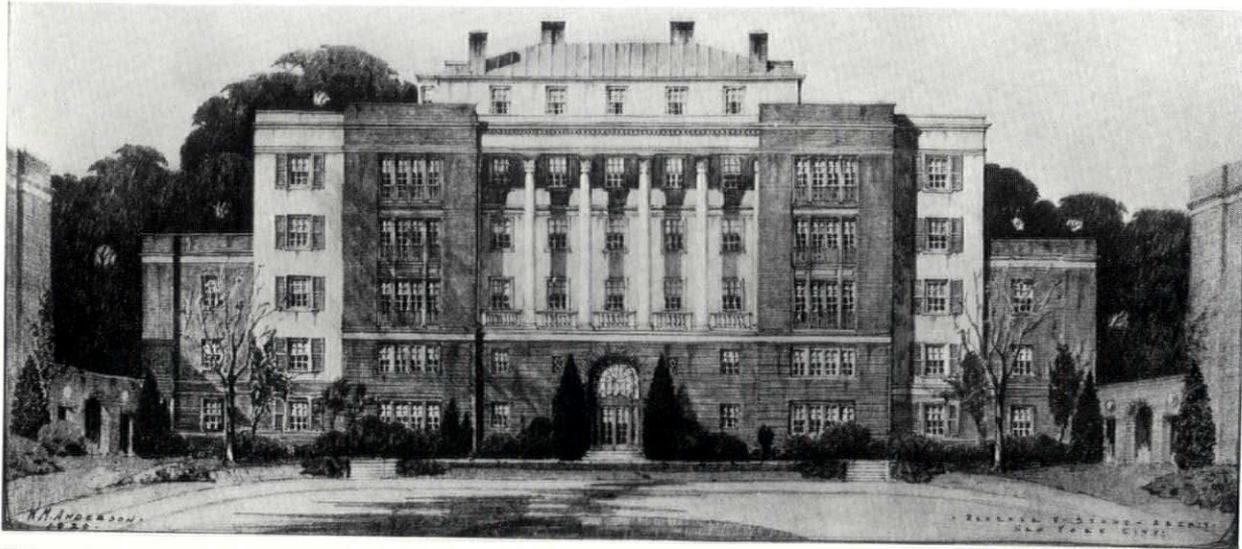
We are witnessing today the introduction of new devices for use in the home and apartment in



unprecedented numbers, and their advantages are advertised more cleverly and alluringly than ever before. The people who never heard of colored bath fixtures, chromium finish, incinerators, electric refrigeration, electric dishwashers, steel cabinets, folding ironing boards, Vita glass and concealed radiation, until a few years ago, are now made to believe that they are indispensable. The apartment houses built before their advent and adaptation are considered "out-of-date." Certainly they are features of large attraction, and their effect has been to create a tendency among the tenants to become more and more transient, causing the owners grave concern. To combat this tendency it is necessary to look well ahead and give ample consideration to modern equipment, but equipment which is modern today is out of date tomorrow. It is, of course, important that such properties be kept abreast of the times to retain their attractiveness, but it is frequently impossible for physical or financial reasons to provide every new modern appliance.

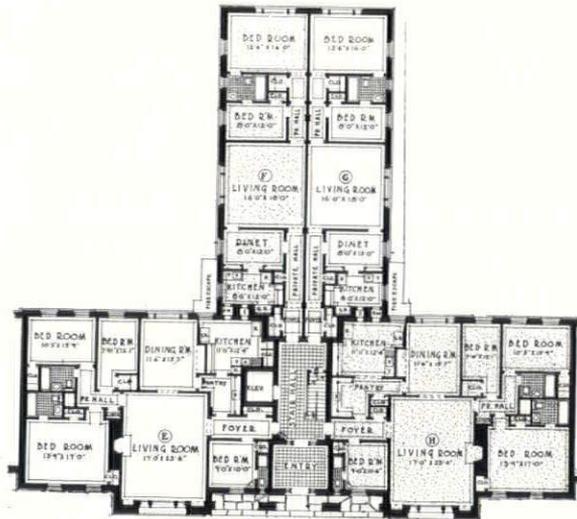
PLAN AND DESIGN

If basic features of plan and design are wisely and generously provided in the beginning, they will go a long way toward satisfying the tenant. He is not so apt to be lured to a fresh new apartment



Below: Plan of "The Arches,"
Bronxville, New York.
Penrose Stout, Architect

"The Georgian,"
Bronxville, New York.
Penrose Stout, Architect



with some more recent equipment if the ventilation is not so good, the plan not so convenient, the rooms not so large, or the buildings not so characterful and dignified as the one he now occupies. Experience has demonstrated that narrow units, about thirty-three feet wide, are advantageous in suburban multi-family dwellings, as this facilitates a design with none of the apartments more than two rooms deep, thus insuring cross ventilation. The narrow units require more exterior entrances, but long public halls are made unnecessary. By placing the living room near the entrance to the apartment, with the bedrooms beyond, a real economy of hall space is achieved. Plenty of light and ventilation is assured to the main rooms if the dining room and living room,

having opposite exposures, run through the width of the buildings.

VESTIBULES AND ENTRANCE FOYERS

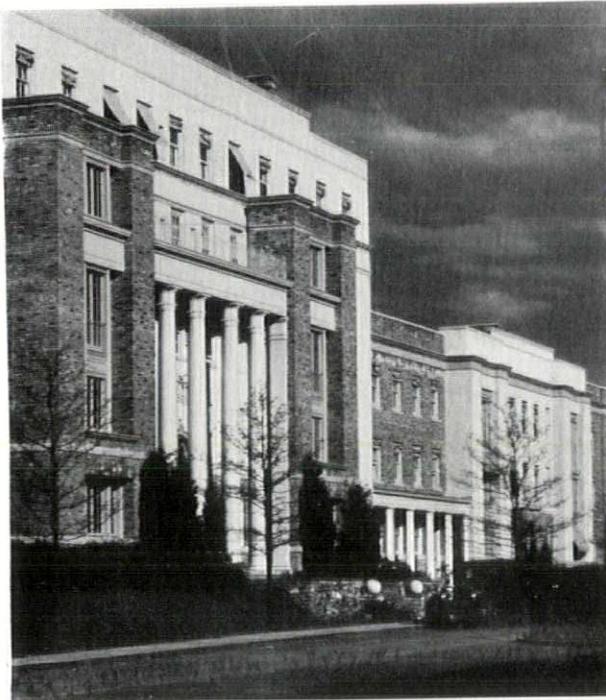
It is particularly important in suburban apartments to avoid small, poorly lighted vestibules. This first impression is important and is frequently taken as an index of what lies beyond. It seems well to be lavish at this point, for although no one rents the entrance or the vestibule, yet they reflect very directly upon the apartments they serve, and since they serve several apartments we can afford to treat them well and obtain those qualities of dignity, distinction and charm that one might expect to grace the main entrance of a country home.

DEMAND INCREASING

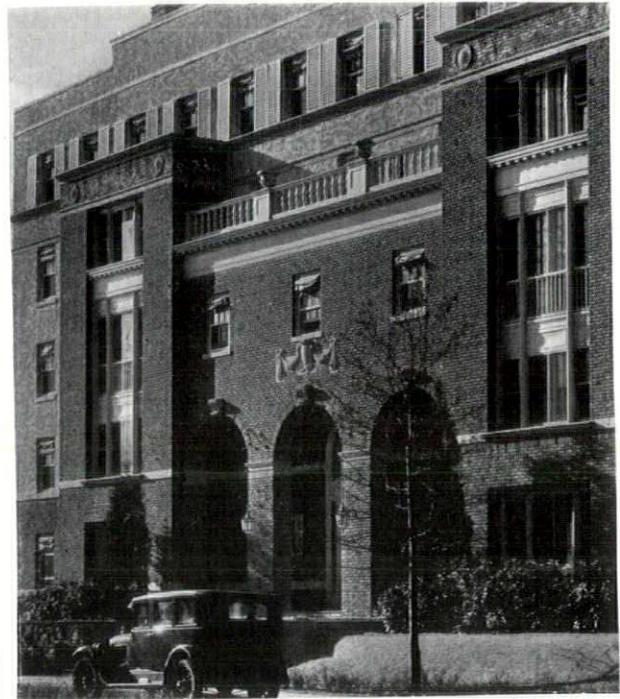
There can be little doubt that the demand for suburban apartments will continue to increase in number as our business centers become more densely occupied and our cities less attractive places in which to live. Life, both business and social, is becoming increasingly complex, and the servant problem adds its trials to further develop this urge on a large part of the public for a more simplified home life where care, maintenance and responsibility are left to the landlord.

**ADJACENT PROPERTY OWNERS
MUST BE CONSIDERED**

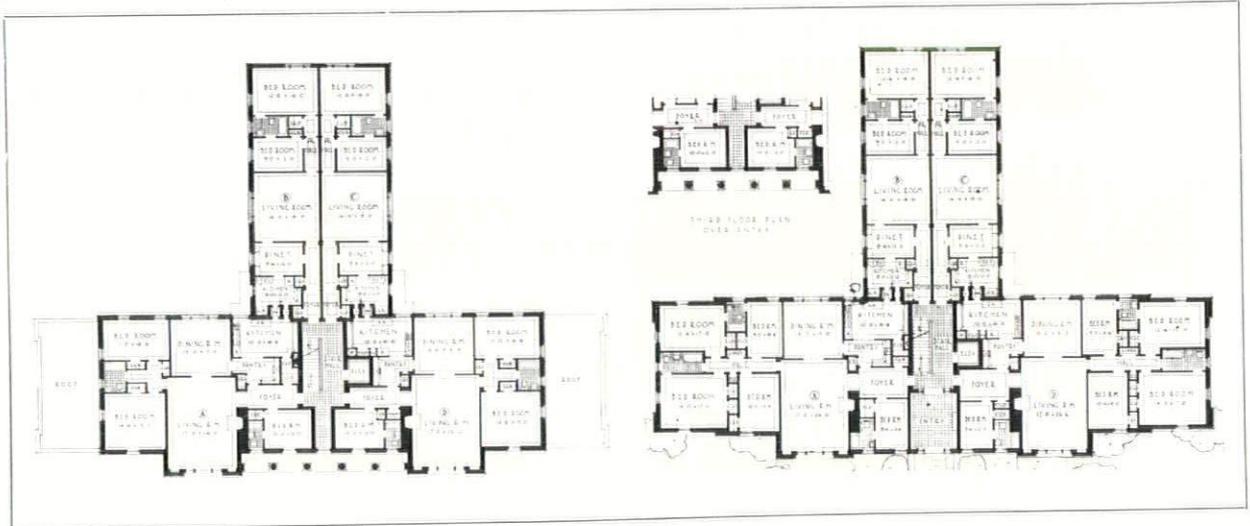
Too many apartments have been built in the suburbs without regard to environment and effect on adjacent property. Desirable residential property has too frequently been blighted by apartments of poor character crowding their boundaries. This has often resulted in public disfavor and condemnation of all apartment houses in



James Owen
Detail of "The Colonnade."
Plans of "The Georgian"



James Owen
"The Arches," Bronxville.
Penrose Stout, Architect



their community. But apartment houses will come, forced by population pressure, increasing property value and taxation. So it behooves us to reconcile our communities to their advent by intelligent forethought and direction. Architects can serve in this regard by helping to create well devised zoning ordinances and building ordinances in the suburban communities and by influencing the individual owner to build creditably and in sympathy with his environment. The field is large and because it is comparatively new, it offers the architect a stimulating opportunity to express himself originally and to help preserve

and enhance rather than disfigure and destroy the charm of our suburbs.

The stock market slump last fall, with its subsequent business depression, put an end to the hasty over-production of apartment houses that was taking place on the outskirts of our larger cities, and it is to be hoped that wiser councils and better judgment will prevail when money for real estate improvement becomes again available. It is believed that investors and mortgage companies have learned the necessity of exercising a more careful discrimination in approval of buildings on which money is to be loaned.

OPPORTUNITY IN THE GARDEN APARTMENT

BY

JOHN TAYLOR BOYD, JR.

WITHIN the past ten years the garden apartment has come to the fore as one of the important classes of American buildings. Whether this is likely to continue is an interesting question. I believe that the answer is in the affirmative. There is good reason for believing that conditions and tendencies in the real estate field today offer excellent opportunities for the garden apartment type in the years immediately ahead.

SUPERIORITY OF GARDEN APARTMENTS

Experience with the garden apartment has proved rather conclusively that it has marked superiority over the two competing classes of residence buildings,—the individual house, either of the detached or the row type, on the one hand, and on the other hand the old fashioned congested apartment house that is built as solidly up to the building line and to the property lines as law will allow. As regards the first competitor, it is noteworthy that the trend toward apartment house living has set in, stronger than ever during the last couple of years, as statistics of new construction show. This appears to be true all over the country, even in those cities where authorities once declared that people would never forsake their individual homes for apartments. But householders, particularly young married people,

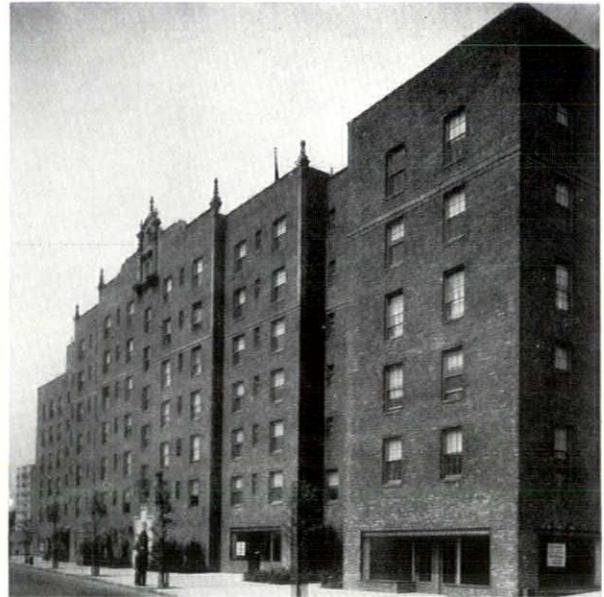
prefer the greater conveniences of an apartment and the central location that is likely to go with it, to say nothing of its greater economy. People also wish to have as much as is practicable of the amenities, and with the beauty and the openness, light, garden surroundings and the outlook that characterize the detached house in mind, they naturally prefer the garden type of apartment. So much for the point of view of the renting public. From the viewpoint of the promoter or investor, the garden apartment has in general superior investment value over either the older apartment type or the individual house. Thus, it is likely to be the easiest type to finance. I believe that mortgage interests are recognizing this fact.

Another significant trend favors the growth of the garden apartment idea. There is the increasing tendency,—in New York at least,—toward the large unit of operation as being the most economical. In residence building the most economical unit is felt to be a city block or more. Among real estate experts, builders and mortgage interests as well as architects, there is a growing understanding of the fact that the advantages of the large operation are so great that it is the "coming thing," and the "only thing," in many cases in this present buyers' market in real estate. This opinion is being supported in practice. For

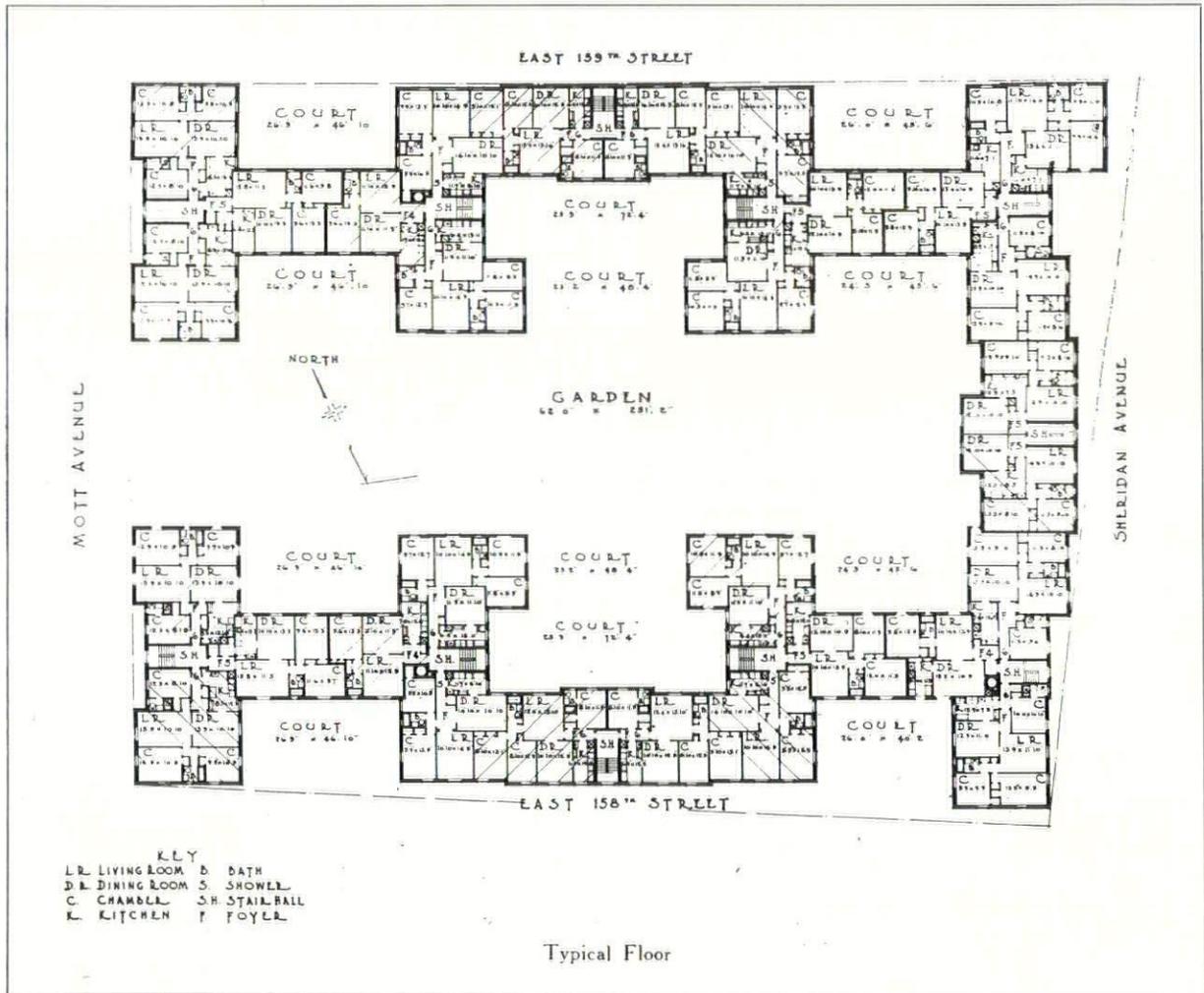


Van Anda

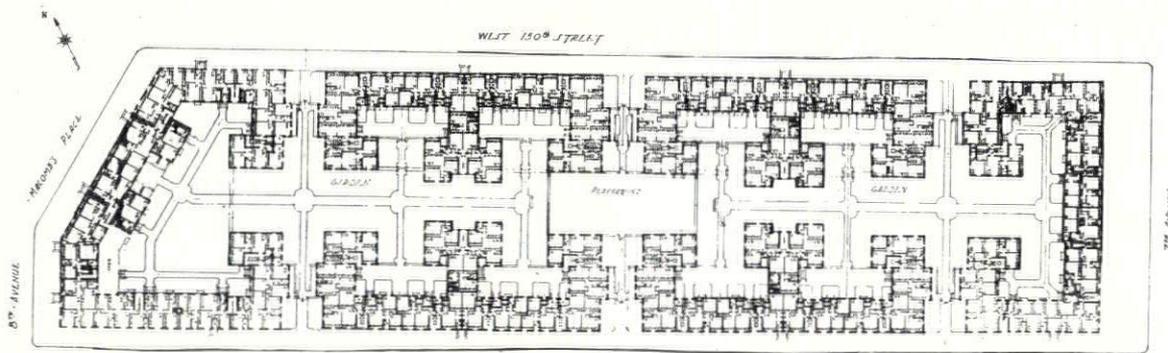
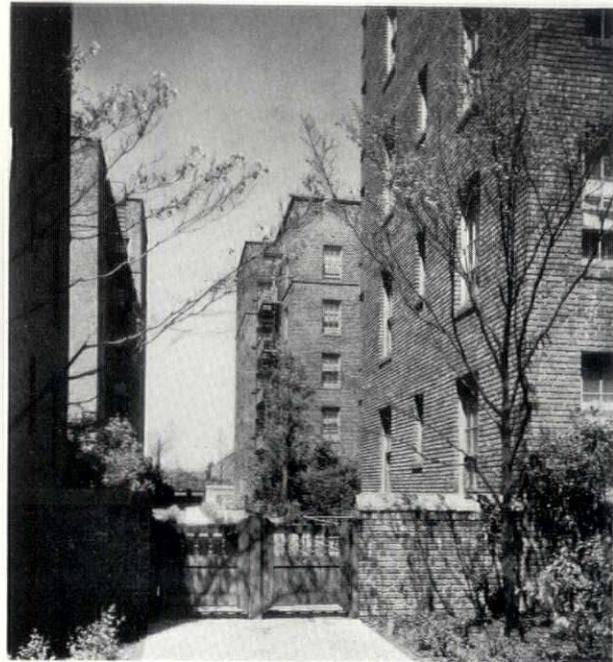
Thomas Gardens Apartments, New York
Andrew J. Thomas, Architect



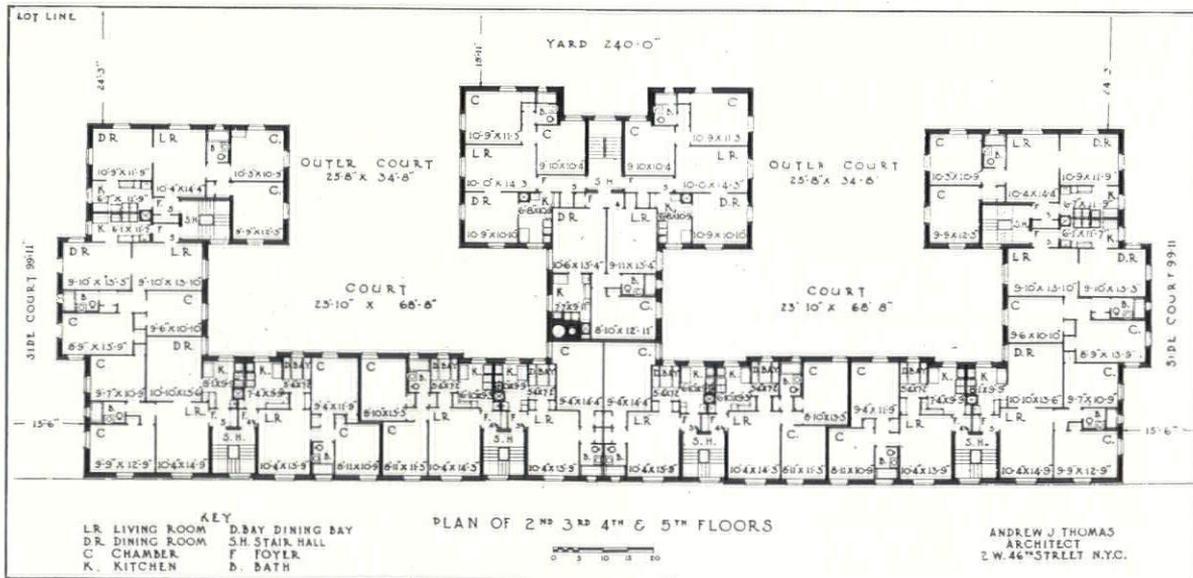
Van Anda



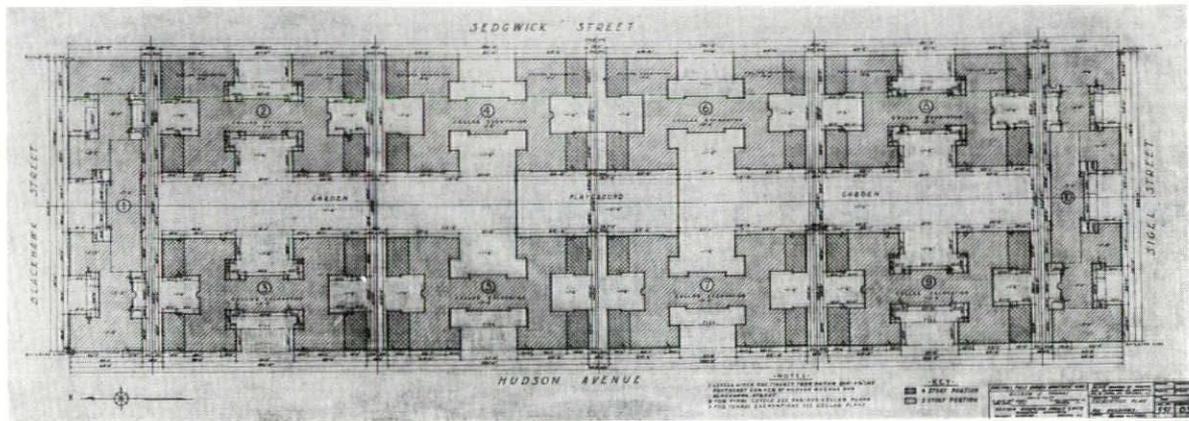
Thomas Gardens Apartments, New York
 Andrew J. Thomas, Architect



Plot Plan

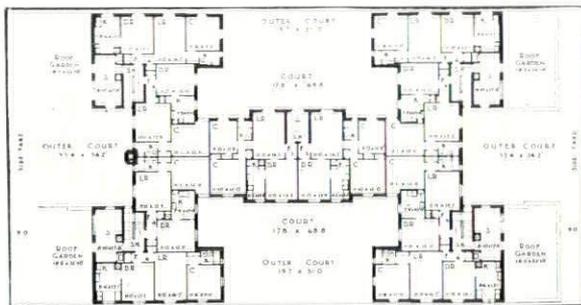


Dunbar Apartments, New York
Andrew J. Thomas, Architect

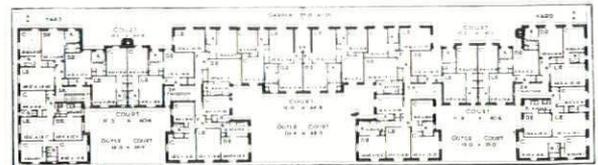


General Plan

Typical Center Building



End Buildings

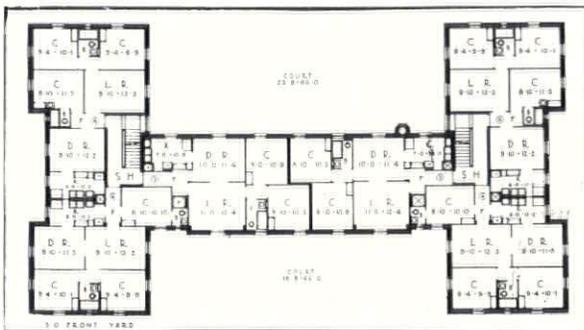


Marshall Field Garden Apartments, Chicago. Andrew J. Thomas, Architect. Graham, Anderson, Probst & White, Consulting Architects



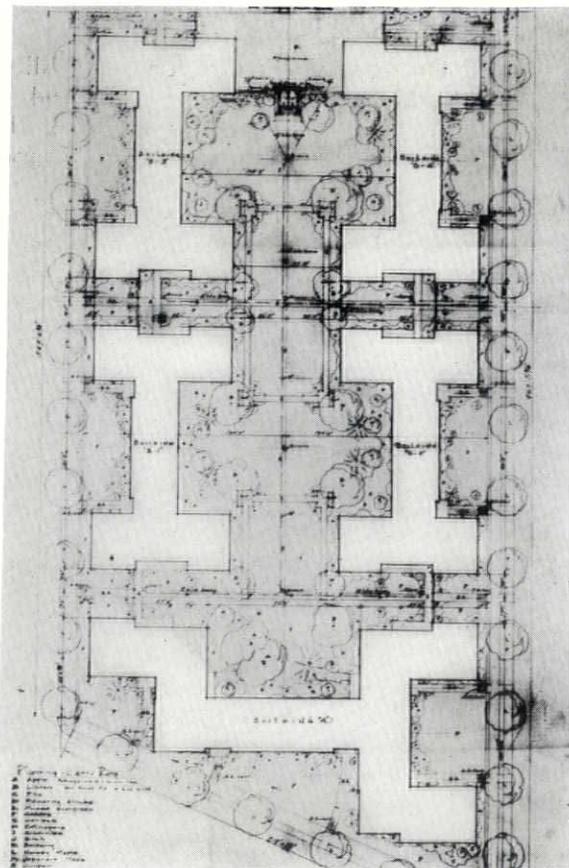
Apartments for the Bayonne Housing Corporation, Bayonne,
N. J. Andrew J. Thomas, Architect

Van Ande



Typical Floor Plan

well over a year in New York the activity in real estate trading, promotion and construction has centered more and more in the hands of about a dozen of the largest organizations, who appear to be very active on a huge scale, doing volume business in the largest possible units. Most of them are of the type of strong public real estate,—financing,—construction companies described in the articles published in THE ARCHITECTURAL FORUM last year, entitled "Wall Street Enters the Building Field." In this buyers' market these strong companies are more active, and they are expanding faster than ever before, if one may judge from the frequent reports of their operations in the real estate news sections of the press. It is an apt illustration of the economic



principle that the test of an organization is its ability to make hay while the sun does not shine. A few of these concerns are reported to have been buyers of residence properties. The point to be noted here is that almost inevitably the huge operation, comprising one or more city blocks, means the use of the garden apartment type. In a buyers' market one must offer goods of better quality than the other fellow's and at a lower price. In other words, why not produce the garden apartment type?

ADVANTAGES OF LARGE SCALE OPERATIONS

The large scale of these operations and their low-cost financing of equities and junior mortgages together make possible the lower price to the public; and the large plottages assembled furnish opportunity for the garden plan layout. With the garden layout there may be created a sort of monopoly of the sales appeal attractiveness and of the new, improved standards that lie so close to the heart of Americans. This superiority, in the competition of a buyers' market, may attract tenants out of older buildings, thus rendering them prematurely obsolete, gray-haired before their time. In this present economic situation there is also to be considered the important phase of land values and site prices. Hitherto the chief handicap to the rise of the garden apartment to an important position among the most widely used types of American buildings has been the inertia of the building industry and its allied interests who felt that it was too difficult and too costly to purchase enough land in a given operation to allow the garden type. In a sellers' and speculators' boom market, this was thought to be a waste of good money. For, in the post-war housing shortage, would not almost anything sell and rent, even apartments having a large proportion of dark, poorly ventilated rooms, drab surroundings, and badly planned houses? On top of this reluctance was there also not failure to understand that small sites with maximum coverage of building usually involve a heavy loss of efficiency in the plan of the building itself as compared with very large sites with buildings of low coverage, a loss so great that high coverage does not often pay on an investment?

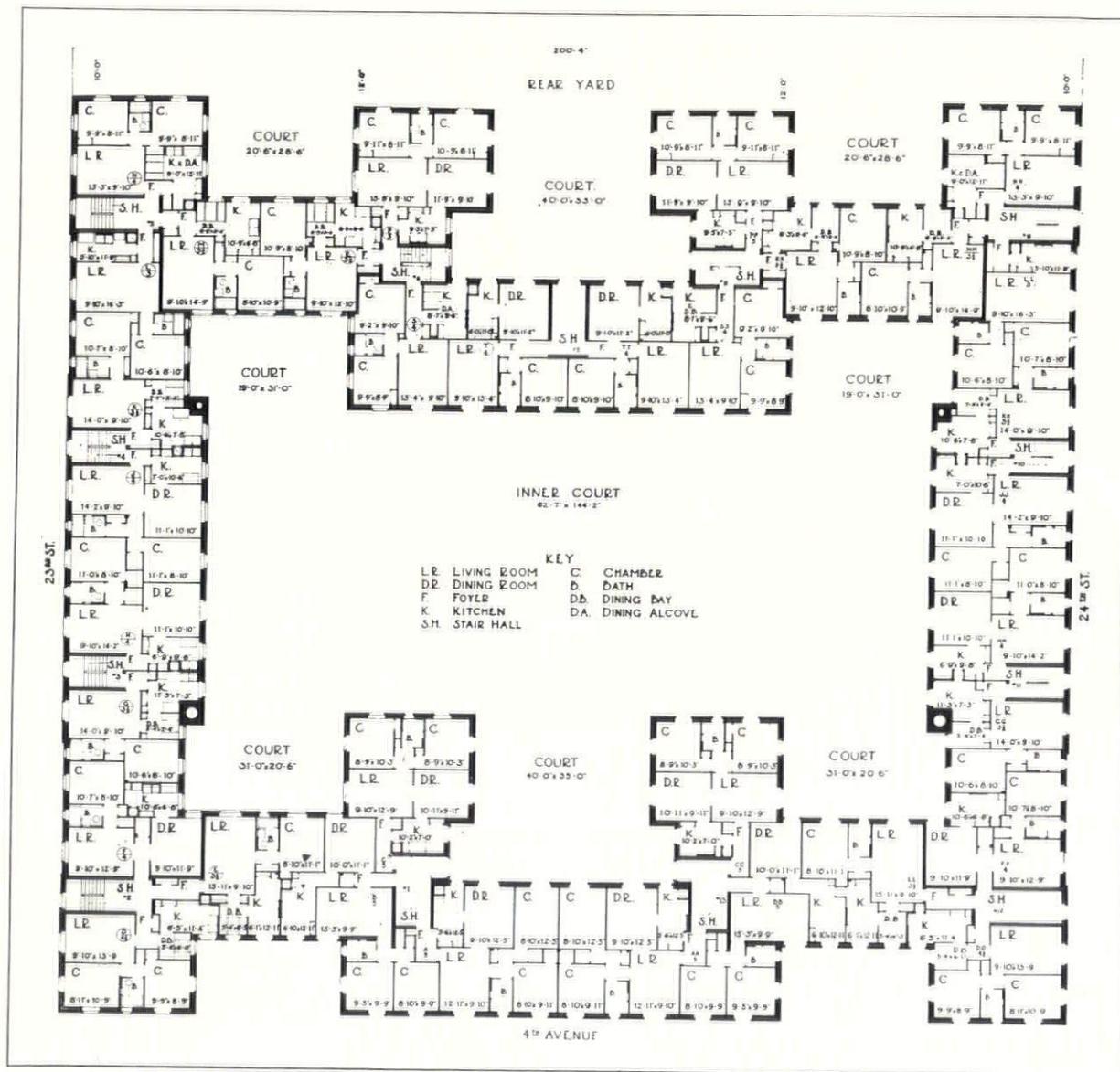
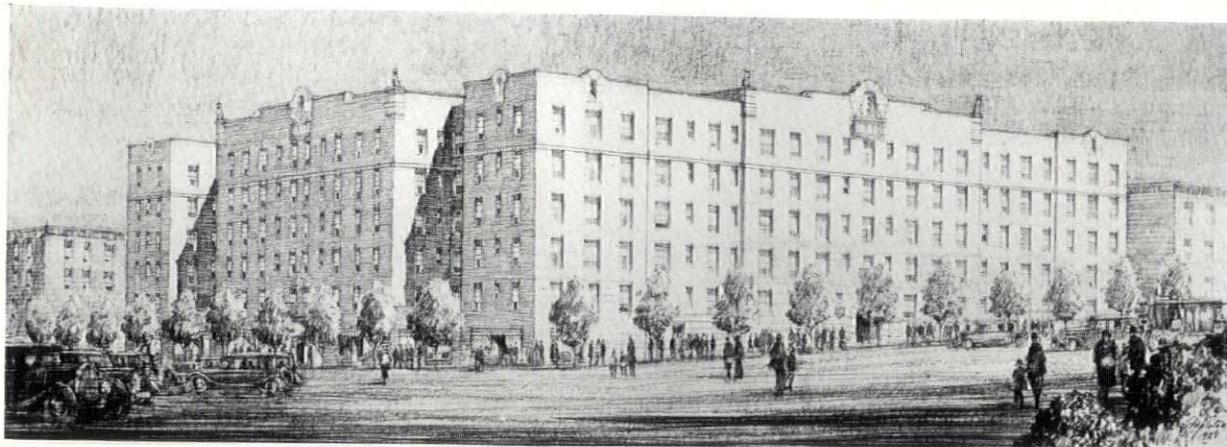
FALLACY OF HIGH COVERAGE

This fallacy of high coverage still persists, notwithstanding all that has been written in disproof of it in the architectural journals during the past two years. Therefore one more illustration may be of interest. It happens that with Arthur C. Holden and Associates, I am consulting architect of the East Side Chamber of Commerce of New York. This organization is taking an active leadership in promoting the rehabilitation of that admirably located district on the edge of two of

the greatest business centers in the world, but one which is today in a sad state of blight due chiefly to the obsolete buildings of all types which cover the district solidly. The purpose of the East Side Chamber is to encourage builders to come into the district and rebuild it, chiefly with residence structures, thus making it one of the most attractive and valuable sections of Manhattan, as it unquestionably should be. For more than a year my counsel has been against the undesirable development of the small "shoe-string" operator. I have pointed out that his typical building with narrow frontage is too small to effectively change the neighborhood in the way that the huge "Tudor City" development, comprising several city blocks at the end of East 42nd Street, Manhattan, changed a similarly blighted district into one of the best. On the lower east side the small operation is likely to fail, and in failing it begins another slum. This view, I believe, is finding favor in mortgage circles.

