

THE ARCHITECTURAL RECORD

Published Monthly by F. W. DODGE CORPORATION, 115-119 W. 40th St., New York

Truman S. Morgan, *President*

Sanford D. Stockton, Jr., *Secretary*

Howard J. Barringer, *Treasurer*

VOLUME 63

JUNE, 1928

NUMBER 6

ARTICLES

- | | |
|--|-----|
| * The New Building of the Beaux-Arts Institute of Design
<i>Dennison & Hirons, Architects</i>
By Philip L. Goodwin | 497 |
| Ornament from the Platonic Solids
By Claude Bragdon | 505 |
| Willard Straight Hall
<i>Delano & Aldrich, Architects</i>
By Herbert Croly | 545 |
| In the Cause of Architecture. V. The Meaning of Materials—The Kiln
By Frank Lloyd Wright | 555 |
| Carl Milles, Sculptor-Architect
By Kineton Parkes | 563 |
| Early American Architecture and the Allied Arts—A Bibliography
By Richard F. Bach | 577 |

PLATES

- | | |
|--|---------------------|
| Polychrome Terra-cotta panels, façade of the new building for the Beaux-Arts Institute of Design
<i>Dennison & Hirons, Architects</i>
<i>René Chambellan, Sculptor</i> | <i>Frontispiece</i> |
| "Kingwood," residence of Charles K. King, Esq., Mansfield, Ohio
<i>Clarence Mack, Architect</i> | 513-521 |
| Residence of Mrs. Richard B. Fudger, Los Angeles, California
<i>Roland E. Coate, Architect</i> | 523-531 |
| Residence of Mrs. C. A. Woodcock, Glens Falls, N. Y.
<i>Tooker & Marsh, Architects</i> | 533-537 |
| A Small House in Atlanta, Ga.
<i>Lawrence Funke, Architect</i> | 539, 541 |
| Residence of Mr. and Mrs. A. Harris, White Plains, N. Y.
<i>Herbert Lippmann, Architect</i> | 543, 544 |
| Measured Drawings of Early American Architecture—Virginian Details | 585-592 |

ALLIED ARTS AND CRAFTSMANSHIP

- | | |
|--|----------|
| Pavement Panel in Bronze
<i>Gaetano Cecere, Sculptor</i> | 571 |
| Statues in a Garden
<i>Carl Milles, Sculptor</i> | 572, 573 |
| Gardens of "Kingwood," Mansfield, Ohio
<i>William Pitkin, Jr., and Seward H. Mott, Landscape Architects</i> | 574, 575 |
| Door, Christ Church, Cranbrook, Mich.
<i>Oscar Bach, Craftsman</i> | 576 |

NOTES AND COMMENTS

- | | |
|---|-----|
| California Backgrounds
By Irving F. Morrow | 581 |
| An Unwise Request
By Glenn Brown | 582 |
| Treatment of Logs for Log Cabins
By Harry L. Spooner | 583 |
| New Housing for Old Paris | 584 |

THE ARCHITECT'S LIBRARY

- | | |
|---|-----|
| Majorcan Houses and Gardens
<i>Arthur Byne and Mildred Stapley</i>
Review by Arthur W. Colton | 593 |
| How America Builds.
<i>Richard J. Neutra</i>
Review by Henry-Russell Hitchcock, Jr. | 594 |
| Architectural Design in Concrete
<i>T. P. Bennett</i>
Review by S. Woods Hill | 595 |
| List of New Books on Architecture and the Allied Arts
<i>Pauline V. Fullerton</i> | 597 |
| Foreign Periodicals
Reviewed by Henry-Russell Hitchcock, Jr. | 598 |
| For Index to Announcements see Page 150 of Advertising Section. | |

M. A. MIKKELSEN, *Editor*

A. LAWRENCE KOCHER, *Associate Editor*

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

J. A. OAKLEY, *Business Manager*

CHARLES D. DEVINNE, *Supervisor of Printing*

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

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



* Water Will Not Stay Put!

(The Volatility of Water)

IF YOU take an ounce of dry sand, an ounce of dry gravel, and an ounce of dry cement and place each in a separate dish in the sun and add an ounce of water to each, you can find out an important fact about concrete.

After a few hours, there will be no moisture in the sand—it will weigh an ounce again. There will be no moisture in the gravel—it, too, will weigh just the original ounce. But the cement will have become a different mass. Instead of a dry powder, it will be a dry solid and it will weigh slightly more than an ounce—the water has added something.

Water, being volatile—that is, having a tendency to evaporate—entirely vanishes from any substance unless a chemical inter-action holds some part of the water permanently. Cement does this. However, this additional fact is to be observed, an ounce of dry cement plus an ounce of water does not result in a two-ounce solid. Why?

The process we term “setting” in concrete always involves some evaporation of the mixing water. Think of the amount of water you use to make concrete. It is enough to make sand, gravel and cement a workable mass, easily sluiced or poured—much more water than the cement will permanently retain. Much of the water obviously will evaporate leaving in the concrete mass millions of tiny spaces. Concrete is porous because one volatile substance, water, is used in making it.



Concrete can only permanently hold a quarter of the water necessary for mixing. Three quarters of the water leaves the mass—and leaves it full of minute holes or pores that must be water proofed.

The aim of the Truscon Laboratories in producing Truscon Waterproofing Paste Concentrated has been to counteract the absorbent tendency of concrete—a tendency entirely due to its being porous. This waterproofing product permanently and integrally waterproofs concrete, making its pores non-absorbent and, therefore, safe against water.

★ This is No. 2 of a series of non-technical explanations prepared by R. A. Plumb, General Director of The Truscon Laboratories, on the necessity for integrally waterproofing all concrete used in