ECONOMY OF THE GARDEN PLAN

Nor should it be thought that this situation on the lower east side is an isolated case. Nearly every one of the older large cities of the United States has similar blighted districts on the edges of the finest business or residential centers, where land values are comparatively low, inviting profitable reconstruction with new buildings. Here is one of the finest opportunities for the building industry that could be found. But the work must be done in a large way, and on sound principles. A striking example of the economy of the garden plan came to my notice recently in this connection. A builder had a plan for a medium-priced, six-story elevator apartment house, on an inside plot with 80 feet frontage, 20 rooms to a floor, coverage nearly 70 per cent of the property. I compared it with a plan that we had drawn for a whole block, 600 x 190, covering 55 per cent and with somewhat larger rooms, every one with fine outlook over either street or huge interior garden, running almost the full length of the block. Now, the first plan showed an average of 4 feet of street frontage for each room per floor, whereas, the garden apartment plan showed 4½ feet of street frontage per room per floor,—apparently a difference of 12½ per cent in favor of the high-coverage plan; but when it is understood that in the small congested plan there were two small apartments with four of the 20 rooms with low rental value because they were located on small side lot line courts, and also that the eight rear rooms were located on a very narrow yard with a shut-in cheerless outlook, it will be seen that the large block, low-coverage plan has actually a higher number of good rooms per front foot than the



Brooklyn Garden Apartments. Andrew J. Thomas, Architect. Frank H. Quinby, Associated

small plan has. The superior efficiency of the lower-coverage plan in this particular comparison has, be it noted, no reference to land values. In addition, there was considerable extra expense involved in the small plan in the long public corridors necessary to provide access to the single elevator. These were absent in the other plan.

Of course, when a small builder is shown these facts he may reply: "I see the point all right, but I haven't enough capital to go into a larger operation." Equally, of course, when you suggest that he combine in a group with other small builders who, like himself, wish to enter the district in a small way, to carry out a large operation and split the risk, you find that he is too much of an individualist to welcome the suggestion. But that sentiment will pass, particularly when the small builder gets the same advice from mortgage people, as now seems likely.

THE CHIEF OBSTACLE TO GARDEN APARTMENTS

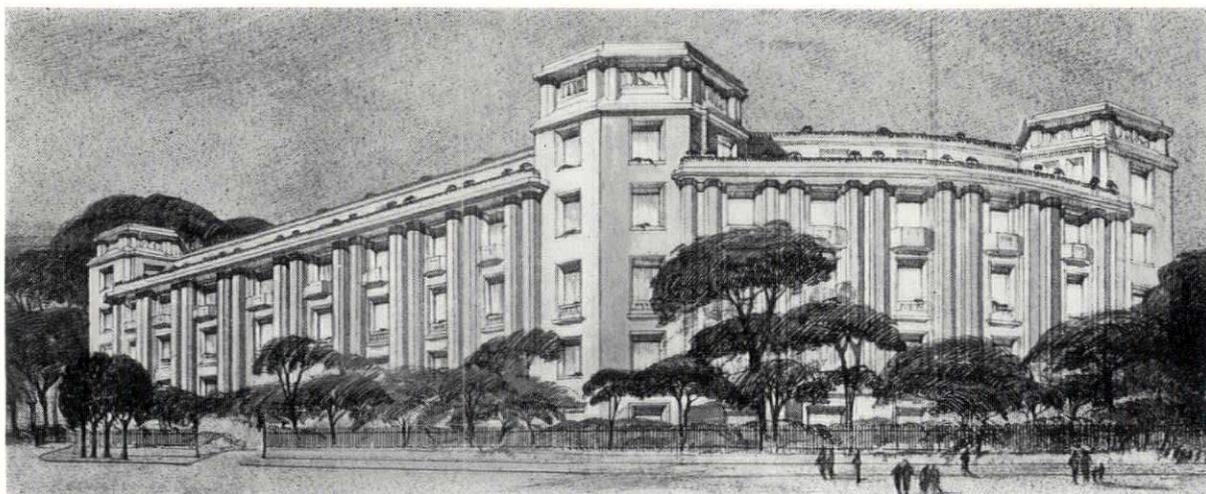
Here we come to the main obstacle to the progress of the garden apartment idea. This is the small property owner. As every one who has ever tried to assemble a large plottage knows, it is the small property owner who often balks the project in one way or another. But even here there is prospect of improvement. There is to be detected the beginning of a realization that under the complex conditions of a large city the holding of real estate in small parcels is becoming uneconomic. It is risky business for the small holder as well as for the building industry. The practice is a relic from the days when real estate afforded one of the few avenues open for small investments. But it is getting to be precarious for the small holder to hold a small parcel, mortgaged up to the neck, as it often is, and his thin equity is easily wiped out in the swift changes in real estate conditions in a city, with the danger of being "closed in" to provide a light shaft for the large operation next door, along with the prospect of meeting one or more of those huge unexpected assessments for the colossal modern improvements of the city which may add value eventually to his little property, but which it may be impossible for him to finance in the interim, thus forcing him out. There are other reasons, too, not the least of which is the aforesaid buyers' market. In the building industry there are found many individuals who entertain quaint notions of economics. One of these myths is the idea

that land values always rise, on the principle that trees can grow to heaven. This theory of the permanent bull market in real estate, as in securities, is possibly not so popular now as it was a while back. It is interesting to note that twice within the past nine months when I remarked to a real estate expert, who is a partner in a well known Manhattan firm, that liquidation in site values was inevitable, I received the identical reply: "Of course, in the best residence section of Manhattan they have pushed prices up so high that only the most expensive cooperative apartments can be built on them. And the market for that class of goods is extremely limited,—much smaller than the supply of un-built-on sites."

After all, the value of a site is based on the earning power of the building erected on it. As changes in market demand for buildings affect their earning power one way or another, so does the value of the site change similarly. Eventually, the owner of the site must change his price to agree with its altered value. Thus, the trend toward the larger operation, no matter what class of building is involved, cannot be stopped by arbitrary notions of fixed or rising land "values." The garden apartment should benefit increasingly.

GREAT IMPROVEMENT IN EQUIPMENT

In conclusion, it may be said that the standard of design, construction and equipment of the garden apartment is always improving, and this makes it additionally attractive to the public. The record of these improved standards is constantly registered in great detail in the architectural journals, and it needs no careful explanation here. One tendency, however, may be noted. In the New York district, at least, the public demand even in the cheapest housing is for elevators in apartments that are more than four stories high. People will not pay enough for the privilege of walking up above the fourth floor to make a "walk up" of five or six stories profitable. Not only that, but there appears to be enough social distinction associated with living in an elevator apartment house to make those who rent the lower stories willing to pay a higher rental on account of the elevator for which, as a matter of convenience, they have little need. Such are the reasons for believing in the future of the garden apartment,—the garden apartment of all types and classes and prices and heights, and walk-up and elevator and land prices.



PARIS APARTMENT HOUSES

BY
KENNETH M. MURCHISON

IN Paris, the city of charm, the city of beauty, the largest and most interesting group of apartment houses in the world is now in course of construction. The immensity of the thing is amazing, and the site, immediately facing the beautiful Bois de Boulogne, is without parallel.

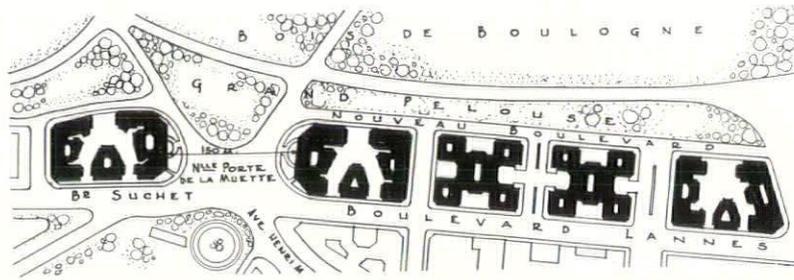
The long line of fortifications, long since abandoned, situated at the Porte de la Muette, was for a long time intended to be used eventually for *hotels particuliers*, or private homes. But private houses are now a thing of the past. Apartments have taken their places. Rarely is one invited to a *hotel particulier* in Paris. Only the old families have them, and if you are a house guest and you want to take a bath in these aristocratic surroundings, you have to wait in line with your towel and your soap, praying that the one ahead of you is a quick washer!

Everyone in Paris, as in New York, is headed straight for apartment life. As land values soar, so do the private houses, and in inverse ratio, as it were, hide their heads in embarrassment, for it isn't the fashion these days to blazon forth one's riches and one's successes, and the private house certainly gives to the critical world that holier-than-thou appearance. And, of course, the servant problem is ever present, even in Paris, although domestic servants are much easier to find in Paris than in the United States. But the difference in wages would make you positively cry like a child. In New York, for instance, we pay a cook, generally of Irish or Scandinavian extraction and almost always without any knowledge whatsoever of the art of cooking; yes, we pay these ladies \$100 or \$125 a month. In Paris they pay them \$20 and for a *cook* too,—not the imitation variety, but a really good chef, a cook who

knows her onions and whose productions leave a haunting memory of zip and relish.

But back to our architectural subject. The municipality of Paris held a competition on December 30, 1927, for the first of four great groups of apartment houses on the site of the abandoned fortifications at the Porte de la Muette. It was a marvelous piece of property, facing the Bois and surrounded by gardens on all sides, by avenues hundreds of feet wide, by towering trees and by attractive *hotels particuliers*. This competition called for a group of buildings covering 131,000 square feet, or by our calculation, an entire New York avenue block 200 feet wide, running back some 650 feet, a piece of property as large as that of the new Waldorf-Astoria Hotel, which will occupy an entire city block on Park Avenue. But there was a severe restriction on the property, that of height. The total was 60 feet facing the park and avenues and 72 feet on the interior gardens of the group. The height could not be greater than four stories above grade on the building line, *but* a fifth story was permitted if set back 20 feet. The object of these covenants was two-fold: first, to have a low and picturesque setting around the Bois; secondly, not to interfere with the view of the Bois from the existing buildings on the opposite side of the avenue.

The competition attracted some 50 entrants. The successful architect was M. Jean Walter, a graduate of the Ecole des Beaux Arts about 1902 and a designer of wide experience and great ingenuity, already noted for his apartment houses. His scheme comprised three buildings opening onto a central garden and containing 68 apartments, all of ample size and some of grandiose



A Group of Apartment Houses at the Porte de la Muette, Paris. The One to the Left is Finished. The First Building Opposite is in Process of Construction

dimensions. Terraces and roof gardens are here in abundance; in fact the Paris architects no longer put the servants' rooms up on the roof. M. Walter has arranged that all his kitchens, servants' bedrooms, guest lavatories and stairways are lighted and ventilated by large service courts, and every master's room and every entertaining room opens directly on the gardens.

This plan has been ingeniously arranged in M. Walter's scheme, but in certain instances he had to arrange the service to the dining rooms across the passages leading to the bedrooms. He evidently reasoned it out that it was more important to have the salon, the *petit salon* and the dining room open en suite, all with outside exposures (even if it did necessitate serving across the bedroom corridor) than to have the dining room face the court. With us, the dining room is the least important of the master's rooms, but in Paris, where lunch is an affair of perhaps two hours, a desirable outlook is necessary. The arrangement of servants' rooms in this plan is to us peculiar. Around the service court on each floor there runs a glass-enclosed gallery leading to a battery of servants' rooms, as many as 19 in one case. These are available for any or every apartment on that floor. One water closet is provided on each floor, and each room has a lavatory. Downstairs on the court side there is located an extra group of servants' rooms with a large bathing outfit such as is seen in a club house. One *monte-charge* or service lift is considered sufficient to lift the maids and the supplies, but with us it would hardly be considered ample.

You planners all know that if you have this ideal arrangement of every master's room and every service room on the court, and if you have your living rooms together, with the adjoining apartments served by the same elevators, you simply *have* to cross your hall from the pantry to the dining room. The objections to the plan are obvious. In the first place, if Emile is cooking Brussels sprouts or spring lamb with garlic, every time the butler opens the door a great whiff assails the fine French nostrils of the guests. Then again, the children playing horse races in the corridor (which is the *very* place for such a thing) are likely to try to run between the footman's legs

while he is bearing away the discarded soup plates, in imitation of a machine gun being attuned to the propeller of an airplane! However, you can take your choice,—a somewhat dark, a somewhat noisome outlook on a court, with no smells on the outside, or a garden outlook with the mentioned indelicacies in full force. For me, I believe I would use M. Walter's plans, chain up the children, and let the cocktail shaker soothe the olfactory nerves of the guests into peaceful acquiescence.

The plan of this group is really most ingenious,—and complicated. In the first place, there are few, if any, right angles in the property. Then again, it was important that none of the principal viewpoints should be given up to the service. The presiding geniuses of the kitchen over there do not have the exalted social position of our kitchen mechanics. The apartment buyers or lessees in Paris demand very high ceilings in the main rooms, so M. Walter has given them 13 feet in the clear, a height which to us, even in the higher class of apartment houses, is a bit unusual. He therefore had the opportunity of making the servants' rooms and kitchens, all on the court, of less height, staggered with the main story levels. That made it again more complicated, as to both stairways and lifts.

The stories are arranged thus: on the outside, four stories above grade with an additional setback story; below grade one basement, lighted by areas and used for laundries and service rooms; underneath the entire garden and buildings there is a garage for 250 cars, so that each apartment owner may have space for three or four cars. This convenient and logical arrangement is not permitted by our laws in New York. On the court side (the grade of the court being lower than that of the street or garden) there are nine stories of servants' rooms and kitchens, with the garage in the sub-basement. On the outside, besides the four stories and the setback story, the municipality allowed the architect to add four or five towers of one story each. These belong to the setback stories, which, with their gardens and terraces overlooking the Bois, are naturally the most desirable apartments, although not the largest. The architect himself has taken one of these, and

logically he ought to know something about it.

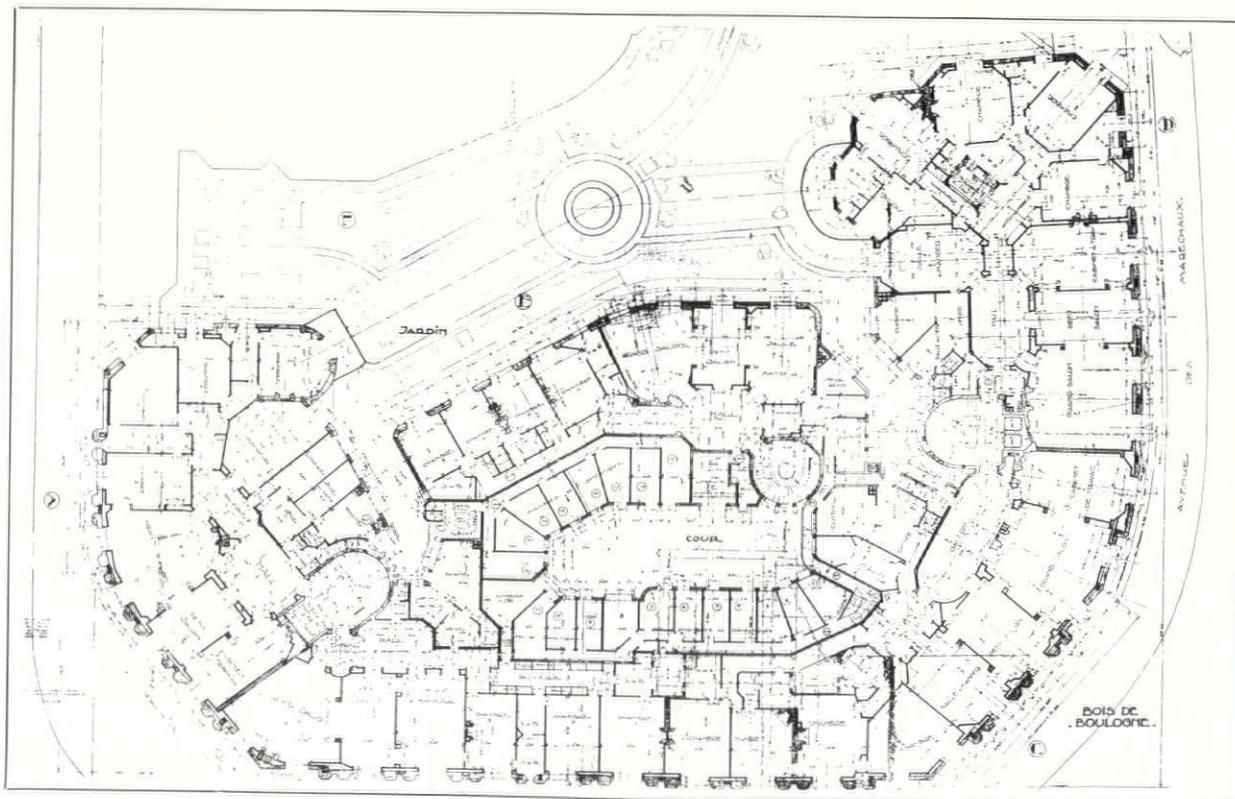
The facades are very simple and modern in style, of stone and without a cartouche or a garland on them. The construction is of reinforced concrete with extremely thick walls, not only on the exterior but in certain interior portions as well. M. Walter has designed great windows and exterior doors leading onto balconies, of a single sheet of plate glass sliding back into these thick walls by means of a special mechanism, thus opening the entire end of the room to the beautiful view and air of the Bois. Thus has a French architect abandoned French doors, French cartouches and a lot of other French specialties. He was in New York last year looking over a lot of our apartment houses (I had the pleasure of being his official guide), and who knows but what he picked up here and there a couple of Yankee ideas?

No apartment house architect of today is interested to a great extent in the elevations. Indeed, one of our most talented designers built an apartment house on East 79th Street in New York recently, and the fenestration has nothing to do with itself or with anything else. Every apartment in it was speedily sold, and it was supposed that the architect said "Here are the columns and the elevators and the stairways. Do what you wish with the design; hew to the plan, let the windows fall where they may!"

But a succinct explanation of the plan of this

first unit of the development on the site of the fortifications may not be unpleasant reading. Our diagram shows three separate buildings, A in the center, B on the left, and C on the right. To the right of C is the Porte de la Muette, 500 feet wide, and on the other side of this opening will be located the second unit of the four designed for this development. It is truly a magnificent site, just as if some one of us had a proposition to build a group of apartment houses on Fifth Avenue, running from 72nd Street to 85th Street! If anyone of us got a commission like this, we just wouldn't notice anybody who spoke to us!

But on with our plan! Unit A has three apartments on a floor. The smallest happens to face the Bois, because it is the snub nose of a plan which resembles a 75-millimeter shell, if you gather what is meant. One elevator and one monumental curved stairway serve this apartment, which has six master's rooms and two baths. The two larger apartments in Unit A have nine master's rooms and four baths each. They are served by a semi-circular stairway lighted from the court, with two elevators side by side. This arrangement is very desirable in any country where people give parties. And, by the way, you all know that Paris elevators go *up* but they don't go *down*. That is, if your apartment house contains a lift that will take passengers down, you tell everybody about it, you're so proud. But then nobody in Paris will trust themselves to go *down* in an



elevator. They're not used to it, and it gives them a sinking spell.

These three apartments, totalling 24 masters' rooms on a floor, also include eight servants' rooms on a floor; or, there being nine servants' floors to five masters' floors, each floor of three apartments has about 14 servants' rooms to divide up among the three. Bear in mind, of course, that these apartments represent all that there is of the most *chic*, the most smart and the most desirable in Europe. Unit B has five apartments on a floor, two lifts, each serving two apartments, and one lift serving the smallest. The larger apartments run nine or ten rooms with three or four baths, and the smallest eight rooms and three baths. For these five apartments there are allocated about 22 servants' rooms. This unit has one inside service court and two narrow outside courts. Here and there kitchens and pantries are lighted by *courettes* or light shafts of fairish size. Unit C contains five apartments on a floor, two lifts serving two each and the remaining lift serving the odd apartment. The apartments in this unit run from nine to eleven rooms each and from three to four baths. Thirty-four servants' rooms go with these five apartments.

The number of rooms given include kitchens, servants' dining rooms and sewing rooms, but do not include the galleries or pantries or any inside rooms. The bedrooms rarely have closets, these being provided in the corridors or in the entrances to the bathrooms. I had quite a discussion with the architect over this point, but the only reason he gave, besides that of objecting to so many doors in a room, was that French families of wealth have so many more servants than do the American families of even more wealth, that there is always a servant handy with a pair of trousers hanging over his arm or in his hand the necktie you don't want. The theory is all right, but suppose you were in a hurry, with no trousers on, and the valet was dining, and the closet was way down in the corridor, and you weren't sure which closet was which—. Of course, I didn't argue with him over the point, but nevertheless I felt strongly about it. However, I am very polite,—in Paris. Just the same, I can't help thinking about the things that might happen to me if my closet were in the hall! I am like a fireman, but without the greased pole, but the French are never in a hurry, except when they are getting out of the way of four thousand taxicabs going in different directions in the Place de la Concorde!

The plan of this group is a cock-eyed plan. The property is cock-eyed, and hence the cock-eyed plan. The rooms are thus necessarily cock-eyed, but M. Walter has used every device of furring, paneling, concealing, short-changing and bluffing to get over this difficulty. In most cases

he has succeeded, but every once in a while you will find a room that has the appearance in plan of a *sole meuniere* or *tripe a la mode de Caen*. Nearly all the bathrooms are shaped like a piece of mince pie, but that is no trouble to anybody but the tile setter. They (the bathrooms, not the setters) are much larger than ours, and all contain a fourth fixture commonly known as The Old Family B—t.* This useful and slightly object is never used in American architecture, but our sisters across the ocean simply couldn't do without it. And let me whisper this in confidence, I think they're right.

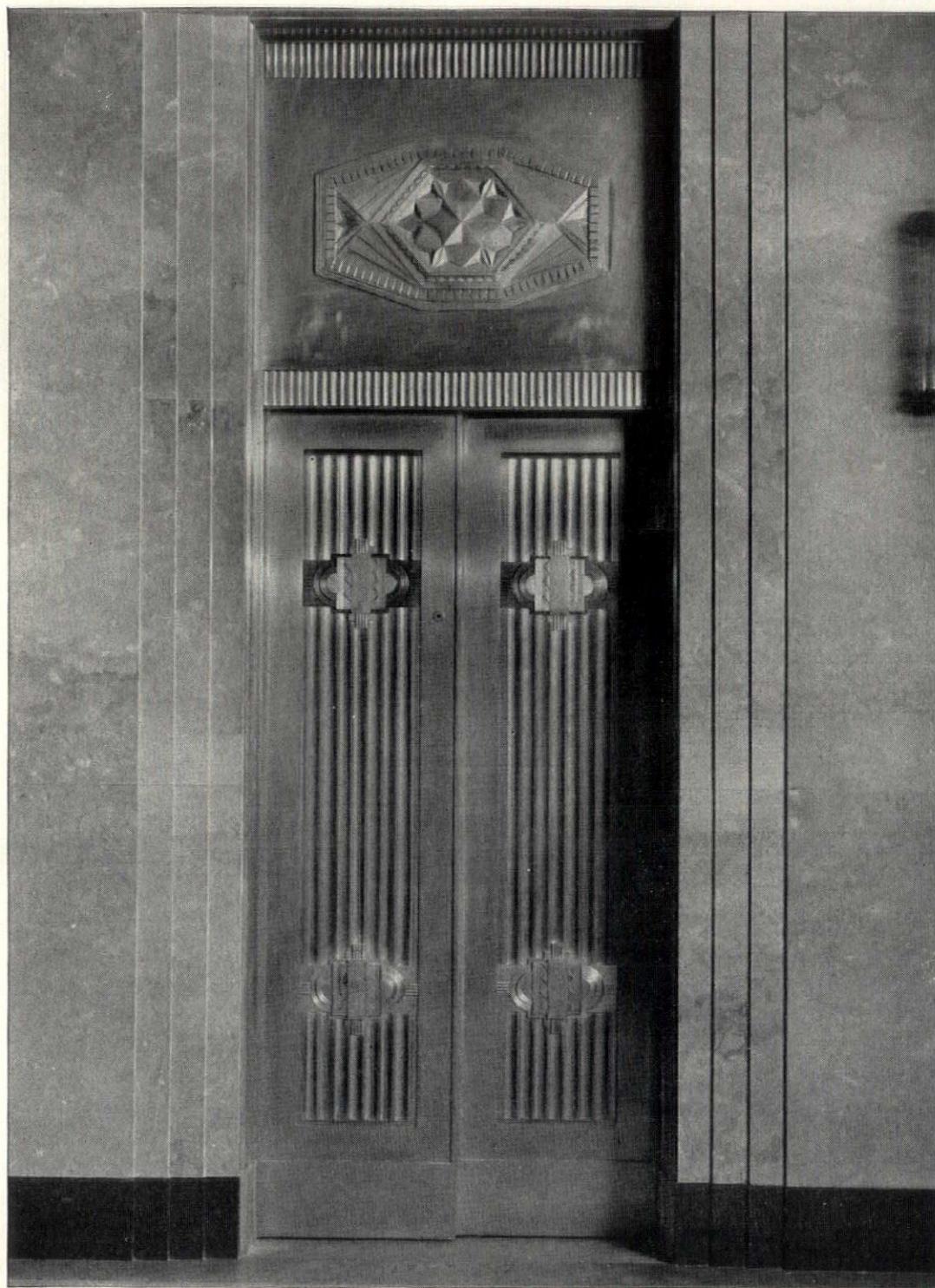
Now as to further evidences of M. Jean Walter's ability. On December 21, 1928, the municipality instituted three more competitions for the three remaining plots. M. Walter won two of them, M. Azema being awarded the third. M. Walter's two new buildings will cover about 500,000 square feet, something colossal, and for the second of these new plans M. Walter has evolved something he considers much superior to his first design. In it he has eliminated a great deal of the service across bedroom corridors, and instead of having a *grand salon* and a *petit salon* he has designed one large space 70 x 26 which can be subdivided or not, to suit the whim of the tenant or the buyer.

In conclusion, I aver, most honestly, that we should give an apartmental decoration to M. Walter for this group of fine edifices. But there are others as well, especially a magnificent apartment building, half completed, designed by M. Arfvidson, an architect well known to many of us here in the States. He has included one apartment which recently sold for \$200,000, quite the record for Paris. But this particular apartment has two stories in front and three in the rear, practically a *hotel particulier* but with none of its inconveniences.

It is said that in certain parts of Paris one can buy an apartment for what one would pay in rent here in New York. I know, however, that Paris property on an average runs about 10 per cent of the cost of similarly located property in New York, and that a building like that designed by M. Walter and ignobly described here, runs about 48 cents a cubic foot cost of construction. We architects in the United States have a habit of looking down on the rest of the world from time to time, but these new apartments in Paris are nothing to be caviled at. No, not at all. They are superb. They are the last word. They have It. They have everything they should have,—but I can't help thinking about those closets out in the hall!

*Extract from *Le Matin* of March 4, 1930: "*Mais hier, a la police judiciaire, il sortit un carnet que M. Favre-Pas-Bidet examina.*"

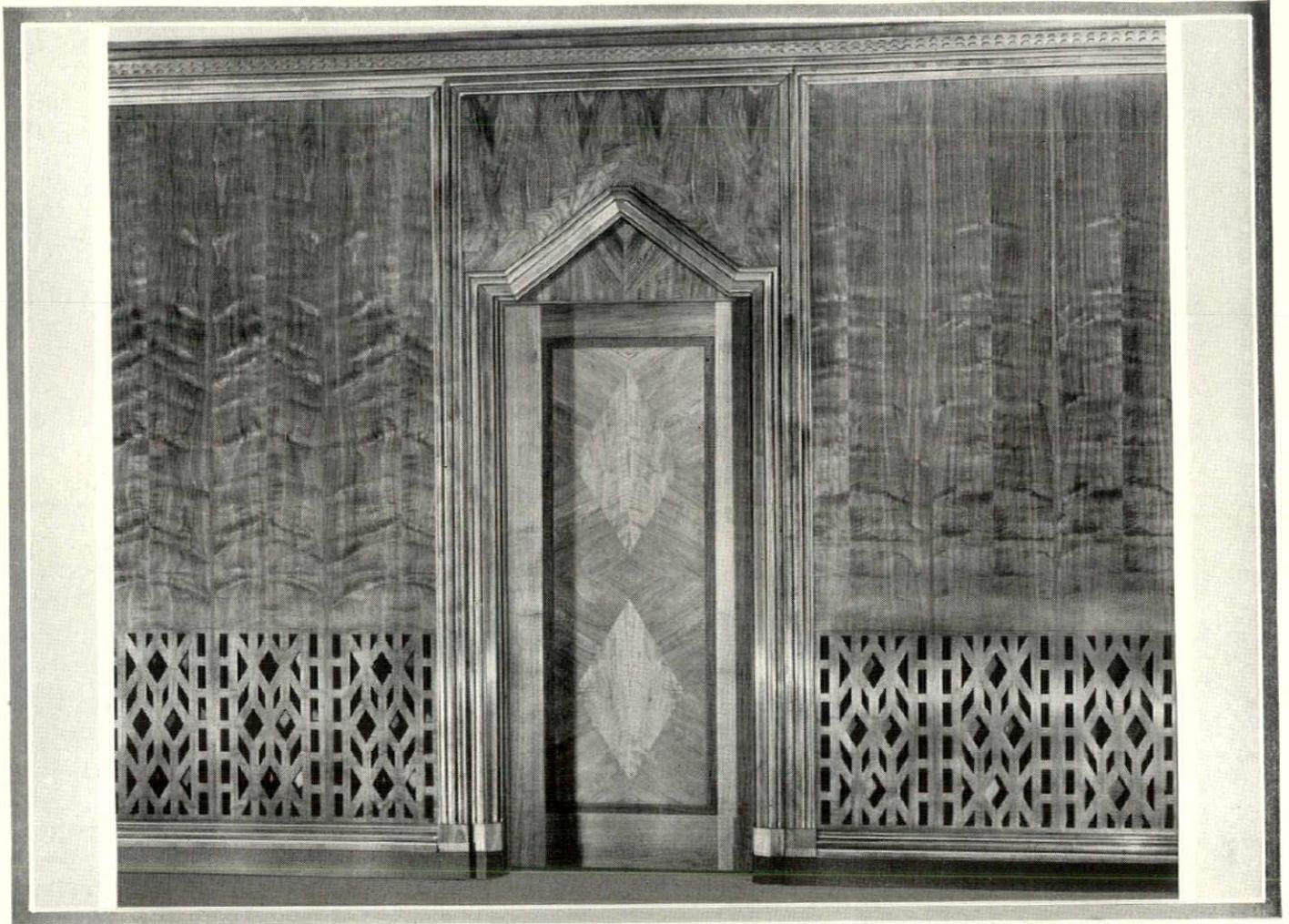
FOYER OF R. J. REYNOLDS BUILDING, WINSTON-SALEM, N. C. DETAIL OF ELEVATOR DOOR OF ANACONDA NICKEL SILVER FABRICATED BY W. S. TYLER COMPANY. SHREVE & LAMB, ARCHITECTS



THE VARIOUS ALLOYS OF ANACONDA NICKEL SILVER ARE PARTICULARLY SUITABLE TO MODERN INTERIOR OR EXTERIOR DESIGN. BRILLIANT AND SILVERY IN APPEARANCE, YET WORKABLE INTO THE SIMPLEST OR THE MOST INTRICATE MOTIF. TEXTURE AND

COLOR ARE UNIFORM. ANACONDA NICKEL SILVER IN RODS, BARS, SHEETS, DRAWN SHAPES AND CASTING INGOTS MEET ALL REQUIREMENTS OF LEADING FABRICATORS OF ORNAMENTAL WORK. THE AMERICAN BRASS COMPANY, GENERAL OFFICES, WATERBURY, CONN.

ANACONDA NICKEL SILVER



Portion of walls in the Union Trust Company, Detroit, Michigan. *Architects:* Smith, Hinchman and Grylls. *Woodworkers:* Moline Furniture Works.

Modeling in Plane Surfaces

Notable among the tendencies of modern design is the employment of flat surfaces. Gone are the Rococo carvings of yesteryear. Gone, too, are heavy door lintels, dust-catching mouldings half a foot thick, deeply recessed windows, and a hundred other affectations.

Yet with this dominance of the sensible, practical flat surface, architects are faced with the necessity of relieving the monotony of unbroken planes. Many are turning to American Walnut, because of its depth and

interest of figure. In the illustration above, flat walls have been given beauty and modeling through careful selection of veneer panels and inlays. Such walls are as modern in tone as tomorrow's sunrise, yet without a trace of monotony. They have depth in appearance without costly and impractical depth in fact.

No other material, no other wood, permits such endless variation of treatment as does American Walnut lumber and veneers. May we co-operate with you in your problems of paneling and interior decoration?

AMERICAN WALNUT

American Walnut Manufacturers' Ass'n
Room 1638, 616 S. Michigan Ave.
Chicago, Illinois

Please send me "The Story of American Walnut."

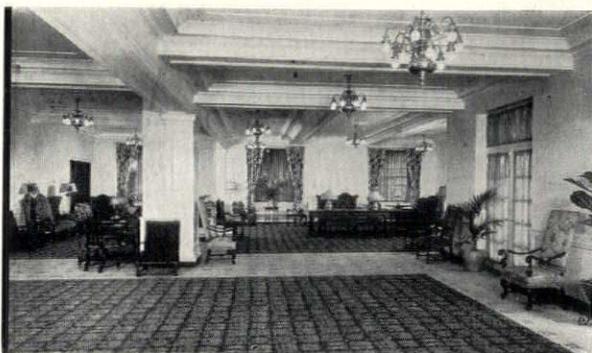
Name.....

Address.....

City..... State.....



Each group in "The Madison" at Atlantic City reflects care in the selection of Period designs; all pieces of solid Cabinetwoods . . . principally American Walnut and Honduras Mahogany.



© 1930, Kittinger Company

Kittinger Furniture in "The Madison" at Atlantic City

THESE views merely suggest the charm of this famous new hotel in which many superb groups of authentic period designs were

selected through Architects, Price and Walton, and Decorators, Strawbridge & Clothier, of Philadelphia.

When you visit Atlantic City, you will be well repaid to study each Kittinger reproduction in the different rooms of "The Madison" . . . Furniture by Kittinger is best appreciated in such an environment.

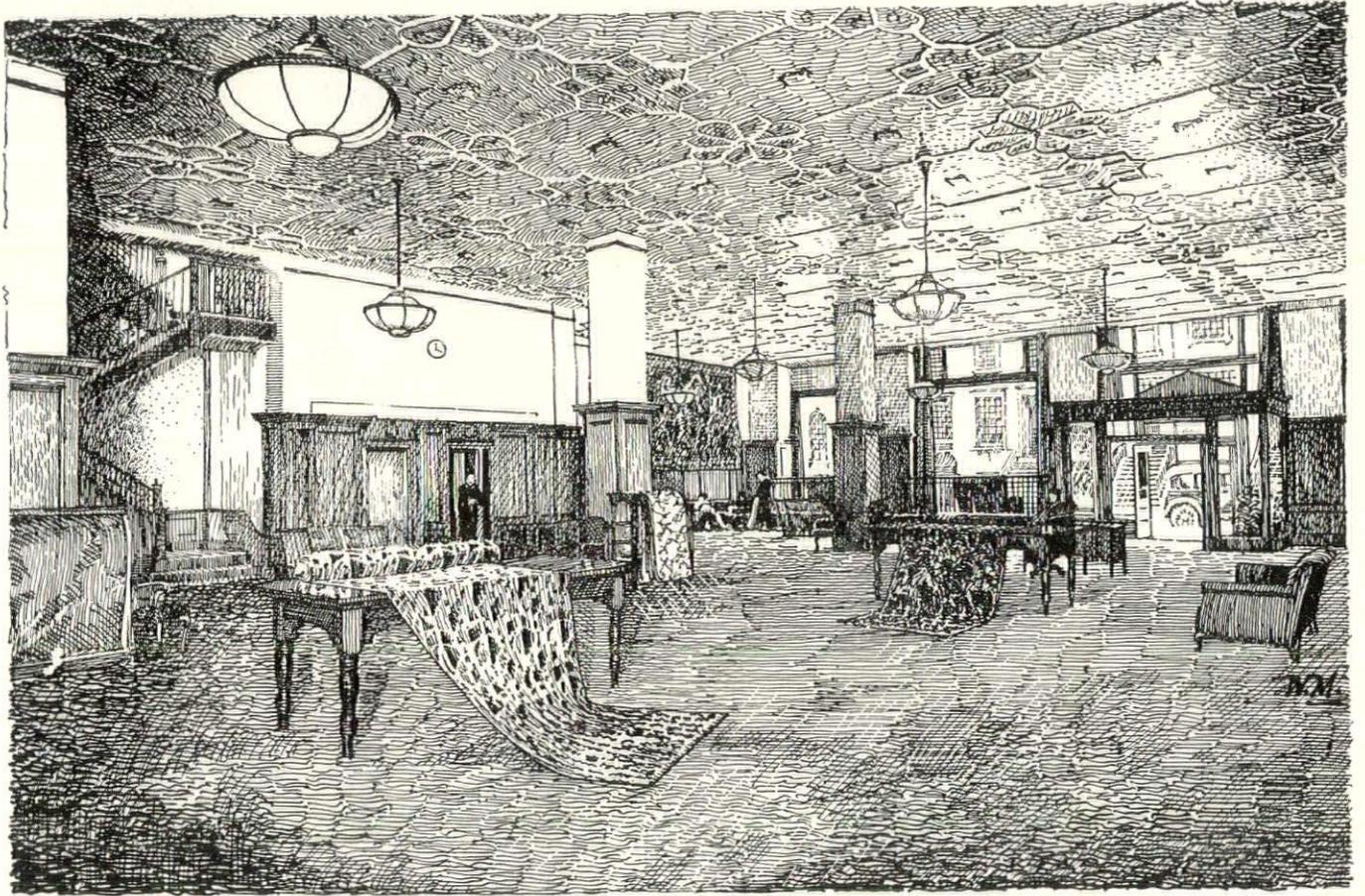
You will discover many such charming groups when you visit any of the Kittinger showrooms—located in New York City at 205 East 42d St.—in Buffalo, at Factory, 1893 N. Elmwood Ave.—in Chicago, at 433 East Erie St. and in Los Angeles, at Factory, 1300 S. Goodrich Blvd. Consult our representatives there or write us in regard to our layout service. Kittinger Company, Dept. 707, N. Elmwood Ave., Buffalo, N. Y.

KITTINGER
Distinctive Furniture



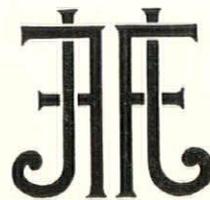
IMPORTED

UPHOLSTERY *and* DRAPERY FABRICS



The interior of the new building of Johnson & Faulkner is light, roomy and studiously designed for the convenient display and handling of decorative fabrics. Here one will find assembled a comprehensive showing of the finest decorative materials from the British Isles, France,

Belgium, Italy, Germany and far-off India; included are many authentic reproductions of old historic designs. Decorators and their clients are cordially invited to visit the new building, and to avail themselves of the many advantages to be found in these modern showrooms.



JOHNSON & FAULKNER

Established 1823

43-49 EAST 53RD STREET, NEW YORK

Wholesale Only

BOSTON
420 Boylston Street

PHILADELPHIA
1528 Walnut Street

CHICAGO
1512 Heyworth Building

PARIS
50 Faubourg Poissonniere

SAN FRANCISCO
442 Post Street

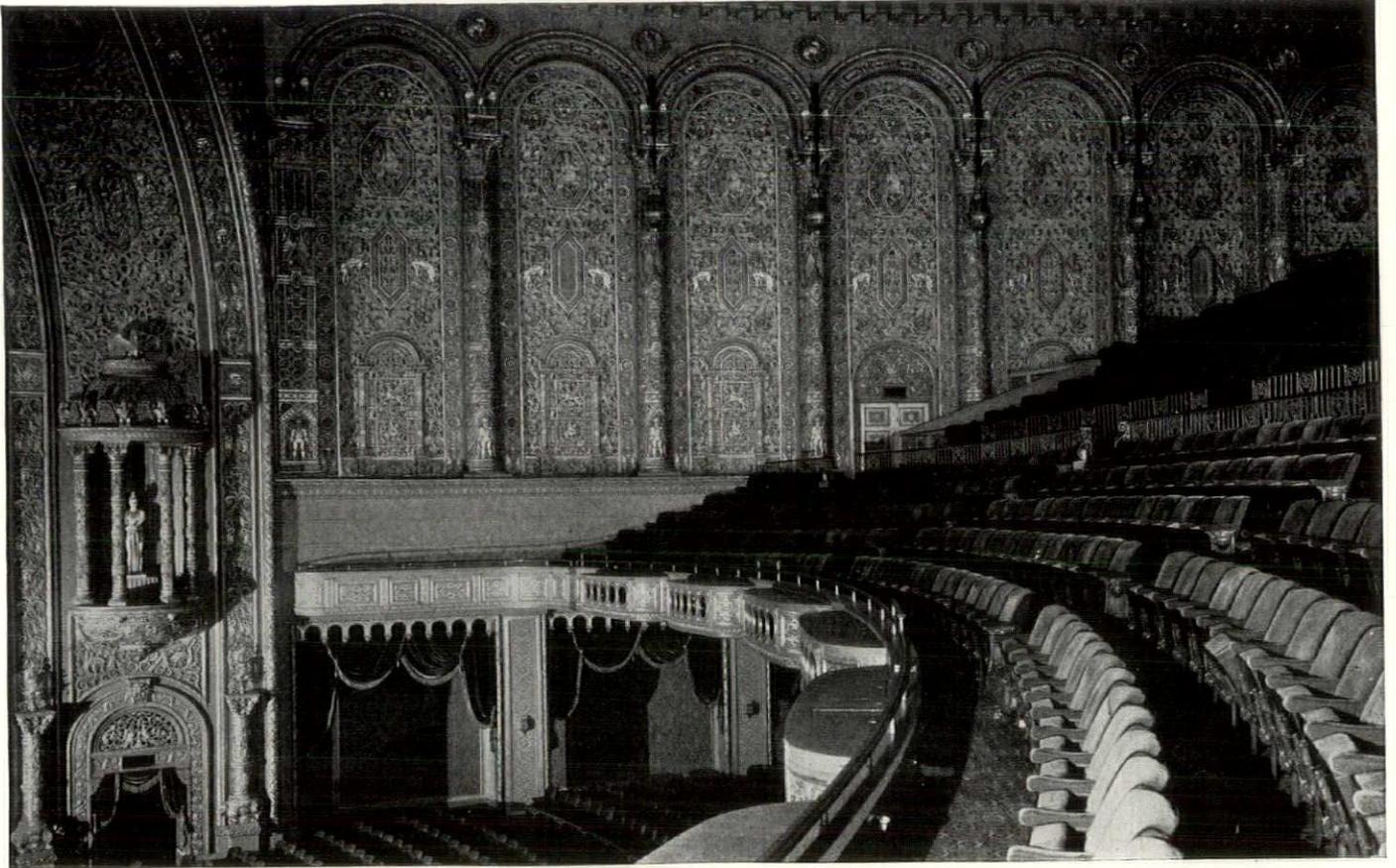
LOS ANGELES
816 South Figueroa Street



DETAILS of Clergy Stall, Church of St. James the Less, Scarsdale, N. Y., one of two beautiful memorial pieces DeLong Craftsmen were privileged to execute for this noted Church.

Hobart Upjohn, Architect
 For information, address Dept. F.,
DE LONG FURNITURE COMPANY
 1505 Race St., Philadelphia 329 Fourth Ave., New York City

FURNITURE  by DE LONG
 FOR CHURCHES · FRATERNAL AND PUBLIC BUILDINGS



LOEW'S 175TH STREET THEATRE
NEW YORK CITY

THOMAS W. LAMB
ARCHITECT

*R*AMBUSCH is pleased to express its appreciation for the continued confidence shown in its craftsmanship by the Architect, Thomas W. Lamb, under whose direction Rambusch decorated Loew's 175th Street Theatre . . . A few of the other theatres decorated by Rambusch under the direction of Thomas W. Lamb:

HOLLYWOOD THEATRE, New York City	LOEW'S CHAPEL STATE, Columbus, Ohio
LOEW'S STATE CAPITOL, Syracuse, N. Y.	OASIS THEATRE, Brooklyn, New York
LOEW'S MIDLAND, Kansas City, Mo.	PITKIN THEATRE, Brooklyn, New York

Rambusch operates thruout the United States and Canada

BANKS
CHURCHES
CLUBS
SYNAGOGUES

RAMBUSCH

Painting, Decorating and Murals

2 West 45th St. ☞ New York City

HOTELS
RESTAURANTS
THEATRES
PUBLIC BUILDINGS



Baquès
INCORPORATED

665 Fifth Avenue
New York

LUMINAIRE

BRONZES

FERRONNERIE

LONDON: 22 Grosvenor Square

PARIS: 107 Rue la Boétie

Cypress

is favored for *Natural Interiors*

ARCHITECTS and interior decorators find that Tidewater Red Cypress (Coast Type) meets *every* requirement of the smart, modern interior.

Its exquisitely patterned grain combines simplicity with distinction. Its mellow, glowing surface yields a charm found in no other material. And yet, Tidewater Red Cypress is comparatively inexpensive.

And versatile—this Wood Eternal can be stained or varnished, painted

or waxed, charred or left in its natural state, always with beautiful effects that never go stale.

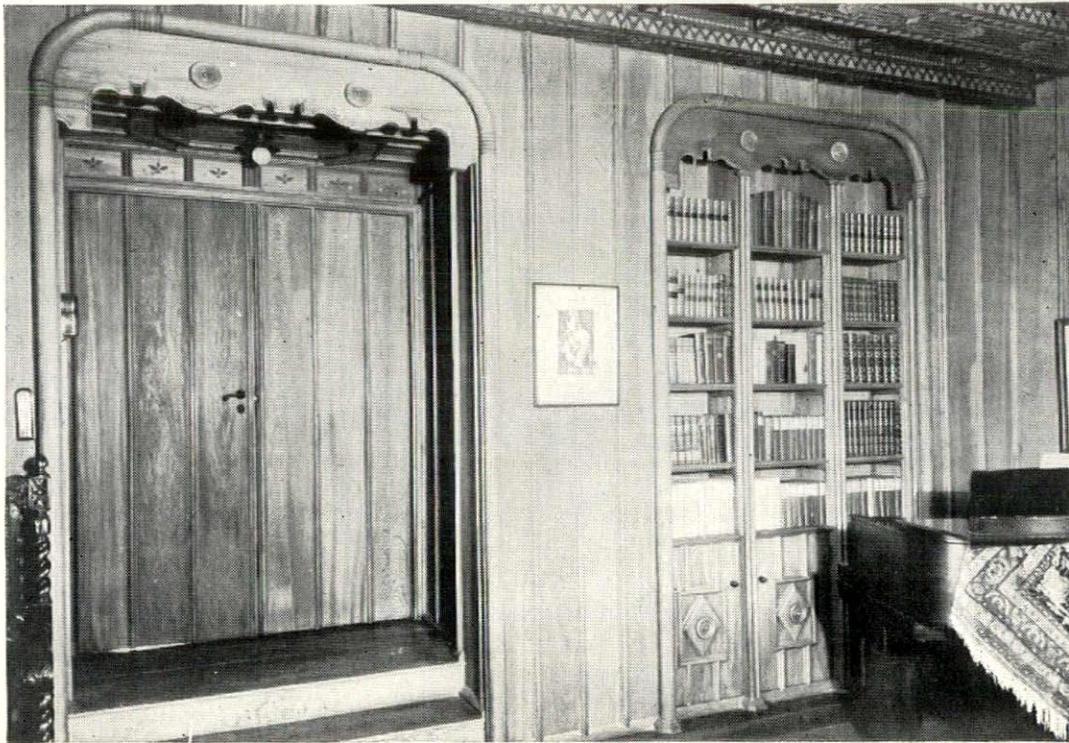
No wonder, then, more of it is used every year for panels, doors, beams and trim. No wonder more home-owners every year are enthusiastic in their approval of interiors *whenever* and *however* Tidewater Red Cypress is employed.

A Book of Interiors—sent free

Many noted architects have contributed

photographs of their interesting work for this booklet, which well illustrates the beauty and unusual versatility of Tidewater Red Cypress.

For your complimentary copy, address the Southern Cypress Manufacturers' Association, Jacksonville, Florida. If your dealer is not stocked with Tidewater Red Cypress, he can get it for you quickly—or you can write direct to any of the Association Mills listed at the bottom of this page.



Quaker Photo Service

The architect, Mr. Harry Sternfeld of Philadelphia, Pa. employed Tidewater Red Cypress in creating this lovely interior in the home of Mr. W. N. Morice, Flouertown, Pa.

TIDEWATER RED CYPRESS

(COAST TYPE)

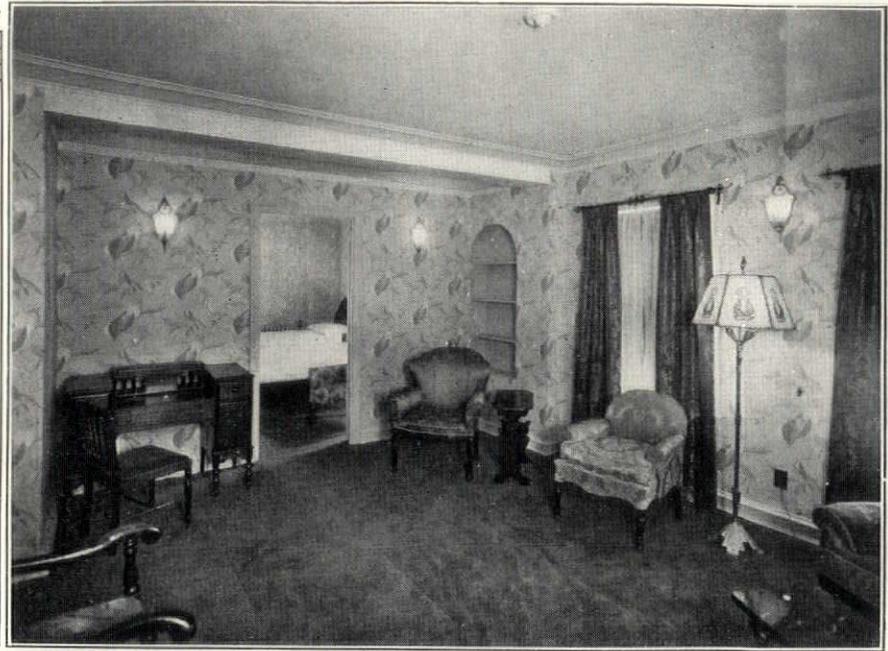
THE WOOD ETERNAL

This advertisement is published by the following members of the Southern Cypress Manufacturers' Association, Jacksonville, Fla.:

Big Salkehatchie Cypress Co., Varnville, S. C.
Burton-Swartz Cypress Co., Perry, Fla.
Cummer Cypress Co., Jacksonville, Fla.

Everglade Cypress Co., Loughman, Fla.
Reynolds Bros. Lumber Co., Albany, Ga.
Wilson Cypress Co., Palatka, Fla.

Salubra Wall Covering in Cliff Towers—a de luxe, Dallas, Texas, Apartment Hotel, catering to people who insist upon fineness in whatever touches their daily lives.



300
Unsolicited
Testimonials

from one Salubra Installation!

THERE'S nothing like Salubra for the well appointed homes of particular people—for Salubra offers patterns of such interest and beauty that they lift any room out of the ordinary. And Salubra's unique sanitary advantages and permanence place it in a class by itself! In fact, wherever this fadeless, washable wall covering is used, it works revolutionary changes!

The Manager of one of the Southwest's finest and largest apartment hotels has received over 300 unsolicited testimonials from guests, complimenting him on his Salubra-decorated apartments. He writes: "At Cliff Towers, we have used Salubra in the halls, living rooms and bedrooms of 120 apartments. Salubra is very durable and washable and we find by using it the upkeep is very much less than flat wall paint. As for decoration, we get much more splendid effects—more pleasing to the eye. We shall use Salubra in all of our other hotels and in any new enterprises."

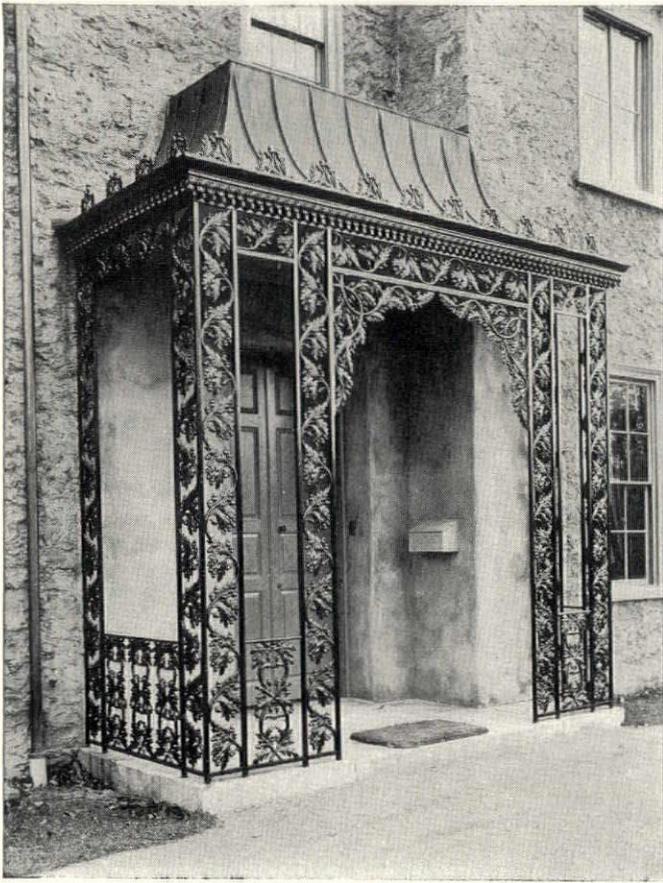
Write for descriptive literature. FREDERIC BLANK & COMPANY, New York Central Bldg., 230 Park Ave., N. Y., or Marshall Field Annex, 24 North Wabash Ave., Chicago, Ill.

Features of SALUBRA that appeal to Architects of Apartment Hotels:

- 1—Is "oil paint-by-the-roll"—fine oil colors on waterproof parchment paper—equivalent in protection to six coats of oil paint on a zinc base.
- 2—Creates an atmosphere of luxury—economically. Hundreds of beautiful patterns to harmonize with various types of interiors—Period or Modern—all fadeless and washable.
- 3—You know how every room will look before a single square foot of wall is decorated. Salubra eliminates uncertainty as to the final appearance of the walls.
- 4—Saves time—completes and decorates the structure of the walls in one operation.
- 5—Reduces later redecoration expense for the client. Salubra is a permanent wall decoration

See Sweet's Architectural Catalog pages C3490-C3491 for detailed description and sample of

Salubra
REG. U. S. PAT. OFF.
WON'T FADE WILL WASH



Cast-Iron Verandas by Smyser-Royer

Enchanting Colonial Designs

The enchanting atmosphere of Colonial days is being revived in many modern homes with cast-iron verandas as charming and as quaint as the originals themselves.

Almost a century's experience in producing ornamental iron work insures the authenticity of the designs by Smyser-Royer Company. Some of these designs are almost a century old. Architects and builders who are contemplating the use of cast-iron verandas are cordially invited to consult Smyser-Royer Company about any phase of design or execution.

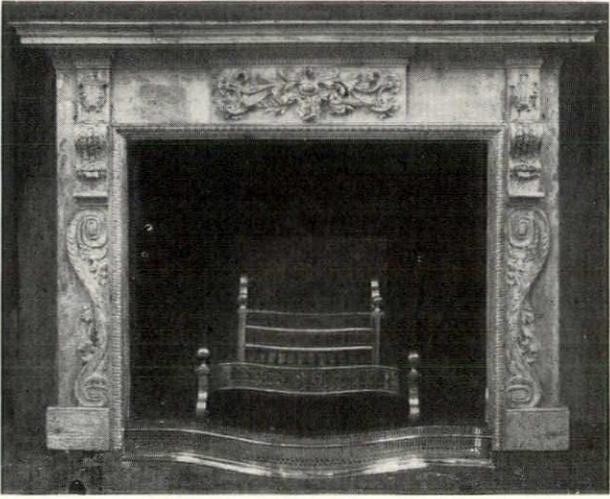
A booklet showing many veranda designs in detail will be gladly sent at your request.

Smyser-Royer Company

Main Office and Works, York, Pa.

Philadelphia Office—1700 Walnut St.

TODHUNTER
Inc.
 119 East 57th Street - - - New York



Carved pine mantel from Waltham Abbey—Opening 4'2" x 3'8½"

**ANTIQUE MARBLE AND PINE
 MANTELS
 PANELLIED ROOMS
 FIREPLACE EQUIPMENT**

Illustrations upon request

HIGGINS' Waterproof Black

The Original



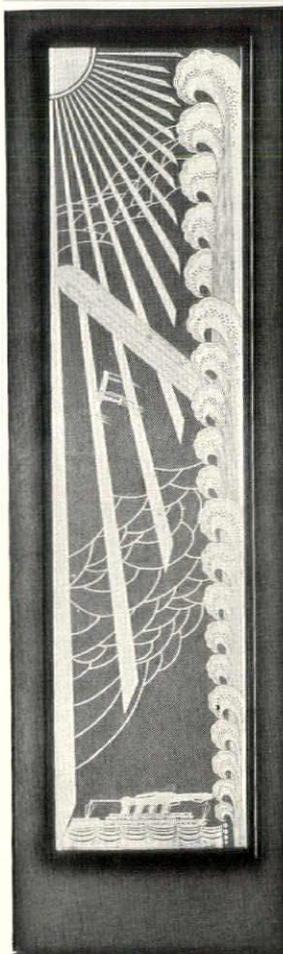
INDIA INK

FOR half a century, HIGGINS' Waterproof Black Drawing Ink has been employed to visualize the most noteworthy achievements of American architecture.

It is indeed a tribute to have received such distinction at the hands—and by the pens—of the country's leaders in the profession.

CHAS. M. HIGGINS & CO., Inc.
 271 Ninth Street Brooklyn, N. Y.

Drawing Ink

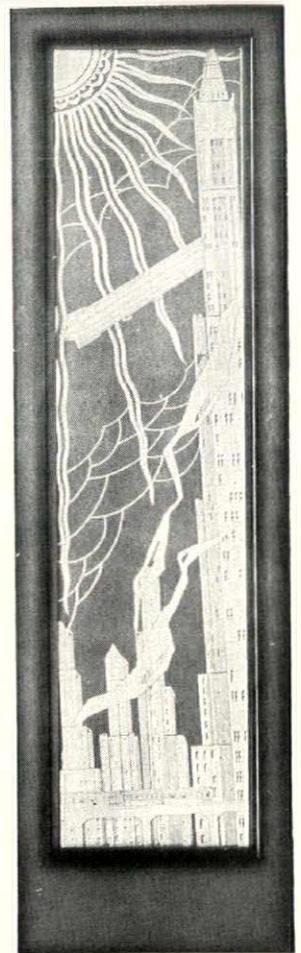


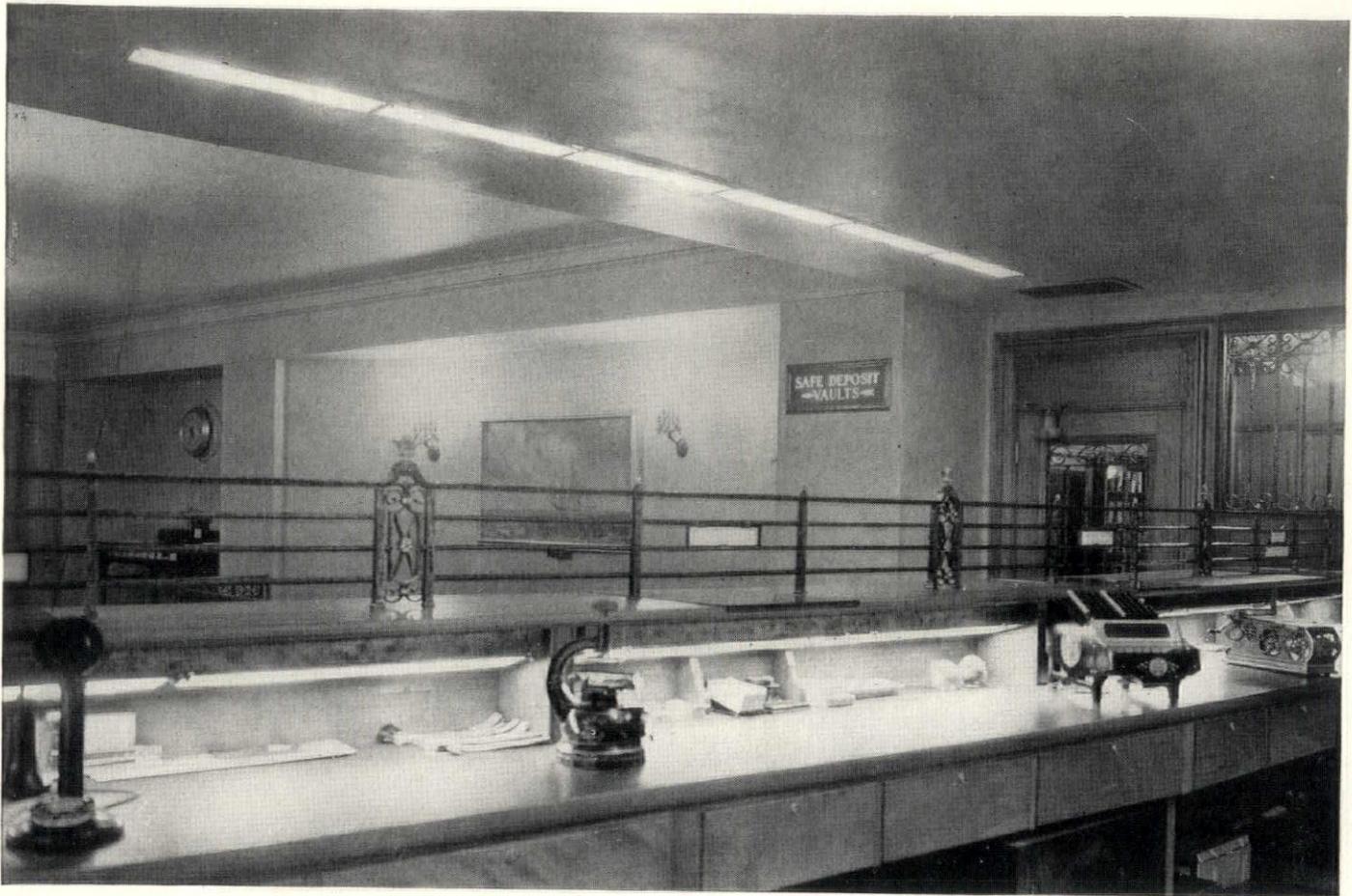
Specialists in Stainless Steel

Located in the heart of the stainless steel industry, United Metal Products Company has been closely associated with all steps in the development of this amazing material. As a result, stainless steel jobs, such as the one now in progress for the Empire State Building, in New York City, go through the United plant on a production basis. All experimentation is long since past. The United organization has become known as stainless steel specialists.

Beautiful etched effects for interior ornamentation—intricate formations for exterior trim—are part of regular production schedules. Write to us for information on stainless and its manifold applications.

THE UNITED METAL PRODUCTS CO.
 CANTON, OHIO





Continental type counter screen, Second National Bank, Boston, J. D. Leland & Co., architects. Special illumination and signs designed and installed by The Frink Corporation.

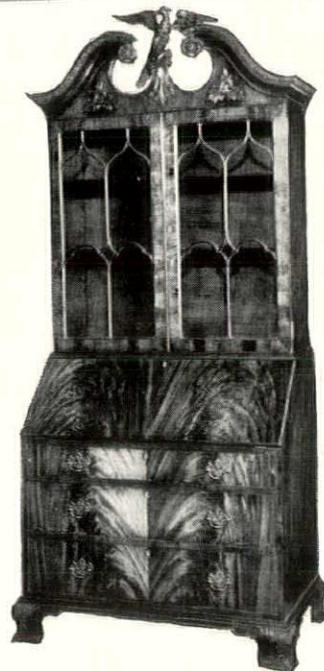
THE FRINK CORPORATION

23-10 BRIDGE PLAZA SOUTH



LONG ISLAND CITY, N. Y.

Newcomb



*The
Most
Distinguished 18th
Century Collection
of the Year!*

Now on exhibition at the Newcomb Galleries in New York and Boston is the most distinguished collection of Seventeenth and Eighteenth Century antiques from England, France, Italy and Spain it has ever been our good fortune to display at any one time. Attention is particularly called to the scores of originals of the more popular early English eras as well as to the many charming examples of both sophisticated and provincial craftsmen of corresponding French periods. Most of these pieces were collected during the past summer months and have arrived at our galleries only within the past fortnight. The display also includes many new pieces of high merit produced during the summer by Newcomb cabinet-makers. Without question the most important single collection of fine furniture and art objects in Newcomb history.

*J. J. Newcomb
Mfg. Company
42-54 W. 13th St., New York
665 Boylston St., Boston
816 So. Figueroa St., Los Angeles*

Member Antique and Decorative Arts League, Inc.

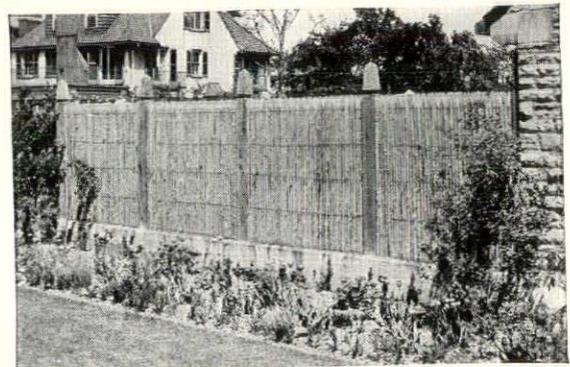
Not a knot
in 10,000 columns

Though you personally inspected Hartmann-Sanders Koll Lock-Joint columns at the time of manufacture, you would not find a single knot in ten thousand columns. Moreover, they are correctly proportioned according to the five orders of architecture and authentically represent the periods from which they are taken. They cannot come apart due to the Lock-Joint principle owned and developed by us.



We are equipped to execute particular architectural specifications as well as those standard in nature and invite builders and architects to send us their problems. Send for Catalog No. 48. No charge. HARTMANN-SANDERS CO., Factory and Showroom: 2151 Elston Ave., Chicago; Eastern Office and Showroom: Dept. I, 6 E. 39th St., New York City.

HARTMANN-SANDERS
PERGOLAS · COLONIAL ENTRANCES · KOLL COLUMNS
ROSE ARBORS · GARDEN EQUIPMENT



**French Provincial
Woven Wood Fence**
never loses its Beauty

A surprising statement, based on simple, undeniable facts: French Provincial Woven Wood Fence is constructed of live young chestnut saplings, hand-split and woven together with Copperweld wire by French craftsmen who are devoted to their craft. Nothing artificial . . . no paint to chip . . . no wire to rust.

And in the natural beauty of the wood lie the charm and distinction of the French Provincial Woven Wood Fence. When erected on your property, you may conscientiously forget it . . . if one can forget what protects and enhances the beauty of his home. In full five foot sections, ready to erect.

Robert C. Reeves Co., 101 Park Avenue, New York City (F-9)

Please send me, free of charge, your booklet, "Fence and Defence."

Name

Address

Alcoa Aluminum Window Sills were used in the Central Union Bank, Evansville, Indiana -Alcoa Aluminum Spandrels, of course



Central Union Bank, Evansville, Indiana. Architects, McGuire and Shook. Associates, Walker and Weeks. Contractors, International Steel and Iron Co.

In designing the Central Union Bank, the architects, Messrs. McGuire and Shook, were mindful of the example set by the largest metropolitan buildings. They specified window sills of Alcoa Aluminum. These sills are of extruded aluminum, 112 of them, each 4 ft. 6 in. long, have a total weight of approximately 819½ lbs. They also used Alcoa Aluminum spandrels—a practice that is rapidly becoming standard with most architects.

By using these Alcoa Aluminum sills and 112 Alcoa Aluminum spandrels 4 ft. 8 in. x 4 ft. 4 in., weighing approximately 10,784 lbs.—the architects lifted about 25,000 lbs. of surplus dead-weight from the face of this bank building. And they saved money.

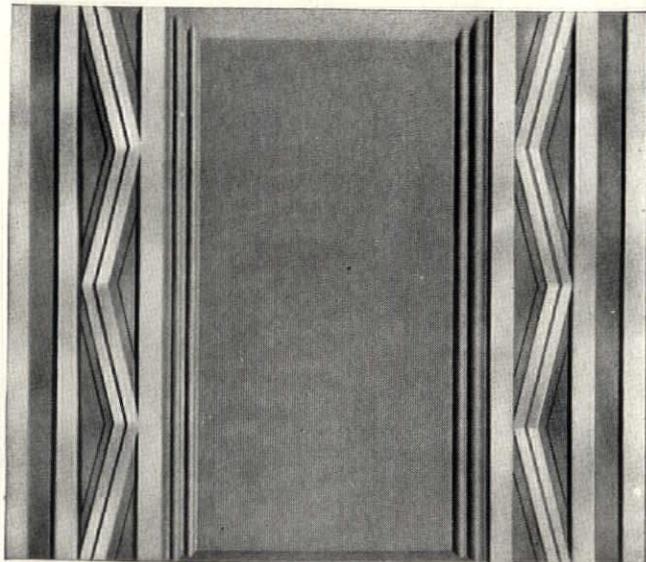
In the matter of first cost, Alcoa Aluminum building materials can be bought at prices that compare very favorably with the prices of the same products made of

other metals. But Alcoa Aluminum weighs only ⅓ as much as old-fashioned metals. It costs you far less to ship, truck and erect. In addition, it does not require painting. It can be high-lighted. It cannot rust—weather will not make it streak adjoining surfaces.

Our nearest office will gladly send a representative to talk with you about the many architectural uses of Alcoa Aluminum. ALUMINUM COMPANY of AMERICA; 2412 Oliver Building, PITTSBURGH, PENNSYLVANIA.

S P E C I F I C A T I O N S

“These Aluminum Spandrels and Sills shall be made of Alcoa No. 43 alloy, having a silicon content of 5%. The average tensile strength shall be 17,000 lbs. per sq. inch and the average elongation of 5% in two inches. The weight shall not exceed .097 pounds per cubic inch. The surface shall be free from imperfections and in all respects equal to sample submitted.”



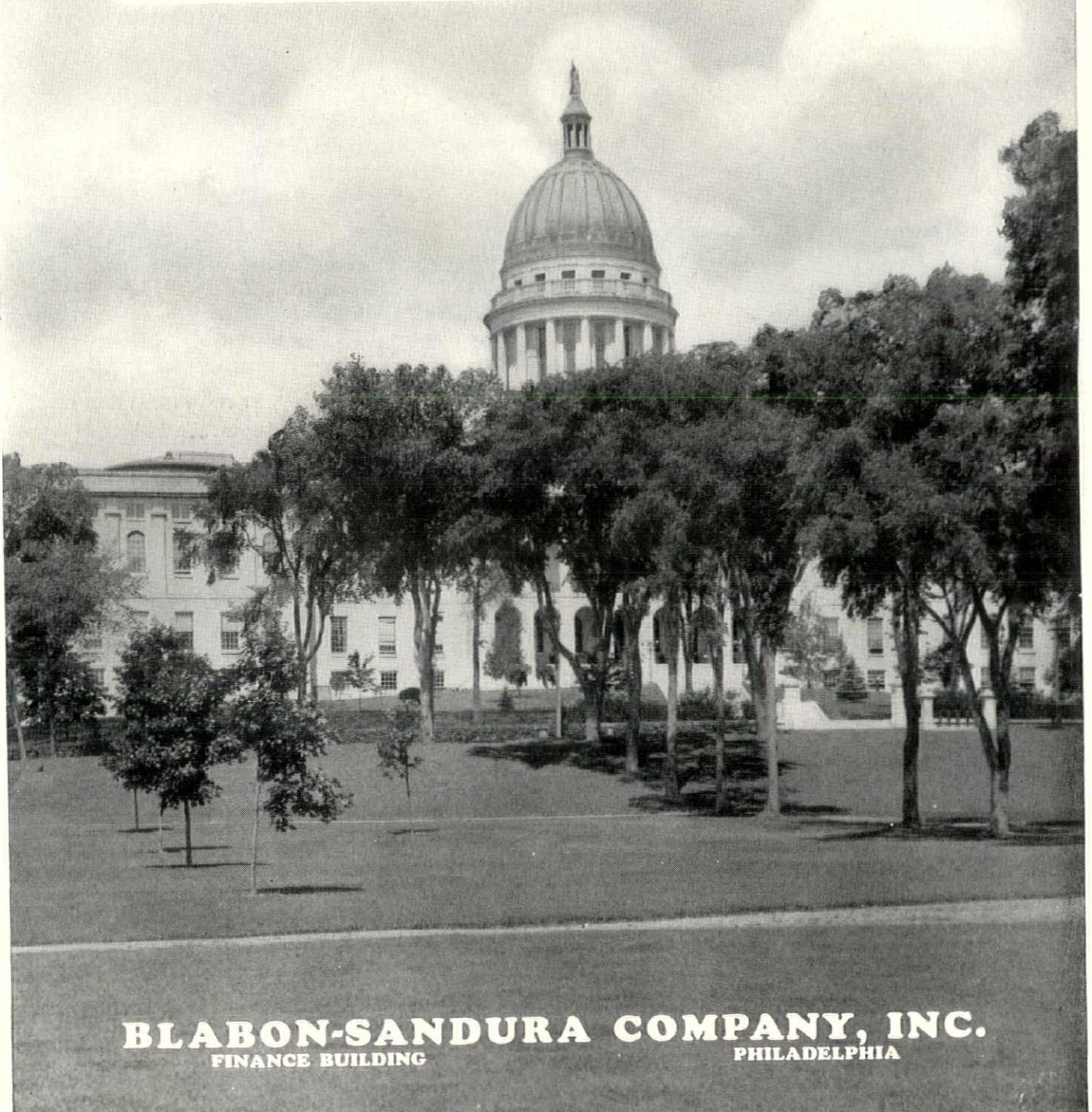
These Alcoa Aluminum spandrels are 4 ft. 8 in. by 4 ft. 4 in. 112 of them weigh approximately 10,784 lbs.

ALCOA ALUMINUM



STATE HOUSE, AUGUSTA, MAINE

This imposing and beautiful building is the scene of extensive public activity. To protect the floors permanently against constant wear—to insure utmost sanitation and quietness — 1000 sq. yards of Blabon's Brown Battleship Linoleum have been installed. This makes a mighty important addition to the long list of public buildings which have selected Blabon's as the finest in linoleum floors.



BLABON-SANDURA COMPANY, INC.
FINANCE BUILDING PHILADELPHIA



What fun it is to plan a kitchen this easy, new way! A unit for pots and pans near the stove — or the sink? Where shall we put the broom closet, with its ironing board concealed in the door? How about that special Curtis Unit — with the sugar bin, flour bin and cutlery drawer that all tilt downward when opened?

“My architect and I designed this kitchen”

NO matter how carefully you may plan the kitchen, you may be sure that your client would have it “just a little different.” For every woman has her own ideas of *what* and *how* when it

comes to designing a compact and convenient “workshop”—just as the woman who with her architect planned the kitchen shown here.

After all, why not? No one can know better than she just what kitchen units she really needs and just how she'd like to see them arranged.

That is exactly why Curtis Kitchen Units (and there's a wide variety of them in all sizes and for all purposes) are reproduced in Miniature Kitchen Sets. With the help of one of these sets (all Curtis Dealers have them), you and your client—*working together*—will find it as simple as playing with blocks to build up and tear down as many kitchen designs as you please—right on your office table. At last your client will see the very kitchen she has always wanted — yet before a single step is taken in actual building. All Curtis Units come completely set up, ready to put in place with only a slight installation cost.

We have prepared an attractive booklet, “Your Dream Kitchen”, showing a few of the kitchens that may be built with Curtis Kitchen Units. Write us for your free copy. If you wish, make



use of our Free Planning Service. Your request for a booklet will also bring you information explaining how this service can help you, at no obligation, to bring individuality, utility and convenience to your kitchens.

The Curtis Companies Service Bureau,
360 Curtis Building, Clinton, Iowa

Visit Curtis Woodwork, Inc., Display Rooms and Sales Office, Room 201, 9 East 41st Street New York City. Chicago Display Rooms Curtis Door & Sash Co., 1414 South Western Avenue, Chicago, Illinois.



A Note of Character for the Living Room

This English Mantel, created by Curtis, will bring a note of character to the living room of an English or Early American home. Remember that in everyday items of woodwork too — windows, doors, frames, trim, porchwork — Curtis shows the same careful workmanship you see in the Curtis series of period reproductions of mantels, entrances and stairwork.

1866
CURTIS
WOODWORK

This trade-mark appears only on Curtis Woodwork and no item of woodwork that does not bear this mark is genuine Curtis Woodwork. For your own protection be sure this mark is on each piece.

Chaperoning the client's MODERNISTIC FANCY

When you want interior decoration to parade before the public, custom-built cork floors attract favorable attention



MERELY to be told that the color scheme of a modernistic fur shop includes ceiling-panels of cream-white and coral-pink, gold curtains, coral-pink window posts, footstools and mirror trimmings of black edged in coral-pink, taupe chairs, and a coral-orange settee may sound almost bizarre. But a peep into the shop presents an entirely different impression.

You step upon a quiet custom-built floor of Armstrong's Linotile—the foundation of the whole decorative plan! Tailored in interesting contrasts of black, French gray, mole, and dove, there is a restful harmony of color—and design, as well. The striking walls are of Armstrong's Cork Tile. Here, the patron feels, is a shop where one's own personal desires for color and design can be satisfied.

Wherever floors are custom-built, sales settings can be planned for the customer's satisfaction and the merchant's profit. With Armstrong's Linotile, the architect is free to create any motif he desires. He has thirty colors in a score of variously sized tiles to work with.

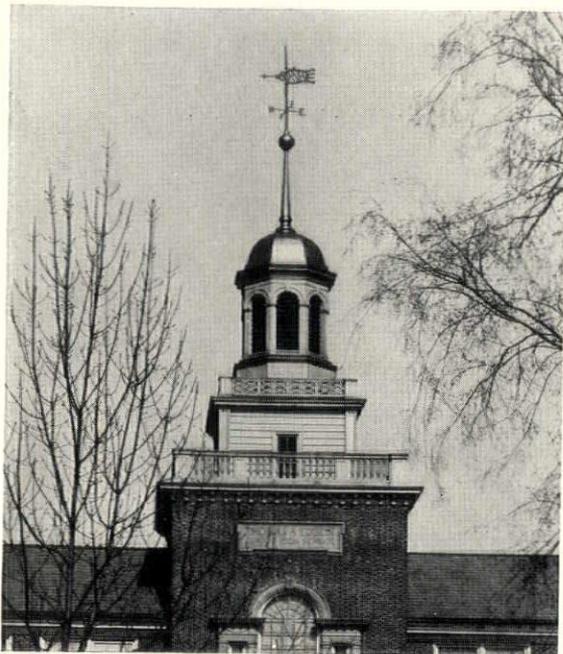
We suggest that you send for our illustrated book, "Custom-Built Floors of Cork." It gives you complete information about Linotile, and Cork Tile, another hand-laid Armstrong Floor. We'll gladly send you this book without obligation. Armstrong Cork Company, Custom Floors Department, Lancaster, Penna.  *Product*

Armstrong's CUSTOM FLOORS

LINOTILE

CORKTILE

Armstrong's Linotile on the floor and Armstrong's Cork Tile on the walls guard the color harmony of Bullock's Wilshire fur department, Los Angeles, Cal.



*Thos. A. Edison Jr., High School
West Orange, N. J.
Guilbert & Betelle, Architects*



*East Orange, N. J., City Hall
John H. & Wilson C. Ely, Architects*



*Reconditioned Cupola on
The Morris County Court House, Morristown, N. J.
George A. Mills & Campbell Voorhees, Architects*

Weathervanes — by FISKE

DECORATIVE RAILINGS; ENTRANCE GATES; GARDEN AND TERRACE FURNITURE; ORNAMENTAL FENCING (for every purpose, country estate or industrial usage); FOUNTAINS; SUNDIALS; LAMP BRACKETS; LANTERNS; SPIRAL STAIRS; STABLE FITTINGS; BRONZE TABLETS; ARCHITECTURAL BRONZE; ETC.

See Our Page in Sweet's

THE weathervane came into its own when Andronicus of Cyrrus placed his brazen Triton on the lofty summit of his Grecian "tower of the winds" to point the way of wind and weather.

FISKE is the oldest and most extensive manufacturer of weathervanes in existence, having equipped many of the outstanding private and municipal buildings in America.

Architects interested in such work will find FISKE consultory service, with its multitude of designs from which to choose, a valuable aid in attaining the highest possible degree of decorative beauty.

J.W. Fiske IRON WORKS
80 Park Place ~ New York
ESTABLISHED 1858

SPECIALISTS IN ORNAMENTAL METAL WORK



architectural
TERRACOTTA

Detail
Tudor City
New York, N. Y.

Fred F. French Co.
Architects

TERRA COTTA
for
GROTESQUES
STATUES
and
ORNAMENT

NATIONAL
TERRA COTTA
SOCIETY

230 PARK AVENUE
NEW YORK

Famous Quarries of Indiana Limestone Company

**DARK HOLLOW
P. M. & B.
WALSH**

**HOOSIER
DOYLE
EUREKA**

PEERLESS

Specify Indiana Limestone from
the quarries of Indiana Limestone
Company in order to get stone
of **proven** quality.

INDIANA LIMESTONE COMPANY

General Offices: Bedford, Indiana
Executive Offices: Tribune Tower, Chicago

PREPARE for WINTER — NOW!

Athey

CLOTH-LINED
METAL
WEATHERSTRIPS
SAVED \$1500
A MONTH ON
COAL

Think of saving \$1500 a month on coal bills alone by using ATHEY Weatherstrips to keep out the cold, wind and draft! That's what they did in St. Louis last year, and in one Chicago building they saved 572 tons of coal in 5 months by the same method.

Wherever ATHEY weatherstripping is used it is estimated that the savings made pay for the installation within three years—and often in less time.

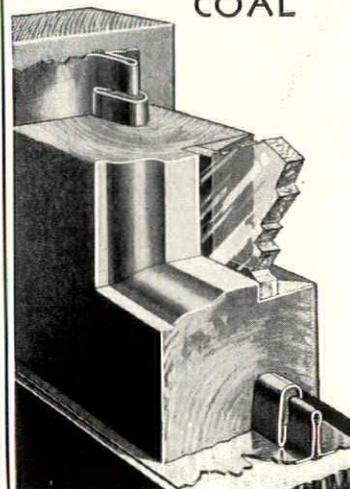
ATHEY cloth-lined metal weatherstrip changes any wood or steel window from a rattling, loose, drafty sash to one that works smoothly and quietly, becoming at once air-tight and draft-proof. The increase in comfort, better health, fuel savings and cleaner furnishings make the investment in ATHEY weatherstrips pay big dividends.

Investigate this feature now and be prepared for winter. Send for catalog and list of installations, showing how others have profited by ATHEY methods.

Send for Book

ATHEY COMPANY
6095 W. 65th St., Chicago

Representatives in Principal Cities
In Canada: Cresswell-Pomeroy Co., Reg'd.
Montreal and Toronto



Build the floor with color . . .

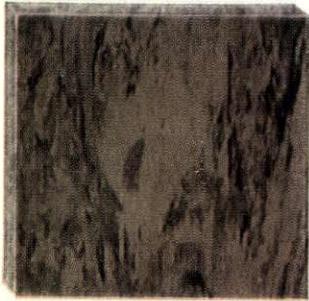


Build it with individual tiles of Stedman Reinforced Rubber. Twenty-seven practical color types in squares and rectangles permit you to *design each floor* to fulfill the most exacting needs.

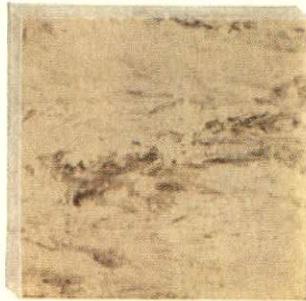
With this material you will also meet every practical requirement. Your floors will be well laid. They will be *quiet* and comfortable underfoot because Stedman Tile is firm yet resilient; *sanitary* because it is impervious; *durable* because it actually resists wear.

Red Gold Paisley
Dark Red with veinings
of Gold and Black

Stedman Reinforced* Rubber Tile



Grey Black
Grey with veining of
Black



Buff Walnut
Buff with veining of
Walnut

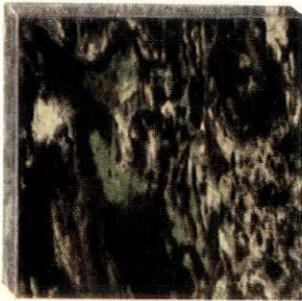
is produced by an organization devoted exclusively to the manufacture of rubber tile floors. Every detail from origin to final installation is in expert hands. More than 9 million square feet already installed testify to its success.

Color charts, samples, and a booklet containing full information will be sent free upon request.

STEDMAN RUBBER FLOORING COMPANY
SOUTH BRAINTREE, MASSACHUSETTS



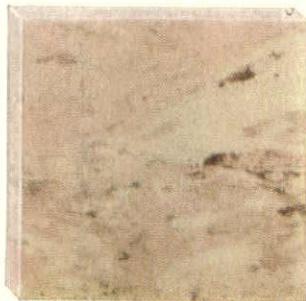
O.S.-Red
Cream with veinings of
Black and Dark Red



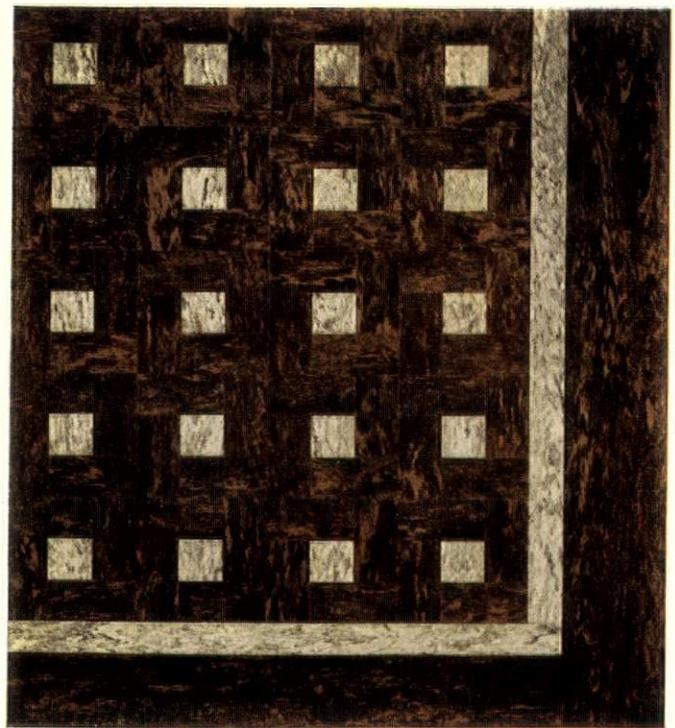
Verde Antique
Black with veinings of
Sea Green and Cream



Black Green
Black with veining of
Sea Green



Pink Tennessee
Cream with veinings of
Pink and Walnut



Design No. 11A. The color choices in this instance are rectangles of Black Red surrounding a square of O—S Red. The variety of color combinations for this design is unlimited.

*REINFORCED: In the Stedman Process minute cotton filaments, uniting with the rubber under high pressure and heat, are responsible for its unusual resistance to wear and distention, its lasting resilience and smooth, impervious surface—characterized by color veinings of remarkable fineness and beauty.

■
**AN APARTMENT...
 HARDWARE...
 LOCKS...**

MODERN TO THE Nth DEGREE

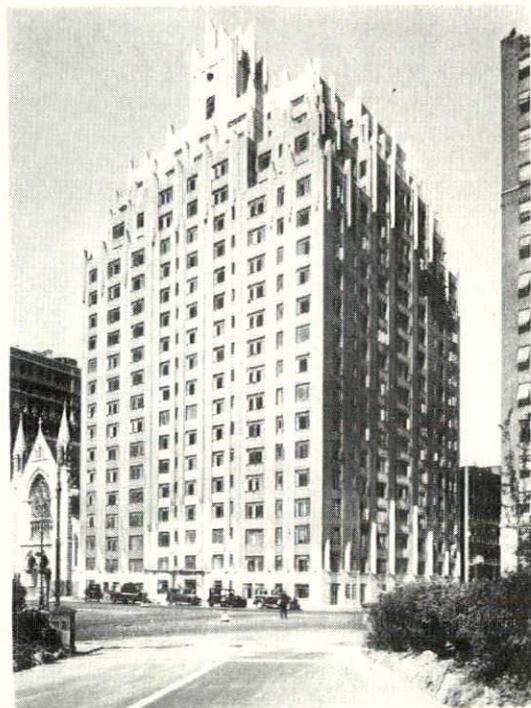
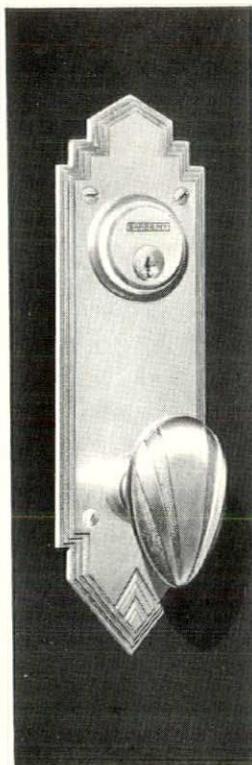
THIS new apartment, 55 Central Park, West, exemplifies fully modern life in New York City. Outside and in, the latest tendencies in design have been followed, though tastefully restrained. Unusual comforts, conveniences, protections have been installed to make city life in 1930 most attractive.

Hardware by Sargent deserves its share in finishing so completely this outstanding building accomplishment. The design shown used on exteriors, blends perfectly with the architects' decorative plan. Within the apartments a Sargent design in Colonial style adds to the graciousness and charm of each well-arranged room. The high quality of Sargent solid brass and bronze hardware gives a perfection of operation that is lasting.

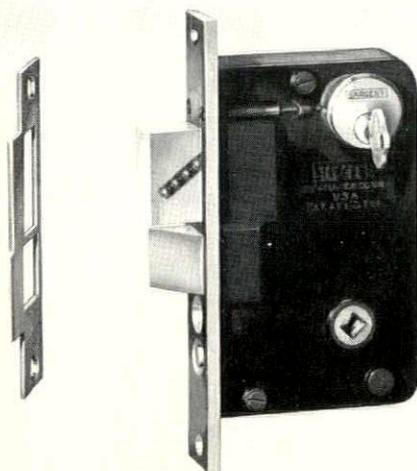
The new Sargent locks, Nos. 6880 and 6885, are specially designed for apartments. They are the embodiment of strength. Both bolts are operated from the outside by the key. The dead bolt is operated from the inside by the turn knob. The outside knob is set by the stop in the face of the lock. No. 6880 may be so arranged that the janitor's master key will not open it. SARGENT & CO., NEW HAVEN, CONN.

In New York City — Builders Hardware Division and Showroom, 295 Madison Avenue; Warehouse, 94 Centre Street.

In Chicago — 150 North Wacker Drive (at Randolph).



55 Central Park, West, New York City.
 Schwartz and Gross, Architects



■
An attractive Sargent design, Escutcheon No. 7876ME — modern and appealing without being extreme. The Sargent cylinder lock is inserted in it.

■
Sargent special apartment locks Nos. 6880 and 6885. Unusual sturdiness features the face and case. Remarkably large dead-bolt with longer throw. Hardened steel balls set in the bolt make hack-sawing impossible, giving utmost security.

SARGENT

LOCKS AND HARDWARE

Selected List of Manufacturers' Publications

FOR THE SERVICE OF ARCHITECTS, ENGINEERS, DECORATORS, AND CONTRACTORS

The publications listed in these columns are the most important of those issued by leading manufacturers identified with the building industry. They may be had without charge unless otherwise noted, by applying on your business stationery to *The Architectural Forum*, 521 Fifth Ave., New York, or the manufacturer direct, in which case kindly mention this publication.

ACOUSTICS

- R. Guastavino Co., 40 Court Street, Boston.
Akoustolith Plaster. Brochure, 6 pp., 8½ x 11 ins. Akoustolith as Related to Architectural Acoustics. Booklet, 10 pp., 8½ x 11 ins.
- Johns-Manville Corporation, New York.
Sound-Absorbing Treatment in Banks and Offices, Booklet, 18 pp., 8½ x 11 ins. Illustrated.
- Sound-Absorbing Treatment in Churches and Religious Institutions. Brochure. 22 pp., 8½ x 11 ins. Illustrated.

ASH HOISTS

- Gillis & Geoghegan, Inc., 544 West Broadway, New York.
G & G Telescopic Hoist catalog, 8½ x 11, A.I.A. Standard Classification 3011 contains complete descriptions, method of selecting correct model to fit the building's needs, scaled drawings showing space requirements and specifications.

ASH HOISTS—TELESCOPIC

- Gillis & Geoghegan, Inc., 544 West Broadway, New York.
G & G Telescopic Hoist catalog, 8½ x 11, A.I.A. Standard Classification 3011 contains complete descriptions, method of selecting correct model to fit the building's needs, scaled drawings showing space requirements and specifications.

BRICK

- Hanley Company, Bradford, Pa.
General Catalog. 16 pp., 8½ x 11 ins. Illustrated.
Bradford Reds. Folder. 8 pp., 3 x 8 ins. Illustrated.

CABINET WORK

- Henry Klein & Co., 25 Grand Street, Elmhurst, L. I., N. Y.
Driwood Period Mouldings in Ornamented Wood. Brochure, 28 pp., 8½ x 11 ins. Illustrated.
- Ensemble Offices for the Banker and Broker. Folder. 4 pp., 8½ x 11 ins. Illustrated.
- Luxurious Office Partitions in Walnut, Mahogany and Quartered Oak. Folder. 4 pp., 8½ x 11 ins. Illustrated.

CARPETS

- Collins & Aikman Corporation, 25 Madison Avenue, New York.
"Seemingly Seamless Carpets." Booklet, 8 pp., 8½ x 11 ins. Illustrated.

CEMENT

- Carney Company, The, Mankato, Minn.
A Remarkable Combination of Quality and Economy. Booklet, 20 pp., 8½ x 11 ins. Illustrated. Important data on valuable material.
- Louisville Cement Co., 315 Guthrie St., Louisville, Ky.
BRIXMENT for Perfect Mortar. Self-filing handbook, 8½ x 11 ins. 16 pp. Illustrated. Contains complete technical description of BRIXMENT for brick, tile and stone masonry, specifications, data and tests.
- Medusa Portland Cement Co., 1002 Engineers' Building, Cleveland.
Medusa Waterproofed Gray Portland Cement. Booklet, 30 pp., 8½ x 11 ins. Illustrated.
- Medusa White Portland Cement, Non-Staining. Brochure, 30 pp., 8½ x 11 ins. Illustrated.
- Portland Cement Association, Chicago, Ill.
Concrete Masonry Construction. Booklet, 48 pp., 8½ x 11 ins. Illustrated. Deals with various forms of construction.
- Town and Country Houses of Concrete Masonry. Booklet, 20 pp., 8½ x 11 ins. Illustrated.
- Facts About Concrete Building Tile. Brochure, 16 pp., 8½ x 11 ins. Illustrated.
- The Key to Firesafe Homes. Booklet, 20 pp., 8½ x 11 ins. Illustrated.
- Design and Control of Concrete Mixers. Brochure, 32 pp., 8½ x 11 ins. Illustrated.
- Portland Cement Stucco. Booklet, 64 pp., 8½ x 11 ins. Illustrated.
- Concrete in Architecture. Bound Volume, 60 pp., 8½ x 11 ins. Illustrated. An excellent work, giving views of exteriors and interiors.

CENTRAL CLEANING SYSTEMS

- The Spencer Turbine Co., Hartford, Conn.
Modern Cleaning Methods for Hotels, Schools, Theatres and Industry.

CHURCH EQUIPMENT

- John Van Range Co., Cincinnati.
Practical Planning for Church Food Service. Booklet, 32 pp., 8½ x 11 ins. Illustrated.

CLUB EQUIPMENT

- John Van Range Co., Cincinnati.
Practical Planning for Club Food Service. Booklet, 32 pp., 8½ x 11 ins. Illustrated.

CONCRETE BUILDING MATERIALS

- Concrete Steel Company, 2 Park Avenue, New York, N. Y.
Modern Concrete Reinforcement. Booklet, 32 pp., 8½ x 11 ins. Illustrated.

CONSTRUCTION, FIREPROOF

- National Fire Proofing Co., 250 Federal St., Pittsburgh, Pa.
Standard Fire Proofing Bulletin 171. 8½ x 11 ins., 32 pp. Illustrated. A treatise on fireproof floor construction.

CONSTRUCTION, STONE AND TERRA COTTA

- Cowing Pressure Relieving Joint Company, 100 North Wells St., Chicago, Ill.
Pressure Relieving Joint for Buildings of Stone, Terra Cotta or Marble. Booklet, 16 pp., 8½ x 11 ins. Illustrated. Deals with preventing cracks, spalls and breaks.

DAMP-PROOFING

- Minwax Company, Inc., 11 West 42nd St., New York.
Complete Index of all Minwax Products. Folder, 6 pp., 8½ x 11 ins. Illustrated. Complete description and detailed specifications.
- Toch Brothers, New York, Chicago, Los Angeles.
Handbook of R. I. W. Protective Products. Booklet, 40 pp., 4½ x 7½ ins.

DOORS

- David Lupton's Sons Company, Philadelphia.
Lupton Commercial Steel Doors. Folder. 8½ x 11 ins. Illustrated.
- Lupton Steel Industrial Doors. Brochure. 8 pp., 8½ x 11 ins. Illustrated. Details and specifications.

DOORS AND TRIM, METAL

- The American Brass Company, Waterbury, Conn.
Anaconda Architectural Bronze Extruded Shapes. Brochure, 180 pp., 8½ x 11 ins., illustrating and describing more than 2,000 standard bronze shapes of cornices, jamb casings, mouldings, etc.
- William Bayley Co., 147 North Street, Springfield, Ohio.
Bayley Tubular Steel Doors. Brochure, 16 pp., 8½ x 11 ins. Illustrated.
- The Kawneer Company, Niles, Michigan.
Detail sheet, 8½ x 11 ins., with A.I.A. File No. featuring Heavy Welded Bronze Doors.
- Richards-Wilcox Mfg. Co., Aurora, Ill.
Fire-Doors and Hardware. Booklet, 8½ x 11 ins., 64 pp. Illustrated. Describes entire line of tin-clad and corrugated fire doors, complete with automatic closers, track hangers and all the latest equipment—all approved and labeled by Underwriters' Laboratories.
- Truscon Steel Company, Youngstown, Ohio.
Copper Alloy Steel Doors. Catalog 110. Booklet, 48 pp., 8½ x 11 ins. Illustrated.

DOORS, SOUNDPROOF

- Irving Hamlin, Evanston, Ill.
The Evanston Soundproof Door. Folder, 8 pp., 8½ x 11 ins. Illustrated. Deals with a valuable type of door.

DRAINAGE FITTINGS

- Josam Mfg. Co., Michigan City, Ind.
Josam Products. Booklet, 73 pp., 8½ x 11 ins. Illustrated. A valuable line of accessories.
- Josam-Marsh Grease, Plaster, Sediment and Hair Interceptors. Brochure. 7 pp., 8½ x 11 ins. Illustrated.
- Josam New Saw Tooth-Roof Drain. Folder, 4 pp., 8½ x 11 ins. Illustrated.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

.....

.....

Name Business

Address

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 65

DUMBWAITERS

Sedgwick Machine Works, 151 West 15th St., New York, N. Y.
Catalog and Service Sheets. Standard specifications, plans and prices for various types, etc. $4\frac{1}{4} \times 8\frac{1}{2}$ ins., 60 pp. Illustrated.
Catalog and pamphlets, $8\frac{1}{2} \times 11$ ins. Illustrated. Valuable data on dumbwaiters.

ELECTRICAL EQUIPMENT

The Electric Storage Battery Co., Philadelphia.
Emergency Lighting and Emergency Power Data. Booklet. 12 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.

General Electric Co., Merchandise Dept., Bridgeport, Conn.
Wiring System Specification Data for Apartment Houses and Apartment Hotels. Booklet, 20 pp., 8×10 ins. Illustrated.
Electrical Specification Data for Architects. Brochure, 36 pp., $8 \times 10\frac{1}{2}$ ins. Illustrated. Data regarding G. E. wiring materials and their use.
The House of a Hundred Comforts. Booklet, 40 pp., $8 \times 10\frac{1}{2}$ ins. Illustrated. Dwells on importance of adequate wiring.

Prometheus Electric Corporation, 360 West 13th St., New York.
Electric Heating Specialties. Booklet, 24 pages. $8\frac{1}{2} \times 11$ ins. Illustrated. Specialties for heating, cooking, hospitals, organ lofts, etc.

Ward Leonard Electric Co., Mt. Vernon, N. Y.
Mobile Color Lighting. Booklet, 46 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. Valuable work on the subject.

Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.
Electric Power for Buildings. Brochure, 14 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. A publication important to architects and engineers.
Variable-Voltage Central Systems as Applied to Electric Elevators. Booklet, 12 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. Deals with an important detail of elevator mechanism.
Modern Electrical Equipment for Buildings. Booklet, $8\frac{1}{2} \times 11$ ins. Illustrated. Lists many useful appliances.
Electrical Equipment for Heating and Ventilating Systems. Booklet, 24 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. This is "Motor Application Circular 7379."
Westinghouse Panelboards. Catalog 224. Booklet, 64 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.
Beauty; Power; Silence; Westinghouse Fans. (Dealer Catalog 45.) Brochure, 16 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. Valuable information on fans and their uses.
Electric Range Book for Architects (A. I. A. Standard Classification 31 G-4). Booklet, 24 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. Cooking apparatus for buildings of various types.
Westinghouse Commercial Cooking Equipment (Catalog 280). Booklet, 32 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. Equipment for cooking on a large scale.
Electric Appliances (Catalog 44-A). 32 pp., $8\frac{1}{2} \times 11$ ins. Deals with accessories for home use.

ELEVATORS

Otis Elevator Company, 260 Eleventh Ave., New York, N. Y.
Otis Push Button Controlled Elevators. Descriptive leaflets, $8\frac{1}{2} \times 11$ ins. Illustrated. Full details of machines, motors and controllers for these types.
Otis Geared and Gearless Traction. Elevators of All Types. Descriptive leaflets, $8\frac{1}{2} \times 11$ ins. Illustrated. Full details of machines, motors and controllers for these types.
Escalators. Booklet, $8\frac{1}{2} \times 11$ ins., 22 pp. Illustrated. Describes use of escalators in subways, department stores, theaters and industrial buildings. Also includes elevators and dock elevators.

Richards-Wilcox Mfg. Co., Aurora, Ill.
Elevators. Booklet, $8\frac{1}{2} \times 11$ ins., 24 pp. Illustrated. Describes complete line of "Ideal" elevator door hardware and checking devices, also automatic safety devices.

Sedgwick Machine Works, 151 West 15th St., New York, N. Y.
Catalog and descriptive pamphlets, $4\frac{1}{4} \times 8\frac{1}{2}$ ins., 70 pp. Illustrated. Descriptive pamphlets on hand power freight elevators, sidewalk elevators, automobile elevators, etc.
Catalog and pamphlets, $8\frac{1}{2} \times 11$ ins. Illustrated. Important data on different types of elevators.

ESCALATORS

Otis Elevator Company, 260 Eleventh Ave., New York, N. Y.
Escalators. Booklet, 32 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. A valuable work on an important item of equipment.

FIREPROOFING

Concrete Engineering Co., Omaha, Neb.
Handbook of Fireproof Construction. Booklet, 54 pp., $8\frac{1}{2} \times 11$ ins. Valuable work on methods of fireproofing.

FIREPROOFING—Continued

Concrete Steel Company, 2 Park Avenue, New York, N. Y.
Economical Fireproof Floors for Suburban Buildings. Folder. 4 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.
Havemeyer Steel Joist. The Joist with the Twin-Tee Chords. Booklet, 24 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.

National Fire Proofing Company, Fulton Building, Pittsburgh, Pa.
Natco; The Complete Line of Structural Clay Tile. Booklet. 48 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.
Make the Facing Bear Its Share. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.
Unibacker, The Tile That Binds. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.
Face Tile Walls. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.
Meeting Every Need. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.
Natco Vitritile. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.
Natco Double Shell Load Bearing Tile. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.

FLOODLIGHTING

National Terra Cotta Society, 230 Park Avenue, New York, N. Y.
Terra Cotta Buildings Are Superior for Floodlighting. Brochure, 16 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.

FLOOR HARDENERS (CHEMICAL)

Minwax Company, 11 West 42nd Street, New York, N. Y.
Concrete Floor Treatments. Folder, 4 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.

Toch Brothers, New York, Chicago, Los Angeles.
Handbook of R. I. W. Protective Products. Booklet, 40 pp., $4\frac{1}{2} \times 7\frac{1}{2}$ ins.

FLOORS—STRUCTURAL

Concrete Steel Company, 2 Park Avenue, New York, N. Y.
Havemeyer Steel Joist. The Joist with the Twin-Tee Chords. Booklet, 24 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.

Truscon Steel Co., Youngstown, Ohio.
Truscon Floretype Construction. Booklet, $8\frac{1}{2} \times 11$ ins., 16 pp. Illustrations of actual jobs under construction. Lists of properties and information on proper construction. Proper method of handling and tables of safe loads.

Structural Gypsum Corporation, Linden, N. J.
Gypsteel Pre-cast Fireproof Floors. Booklet, 36 pp., $8\frac{1}{2} \times 11$ ins. Illustrated. Data on flooring.
Service Sheet No. 3. Specifications and Details of Design and Construction for Gypsteel Pre-Cast Floors and Ceilings. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.

FLOORING

Armstrong Cork Co. (Flooring Division), Lancaster, Pa.
Armstrong's Linoleum Floors. Catalog, $8\frac{1}{2} \times 11$ ins., 44 pp. Color plates. A technical treatise on linoleum, including table of gauges and weights and specifications for installing linoleum floors. Newly revised, February, 1929.

Armstrong's Linoleum Pattern Book, 1929. Catalog, 9×12 ins., 44 pp. Color plates. Reproduction in color of all patterns of linoleum and cork carpet in the Armstrong line.

Linoleum Layer's Handbook. 5×7 ins., 36 pp. Instructions for linoleum layers and others interested in learning most satisfactory methods of laying and taking care of linoleum.

Enduring Floors of Good Taste. Booklet, 6×9 ins., 48 pp. Illustrated in color. Explains use of linoleum for offices, stores, etc., with reproductions in color of suitable patterns, also specifications and instructions for laying.

Blabon-Sandura Company, Inc., Finance Building, Philadelphia.
Blabon's Linoleum Styles for 1930. Booklet, 64 pp., $6\frac{1}{4} \times 8\frac{1}{2}$ ins. Illustrated.
Detailed Instructions for Handling and Laying Linoleum. Brochure, 40 pp., $3\frac{1}{4} \times 5\frac{3}{4}$ ins. Illustrated.
Blabon's Linoleum Floors and Where You Will Find Them. Booklet, 8 pp., $8\frac{1}{2} \times 11$ ins. Illustrated.
Comparison of Tests. Folder, $8\frac{1}{2} \times 11$ ins. Illustrated.

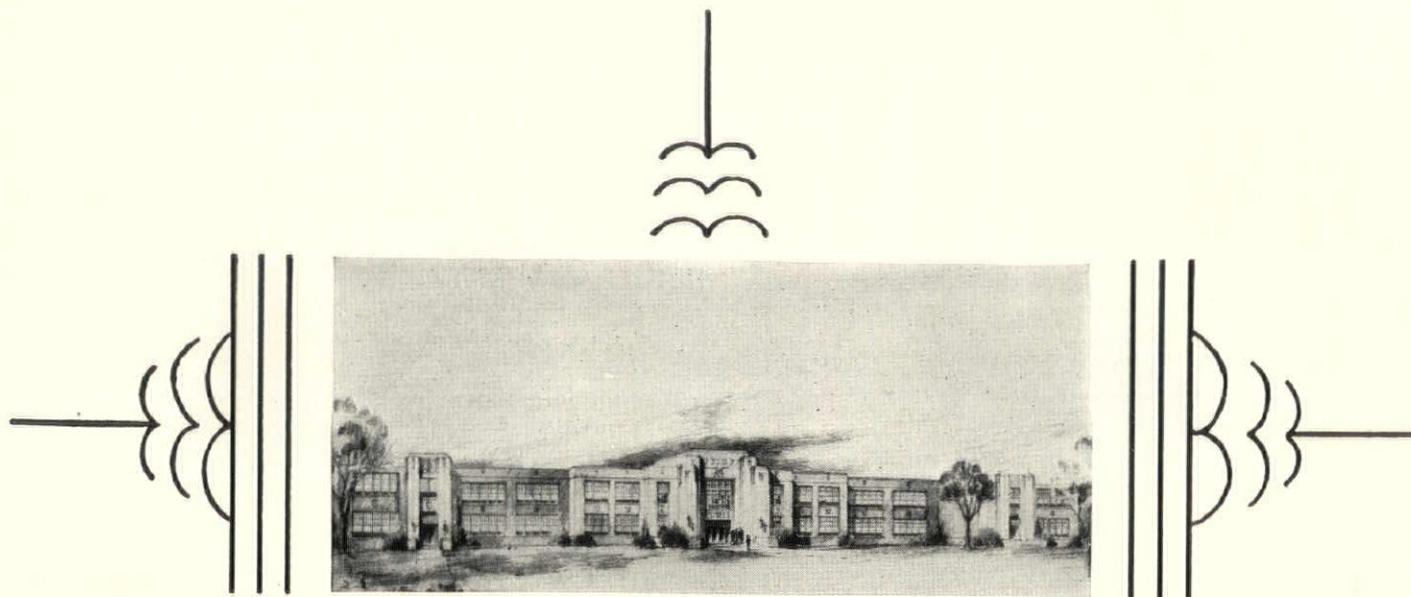
Cellized Oak Flooring, Memphis, Tenn.
Style in Oak Floors. Booklet, 16 pp., 6×9 ins. Illustrated.

Congoleum-Nairn, Inc., 195 Belgrove Drive, Kearny, N. J.
Facts you should know about Resilient Floors. A series of booklets on floors for (1) schools, (2) hospitals, (3) offices, (4) stores, (5) libraries, (6) churches, (7) Clubs and Lodges, (8) apartments and hotels. Illustrated.
Specifications for Resilient Floors. Booklet, 12 pp. A reprint from Sweet's.
A New Kind of Floor Service. Brochure, 8 pp. Data on Bonded Floors.
Sealex Battleship Linoleum. Booklet, 12 pp. Illustrated. Shows typical installations.
Sealex Treadlite Tiles. Two booklets, 8 and 16 pp. Illustrated.
Colonial Planks. Brochure, 8 pp. Illustrated.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

Name Business
Address



LITCHFIELD JUNIOR AND SENIOR HIGH SCHOOL, LITCHFIELD, MINN.

Architects—Jacobson & Jacobson

Contractor—Jens J. Juul

FOR ALL SEASONS

THE fine working qualities of Carney Cement Mortar have no seasonal restrictions. In fact, the characteristics that recommend Carney Mortar for summer use become even more desirable in winter—for instance, its suitability for fast mixing assures entering the wall without danger of freezing—and its smooth working qualities permit excellent workmanship under trying conditions.

THE CARNEY COMPANY

CHICAGO

CINCINNATI

District Sales Offices

DETROIT

ST. LOUIS

MINNEAPOLIS

Mills: Mankato and Carney, Minn.

Cement Makers Since 1883

For Complete Details
See Sweets A-202

CARNEY CEMENT
for Brick and Tile Mortar

SPECIFICATIONS:—1 Part Carney Cement to 3 Parts Sand

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 66

FLOORING—Continued

- Goodyear Tire & Rubber Co., Inc.**, Akron, Ohio.
Beautiful Floors, Architects' Reference Book. Brochure, 32 pp., 8½ x 11 ins. Illustrated. Valuable data on flooring.
Rubber Flooring News. Monthly publications, 8½ x 11 ins. Illustrated. Giving data on flooring for buildings of many types.
Manual of Goodyear Rubber Tile Installation Booklet. 7¼ x 10¾ ins. Illustrated.
- C. Pardee Works**, 101 Park Ave., New York, N. Y., and 1600 Walnut St., Philadelphia, Pa.
Pardee Tiles. Bound Volume, 48 pp., 8½ x 11 ins. Illustrated.
- Stedman Rubber Flooring Company**, South Braintree, Mass.
Stedman Ray-Proof Rubber. Booklet, 12 pp., 5½ x 8 ins. Illustrated. For X-ray Rooms.
Stedman Tile, The Original Reinforced Rubber Floor. Booklet, 16 pp., 8½ x 11 ins. Illustrated. Valuable data on flooring.
- Structural Gypsum Corporation**, Linden, N. J.
Gypsteel Pre-cast Fireproof Floors. Booklet, 36 pp., 8½ x 11 ins. Illustrated. Data on floorings.

FURNITURE

- American Seating Co.**, 14 E. Jackson Blvd., Chicago, Ill.
Art Ecclesiastical Booklet, 6 x 9 ins., 48 pp. Illustrations of church fittings in carved wood.
Theatre Chairs. Booklet, 6 x 9 ins., 48 pp. Illustrations of theatre chairs.
- Kittinger Co.**, 1893 Elmwood Ave., Buffalo, N. Y.
Kittinger Club & Hotel Furniture. Booklet, 20 pp., 6¼ x 9½ ins. Illustrated. Deals with fine line of furniture for hotels, clubs, institutions, schools, etc.
Kittinger Club and Hotel Furniture. Booklet, 20 pp., 6 x 9 ins. Illustrated. Data on furniture for hotels and clubs.
A Catalog of Kittinger Furniture. Booklet, 78 pp., 11 x 14 ins. Illustrated. General Catalog.

GARAGES

- Ramp Buildings Corporation**, 21 East 40th St., New York, N. Y.
Building Garages for Profitable Operation. Booklet, 8½ x 11 ins. 16 pp. Illustrated. Discusses the need for modern mid-city, parking garages, and describes the d'Humy Motoramp system of design, on the basis of its superior space economy and features of operating convenience. Gives cost analyses of garages of different sizes, and calculates probable earnings.
Garage Design Data. Series of informal bulletins issued in loose-leaf form, with monthly supplements.

GLASS CONSTRUCTION

- Adamson Flat Glass Co.**, Clarksburg, W. Va.
Quality and Dependability. Folder, 2 pp., 8½ x 11 ins. Illustrated. Data in the company's product.
- Libbey-Owens Sheet Glass Co.**, Toledo, Ohio.
Flat Glass. Brochure, 12 pp., 5½ x 7½ ins. Illustrated. History of manufacture of flat, clear, sheet glass.

GREENHOUSES

- King Construction Company**, North Tonawanda, N. Y.
King Greenhouses for Home or Estate. Portfolio of half-tone prints, varnishes, 8¼ x 10½ ins.
- William H. Lutton Company**, 267 Kearney Ave., Jersey City, N. J.
Greenhouses of Quality. Booklet, 50 pp., 8½ x 11 ins. Illustrated. Conservatories making use of Lutton Patented Galvanized Steel V-Bar.

GYPSUM

- Structural Gypsum Corporation**, Linden, N. J.
Service Sheet No. 1. Specifications and Details of Design and Construction for Gypsteel Pre-Cast Long-Span Roofs. Folder, 8½ x 11 ins. Illustrated. Service Sheet No. 2. Specifications and Details of Design and Construction for Gypsteel Pre-Cast Short-Span Roofs. Folder, 8½ x 11 ins. Illustrated.

HARDWARE

- P. & F. Corbin**, New Britain, Conn.
Early English and Colonial Hardware. Brochure, 8½ x 11 ins. An important illustrated work on this type of hardware.
Locks and Builders' Hardware. Bound Volume, 486 pp., 8½ x 11 ins. An exhaustive, splendidly prepared volume.
Colonial and Early English Hardware. Booklet, 48 pp., 8½ x 11 ins. Illustrated. Data on hardware for houses in these styles.
- Cutler Mail Chute Company**, Rochester, N. Y.
Cutler Mail Chute Model F. Booklet, 4 x 9¼ ins., 8 pp. Illustrated.
- Richards-Wilcox Mfg. Co.**, Aurora, Ill.
Distinctive Garage Door Hardware. Booklet, 8½ x 11 ins., 66 pp. Illustrated. Complete information accompanied by data and illustrations on different kinds of garage door hardware.
Distinctive Elevator Door Hardware. Booklet, 90 pp., 10½ x 16 ins. Illustrated.

HARDWARE—Continued

- Russell & Erwin Mfg. Co.**, New Britain, Conn.
Hardware for the Home. Booklet, 24 pp., 3½ x 6 ins. Deals with residence hardware.
Door Closer Booklet. Brochure, 16 pp., 3½ x 6 ins. Data on a valuable detail.
Garage Hardware. Booklet, 12 pp., 3½ x 6 ins. Hardware intended for garage use.
Famous Homes of New England. Series of folders on old homes and hardware in style of each.
- Todhunter, Inc.**, 119 East 57th St., New York, N. Y.
Colonial Hardware. Booklet, 12 pp., 8½ x 11 ins. Illustrated. Deals with hardware of the best type for exterior and interior use.

HEATING EQUIPMENT

- American Blower Co.**, 6004 Russell St., Detroit, Mich.
Heating and Ventilating Utilities. A binder containing a large number of valuable publications, each 8½ x 11 ins., on these important subjects.
- American Radiator Company, The**, 40 West 40th St., N. Y. C.
Ideal Boilers for Oil Burning. Catalog 5½ x 8½ ins., 36 pp. Illustrated in 4 colors. Describing a line of Heating Boilers especially adapted to use with Oil Burners.
Corto—The Radiator Classic. Brochure, 5½ x 8½ ins., 16 pp. Illustrated. A brochure on a space-saving radiator of beauty and high efficiency.
Ideal Arcola Radiator Warmth. Brochure, 6¼ x 9½ ins. Illustrated. Describes a central all-on-one-floor heating plant with radiators for small residences, stores, and offices.
How Shall I Heat My Home? Brochure, 16 pp., 5¼ x 8½ ins. Illustrated. Full data on heating and hot water supply.
New American Radiator Products. Booklet, 44 pp., 5 x 7¼ ins. Illustrated. Complete line of heating products.
- A New Heating Problem. Brilliantly Solved.** Broadside, 4 pp., 10¼ x 15 ins. Illustrated. Data on the IN-AIRID invisible air valve.
- In-Airid, the Invisible Air Valve.** Folder, 8 pp., 3½ x 6 ins. Illustrated. Data on a valuable detail of heating.
- The 999 ARCO Packless Radiator Valve.** Folder, 8 pp., 3½ x 6 ins. Illustrated.
- Bryant Heater & Mfg. Co.**, 17825 St. Clair Ave., Cleveland, Ohio.
Handbook on Heating Buildings with Bryant Gas Furnaces. Booklet, 12 pp., 8½ x 11 ins. Illustrated.
Handbook on Heating Water with Bryant Gas Boilers. Brochure, 20 pp., 8½ x 11 ins. Illustrated.
Handbook on Heating Buildings with Bryant Gas Boilers. Booklet, 20 pp., 8½ x 11 ins. Illustrated.
- James B. Clow & Sons**, 534 S. Franklin St., Chicago, Ill.
Clow Gasteam Vented Heating System. Brochure, 24 pp., 8½ x 11 ins. Illustrated. Deals with a valuable form of heating equipment for using gas.
- C. A. Dunham Company**, 450 East Ohio St., Chicago, Ill.
Dunham Radiator Trap. Bulletin 101, 8 x 11 ins., 12 pp. Illustrated. Explains working of this detail of heating apparatus.
Dunham Packless Radiator Valves. Bulletin 104, 8 x 11 ins., 8 pp. Illustrated. A valuable brochure on valves.
Dunham Return Heating System. Bulletin 109, 8 x 11 ins. Illustrated. Covers the use of heating apparatus of this kind.
Dunham Vacuum Heating System. Bulletin 110, 8 x 11 ins., 12 pp. Illustrated.
The Dunham Differential Vacuum Heating System. Bulletin 114. Brochure, 12 pp., 8 x 11 ins. Illustrated. Deals with heating for small buildings.
The Dunham Differential Vacuum Heating System. Bulletin 115. Brochure, 12 pp., 8 x 11 ins. Illustrated. Deals with heating for large buildings.
- The Fulton Siphon Company**, Knoxville, Tenn.
Siphon Temperature Regulators. Illustrated brochures, 8½ x 11 ins., dealing with general architectural and industrial applications; also specifically with applications of special instruments. Siphon Heating Specialties. Catalog No. 200, 192 pp., 3½ x 6¼ ins. Important data on heating.
- Grinnell Company**, Providence, R. I.
Grinnell Discovers a Superior Heating Trap. Folder, 4 pp., 8½ x 11 ins. Illustrated.
- Hoffman Specialty Company, Inc.**, 25 West 45th St., New York, N. Y.
Heat Controlled With the Touch of a Finger. Booklet, 46 pp., 5¼ x 8¼ ins. Illustrated.
How to Lock Out Air, the Heat Thief. Brochure, 48 pp., 5 x 7¼ ins. Illustrated.
- Janette Manufacturing Company**, 556 West Monroe Street, Chicago.
More Heat from Any Hot Water System on Less Fuel. Folder. 4 pp., 8½ x 11 ins. Illustrated. Deals with use of the "Hydro-lator."

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

.....

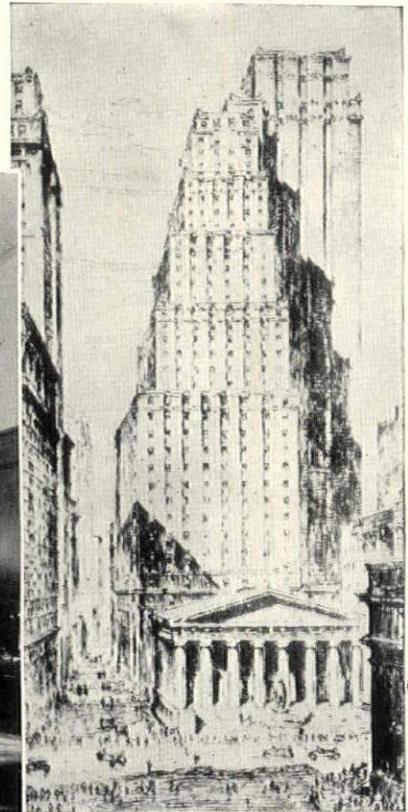
.....

.....

Name Business

Address

THE LARGEST BANK IN THE WORLD *uses* ★ ★



ABOVE: An etching of the Chase National Bank Building, New York. LEFT: Interior showing W. & J. Sloane Battleship Linoleum.

DOUBLE-WAXED LINOLEUM



This Service Free to Architects

We maintain a service department to assist architects in planning or specifying linoleum floors. This service is at your disposal without charge. Write for copy of Architects Data Book and ask for a representative to call if you wish advice on specific problems. Address: Architects Service Department, W. & J. Sloane, 577 Fifth Avenue, New York City.

THE Chase National Bank, New York merged recently with the Equitable Trust Company, thereby becoming the largest bank in the world, with assets of \$2,800,000,000.

In the downtown offices of the Chase National Bank, 12,800 square yards of W. & J. Sloane *double-waxed* Battleship Linoleum are used.

More and more frequently architects' specifications call for W. & J. Sloane Linoleum, both because of its inherent quality and because of its wide range of colorful patterns.

W. & J. Sloane Linoleum is made

with a natural fine-textured finish, the result of extra-processing in the grinding and mixing of raw materials and extra pressure in the calenders. It is then *double-waxed at the plant* by an exclusive Sloane process.

When you specify W. & J. Sloane Linoleum you assure your clients of the finest money can buy. It comes to the job double-waxed, is easy to handle and is ready for use the instant it is laid. Examine this super-fine finish before you write the specifications. We will gladly send you quality samples.

★ W. & J. SLOANE DOUBLE-WAXED LINOLEUM

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 68

HEATING EQUIPMENT—Continued

- S. T. Johnson Co., Oakland, Calif.**
 Johnson Oil Burners. Booklet, 9 pp., 8½ x 11 ins. Illustrated.
 Bulletin No. 4A. Brochure, 8 pp., 8½ x 11 ins. Illustrated.
 Data on different kinds of oil-burning apparatus.
 Bulletin No. 31. Brochure, 8 pp., 8½ x 11 ins. Illustrated.
 Deals with Johnson Rotary Burner with Full Automatic Control.
- Kewanee Boiler Corporation, Kewanee, Ill.**
 Kewanee on the Job. Catalog, 8½ x 11 ins., 80 pp. Illustrated.
 Showing installations of Kewanee boilers, water heaters, radiators, etc.
 Catalog No. 78, 6 x 9 ins. Illustrated. Describes Kewanee Fire-box Boilers with specifications and setting plans.
 Catalog No. 79, 6 x 9 ins. Illustrated. Describes Kewanee power boilers and smokeless tubular boilers with specifications.
- McQuay Radiator Corporation, 35 East Wacker Drive, Chicago, Ill.**
 McQuay Visible Type Cabinet Heater. Booklet, 4 pp., 8½ x 11 ins. Illustrated. Cabinets and radiators adaptable to decorative schemes.
- McQuay Concealed Radiators.** Brochure, 4 pp., 8½ x 11 ins. Illustrated.
- McQuay Unit Heater.** Booklet, 8 pp., 8½ x 11 ins. Illustrated. Gives specifications and radiator capacities.
- Modine Mfg. Co., Racine, Wisc.**
 Modine Copper Radiation. Booklet, 28 pp., 8½ x 11 ins. Illustrated. Deals with industrial, commercial and domestic heating.
 A Few Short Years. Folder, 4 pp., 8½ x 11 ins. Illustrated. Heating for garages.
 Dairy Plant Heating. Folder, 4 pp., 8½ x 11 ins. Illustrated.
 Industrial Heating. Folder, 4 pp., 8½ x 11 ins. Illustrated.
 Modine Unit Heater. Folder, 6 pp., 8½ x 11 ins. Illustrated.
- Nash Engineering Company, South Norwalk, Conn.**
 Bulletin 85. Booklet, 12 pp., 10¼ x 7½ ins. Illustrated in color. Describes construction and operation of the Jennings Return Line Vacuum Heating Pump.
 Bulletin 87. Brochure, 8 pp., 10¼ x 7½ ins. Illustrated in color. Deals with Sizes T and U Jennings Vacuum Heating Pump for 2500 and 5000 square feet equivalent direct radiation.
 Bulletin 63. Booklet, 4 pp., 10¼ x 7½ ins. Illustrated. Describes in detail the Unit Type Motor Driven Jennings Condensation Pump.
- National Radiator Corporation, Johnstown, Pa.**
 The Crimson Flame. Folder, 6 pp., 4½ x 7 ins. Illustrated.
 Contento Brings Contentment to Your Home. Folder, 12 pp., 3½ x 6 ins. Illustrated.
 National Jacketed Boiler. Folder, 4 pp., 8½ x 11 ins. Illustrated.
 National Super-Smokeless Boiler. Folder, 4 pp., 8½ x 11 ins. Illustrated.
 Aero, the National Radiator Sizes and Ratings. Booklet, 16 pp., 5 x 7½ ins. Illustrated.
- Prometheus Electric Corporation, 360 West 13th St., New York.**
 Electric Heating Specialties. Booklet, 24 pages, 8½ x 11 ins. Illustrated. Specialties for heating, cooking, hospitals, organ lofts, etc.
- Rome Brass Radiator Corporation, 1 East 42nd Street, New York.**
 Proof of the Pudding. Booklet, 24 pp., 8½ x 10½ ins. Illustrated. Describes Robras, 20-20 concealed-within-the-walls, lightweight, all-brass radiators.
 Within the Walls. Brochure, 16 pp., 4 x 9 ins. Illustrated. Gives facts regarding modern, out-of-sight, lightweight, Robras 20-20 radiators.
 Engineering Data. Booklet, 16 pp., 8½ x 10½ ins. Illustrated. Full data and tables to facilitate selection and installation of Robras 20-20 concealed radiators for steam, water and vapor heating systems.
 Small Bathrooms Made More Spacious. Brochure, 4 pp. Illustrated. Gives descriptions, sizes and prices of Robras lightweight cabinet radiators to be installed under wash basins.
- Rome Brass Radiator Corp., (Aul-Brass Heater Division) 1 East 42nd St., New York.**
 Aulbras Hot Water Heaters. Booklet, 12 pp., 8½ x 11 ins. Illustrated in color.
- Sarco Company, Inc., 183 Madison Ave., New York City, N. Y.**
 Steam Heating Specialties. Booklet, 6 pp., 6 x 9 ins. Illustrated. Data on Sarco Packless Supply Valves and Radiator Traps for vacuum and vapor heating systems.
 Equipment Steam Traps and Temperature Regulations. Booklet, 6 pp., 6 x 9 ins. Illustrated. Deals with Sarco Steam Traps for hospital, laundry and kitchen fixtures and the Sarco Self-contained Temperature Regulation for hot water service tanks.
- Spencer Heater Co., Williamsport, Pa.**
 Catalog. Booklet, 20 pp., 6½ x 9 ins. Illustrated. Complete line of magazine feed cast iron sectional and steel tubular heaters.
 Spencer Magazine Heaters, for Steam, Vapor or Hot Water. Brochure, 28 pp., 5¾ x 9 ins. Illustrated.
 The Fire that Burns Uphill. Brochure, 24 pp., 6½ x 9¼ ins. Illustrated in color. Magazine feed heaters for steam, vapor and hot water heating.

HEATING EQUIPMENT—Continued

- B. F. Sturtevant Company, Hyde Park, Boston, Mass.**
 Tempervant Heating Units. Catalog 363. Booklet, 44 pp., 8½ x 11 ins. Illustrated. Data on "Heating Every Corner with Maximum Economy."
- Trane Co., The, La Crosse, Wis.**
 Bulletin 14, 16 pp., 8½ x 10½ ins. Covers the complete line of Trane Heating Specialties, including Trane Bellows Traps, and Trane Bellows Packless Valves.
 Bulletin 20, 24 pp., 8½ x 10½ ins. Explains in detail the operation and construction of Trane Condensation. Vacuum, Booster, Circulating, and similar pumps.
 How to Cut Heating Costs. Booklet, 18 pp., 8½ x 11 ins. Illustrated.
- HOISTS, TELESCOPIC**
Gillis & Geoghegan, Inc. 535 West Broadway, New York
 G & G Telescopic Hoist. Booklet, 24 pp., 8½ x 11 ins. Illustrated complete data on hoists.
 Ash Removal. Folder, 8½ x 11 ins. Illustrated. Lists for removing ashes from basements.

HOSPITAL EQUIPMENT

- The Frink Co., Inc., 369 Lexington Ave., New York City.**
 Catalog 426. 7 x 10 ins., 16 pp. A booklet illustrated with photographs and drawings, showing the types of lights for use in hospitals, as operating table reflectors, linolite and multilite concentrators, ward reflectors, bed lights and microscopic reflectors, giving sizes and dimensions, explaining their particular fitness for special uses.
- The International Nickel Company, 67 Wall St., New York, N. Y.**
 Hospital Applications of Monel Metal. Booklet, 8½ x 11½ ins., 16 pp. Illustrated. Gives types of equipment in which Monel Metal is used, reasons for its adoption, with sources of such equipment.
- Prometheus Electric Corporation, 360 West 13th St., New York.**
 Electric Heating Specialties. Booklet, 24 pages, 8½ x 11 ins. Illustrated. Specialties for heating, cooking, hospitals, organ lofts, etc.
- John Van Range Co., Cincinnati, Ohio.**
 Practical Planning for Hospital Food Service. Brochure, 62 pp., 8½ x 11 inches. Illustrated.
- Wilmot Castle Company, Union Trust Bldg., Rochester, N. Y.**
 The Hospital Sterilizer Data Sheets. Booklet, 16 pp., 8½ x 11 ins. Illustrated. Data on planning sterilizer installations.

HOTEL EQUIPMENT

- Pick-Barth Company, Inc., Albert, 1200 West 35th St., Chicago, and 34 Cooper Square, New York.**
 Some Thoughts on Furnishing a Hotel. Booklet, 7½ x 9 ins. Data on complete outfitting of hotels.

INCINERATORS

- Josam Mfg. Co., Michigan C. Ind.**
 Josam-Graver Incinerator. Folder, 4 pp., 8½ x 11 ins. Illustrated.
- Kerner Incinerator Company, E. Water St., Milwaukee, Wis.**
 Incinerators (Chimney-fed). Catalog No. 18 (Architect and Builders' Edition). Size 8½ x 11 ins., 20 pp. Illustrated. Describes principles and design of Kernerator Chimney-fed Incinerators for residences, apartments, hospitals, schools, apartment hotels, clubs and other buildings. Shows all standard models and gives general information and working data.
 Sanitary Elimination of Household Waste. Booklet, 4 x 9 ins., 16 pp. Illustrated. Gives complete information on the Kernerator for residences.
 Garbage and Waste Disposal for Apartment Buildings. Folder, 8½ x 11 ins., 16 pp. Illustrated. Describes principle and design of Kernerator Chimney-fed Incinerator for apartments and gives list of buildings where it has been installed.
 Sanitary Disposal of Waste in Hospitals. Booklet, 4 x 9 ins., 12 pp. Illustrated. Shows how this necessary part of hospital service is taken care of with the Kernerator. Gives list of hospitals where installed.
 Estate Type Kernerator, for Estates and Country Homes. Booklet, 8 pp., 8½ x 11 inches. Illustrated.

INSULATION

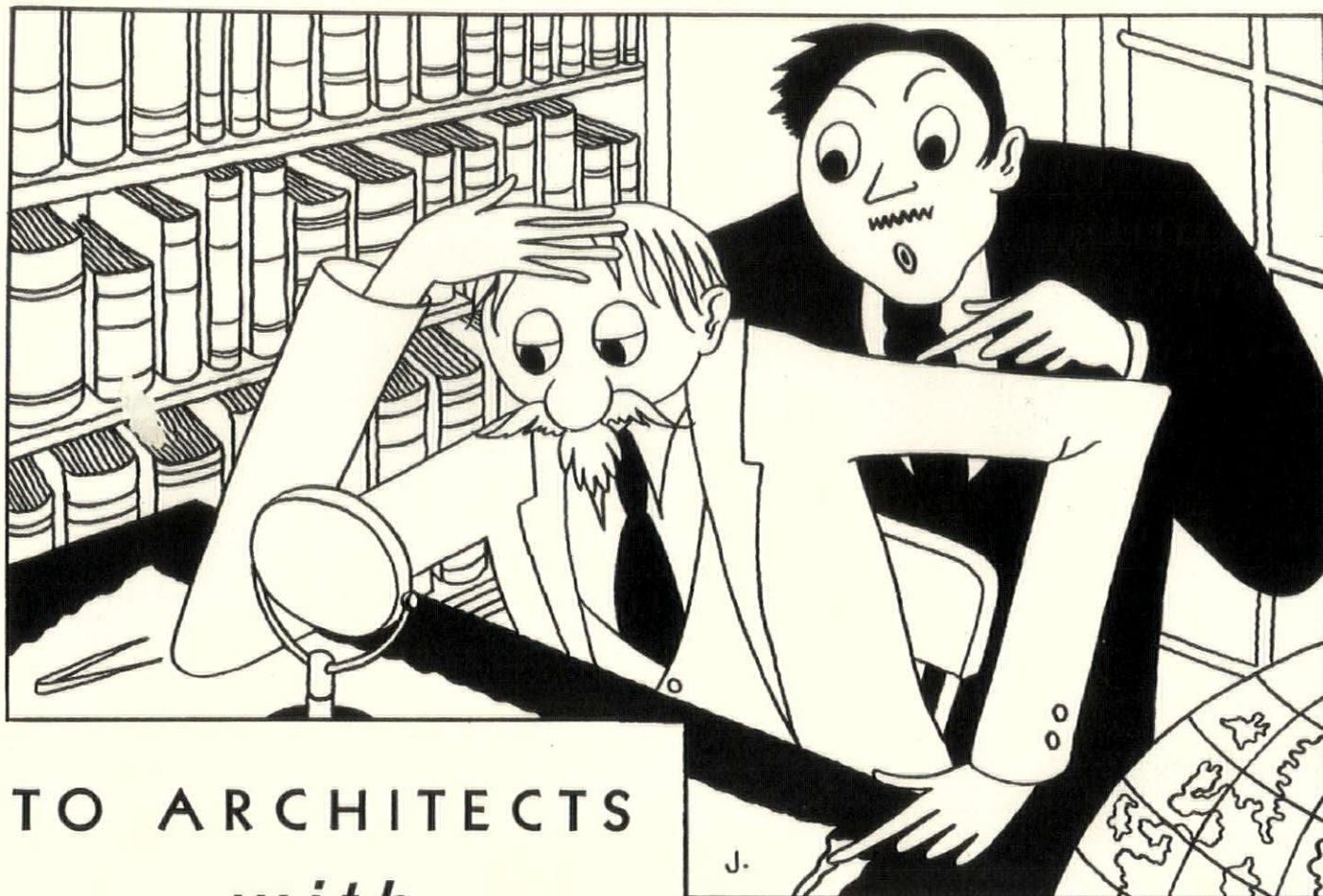
- Armstrong Cork & Insulation Co., Pittsburgh, Pa.**
 The Insulation of Roofs with Armstrong's Corkboard. Booklet. Illustrated, 7½ x 10½ ins., 32 pp. Discusses means of insulating roofs of manufacturing or commercial structures.
 Insulation of Roofs to Prevent Condensation. Illustrated booklet, 7½ x 10½ ins., 36 pp. Gives full data on valuable line of roof insulation.
 Filing Folder for Pipe Covering Data. Made in accordance with A. I. A. rules.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

Name Business

Address



TO ARCHITECTS
with
great hair

ONE slight glimmer of hope can we offer the poor, overburdened architect, bowed down with the cares and worries of a nerve-racking profession. One load of the many can we remove from his aching shoulders.

We refer to the frequently puzzling question of rugs and carpets.

Here is a field in which, with all due modesty, we can justly claim to be expert. It is one in which we can be of real help to any architect.

Besides being the world's largest weavers of rugs and

carpets for every purpose we are particularly well equipped to advise on contract work. Large and small public buildings the country over are consistent users of Bigelow-Sanford rugs and carpets and have been the means of our gathering a goodly store of practical knowledge in this field.

A special Contract Department is here to help you to smooth out floor covering problems. Consult it at any time, without obligation, or if you would like to know the name of a nearby dealer, it will be supplied.

**BIGELOW
SANFORD**
Rugs and Carpets

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 70

INSULATION—Continued

- The Cork-lined House Makes a Comfortable Home. 5 x 7 ins. 32 pp. Illustrated.
- Armstrong's Corkboard. Insulation for Walls and Roofs of Buildings. Booklet, 66 pp., 9½ x 11¼ ins. Illustrates and describes use of insulation for structural purposes.
- Cork Import Corporation**, 345 West 40th Street, New York. Novoid Cork Covering for Cold Pipes, Coolers and Tanks. Folder 8½ x 11 ins. Illustrated.
- Novoid Corkboard Insulation. Folder 8½ x 11 ins. Illustrated.
- Structural Gypsum Corporation**, Linden, N. J. Heat Insulation Value of Gypsteel. Folder, 4 pp., 8½ x 11 ins. Brochure, by Charles L. Norton, of M. I. T.

JOISTS

- Concrete Steel Company**, 2 Park Avenue, New York, N. Y. Havemeyer Steel Joist. The Joist with the Twin-Tee Chords. Booklet, 24 pp., 8½ x 11. Illustrated.
- Modern Concrete Reinforcement. Brochure, 32 pp., 8½ x 11 ins. Illustrated.
- Standard Practice for Placing Havemeyer Reinforcement in Columns, Beams and Slabs. Data sheets, 8½ x 11 ins. Illustrated.

KITCHEN EQUIPMENT

- The International Nickel Company**, 67 Wall St., New York, N. Y. Hotels, Restaurants and Cafeteria Applications of Monel Metal. Booklet, 8½ x 11 ins., 32 pp. Illustrated. Gives types of equipment in which Monel Metal is used, with service data and sources of equipment.
- Prometheus Electric Corporation**, 360 West 13th St., New York. Electric Heating Specialties. Booklet, 24 pages, 8½ x 11 ins. Illustrated. Specialties for heating, cooking, hospitals, organ lofts, etc.
- John Van Range Co.**, Cincinnati. Practical Planning for Church Food Service. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
- Practical Planning for Club Food Service. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
- Practical Planning for School Food Service. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
- Planning Restaurants That Make Money. Booklet, 78 pp., 8½ x 11 ins. Illustrated. Excellent work on equipment.
- Practical Planning for Hospital Food Service. Brochure, 62 pp., 8½ x 11 inches. Illustrated.

LABORATORY EQUIPMENT

- Alberene Stone Co.**, 153 West 23rd Street, New York City. Booklet, 8¼ x 11¼ ins., 26 pp. Stone for laboratory equipment, shower partitions, stair treads, etc.
- Duriron Company**, Dayton, Ohio. Duriron Acid, Alkali and Rust-proof Drain Pipe and Fittings. Booklet, 8½ x 11 ins., 20 pp. Full details regarding a valuable form of piping.

LANTERNS

- Todhunter, Inc.**, 119 East 57th St., New York, N. Y. Lanterns. Booklet, 16 pp., 8½ x 11 ins. Illustrated. Deals with a fine assortment of fixtures for exterior and interior use.

LATH, METAL AND REINFORCING

- Concrete Steel Company**, 2 Park Avenue, New York, N. Y. Havemeyer Building Products, Booklet, 40 pp., 8½ x 11 ins. Illustrated.
- Milcor Steel Co.**, Milwaukee. The Milcor Manual. Booklet, 96 pp., 8½ x 11 ins. Illustrated. Data on metal lath and similar materials.
- Milcor Metal Ceiling Catalog. Booklet, 288 pp., 8½ x 11 ins. Illustrated. Data on metal ceiling and wall construction.
- National Steel Fabric Co.**, Pittsburgh, Pa. Better Walls for Better Homes. Brochure, 16 pp., 7¼ x 11¼ ins. Illustrated. Metal lath, particularly for residences.
- Steeltex for Floors. Booklet, 24 pp., 8½ x 11 ins. Illustrated.
- Combined reinforcing and form for concrete or gypsum floors and roofs.
- Steeltex Data Sheet No. 1. Folder, 8 pp., 8½ x 11 ins. Illustrated. Steeltex for floors on steel joists with round top chords.
- Steeltex Data Sheet No. 2. Folder, 8 pp., 8½ x 11 ins. Illustrated. Steeltex for floors on steel joists with flat top flanges.
- Steeltex Data Sheet No. 3. Folder, 8 pp., 8½ x 11 ins. Illustrated. Steeltex for folders on wood joists.
- Truscon Steel Company**, Youngstown, Ohio. Truscon ¾-inch Hy-Rib for Roofs, Floors and Walls. Booklet, 8½ x 11 ins., illustrating Truscon ¾-inch Hy-Rib as used in industrial buildings. Plates of typical construction. Progressive steps of construction. Specification and load tables.

LAUNDRY MACHINERY

- American Laundry Machinery Co.**, Norwood Station, Cincinnati, O. Functions of the Hotel and Hospital Laundry. Brochure, 8 pp., 8½ x 11 ins. Valuable data regarding an important subject.
- Laundry Equipment of Small Hotels, Hospitals and Institutions. Booklet, 36 pp., 8½ x 11 ins. Illustrated.
- General Laundry Machinery Corporation**, 608 South Dearborn St., Chicago, Ill. General All-Metal Washer. Booklet, 16 pp., 8½ x 11 ins. Illustrated. Timken-equipped Monel metal washer with one-lever control.
- General Dry Tumbler. Brochure, 16 pp., 8½ x 11 ins. Illustrated. Specifications and details of Up-Draft Dry Tumbler with automatic temperature control.
- Troy Laundry Machinery Co., Inc.**, 9 Park Place, New York City. Laundry Machinery for Large Institutions. Loose-leaf booklet, 50 pp., 8½ x 11 ins. Illustrated.
- Laundry Machinery for Small Institutions. Loose-leaf brochure, 50 pp., 8½ x 11 ins. Illustrated.
- Accessory Equipment for Institutional Laundries. Leather bound book, 50 pp., 8½ x 11 ins. Illustrated.
- Dry Cleaning Equipment for Institutional Purposes. Brochure, 50 pp., 8½ x 11 ins. Illustrated.

LIGHTING EQUIPMENT

- The Frink Co., Inc.**, 369 Lexington Ave., New York, N. Y. Catalog 415, 8½ x 11 ins., 46 pp. Photographs and scaled cross-sections. Specialized bank lighting, screen and partition reflectors, double and single desk reflectors and Polaralite Signs.
- Gleason Tiebout Glass Company**, 67 West 44th St., New York, N. Y. Fragment of Celestialite. Booklet, 24 pp., 7 x 10 ins. Illustrated. Data on lighting for offices, schools, hospitals, etc.
- Celestialite Catalog 727. Booklet, 18 pp., 8½ x 11 ins. Illustrated. Valuable brochure on lighting.
- Holophane Company, Inc.**, 342 Madison Ave., New York, N. Y. The Lighting of Schools; A Guide to Good Practice. Booklet, 24 pp., 8½ x 11 ins. Illustrated.
- Lighting Specifications for Hospitals. Brochure, 30 pp., 8½ x 11 ins. Illustrated.
- Industrial Lighting. Bulletin 448A. Booklet, 24 pp., 8½ x 11 ins. Illustrated.
- Holophane Catalog. Booklet, 48 pp., 8½ x 11 ins. Combination catalog and engineering data book.
- The Lighting of Schools. A Guide to Good Practice. Booklet, 24 pp., 8½ x 11 ins. Illustrated.
- Smyser-Royer Co.**, 1700 Walnut Street, Philadelphia, Pa. Catalog "J" on Exterior Lighting Fixtures. Brochure, illustrated, giving data on over 300 designs of standards, lanterns and brackets of bronze or cast iron.
- Todhunter**, 119 East 57th St., New York, N. Y. Lighting Fixtures, Lamps and Candlesticks. Booklet, 8½ x 11 ins. Illustrated. Fine assortment of lighting accessories.
- Westinghouse Electric & Manufacturing Co.**, East Pittsburgh, Pa. Industrial Lighting Equipment. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
- Commercial Lighting. Brochure, 24 pp., 8½ x 11 ins. Illustrated.
- Airport and Floodlighting Equipment. Booklet, 20 pp., 8½ x 11 ins. Illustrated.

MAIL CHUTES

- Cutler Mail Chute Company**, Rochester, N. Y. Cutler Mail Chute Model F. Booklet, 4 x 9¼ ins., 8 pp. Illustrated.

MANTELS

- Henry Klein & Co., Inc.** 40-46 West 23rd Street, New York. Driewood Mantels. Booklet. 12 pp. 8½ x 11 ins. Illustrated. Fine line of eighteenth century English and American mantels.
- Todhunter, Inc.**, 119 East 57th St., New York, N. Y. Georgian Mantels. Brochure, 12 pp., 8½ x 11 ins. Illustrated. Illustrates and describes an excellent assortment of fine mantels based on Georgian precedent.

MARBLE

- The Georgia Marble Company**, Tate, Ga.; New York Office, 1328 Broadway. Why Georgia Marble Is Better. Booklet, 3½ x 6 ins. Gives analysis, physical qualities, comparison of absorption with granite, opinions of authorities, etc.
- Convincing Proof. 3½ x 6 ins., 8 pp. Classified list of buildings and memorials in which Georgia Marble has been used, with names of Architects and Sculptors.
- Hurt Building, Atlanta; Senior High School and Junior College, Muskegon, Mich. Folders, 4 pp., 8½ x 11 ins. Details.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

Name Business

Address



SUN-WINDOWS THAT LET IN MORE THAN LIGHT

When you specify Helioglass, you always *know* that your sun-windows are going to bring in the *full* sunlight. The vital ultra-violet rays will be there. Ordinary glass, you know, actually *blots out* these health-guarding rays. Helioglass transmits them generously and permanently.

Have our Architectural Representative give you full information about this glass, sponsored by the large organization whose services in the plate, window and structural glass fields have so long been at your command. Have him show you how Helioglass has been made more readily available—for the school, the hospital, the sanitarium, the office building, as well as apartment buildings and private dwellings—by its *new lowered cost*.

H E L I O G L A S S

AN ULTRA-VIOLET RAY GLASS



Helioglass is readily obtainable from our many
Warehouses—located in every principal city.

PITTSBURGH PLATE GLASS CO., PITTSBURGH, PA.

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 72

METALS

- Aluminum Company of America**, Pittsburgh.
Architectural Aluminum. Brochure, 30 pp., 8½ x 11 ins. Illustrated. An excellent booklet on the subject.
- Central Alloy Steel Corporation**, Massillon, Ohio.
Sheet Iron Primer. Booklet, 64 pp., 5¼ x 7¾ ins. Illustrated.
The Path to Permanence. Brochure, 52 pp., 8½ x 11 ins. Illustrated. Data on sheet iron.
- The International Nickel Company**, 67 Wall St., New York, N. Y.
Monel Metal Primer. 8 folders, 4 pp., 8½ x 11 ins. Illustrated.
Valuable data on use of monel in kitchens, laundries, etc.

MILL WORK—See also Wood

- Curtis Companies Service Bureau**, Clinton, Iowa.
Your Dream Kitchen, Booklet, 11 pp., 7¾ x 10½ ins. Illustrated.
Fine line of fittings for kitchens, breakfast alcoves, etc.
- Hartmann-Sanders Company**, 2155 Elston Ave., Chicago, Ill.
Column Catalog, 7½ x 10 ins., 48 pp. Illustrated. Contains prices on columns 6 to 36 ins. diameter, various designs and illustrations of columns and installations.
- The Pergola Catalog**, 7½ x 10 ins., 64 pp. Illustrated. Contains illustrations of pergola lattices, garden furniture in wood and cement, garden accessories.
- Klein & Co., Inc.**, Henry, 11 East 37th St., New York, N. Y.
Two Driwood Interiors. Folder, 4 pp., 6¼ x 9 ins. Illustrated.
Use of moulding for paneling walls.
- A New Style in Interior Decoration**. Folder, 4 pp., 6¼ x 9 ins. Illustrated. Deals with interior woodwork.
- Driwood Period Mouldings in Ornamented Wood**. Booklet, 28 pp., 8½ x 11 ins. Illustrated.
- How Driwood Period Mouldings in Ornamented Wood Set a New Style in Decoration**. Folder.
- Roddis Lumber and Veneer Co.**, Marshfield, Wis.
Roddis Doors. Brochure, 24 pp., 5¼ x 8½ ins. Illustrated price list of doors for various types of buildings.
- Roddis Doors**, Catalog G. Booklet, 184 pp., 8½ x 11 ins. Completely covers the subject of doors for interior use.
- Roddis Doors for Hospitals**. Brochure, 16 pp., 8½ x 11 ins. Illustrated work on hospital doors.
- Roddis Doors for Hotels**. Brochure, 16 pp., 8½ x 11 ins. Illustrated work on doors for hotel and apartment buildings.

MORTAR AND CEMENT COLORS

- Clinton Metallic Paint Co.**, Clinton, N. Y.
Clinton Mortar Colors. Folder, 8½ x 11 ins., 4 pp. Illustrated in colors, gives full information concerning Clinton Mortar Colors with specific instructions for using them.
- Color Card**, 3¼ x 6½ ins. Illustrates in color the ten shades in which Clinton Mortar Colors are manufactured.
- Something New in Stucco**. Folder, 3½ x 6 ins. An interesting folder on the use of coloring matter for stucco coated walls.

PAINTS, STAINS, VARNISHES AND WOOD FINISHES

- Medusa Portland Cement Co.**, Engineers' Building, Cleveland.
"How to Paint Concrete and Masonry Surfaces." Booklet, 16 pp., 8½ x 11 ins. Illustrated.
- Minwax Company, Inc.**, 11 West 42nd St., New York.
Color Card and Specifications for Minwax Brick and Cement Coating. Folder, 4 pp., 8½ x 11 ins. Illustrated.
- National Lead Company**, 111 Broadway, New York, N. Y.
Handy Book on Painting. Book, 5½ x 3¼ ins., 100 pp. Gives directions and formulæ for painting various surfaces of wood, plaster, metals, etc., both interior and exterior.
- Red Lead in Paste Form**. Booklet, 6¼ x 3½ ins., 16 pp. Illustrated. Directions and formulæ for painting metals.
- Came Lead**. Booklet, 6 x 8¾ ins., 12 pp. Illustrated. Describes various styles of lead cames.
- Sherwin-Williams Company**, 601 Canal Rd., Cleveland, Ohio.
Complete Architectural Specifications for painting, varnishing and lacquering, reprinted from the Sherwin-Williams Architectural Catalogue as it appears in Sweet's Architectural Catalogue. Form Number B 303. 8½ x 11, bound in paper, thirty pages of specifications and color chips; carries A. I. A. file number.
- Toch Brothers**, New York, Chicago, Los Angeles.
Architects' Specification Data. Sheets in loose leaf binder, 8½ x 11 ins., dealing with an important line of materials.

PARTITIONS

- Circle A. Products Corporation**, New Castle, Ind.
Circle A. Partitions Sectional and Movable. Brochure. Illustrated. 8½ x 11¼ ins., 32 pp. Full data regarding an important line of partitions, along with Erection Instructions for partitions of three different types.

PARTITIONS—Continued

- Irving Hamlin**, Evanston, Ill.
Hamlinized Folding Partitions Made from Hamlin's Evanston Soundproof Doors, Sectional and Movable. Folder, 4 pp., 8½ x 11 ins. Illustrated.
- Hauserman Company, E. F.**, Cleveland, Ohio.
Hollow Steel Standard Partitions. Various folders, 8½ x 11 ins. Illustrated. Give full data on different types of steel partitions, together with details, elevations and specifications.
- Henry Klein & Co.**, 25 Grand Street, Elmhurst, L. I., N. Y.
Telesco Partition. Catalog, 8¼ x 11 ins., 14 pp. Illustrated. Shows typical offices laid out with Telesco partitions, cuts of finished partition units in various woods. Gives specifications and cuts of buildings using Telesco.
- Detailed Instructions for Erecting Telesco Partitions. Booklet, 24 pp., 8½ x 11 ins. Illustrated. Complete instructions, with cuts and drawings, showing how easily Telesco Partition can be erected.
- Improved Office Partition Co.**, 25 Grand St., Elmhurst, L. I., N. Y. (See Henry Klein & Co.)
- Richards-Wilcox Mfg. Co.**, Aurora, Ill.
Partitions. Booklet, 7 x 10 ins., 32 pp. Illustrated. Describes complete line of track and hangers for all styles of sliding parallel, accordion and flush-door partitions.
- Structural Gypsum Corporation**, Linden, N. J.
Service Sheet No. 4. Specifications for Gypsteel Partition File. Folder, 8½ x 11 ins. Illustrated.
- Telesco Office Partition**, 25 Grand St., Elmhurst, L. I., N. Y. (See Henry Klein & Co.)

PIPE

- American Brass Company**, Waterbury, Conn.
Bulletin B-1. Brass Pipe for Water Service. 8½ x 11 ins., 28 pp. Illustrated. Gives schedule of weights and sizes (I.P.S.) of seamless brass and copper pipe, shows typical installations of brass pipe, and gives general discussion of the corrosive effect of water on iron, steel and brass pipe.
- American Rolling Mill Company**, Middletown, Ohio.
How ARMCO Dredging Products Cut Costs. Booklet, 16 pp., 6 x 9 ins. Data on dredging pipe.
- Bethlehem Steel Company**, Bethlehem, Pa.
Bethlehem Wrought Steel Pipe, Catalog P. Booklet, 20 pp., 4¾ x 7¼ ins. Illustrated.
- Clow & Sons, James B.**, 534 S. Franklin St., Chicago, Ill.
Catalog A. 4 x 16½ ins., 700 pp. Illustrated. Shows a full line of steam, gas and water works supplies.
- Duriron Company**, Dayton, Ohio.
Duriron Acid, Alkali, Rust-proof Drain Pipe and Fittings. Booklet, 20 pp., 8½ x 11 ins. Illustrated. Important data on a valuable line of pipe.
- Maurice A. Knight**, Akron, Ohio.
Knightware in the Princeton Chemical Laboratory. Booklet, 16 pp., 6¼ x 8½ ins. Illustrated.
- National Tube Co.**, Frick Building, Pittsburgh, Pa.
"National" Bulletin No. 2. Corrosion of Hot Water Pipe, 8½ x 11 ins., 24 pp. Illustrated. In this bulletin is summed up the most important research dealing with hot water systems. The text matter consists of seven investigations by authorities on this subject.
- "National" Bulletin No. 3. The Protection of Pipe Against Internal Corrosion, 8½ x 11 ins., 20 pp. Illustrated. Discusses various causes of corrosion, and details are given of the deactivating and deaerating systems for eliminating or retarding corrosion in hot water supply lines.
- "National" Bulletin No. 25. "National" Pipe in Large Buildings. 8½ x 11 ins., 88 pp. This bulletin contains 254 illustrations of prominent buildings of all types, containing "National" Pipe, and considerable engineering data of value to architects, engineers, etc.
- Modern Welded Pipe**. Book of 88 pp., 8½ x 11 ins., profusely illustrated with halftone and line engravings of the important operations in the manufacture of pipe.

PLASTER

- Best Bros. Keene's Cement Co.**, Medicine Lodge, Kans.
Information Book. Brochure, 24 pp., 5 x 9 ins. Lists grades of plaster manufactured; gives specifications and uses for plaster.
- Plasterers' Handbook**. Booklet, 16 pp., 3¼ x 5½ ins. A small manual for use of plasterers.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

Name Business

Address

Should the description be changed?

A roof of Sheldon's Slate has, rightly, been called "the roof of eternal beauty."

Time, however, not only fails to deteriorate this eternal stone, but its caresses cause it to grow in loveliness. Even short periods of time mark an enhancement in beauty that can not escape attention.

A case in point is the First Methodist Church of La Porte, Indiana, a structure of Indiana Lime Stone all around, containing forty-eight rooms and costing \$350,000, admired alike by citizens and visitors.

It is crowned with a roof of Sheldon's Semi-Weathering Green and Gray Slate* (shown in colors in Sweet's) and in a letter that lies before us Mr. George W. Allen,

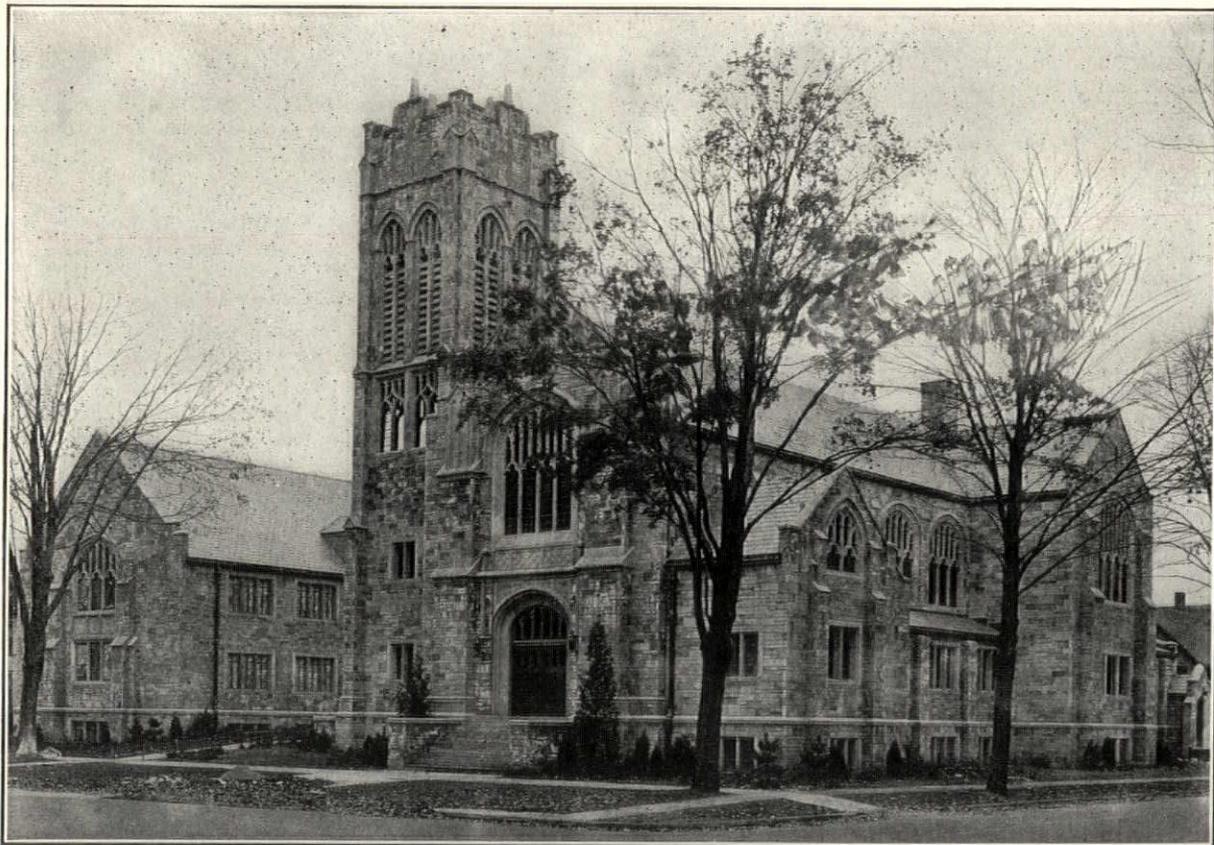
*Laid by Frank Laidlaw, Elkhart, Indiana

of George W. Allen and Sons, the Architects, says, significantly:

"That roof was put on in 1928, and I wish you could see it now. Time and the weather have made it so much more soft and beautiful in color!"

A common experience, which has led to the suggestion that a Sheldon Slate Roof would be better described as "the roof of eternally increasing beauty."

Haven't you, on the boards or contemplated, a project good enough for such a roof? If so, permit us to help you to develop one that will be a credit to you, an everlasting joy and profitable investment to the owners, and eternally increasing in beauty to all who observe it.



F.C. SHELDON SLATE CO.
 GENERAL OFFICES · GRANVILLE · N.Y.
 • BRANCHES IN PRINCIPAL CITIES •

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 74

PLASTER—Continued

Interior Walls Everlasting. Brochure, 20 pp., 6¼ x 9¼ ins. Illustrated. Describes origin of Keene's Cement and views of buildings in which it is used.

PLUMBING EQUIPMENT

- Clow & Sons, James B.**, 534 S. Franklin St., Chicago, Ill.
Catalog M. 9¼ x 12 ins., 184 pp. Illustrated. Shows complete line of plumbing fixtures for Schools, Railroads and Industrial Plants.
- Crane Company**, 836 S. Michigan Ave., Chicago, Ill.
Plumbing Suggestions for Home Builders. Catalog, 3 x 6 ins., 80 pp. Illustrated.
- Plumbing Suggestions for Industrial Plants. Catalog, 4 x 6½ ins., 34 pp. Illustrated.
- Planning the Small Bathroom. Booklet, 5 x 8 ins. Discusses planning bathrooms of small dimensions.
- Duriron Company**, Dayton, Ohio.
Duriron Acid, Alkali and Rust-Proof Drain Pipe and Fittings. Booklet, 8½ x 11 ins., 20 pp. Full details regarding a valuable form of piping.
- Imperial Brass Mfg. Co.**, 1200 W. Harrison St., Chicago, Ill.
Watrous Patent Flush Valves, Duojet Water Closets, Liquid Soap Fixtures, etc. 8½ x 11 ins., 136 pp., loose-leaf catalog, showing roughing-in measurements, etc.
- Speakman Company**, Wilmington, Del.
Catalog K. Booklet, 150 pp., 8½ x 10¾ ins. Illustrated. Data on showers and equipment details.

PNEUMATIC TUBE SYSTEMS

- G & G Atlas Systems, Inc.**, 544 West Broadway, New York.
12 pp., 8½ x 11. Illustrated booklet of tube systems for retail stores and other buildings.
- 4 pp., 8½ x 11. Data Sheet showing schematic diagrams for hotel, bank, factory and wholesale buildings, table of sizes, space requirements and preliminary layout steps. A.I.A. 35h21.

PUMPS

- Kewanee Private Utilities Co.**, 442 Franklin St., Kewanee, Ill.
Bulletin E. 7¼ x 10¼ ins., 32 pp. Illustrated. Catalog. Complete descriptions, with all necessary data, on Standard Service Pumps, Indian Brand Pneumatic Tanks, and Complete Water Systems, as installed by Kewanee Private Utilities Co.
- Nash Engineering Company**, South Norwalk, Conn.
Bulletin 52. Brochure. 6 pp., 10¼ x 7½ ins. Illustrated in color. Devoted to Jennings Standard Centrifugal Pumps for house service, boosting city water pressure to supply top stories, for circulating warm water, etc.
- Bulletin. 97. Booklet. 16 pp., 10¼ x 7½ ins. Illustrated in color. Describes the design, construction and operation of the Jennings Suction Sump Pump.
- Bulletin 11. Brochure. 8 pp., 10¼ x 7½ ins. Illustrated in color. Deals with Nash Hytor Vacuum Pumps for air and gases.
- The Trane Co.**, La Crosse, Wis.
Trane Small Centrifugal Pumps. Booklet, 3¼ x 8 ins., 16 pp. Complete data on an important type of pump.

REFRIGERATION

- The Fulton Syphon Company**, Knoxville, Tenn.
Temperature Control of Refrigeration Systems. Booklet, 8 pp., 8½ x 11 ins. Illustrated. Deals with cold storage, chilling of water, etc.

REINFORCED CONCRETE—See also Construction, Concrete

- Concrete Steel Company**, 2 Park Avenue, New York, N. Y.
Modern Concrete Reinforcement. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
- Truscon Steel Company**, Youngstown, Ohio.
Shearing Stresses in Reinforced Concrete Beams. Booklet, 8½ x 11 ins., 12 pp.

RESTAURANT EQUIPMENT

- John Van Range Company**, Cincinnati.
Planning Restaurants That Make Money. Booklet, 78 pp., 8½ x 11 ins. Illustrated. Excellent work on equipment.

ROOFING

- Federal Cement Tile Co.**, 608 S. Dearborn Street, Chicago.
Catalog and Roof Standards. Booklet, 36 pp., 8½ x 11 ins. Illustrated. Describes Featherweight Concrete Insulating Roof Slabs, including complete data, weights and dimensions, specifications and detail drawings. Also includes complete information on Featherweight Nailing Concrete Roof Slabs for use with ornamental slate or copper covering. The catalog is profusely illustrated and contains also a partial list of users.
- Examples of Theaters and Theater Roofs. Brochure, 16 pp., 8½ x 11 ins., Illustrated. Contains views of theaters designed by some of the country's leading architects.
- Federal Interlocking Tile and Glass Tile. 4 pp., 8½ x 11 ins. Illustrates and describes complete roof or precast concrete slabs requiring no composition covering.
- Heinz Roofing Tile Co.**, 1925 West Third Avenue, Denver, Colo.
Plymouth-Shingle Tile with Sprocket Hips. Leaflet, 8½ x 11 ins. Illustrated. Shows use of English shingle tile with special hips.
- Italian Promenade Floor Tile. Folder, 2 pp., 8½ x 11 ins. Illustrated. Floor tiling adapted from that of Davanzati Palace.
- Mission Tile. Leaflet, 8½ x 11 ins. Illustrated. Tile such as are used in Italy and Southern California.
- Georgian Tile. Leaflet, 8½ x 11 ins. Illustrated. Tiling as used in old English and French farmhouses.
- Johns-Manville Corporation**, New York.
The New Book of Roofs. Brochure, 24 pp., 8½ x 11 ins. Illustrated. Roofing from the Architect's point of view.
- Ludowici-Celadon Company**, 104 So. Michigan Ave., Chicago, Ill.
"Ancient" Tapered Mission Tiles. Leaflet, 8½ x 11 ins., 4 pp. Illustrated. For architects who desire something out of the ordinary this leaflet has been prepared. Describes briefly the "Ancient" Tapered Mission Tiles, hand-made with full corners and designed to be applied with irregular exposures.
- Milcor Steel Co.**, Milwaukee.
Milcor Architectural Sheet Metal Guide. Booklet. 72 pp., 8½ x 11 ins. Illustrated. Metal tile roofing, skylights, ventilators, etc.
Milcor Sheet Metal Handbook. Brochure. 128 pp., 8½ x 11 ins. Illustrated. Deals with rain-carrying equipment, etc.
- Structural Gypsum Corporation**, Linden, N. J.
Relative Effectiveness of Various Types of Roofing Construction in Preventing Condensation of the Under Surface. Folder, 4 pp., 8½ x 11 ins. Important data on the subject.
- Gypsteel Pre-cast Fireproof Roofs. Booklet, 48 pp., 8½ x 11 ins. Illustrated. Information regarding a valuable type of roofing.

SCHOOL EQUIPMENT

- John Van Range Co.**, Cincinnati.
Practical Planning for School Food Service. Booklet, 32 pp., 8½ x 11 ins. Illustrated.

SEWAGE DISPOSAL

- Kewanee Private Utilities**, 442 Franklin St., Kewanee, Ill.
Specification Sheets. 7¼ x 10¼ ins., 40 pp. Illustrated. Detailed drawings and specifications covering water supply and sewage disposal systems.
- Nash Engineering Company**, South Norwalk, Conn.
Bulletin 67. Booklet. 16 pp. 10¼ x 7½ ins. Illustrated in color. Describes Type A Jennings Sewage Ejector for handling Unscreened sewage and raising it from basements below sewer level.
- Bulletin 103. Brochure. 16 pp. 10¼ x 7½ ins. Illustrated in color. Deals with small size Type B Jennings Sewage Ejector.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

Name Business

Address



J-M SALEM GRAY ASBESTOS SHINGLES

HERE in these new Salem Gray Shingles, you will find all the mellow beauty of line, texture and color of early America's weatherbeaten roofs of wood—now made available to you for the first time in a substantial, permanent, fireproof roofing material.

If you have not already seen samples of Salem Grays, an Architectural Service Department Representative will gladly show you these unusual shingles. Address Johns-Manville Architectural Service Department, 292 Madison Ave., New York, N. Y.

**JOHNS-MANVILLE
ARCHITECTURAL
SERVICE DEPARTMENT**



SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 76

SCREENS

- American Brass Co., The, Waterbury, Conn.**
Facts for Architects About Screening. Illustrated folder, 9½ x 11¼ ins., giving actual samples of metal screen cloth and data on fly screens and screen doors.
- Athey Company, 6015 West 65th St., Chicago, Ill.**
The Athey Perennial Window Shade. An accordion pleated window shade, made from translucent Herringbone woven Coult cloth, which raises from the bottom and lowers from the top. It eliminates awnings, affords ventilation, can be dry-cleaned and will wear indefinitely.

SHELVING-STEEL

- David Lupton's Sons Company, Philadelphia, Pa.**
Lupton Steel Shelving. Catalog E. Illustrated brochure, 40 pp., 8½ x 11 ins. Deals with steel cabinets, shelving, racks, doors, partitions, etc.

STEEL PRODUCTS FOR BUILDING

- Bethlehem Steel Company, Bethlehem, Pa.**
Steel Joists and Stanchions. Booklet, 72 pp., 4 x 6¼ ins. Data for steel for dwellings, apartment houses, etc.
- Bethlehem Structural Shapes Bound Volume, 368 pp., 4¼ x 6¾ ins. Illustrated.
- Steel Frame House Company, Pittsburgh, Pa. (Subsidiary of McClintic-Marshall Corp.)**
Steel Framing for Dwellings. Booklet, 16 pp., 8½ x 11 ins. Illustrated.
- Steel Framing for Gasoline Service Stations. Brochure, 8 pp., 8½ x 11 ins. Illustrated.
- Steel Frame Standard Gasoline Service Stations. Booklet, 8 pp., 8½ x 11 ins. Illustrated. Three standard designs of stations.
- Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.**
The Arc Welding of Structural Steel. Brochure, 32 pp., 8½ x 11 ins. Illustrated. Deals with an important structural process.

STONE, BUILDING

- Indiana Limestone Company, Bedford, Ind.**
Volume 3, Series A-3. Standard Specifications for Cut Indiana Limestone work, 8½ x 11 ins., 56 pp. Containing specifications and supplementary data relating to the best methods of specifying and using this stone for all building purposes.
- Volume 1, Series B. Indiana Limestone Library, 6 x 9 ins., 36 pp. Illustrated. Giving general information regarding Indiana Limestone, its physical characteristics, etc.
- Volume 4, Series B. Booklet. New Edition, 8½ x 11 ins., 64 pp. Illustrated. Indiana Limestone as used in Banks.
- Volume 5, Series B. Indiana Limestone Library. Portfolio, 11¼ x 8¼ ins. Illustrated. Describes and illustrates the use of stone for small houses with floor plans of each.
- Volume 6, Series B. Indiana Limestone School and College Buildings. 8½ x 11 ins., 80 pp. Illustrated.
- Volume 12, Series B. Distinctive Homes of Indiana Limestone. 8½ x 11 ins., 48 pp. Illustrated.
- Old Gothic Random Ashlar. 8½ x 11 ins., 16 pp. Illustrated.

STORE FRONTS

- Brasco Manufacturing Co., 5025-35 South Wabash Ave., Chicago, Ill.**
Catalog No. 33. Series 500. All-Metal Construction. Brochure, 20 pp., 8½ x 11 ins. Illustrated. Deals with store fronts of a high class.
- Catalog No. 34. Series 202. Standard construction. Booklet, 16 pp., 8½ x 11 ins. Illustrated, complete data on an important type of building.
- Detail Sheets. Set of seven sheets, 8½ x 11 ins., printed on tracing paper, giving full-sized details and suggestions for store front designs.
- Davis Solid Architectural Bronze Sash. Set of six sheets, 8½ x 11 ins., printed on tracing paper. Full-sized details and suggestions for designs of special bronze store front construction.
- The Kawneer Company, Niles, Mich.**
Catalog M, 1929 Edition, 64 pages, 8½ x 11 ins., with the A.I.A. File No., profusely illustrated. General Catalog.
- Detail Sheet and descriptive folder, 8½ x 11 ins., with A.I.A. File No. featuring "B" Store Front Construction, designed along modernistic lines.
- National Terra Cotta Society, 230 Park Avenue, New York, N. Y.**
Terra Cotta Stores and Store Fronts. Booklet, 15 pp., 8½ x 11 ins. Illustrated.

TELEPHONE SERVICE ARRANGEMENTS

- All Bell Telephone Companies.** Apply nearest Business Office, or American Telephone and Telegraph Company, 195 Broadway, New York.
- Planning for Home Telephone Conveniences. Booklet, 52 pp., 8½ x 11 ins. Illustrated.
- Planning for Telephones in Building. Brochure, 74 pp., 8½ x 11 ins. Illustrated.

TERRA COTTA

- National Terra Cotta Society, 19 West 44th St., New York, N. Y.**
Standard Specifications for the Manufacture, Furnishing and Setting of Terra Cotta. Brochure, 8½ x 11 ins., 12 pp. Complete Specification, Glossary of Terms Relating to Terra Cotta and Short Form Specification for incorporating in Architects' Specification.

TIMBREL TILE VAULTS

- R. Guastavino Co., 40 Court Street, Boston.**
Timbrel Arch Construction. Booklet, 8 pp., 8½ x 11 ins.

TILE, HOLLOW

- National Fire-Proofing Co., 250 Federal Street, Pittsburgh.**
Natco. The Complete Line of Structural Clay Tile. Booklet. 39 pp., 8½ x 11 ins. Illustrated. A General Catalog.
- Natco Double Shell Load Bearing Tile Bulletin. 8½ x 11 ins., 6 pp. Illustrated.
- Natco Face Tile for the Up-to-Date. Farm Bulletin. 8½ x 11 ins.
- Natco Header Backer Tile Bulletin. 8½ x 11 ins., 4 pp. Illustrated.
- Natco Unibacker Tile Bulletin. 8½ x 11 ins., 4 pp. Illustrated.
- Natcofor Bulletin. 8½ x 11 ins., 6 pp. Illustrated.

TILE, STRUCTURAL CLAY

- National Fireproofing Corporation, Fulton Building, Pittsburgh, Pa.**
Natco. The Complete Line of Structural Clay Tile. Booklet, 48 pp., 8½ x 11 ins. Illustrated. A General Catalog.
- Natco Vitritile Bulletin No. 164. 40 pp., 8½ x 11 ins. Illustrated. Shows color charts, sizes and shapes, actual installations, etc.
- Natco Header Backer Tile Bulletin. 8½ x 11 ins., 4 pp. Illustrated.
- Natco Unibacker Tile Bulletin. 8½ x 11 ins., 4 pp. Illustrated.
- Natcofor Bulletin. 8½ x 11 ins., 6 pp. Illustrated.

TILES

- Flint Faience & Tile Co., Flint, Mich.**
Vitocraft Tiles, Unglazed. Folder, 4 pp., 8½ x 11 ins. Illustrated. Details of patterns in full color. Ask for Form A-322.
- Faience Tiles for Bathrooms. Folder, 4 pp., 8½ x 11 ins. Illustrated. Ask for Form A-303.
- Faience and Vitocraft, Unglazed. Folder, 4 pp., 8½ x 11 ins. Illustrated. Views of installations. Ask for Form A-304.
- Flintcraft Tiles. Folder, 4 pp., 8½ x 11 ins. Illustrated. Machine-made floor or wall tile. Ask for Form A-363.
- Hanley Company, Bradford, Pa.**
Hanley Quarry Tile. Folder. 4 pp., 5 x 8 ins. Illustrated.
- C. Pardee Works, 101 Park Ave., New York, N. Y., and 1600 Walnut St., Philadelphia, Pa.**
Pardee Tiles. Bound volume, 48 pp., 8½ x 11 ins. Illustrated.

TRUSSES

- McKeown Bros. Company, 523 South Keeler Avenue, Chicago.**
Truth in Architecture. Folder, 4 pp., 8½ x 11 ins. Illustrated. Deals with use of trusses of wood.
- Factory Built Bowstring Trusses. Folder, 4 pp., 8½ x 11 ins. Illustrated.
- Timber Trusses. Folder, 4 pp., 8½ x 11 ins. Illustrated.

VALVES

- Crane Co., 836 S. Michigan Ave., Chicago, Ill.**
No. 51. General Catalog. Illustrated. Describes the complete line of the Crane Co.
- C. A. Dunham Co., 450 East Ohio St., Chicago, Ill.**
The Dunham Packless Radiator Valve. Brochure, 12 pp., 8 x 11 ins. Illustrated. Data on an important type of valve.
- Jenkins Brothers, 80 White Street, New York.**
Office Buildings Yesterday and Today. Folder, 8½ x 11 ins. Illustrated. Valves for use in office buildings.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

Name Business

Address

MURPHY FINE FINISHES

Famous for 65 years among architects, master painters, and makers of products requiring a fine finish

A beautiful and lasting varnish . . .



This fine bank building was finished throughout with Murphy Transparent Interior Varnish, which is standard among architects for a beautiful, lasting finish.

Murphy Transparent Interior was used on the doors of the old Waldorf-Astoria in 1893-4, when this famous hostelry was dismantled to make room for the 85-story Empire State Building, the doors, which in all these years have never been refinished,

were found in perfect condition. 37 years old and still young!

There have been many experiences of this kind with Murphy Transparent Interior Varnish and they all go to show that the beautiful finish given by this varnish is enduring.

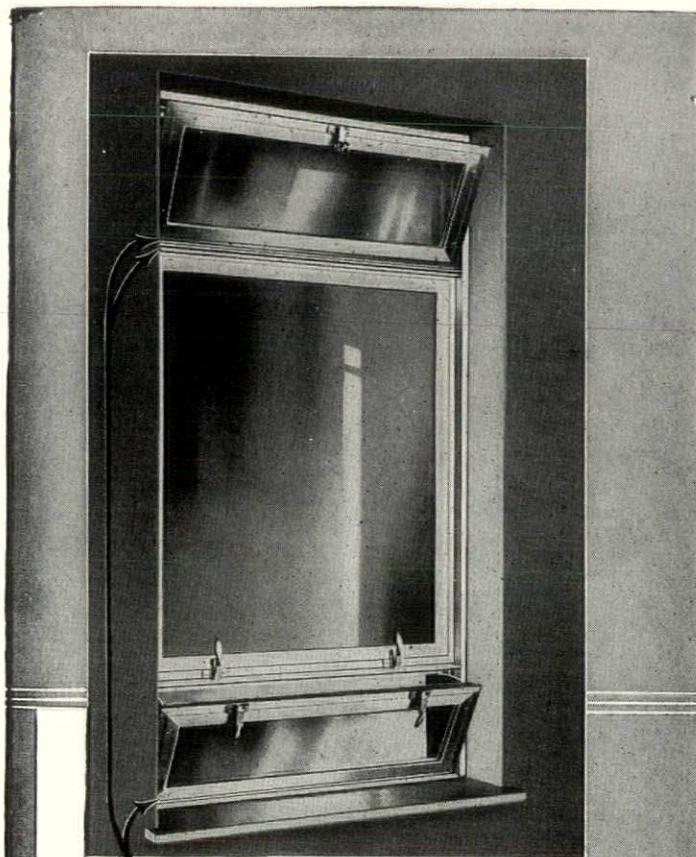
This building—the Ohio Savings Bank Building in Toledo—was designed by Messrs. Mills, Rhines, Bellman and Nordhoff, Architects. The painting contractors were Messrs. J. H. Aberst and Son.

Murphy Varnish Company — Members of the Producer's Council

NEWARK

CHICAGO

SAN FRANCISCO



Water-proof hinge
Patents applied for.

SEALAIR WEATHER-PROOF IN ANY WEATHER.

When closed, the asbestos-insulated union between sash and frame excludes wind, rain and snow. Even when opened, Sealair affords protection from drafts. The tilt of the sashes diverts the inflow of air, causing it to circulate freely to all parts of the room... All sashes can be washed from the inside... Furnished in bronze, aluminum alloy or steel.

Send for complete description, specifications and F. S. details.

THE
Kawneer
COMPANY

Niles, Mich.

Subsidiary: Berkeley, Calif.

ALSO WEIGHT-HUNG WINDOWS (Light and Heavy) AND CASEMENTS

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 78

VENETIAN BLINDS

Burlington Venetian Blind Co., Burlington, Vt.
Venetian Blinds, Booklet, 7 x 10 ins., 24 pp. Illustrated. Describes the "Burlington" Venetian blinds, method of operation, advantages of installation to obtain perfect control of light in the room.

VENTILATION

American Blower Co., Detroit, Mich.
American H. S. Fans. Brochure, 28 pp., 8½ x 11 ins. Data on an important line of blowers.

Duriron Company, Dayton, Ohio.
Acid-proof Exhaust Fans. Folder, 8 x 10½ ins., 8 pp. Data regarding fans for ventilation of laboratory fume hoods.
Specification Form for Acid-proof Exhaust Fans. Folder, 8 x 10½ ins.

WATERPROOFING

Medusa Portland Cement Co., 1002 Engineers' Building, Cleveland.
Medusa Waterproofed Gray Portland Cement. Booklet, 30 pp., 8½ x 11 ins. Illustrated.

Minwax Company, Inc., 11 West 42nd St., New York.
Waterproofing Stadia. Folder, 4 pp., 8½ x 11 ins. Illustrated.
Transparent Waterproofings for All Masonry Walls and Surfaces. Folder, 4 pp., 8½ x 11 ins. Illustrated.

Data Sheet on Membrane Waterproofing. Folder, 4 pp., 8½ x 11 ins. Illustrated.

Toch Brothers, New York, Chicago, Los Angeles.
Architects' Specification Data. Sheets in loose leaf binder, 8½ x 11 ins., dealing with an important line of materials.

WEATHER STRIPS

Athey Company, 6035 West 65th St., Chicago, Ill.
The Only Weatherstrip with a Cloth to Metal Contact. Booklet, 16 pp., 8½ x 11 ins. Illustrated. Data on an important type of weather stripping.

WINDOW GLASS

Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.
Pennvernon Window Glass With the New Flatter Surface. Booklet, 16 pp., 8½ x 11 ins. Illustrated.

WINDOWS

William Bayley Co., 147 North Street, Springfield, Ohio.
Bayley Pivoted Windows. Booklet, 24 pp., 8½ x 11 ins. Illustrated. Sections, hardware, and other details, and illustrations of installations.

Detroit Steel Products Co., 2250 E. Grand Boulevard, Detroit.
Fenestra Blue Book. Brochure, 75 pp., 8½ x 11 ins. Illustrated. Data on steel windows.

The Kawneer Company, Niles, Mich.
Circular, 8½ x 11 with A.I.A. File No. featuring full size details and specifications of Heavy Type Sealair Independent Balanced Sash Window.

Circular, 8½ x 11 with A.I.A. File No. featuring full size details and specifications of Light Independent Balanced Sash Sealair Windows.

Circular, 8½ x 11 with A.I.A. File No. featuring full size details and specifications of In-swinging Sash Sealair Windows. The above to be furnished in non-ferrous metal and steel.

David Lupton's Sons Company, Philadelphia, Pa.
Lupton Pivoted Sash. Catalog 12-A. Booklet, 48 pp., 8½ x 11 ins. Illustrates and describes windows suitable for manufacturing buildings.

Lupton Commercial Projected Windows. Brochure. 24 pp., 8½ x 11 ins. Illustrated. Details and specifications.

WINDOWS, CASEMENT

Detroit Steel Products Co., 2250 E. Grand Boulevard, Detroit.
Fenestra Casements. Booklet, 14 pp., 8½ x 11 ins. Illustrated. Discusses casements, particularly for residences.

Fenestra Screen Casements. Brochure, 16 pp., 8½ x 11 ins. Illustrated.

Decorating With Casements. Booklet, 18 pp., with inserts in color 6 x 8½ ins. Deals with use of decorations, particularly draperies, with casement windows.

David Lupton's Sons Company, Philadelphia, Pa.
Lupton Casement of Copper Steel. Catalog C-217. Booklet, 24 pp., 8½ x 11 ins. Illustrated brochure on casements, particularly for residences.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York

.....
 Name
 Address
 Business

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 80

WINDOWS, CASEMENT—Continued

- Lupton Creates a Complete Casement. Folder, 8½ x 11 ins. Illustrated data on a casement providing for screens, shades and draperies.
- Lupton Heavy Casements. Detail Sheet No. 101, 4 pp., 8½ x 11 ins. Details and specifications only.
- Richards-Wilcox Mfg. Co., Aurora, Ill.
Casement Window Hardware. Booklet, 24 pp., 8½ x 11 ins. Illustrated. Shows typical installations, detail drawings, construction details, blue-prints if desired. Describes AIR-way Multifold Window Hardware.
- Architectural Details. Booklet, 8½ x 11 ins., 16 pp. Tables of specifications and typical details of different types of construction.
- List of Parts for Assembly. Booklet, 8½ x 11 ins., 16 pp. Full lists of parts for different units.

WINDOW SCREENS

- Detroit Steel Products Co., 2250 E. Grand Boulevard, Detroit.
Fenestra Screen Casements. Brochure, 16 pp., 8½ x 11 ins. Illustrated.
- William Bayley Co., 147 North Street, Springfield, Ohio.
Bayley Pivoted Windows Screened. Booklet, 8 pp., 8½ x 11 ins. Data on screening and window ventilation.

WINDOWS, STEEL AND BRONZE

- William Bayley Co., 147 North Street, Springfield, Ohio.
Bayley Steel Window Inserts. Brochure, 8 pp., 8½ x 11 ins. Illustrated Suggestions on correct use of inserts.
- David Lupton's Sons Company, Philadelphia, Pa.
A Rain-shed and Ventilator of Glass and Steel. Pamphlet, 4 pp., 8½ x 11 ins. Deals with Pond Continuous Sash. Sawtooth Roofs, etc.
- How Windows Can Make Better Homes. Booklet, 3¾ x 7 ins., 12 pp. An attractive and helpful illustrated publication on use of steel casements for domestic buildings.
- Truscon Steel Company, Youngstown, Ohio.
Drafting Room Standards. Book, 8½ x 11 ins., 120 pages of mechanical drawings showing drafting room standards, specifications and construction details of Truscon Steel Windows, Steel Lintels, Steel Doors and Mechanical Operators.
- Truscon Solid Steel Double-Hung Windows. 24 pp. Booklet, 8½ x 11 ins. Containing illustrations of buildings using this type of window. Designs and drawings of mechanical details.
- Continuous Steel Windows and Mechanical Operators. Catalog 126. Booklet, 32 pp., 8½ x 11 ins. Illustrated.

WOOD—See also Millwork

- American Walnut Mfrs. Association, 618 So. Michigan Boulevard, Chicago, Ill.
American Walnut. Booklet, 7 x 9 ins., 46 pp. Illustrated. A very useful and interesting little book on the use of walnut in Fine Furniture with illustrations of pieces by the most notable furniture makers from the time of the Renaissance down to the present.
- American Walnut for Interior Woodwork and Paneling. 7 x 9 ins. Illustrated. Discusses interior woodwork, giving costs, specifications of a specimen room, the different figures in Walnut wood, Walnut floors, finishes, comparative tests of physical properties and the advantages of American Walnut for woodwork.
- Wood Conversion Company, Cloquet, Minn.
Nu-Wood Insulating Board and Insulating Lath. Booklet, 23 pp. 4 x 6 ins. Illustrated.
- True Insulation for Your Present House. Brochure, 12 pp. 5 x 7 ins. Illustrated.
- Evidence of the Economy of Heating with Gas. Booklet, 11 pp. 5 x 7 ins. Illustrated.
- House Comfort that Pays for Itself. Brochure, 32 pp. 5¼ x 7¼ ins. Illustrated.

WOOD FINISH

- Minwax Company, 11 West 42nd St., New York.
Color card and specification for Minwax Flat Finish. Folder, 4 pp., 8½ x 11 ins. Illustrated. Deals with a penetrative, preservative stain finish giving stain and soft wax effect.

REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.

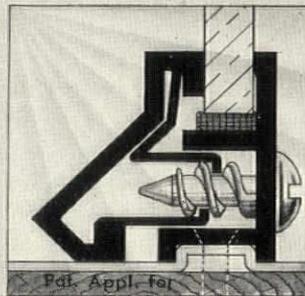
.....
 Name
 Address
 Business :

STORE FRONTS



THE KENNEDY CO., BOSTON, MASS. ARCHT, BURTIS BROWN

Architect's own designs are custom-built at our factory by a corps of skilled craftsmen. Every rolled, extruded or cast unit is carefully executed and assembled by this trained staff, assuring the architect a faithful rendering, in metal, of his design. Write for new free book of modern Store Front Installations.



KAWNEER
EXTRUDED
SASH KE-B-1

EXTRUDED
MEMBERS
TO MATCH

SEND FOR DESCRIPTION
AND F. S. DETAILS OF "B"
CONSTRUCTION

THE
Kawneer
COMPANY

NILES, MICHIGAN, Subsidiary BERKELEY, CALIFORNIA
RUSTLESS METAL STORE FRONTS, WINDOWS and DOORS

ALSO ORNAMENTAL BRONZE AND IRON

ORANGE Extruded Aluminum SCREENS

The illustration, taken from our A. I. A. Catalogue, shows one of more than twenty ways in which Orange Extruded Aluminum Screens are fitted to existing sash.

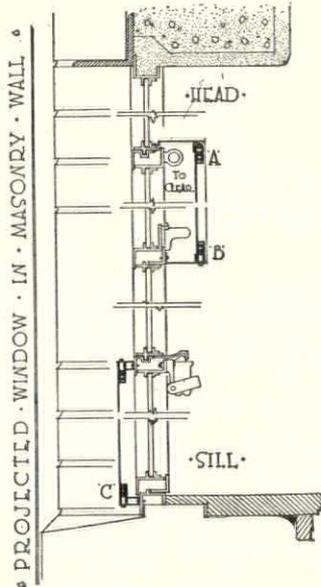
They Solve Special Screening Problems As In

BANKS AND CHURCHES

WHERE ventilators are placed high in windows of banking rooms and auditoriums Orange Extruded Aluminum Screens are permanently fly-tight and trouble free. They do not rust out nor stain the mullions or sash. They often stay up winter and summer and last indefinitely with scant attention.

For aluminum will not corrode. It gives off no discoloring salts. The frames are made of solid extruded bars, welded at the corners. They never warp and are not easily bent out of shape.

And because we have screened so many odd openings, our men know how to meet every screening problem in a practical way.



ORANGE SCREEN COMPANY

Extruded Aluminum Frame Screens. Also Wood, Steel, Bronze and Roll Screens

MAPLEWOOD, NEW JERSEY



You should have this Insulation Data Book

... A book of practical information and technical data covering all phases of residential and industrial insulation, including valuable charts, diagrams and architectural plates. Sent on receipt of name and address.

INSULATION DIVISION

CHICAGO MILL AND LUMBER CORPORATION

111 West Washington Street

Chicago, Ill

WRIGHT RUBBER TILE
Rubber Only Material That Withstands Tire Road Wear



There is a Twilight Zone* in office lighting

A BUILDING without a lighting system could not be expected to give satisfactory service. But when the light provided is inadequate . . . that's another story. This condition can continue for an indefinite period, increasing dissatisfaction, limiting efficiency for the user, ruining a full appreciation of the artistic value of the building.



It is the deceptiveness of twilight zone lighting that makes it so dangerous. There seems to be enough light . . . but there isn't. Lighting installations that a few years ago were considered the most modern practice would today leave a building deep in the

twilight zone . . . so rapidly have standards of lighting adequacy increased . . . so apparent is the improvement in 1930



On MAZDA Avenue

In the Westinghouse Lighting Institute actual installations scientifically demonstrate every type of modern lighting —

Open to visitors
Daily 9 to 5 — Saturday 9 to 12
7th Floor, Grand Central Palace,
New York City
—around the corner from your hotel

standards over those of years that are not long past.

Westinghouse lighting specialists can serve architects and their clients. They help to plan lighting installations that meet today's requirements and make it easy to adopt higher standards in keeping with future lighting progress.

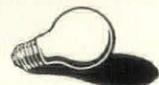
The way out of the Twilight Zone

Architects and engineers who are interested in using light effectively should have a copy of the new, illustrated book, "The Way Out of the Twilight Zone." Address your request to the Westinghouse Lamp Company, Department 203, 150 Broadway, New York, N. Y.

*The deceptive half-light between obvious darkness and adequate illumination.

Westinghouse Lighting Specialists will help you in planning effective lighting installations

Westinghouse



A Tip From An Old Timer

We knew an old draftsman who was a keen critic—he used to sum up his disapproval of certain things thus:

"It ain't interestin'." Of what could this be more true than gray mortar?

Take a tip: color adds interest, character. For instance, Buff Pecora Mortar Stain makes light brick more lively, as in the W. C. Stripling High School* of Fort Worth, Texas.

*Pecora Buff Mortar Stain and Denton Special Blend Buff and Gray Brick furnished by Fort Worth Builders Supply Co.



PECORA PAINT CO.

Est. 1862 by Smith Bowen
4th & Venango Sts.,
Philadelphia, Pa.

An Attractive Folder
in colors will be gladly sent
you on request. Please use
your letterhead or use coupon.

Name
Address

PLAY TENNIS

30 minutes after rain . . . at twilight
. . . weeks earlier . . . weeks later



CHOICE OF CHAMPIONS

THE DAVIS CUP MATCHES IN 1930, on "En-Tout-Cas" court, Chevy Chase Club, Chevy Chase, Md.

THE DAVIS CUP MATCHES IN 1929 between United States and Canada, on the "En-Tout-Cas" courts of the Mount Royal Tennis Club at Montreal.

BRITISH HARD COURT CHAMPIONSHIPS, 1930-1-2-3-4, "En-Tout-Cas" courts, West Hants Club, Bournemouth.

THE FRENCH CHAMPIONSHIPS, 1929-30-1, on "En-Tout-Cas Bouhana" courts of the Stade Roland Garros, Paris.

THE DAVIS CUP (Final or challenge round), 1929-30-31, on the "En-Tout-Cas Bouhana" courts, Stade Roland Garros, Paris.

Illustrations and complete details
in Sweet's Architectural Catalogues

Illustrated Booklet L sent on request

Sole American Agents

H. A. ROBINSON & CO., Inc.

400 Madison Avenue, New York, N. Y.

Sole Makers and Patentees

THE EN-TOUT-CAS CO. (SYSTON), Ltd., England

GOOD TASTE

+ STRENGTH

"BEAUTY WITHOUT INTERRUPTION"

COMPLETELY invisible when the door is closed. Flush doors - clean lines - no undesirable projections.
Manufactured with scientific precision as befits a quality product - yet surprisingly low in cost.

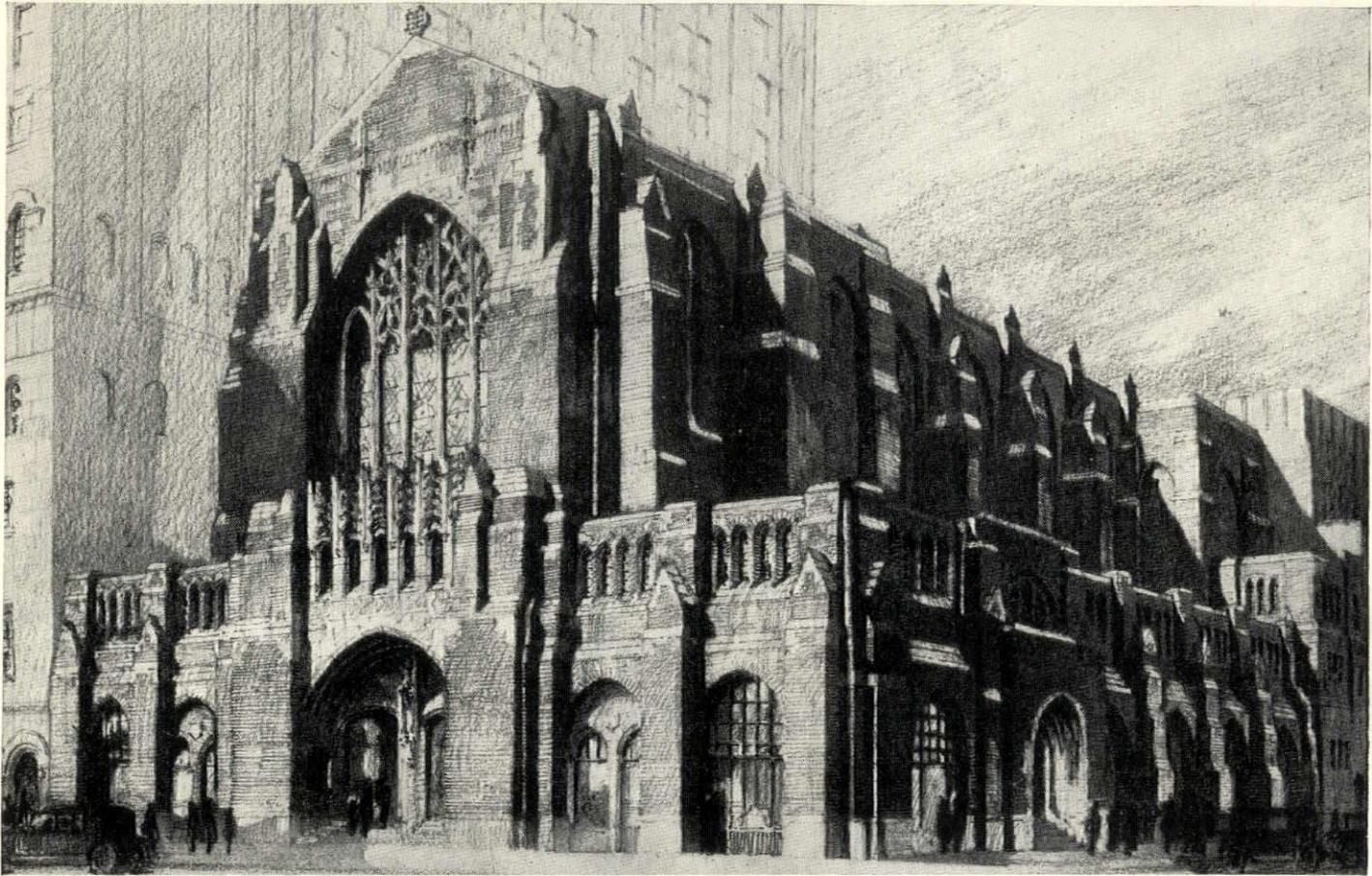
There is a Soss Invisible Hinge for every purpose. See our line in Sweet's Catalogue or write direct to us for our own complete catalogue "C"

Suggestions for Uses:
House Doors Folding Partitions
Secret Panels Radiator Covers
Folding Tables
Music Cabinets

Established 1908
SOSS MANUFACTURING CO., Inc
Roselle, New Jersey
DETROIT OFFICE:
1051 Rock Building
Washington Blvd.

SOSS INVISIBLE HINGES

STUDIES IN TECHNICAL CO-OPERATION



DESIGNING A MODERN LIGHTING SYSTEM IN HARMONY WITH PERIOD ARCHITECTURE

*Methodist Episcopal Church
Hanson Place and St. Felix St.
Brooklyn, N. Y.*

*Architects: Halsey, McCormack
& Helmer, Inc.
New York*

Church lighting, under ordinary circumstances, offers many problems which require careful study. The illumination of the Methodist Episcopal Church at Hanson Place in Brooklyn, New York, presented

an atypically modern problem: the design of a modern lighting system in harmony with period architecture.

The architects sought a lighting scheme which would blend modern appointments with old Gothic design.

The lighting bureau of the utility supplying the electric service placed at the disposal of the architects, Halsey, McCormack and Helmer, the entire facilities of their department. The bureau made helpful suggestions regarding the

location of outlets, the selection of luminaires, recessed reflectors and ceiling panels.

This service was accepted because the bureau was able to present the latest scientific achievements in the various branches of illumination involved. In accordance with the chief motif of the building as conceived by the architects, the lighting system helps to make this church an outstanding example of Gothic Architecture fitted to our modern needs.

For information about trends in lighting standards and about adequate wiring, call on the lighting bureau of your local electric service company, or write direct.

NATIONAL ELECTRIC LIGHT ASSOCIATION, 420 LEXINGTON AVENUE, NEW YORK CITY



EXAMINE A BAKELITE MOLDED DOOR KNOB AND FORM YOUR OWN OPINION

You cannot appreciate the unusual beauty and quality of Bakelite Molded door knobs, until you have actually seen and handled them. The colors are pleasing to the eye, and the smooth surface to the touch. You will immediately think of many places where they may be used appropriately. Fine appearance is but one of the advantages of Bakelite Molded door knobs. They are strong and hard, cannot be dented, and withstand long, se-

vere use. The colors are permanent and stainless. The smooth lustrous surface is lasting and does not corrode. There is no lacquer or plating to peel or rub off, and polishing is never required. These door knobs are available in colors and finishes to match mahogany and walnut, and in lustrous and dead black. They are made by the National Brass Co., Grand Rapids, Michigan, who will be glad to send you full particulars and prices.

BAKELITE CORPORATION, 247 Park Avenue, New York. CHICAGO OFFICE, 635 West 22nd Street
BAKELITE CORPORATION OF CANADA, LIMITED, 163 Dufferin Street, Toronto, Ontario

BAKELITE

REGISTERED



U. S. PAT. OFF.

The registered Trade Mark and Symbol shown may be used only on products made from materials manufactured by Bakelite Corporation. Under the copyright "B" is the numerical sign for infinity, or unlimited quantity. It symbolizes the infinite number of present and future uses of Bakelite Corporation's products.

THE MATERIAL OF A THOUSAND USES



EFFICIENCY

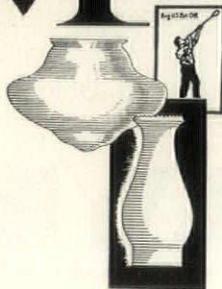
from the clear
pure air above the
fjords of Norway

It seems a far cry from the air above the fjords of Norway to the light transmission of enclosing globes . . . But the clear, crisp, sparkling air from this far north country yields the purest of nitre, an essential ingredient of Macbeth glass . . . This chemical contributes largely to the exceptionally high light out-put of Macbeth Globes . . . Nitre minimizes the effect of iron, the glassmaker's most insidious enemy, which interferes with the free transmission of light. Nitre could be obtained from natural deposits at much lower cost, but in nature nitre contains impurities . . . This is only one of the many instances of extreme care employed in the selection of raw materials for the man-

ufacture of Macbeth Monax Globes —care which results in a uniformly high-grade globe of maximum diffusion with a minimum of light absorption. Photometric analyses of all shapes and sizes of Macbeth enclosing globes are available to architects, building managers and building owners, on request.

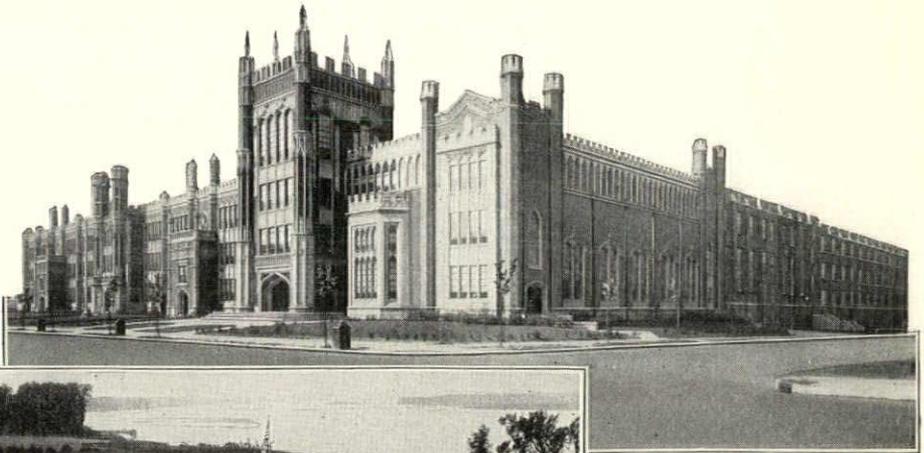
MACBETH-EVANS GLASS CO.
Charleroi, Pennsylvania

Macbeth

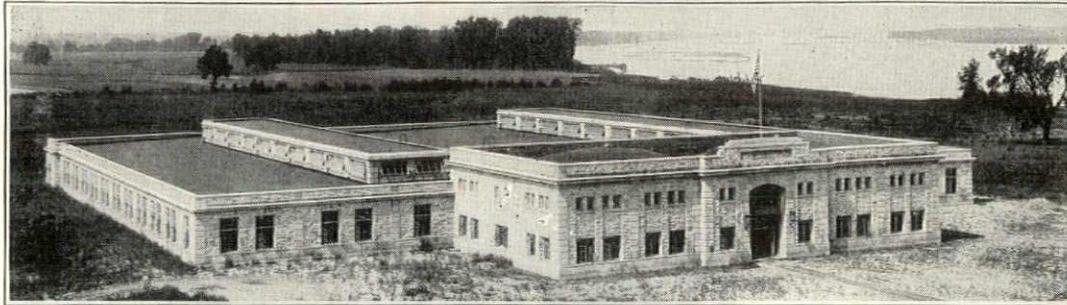


*The same
tradition of quality
behind them both*

Half Way
Around the World
.. NEW YORK
to SHANGHAI



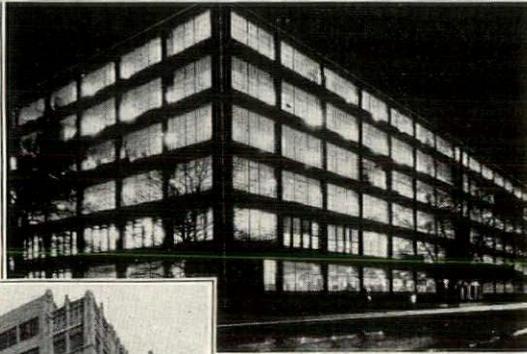
Bayonne Junior Vocational High School, Bayonne, N. J. Donald G. Anderson, Architect, Bayonne, N. J. Egan & Montague, Contractors, New York City.



St. Louis Water Works, St. Louis, Mo. Study & Farr, Architects, St. Louis, Mo. Dunham Construction Co., Contractors, St. Louis.

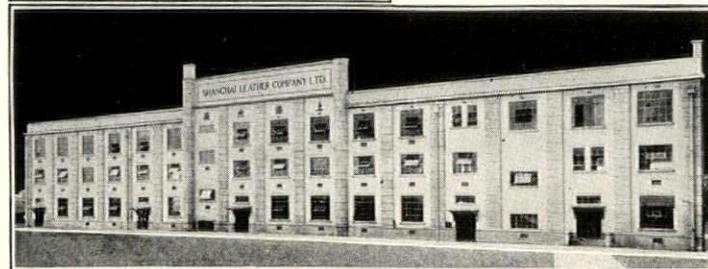
A. & P. Quaker Maid Plant, Terre Haute, W. B. Van Inwegen, Architect, New York. Glenn W. North Const. Co., Terre Haute, Ind.

Merchants' Exchange Building, Los Angeles. W. Douglas Lee, Arch. & Contr., Los Angeles.



Bayley Steel Products include the following

-
- Pivoted Windows
- Pivoted Windows Screened
- Projected Windows Commercial
- Projected Windows Architectural
- Casement Windows
- Continuous Windows
- Detention Windows
- Prison Windows
- Airport Doors
- Tubular Doors



Shanghai Leather Co., Ltd., Shanghai, China.
 R. A. Curry, Architect, Shanghai.
 Anderson Meyer & Co., Contractors, Shanghai.

IT is indeed significant that the acceptance of Bayley Steel Windows is not confined to any one section or any one country but reaches far beyond the cities and the borders of the U. S. A. — even way over into the Orient.

Wherever the problem of natural daylighting and ventilation has demanded the most practical and economical solution, there you will find Bayley Steel Windows have been selected and are known for their strength, performance and good appearance . . . for their advanced design and construction . . . for their long and satisfactory service.

This wide acceptance is due to the fact that Bayley has pioneered in every important improvement in steel windows since the birth of the industry, having looked far in advance and anticipated the needs for better metal windows of various types and for various uses in all kinds of buildings.

Bayley Pivoted Windows Screened . . . Bayley Prison Windows . . . Bayley Casement Windows . . . as well as all other Bayley Windows . . . have incorporated exclusive features to meet new requirements and to assure better service.

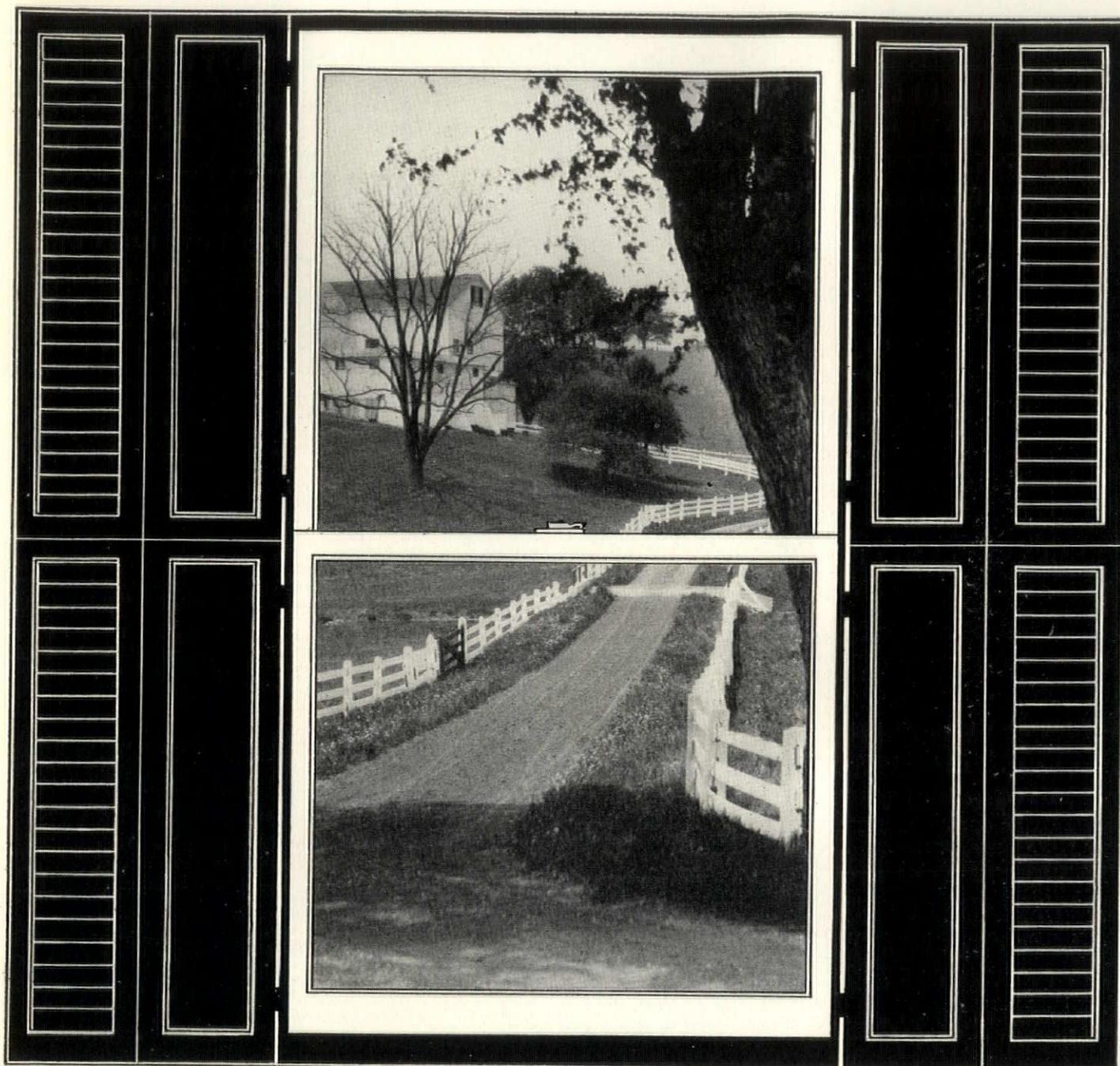
Call the nearest Bayley man when preparing plans and writing specifications. He will bring to you engineering service based on more than forty-nine years of experience. The William Bayley Co., 147 North St., Springfield, Ohio.

District Offices

- New York, 67 W. 44th St.
- Boston, 5 Park St.
- Chicago, 75 E. Wacker Drive
- Cleveland, 449 Terminal Tower
- Washington, 1427 I St., N. W.
- Atlanta, 808 Norris Bldg.
- Springfield, O., North St.

Sales Agencies also in Principal Cities

BAYLEY
STEEL WINDOWS & DOORS



ITS NEW FLATNESS MEANS CLEARER VISION

YOUR first glance at Pennvernon Window Glass shows you its surprising freedom from old-time waviness, streaks and other defects so long associated with window glass. Take a sheet of it in your hands—look AT it as well as THROUGH it. Its difference from ordinary glass—its new *quality*—new flatness and brilliance, are strikingly apparent. The test is worth your

while. And samples are readily available at the warehouses of the Pittsburgh Plate Glass Company. There's one conveniently located in every leading city.

Write for the new Pennvernon booklet, explaining and picturing the new process that makes flatter, brighter, better glass—at *no higher cost*. Address Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.

PENNVERNON
flat drawn
WINDOW GLASS

REVIEWS OF MANUFACTURERS' PUBLICATIONS

RUUD MANUFACTURING COMPANY, Pittsburgh. "Delineator and Specification Card."

To aid designers and specification men in planning, and particularly to make simple the specifying of its excellent equipment, the Ruud Manufacturing Company issues this "Delineator and Specification Card," 22 x 14 inches. It gives useful and valuable data in various forms,—capacities and dimensions; table of weights; rates of hourly B.t.u. capacity with both natural and artificial gas, and other data regarding the service to be had of coil storage heaters. The device is so practical and useful that it should be had by every architect, engineer or builder, as well as by anyone concerned with the installation of equipment for heating water. The Ruud Manufacturing Company maintains offices in all cities.

HAY FOUNDRY & IRON WORKS, Newark. "Commemorating a One Hundredth Anniversary."

If a survey of the country could be made, it would undoubtedly be found that there are not many firms now in business which were in existence a century ago; still fewer would be the instances in which such a business has always been guided by the same family, and extremely rare are instances in which the name of the founder is still borne after a century. In the history of the United States a hundred years is a long time,—two-thirds of its whole span in fact. Progressive and powerful as it has become, it is still comparatively a young country. This, and the fact that the allotted span of human life itself is proverbially but three score years and ten, together make a century seem a long period of time. This interesting booklet reviews in a condensed form the history of the Hay Foundry & Iron Works, founded in 1830 by James Bruce Hay and still owned and operated by his descendants. The firm has played an important part in producing materials used in building operations, and the part it is playing in 1930 is well attested by views of many great buildings either recently constructed or now in course of erection in which the firm's excellent materials have been or are being used.

WEBER SHOWCASE & FIXTURE COMPANY, INC., Los Angeles. "Weber Sectional Unit Office Partitions."

Great growth in the number of office buildings and the increasing tendency of large manufacturing concerns to have their executive quarters in office buildings in cities rather than on the premises of their manufacturing plants have brought about an immense increase in the use of the more or less movable partitions which are used for subdividing large open floor areas. This subdividing of floor space is of course nothing new, nor is the making and carrying in stock of such partitions anything of a novelty. What does constitute a new departure is the supplying of partitions made of material and in forms which possess sufficient architectural merit to render them appropriate for use amid surroundings which are of themselves of a type which has been constantly improved during the past few years. Today when a large concern leases space in which to conduct its business it is probable that there will be called in for consultation an architect or a representative of a firm which specializes in the planning or arrangement of such areas to provide the best and most convenient working quarters. Just here is where the consideration of partitions begins. This booklet issued by a large concern making a specialty of supplying such partitions and details of woodwork related to them deals fully with the subject. The brochure makes it plain by illustrations that the fittings do possess the essential qualifications and explains by diagrams and in other ways the manner in which the partitions are installed, the sizes of the units in which they are to be had, and gives data from which it will be an easy matter to determine the number of units required. While dealing chiefly with partitions, the brochure gives data regarding the firm's counters, lockers, telephone booths and the inclosures often placed around lavatories. It also gives a list of some buildings in which the firm's partitions and other details have been installed, views of many interiors where they are being used, and on one page a view of the large Weber factory.

P. & F. CORBIN, New Britain, Conn. "Corbin Locks and Builders' Hardware."

The designing of locks of different types has been done with great skill and ingenuity, and the designing of hardware for doors and windows has engaged the attention of men so well qualified by good taste and knowledge of architectural design that the catalog of a large firm specializing in locks and builders' hardware is interesting not only to architects and interior decorators but to home owners and to anyone interested in the safety which reliable locks afford or in the appearance which well designed hardware adds to a building of any kind. This publication contains in brochure form the firm's pages from the 22nd edition of *Sweet's Architectural Catalogs* for distribution among the builders.

PITTSBURGH REFLECTOR COMPANY. "Permalector Lighting." Volume IV, Number 4.

The great improvement wrought in the design and equipment of school buildings is no more notable in any way than in the improvement which has been made in lighting. The matter has been given careful and scientific study, and the results are easily had in the form of data so well presented that there is now no excuse for the existence of a school or college which is not properly lighted. This excellent brochure, the number of the Pittsburgh Reflector Company's house organ for July, 1930, dwells upon the correct illumination of educational structures. It considers the lighting of every department of a school or college building,—classrooms, lecture hall, library, gymnasium and auditorium or assembly room,—in fact, it does rather more, for it deals also with the lighting of stadia or athletic fields which would undoubtedly be more useful if they were illuminated for use at night as well as by day. The front cover of the booklet reproduces a beautiful photograph of the tower of Westminster College, New Wilmington, Pa., when "Permalector floodlighted" at night. The growing use of floodlighting everywhere lends particular value and interest to this important treatise on the subject. It well deserves a wide circulation among architects.

GENERAL ELECTRIC COMPANY, Schenectady, N. Y. "Electric Equipment for Handling Heavy Material."

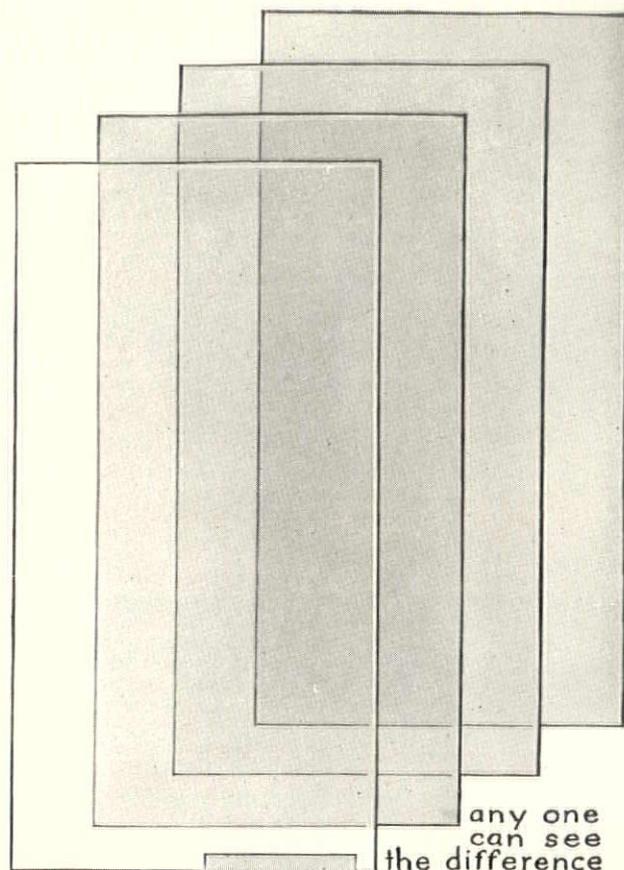
Engineers often wonder by what means the stone blocks of immense size of which the pyramids of Egypt are built were brought to the site, and by what means they were raised to their present heights. Neither the transportation of such blocks nor elevating them into position need necessarily be impossible today, but present-day builders and engineers have at their command electrical equipment of vast power, well calculated for handling material of great bulk and weight. The smoothly working efficiency with which such equipment is used is being well shown in the building of the new Waldorf-Astoria Hotel in New York, where the problem meant first of all the removal of a power station with machinery of great weight, and then the building of a towering structure of heavy steel, all this over a network of railroad tracks, the entire problem calling for use of engineering equipment of the most advanced types, such as is adequately dealt with in this extremely valuable brochure.

KALMAN STEEL COMPANY, Wrigley Building, Chicago. "Steel Joists; Fire-Safe Construction."

The use of steel, now general in building of all kinds, involves not only the most careful designing and manufacture of steel but likewise the use of countless accessories in actual construction. Even steel fabricated with the utmost precision will hardly give adequate service unless it is properly installed, and a successful installation requires the use of more details than might be supposed by anyone not fully acquainted with what is an extremely complicated matter. This brochure is a catalog of the details of steel construction supplied by the Kalman Steel Company for fireproofing, for concrete construction, concrete road building, and for building uses in general, as well as for use by home builders. It lists, describes and illustrates a vast number of specialties.

The WHITEST Glass made for Windows

L USTRAGLASS FLAT-DRAWN



Look for this label on every light of genuine L USTRAGLASS.



A representative, unretouched, "end on" photo of four samples of glass. The white one is L USTRAGLASS... Read main text.

CLEARER, flatter, more lustrous... truly a remarkable product. L USTRAGLASS transmits a substantial amount of the shorter ultra-violet rays of sunlight of a wave length of 313 mu.*... It costs no more than ordinary window glass and is the whitest of all glass made for windows as evidenced by the unretouched photo shown at the left.

This is an "edge on" view of four stock samples of the leading and best known makes of glass... The second from the left (the white one) is L USTRAGLASS... you can make this test yourself... The superiority of L USTRAGLASS is obvious... Its marked freedom from color alone is sufficient reason for its use in better buildings.

*Send for L USTRAGLASS BOOKLET A-430 and SPECIFICATION SHEET and see complete table of transmission. Write today.

AMERICAN . WINDOW . GLASS . CO.

Farmers
Bank Bldg.

Also Makers of Armor-Lite Scatter-Proof and Bullet-Proof Glass, Tintaglass, Picture Glass, Photographic Dry Plate Glass, 3/16" and 1/8" Crystal Sheet, Ground and Chipped Glass, Improved Quartz-Lite and Bulb Edge Glass.

Pittsburgh
Pennsylvania

REVIEWS AND ANNOUNCEMENTS

HERMAN NELSON CORPORATION, Moline, Ill. "School Ventilating Practice,—Yesterday, Today and Tomorrow."

As with the matter of providing proper acoustical properties, adequate heating and correct insulation, the matter of ventilation has been made the subject of so much study and research that there is now hardly an excuse for lack of equipment to render comfortable and practical a structure of any type,—and in few structures is proper ventilation of greater importance than in schools. This brochure deals fully with this subject. "It should be said at the outset that this booklet deals only with the ventilation of school classrooms and similar spaces where the problem of securing proper air conditioning arises solely from occupancy. It does not attempt to cover those problems in ventilation which exist in smoking rooms, toilets, kitchens, etc., where it is necessary to remove fumes, odors, or excess heat created by equipment. In the second place, it should be noted that heating and ventilating are complementary processes to secure temperature regulation under varying weather conditions, and the two cannot properly be separated. In designing heating and ventilating plants for school buildings, it has been customary: First, to provide sufficient heating capacity to offset the heat losses by conduction and leakage through walls, windows, roofs and other exposures. Second, to introduce and circulate a predetermined volume of outdoor air and supply sufficient additional heating capacity to raise the temperature of this air from that of the out-of-doors to the required room temperature." The booklet then deals exhaustively with the subject, discussing the ventilation of all the different departments of a school building,—classrooms and libraries; assembly, lecture and study rooms; rest rooms and gymnasiums; it deals also with the laws on ventilating which are enforced by many states and some municipalities.

AUTO RAMPS CORPORATION, Richmond, Va. "The Double Spiral Auto Ramp." Data on an important detail.

Every community is faced with the problem presented by automobile parking, which quite naturally has an important bearing on the serious problem of traffic congestion. Everywhere in America there are being built parking garages, and many highly skilled architects and engineers have devoted their best efforts to working out the problems presented by these structures, which must be planned to render quick and dependable service at prices low enough to attract the requisite volume of patronage and yet high enough to afford an appropriate return on the investment, and the amount of money invested is often considerable. Of course one of the most important details of such a garage has to do with the means of reaching the upper-floor parking areas, for such buildings are often necessarily quite lofty. There are but two possible methods of reaching these upper-floor parking areas,—by elevators and by ramps, and the use of ramps has brought into use some exceedingly interesting designs. This brochure is issued in the interests of the Double Spiral Auto Ramp. "The ramps are so arranged that the 'Up' and 'Down' traffic is completely separated, both on the floors at the ramp entrances and on the ramps. As a result, a constant stream of cars may enter and depart simultaneously, without delay, without confusion, and without traveling on the aisles of any floor. This eliminates the inherent accident hazard of cars blocking the aisles. All floors are level and unbroken. This means easy convertibility to other uses. It also means that floor attendants can supervise a full floor instead of a broken floor. The Auto Ramps Corporation works through the architect. The service rendered consists of furnishing architects with complete working drawings of the ramp, which is protected by many pending patents. For this service a reasonable fee is charged the owner, the amount being based on the number of car spaces. Upon receipt of information called for by a data sheet, a preliminary layout will be furnished, showing how the Double Spiral Ramp will meet a specific problem. There is no obligation for this service." Since the success of a parking garage is dependent upon its giving quick service, and since giving such service depends upon getting cars in and out quickly, the importance of the means of doing so can scarcely be exaggerated. This brochure is full of suggestions for architects, builders and garage operators, as well as for owners of motor cars.

G. Glover Boake announces the opening of new offices at 2639 Erie Avenue, Cincinnati.

M. Louis Kroman announces the opening of offices at 180 N. Michigan Avenue, Chicago.

The architectural practice of the late William J. Crichton is being carried on by Harry B. Lentz, at Hazleton, Pa.

Charles L. Hoffman wishes to receive the catalogs and other publications of manufacturers at his newly opened offices at 122 N. Eighth Street, Richmond, Va.

Marani & Lawson announce the entrance into the firm of R. S. Morris. The name of the firm has been changed to Marani, Lawson & Morris, and the firm's offices are at 38 Bloor Street West, Toronto.

The Construction Section, Indian Service, under the Department of the Interior, is desirous of obtaining manufacturers' publications to complete its files. This Construction Section plans and builds schools, hospitals, dormitories, houses, etc., on Indian reservations throughout the United States. Address Department of the Interior, Indian Service, Construction Section, Room 3013, Washington.

METROPOLITAN LIFE INSURANCE COMPANY, New York. Surveying Group Marketing Enterprises.

Significant developments have taken place in business during the past decade designed to reduce cost of distribution and to increase the effectiveness of merchandising effort with a view to profitable operation by manufacturers and merchants. Noteworthy among these has been the rapid growth of a new form of coöperation,—the pooling of marketing activities on the part of business enterprises, both competing and non-competing, in order to raise the efficiency of selling operations or to reduce costs. In response to many requests for information on this subject, the Policyholder's Service Bureau of the Metropolitan Life Insurance Company recently conducted a widespread survey of the special forms of coöperation undertaken by independent business enterprises outside the scope of regular trade association activities. The results of this investigation are set forth in a report just published by the Bureau entitled *Coöperative Marketing Activities in Business*. The foreword to the study says that the operations dealt with "are of such recent origin, with new developments almost constantly appearing, that underlying principles are not yet clearly in evidence. Generalizations, except within the narrowest limits, and conclusions are out of place. The report is made up of brief case studies selected with a view to presenting a picture of the field."

Although coöperative marketing in agriculture has reached a high plane of development, the application of similar procedure in the field of business is still in an embryonic stage. The report presents a survey of what is taking place by reviewing special instances of coöperation in marketing, analyzing the functions or activities which are handled through such joint arrangements, and describing the nature of the machinery set up in each to accomplish the objectives in view. The study shows that the extent of this collective action enjoys the widest possible range of variety. In the simpler cases, no form of organization is involved. Each of two manufacturers, for example, may agree to reciprocate in giving publicity to the other's product. At the other end of the scale are those cases where the organizations joining in the coöperative effort set up a company, with capital stock held exclusively by themselves, for the purpose of undertaking the activity in which the associated companies have a common interest. The survey is divided into four major parts to consider the subject from its important phases,—Development of Group Enterprises; Group Activities by Competing Manufacturers; Coöperative Efforts by Non-Competing Manufacturers; and Group Merchandising or Selling Activities by Retailers. In the first section the factors influencing group marketing activities are analyzed.



FISHER BRANCH Y. M. C. A., DETROIT, MICHIGAN

ALBERT KAHN, Inc., ARCHITECTS

GLAZED WITH LIBBEY-OWENS-FORD FLAT DRAWN SHEET GLASS

Albert Kahn, Inc. selects Libbey-Owens-Ford Glass

The reputation for unvarying high quality that Libbey-Owens-Ford Glass enjoys is directly due to the exclusive process by which it is produced, and to the purity of its ingredients. Libbey-Owens-Ford maintains a rigid and exacting control over these two factors, to the end that Libbey-Owens-Ford Glass will *always* be of a higher quality, truly flat, clean and clear — with a brilliant, sparkling and enduring lustre. To achieve the utmost in window beauty *always* specify Libbey-Owens-Ford "A" quality glass.

LIBBEY-OWENS-FORD GLASS COMPANY, TOLEDO, OHIO

*Manufacturers also of highest quality Polished Plate Glass
and Safety Glass for automobiles*

LIBBEY · OWENS · FORD



flat drawn SHEET GLASS FOR WINDOWS

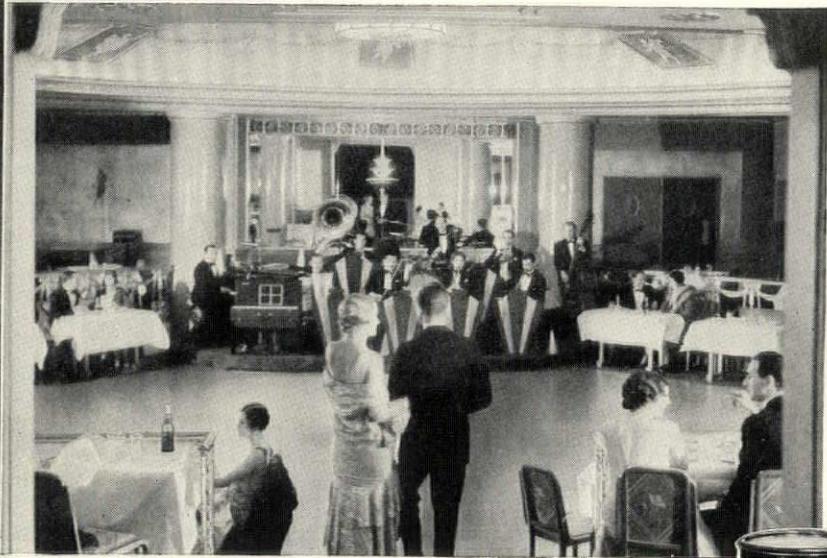
A distinctive decorative achievement

...the Silver Grill

of the New Hotel Lexington



The Hotel Lexington, New York. Architects: Schultze & Weaver.



Silver Grill Room of new Hotel Lexington. Painted with Dutch Boy White Lead and Flattening Oil by Barker Painting Company, New York City.



**DUTCH BOY
WHITE LEAD**

Save the surface and you save all - that's lead.

NATIONAL LEAD COMPANY

New York, 111 Broadway; Buffalo, 116 Oak St.; Chicago, 900 W. 18th St.; Cincinnati, 659 Freeman Ave.; Cleveland, 820 W. Superior Ave.; St. Louis, 722 Chestnut St.; San Francisco, 2240-24 St.; Boston, National-Boston Lead Co., 800 Albany St.; Pittsburgh, National Lead & Oil Co. of Pa., 316 Fourth Ave.; Philadelphia, John T. Lewis & Bros. Co., Widener Building.

**DECORATED
with DUTCH BOY
WHITE LEAD and
FLATTING OIL**

DISTINCTIVE...different...beautiful! The Silver Grill of the new Hotel Lexington is an achievement in decorative art.

Dutch Boy white lead, mixed with flattening oil, was used not only in the decoration of the Silver Grill, but in all the bedrooms, and

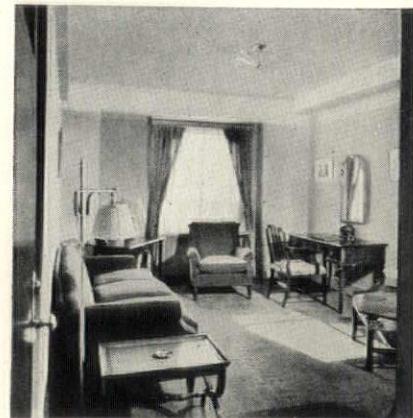
parlors of the hotel. The rich, artistic finish this flat paint produces, as well as its extreme durability and washability, explains the preference it enjoys in modern buildings everywhere.

Another advantage of white lead as a paint material is its great adaptability. White lead is used for mixing every type of paint—to obtain durable, economical paint for wood, plaster, wall board or metal...undercoatings for enamel...blended or mottled effects...and to produce the plastic paint that gives the new low-relief textures now so much in vogue for lobbies and entrances.

Let us send you booklet, "Decorative Possibilities of Paint", which describes the modern finishes Dutch Boy helps to produce. We shall also be glad to send you a book containing formulas for all coats and finishes. Address branch office nearest you.

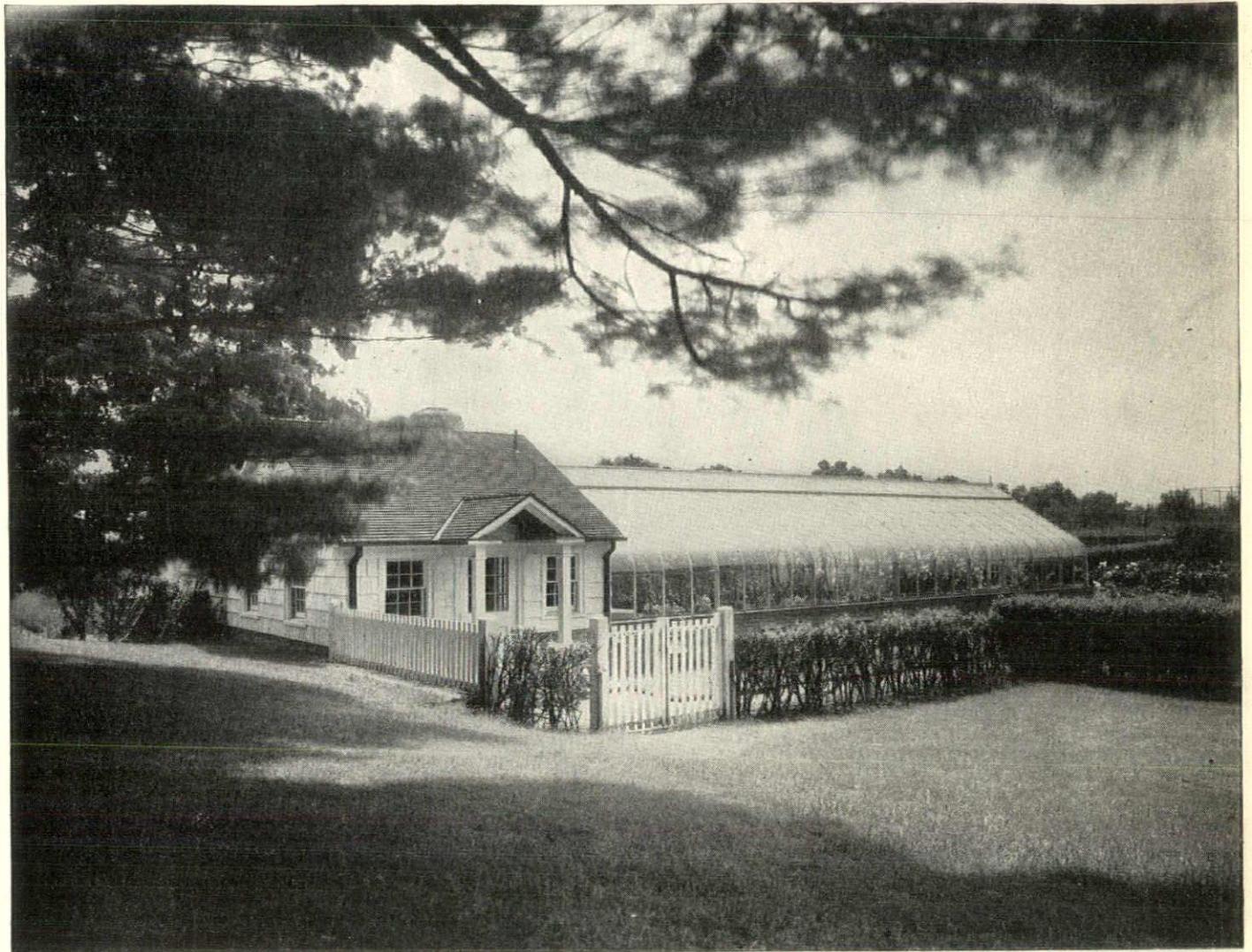


The well-known brand of Carter White Lead is also made by the National Lead Company. In purchasing either Carter or Dutch Boy White Lead, the buyer is assured of obtaining white lead of the highest quality.



Typical parlor of suite in Hotel Lexington, painted with Dutch Boy White Lead and Flattening Oil.

LUTTON · SOLAR · V-BAR · GREENHOUSES



Lutton Solar V-Bar Greenhouse on estate of Mrs. Wm. G. Rockefeller, Greenwich, Conn.

Expect more from a sleek LUTTON SOLAR V-BAR than you would from any other greenhouse

Expect it, for you will get it—finer design, more careful finish, better growing. Results have proven it . . . Your own common sense will tell you that you will.

If you will study with care, the plans and specifications that various greenhouse manufacturers will submit to you, you will *begin* to realize why you can expect more from Lutton. Then when you go with us to see a few of the hundreds of Lutton houses on estates near you, you will be satisfied that our claim is correct.

You cannot expect other than the best from a greenhouse that for over 25 years has been identified with nationally known growers, architects and owners.

Some Owners of Lutton Built Greenhouses

- CHARLES B. WARREN Detroit, Mich.
- ARTHUR N. PACK Princeton, N. J.
- GEORGE F. BAKER Tuxedo Park, N. Y.
- RICHARD DELAFIELD Tuxedo Park, N. Y.
- AUGUST HECKSCHER Great Neck, L. I.
- GEORGE WHITNEY Westbury, L. I.
- JULIUS FLEISCHMAN Cincinnati, Ohio
- DR. E. J. FITHIAN Grove City, Pa.
- R. K. CASSATT Rosemont, Pa.
- MOSES TAYLOR Newport, R. I.



V-Bar Greenhouses

WM. H. LUTTON CO., INC.
E. A. Ward, Pres.

222 KEARNEY AVENUE
JERSEY CITY, N. J.

STANDARDIZED AND COMPLETE IN ONE UNIT

SAVE
WITH
STEEL

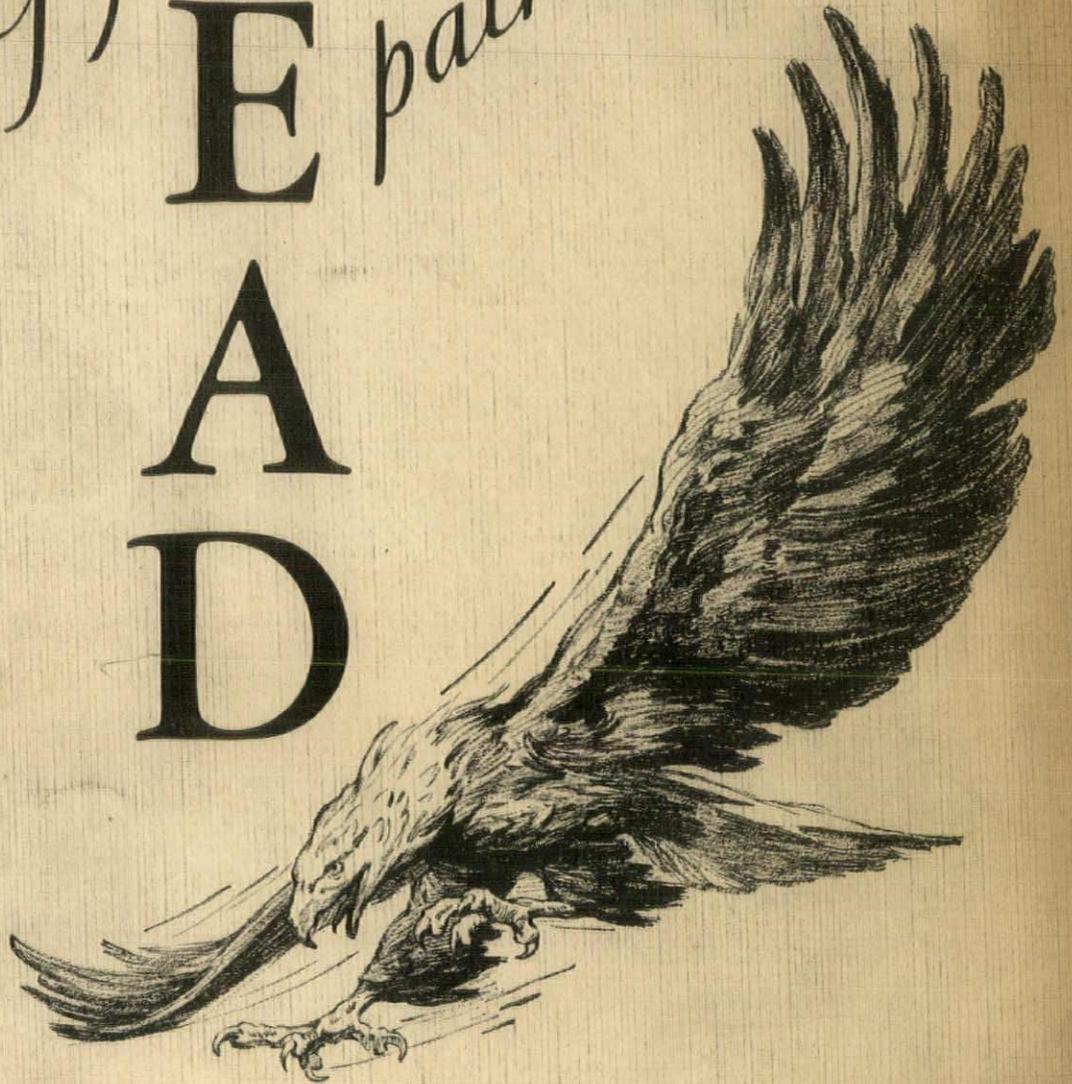


GENFIRE STEEL CASEMENTS AND SCREENS

These outstanding products provide the advantages of standard casements for all installations regardless of any screening problem. If screens are required, Genfire Rol-Up or Casement Side Hinged Screens can be applied directly to the casement frame where they become integral with the window unit. They may be applied at any time and can be removed just as easily without impairing the appearance of the window. No special mouldings, no cutting or fitting are required. Nor do these screens necessitate any change in the architect's details. Their extreme simplicity of installation requires only the provision of a 5/8" minimum clearance of the casement frame at the side jambs. Write for catalog and detailed information.

GENFIRE STEEL COMPANY - - YOUNGSTOWN, OHIO
Warehouses and Offices in Principal Cities. Dealers Everywhere

Specify **LEAD** paints



Paints with a high-lead content eliminate trouble all along the line. When a painter works with pure white lead (preferably Eagle), there is no question as to wearing quality or paint satisfaction. You and the homeowner know exactly what is going on the walls, interior or exterior. White lead meets every requirement of good painting easily—and with noticeable economy.

EAGLE White Lead



Reg. U. S. Pat. Off.

made by The Eagle-Picher Lead Company, 134 N. La Salle Street, Chicago. Producers of lead, zinc and allied products.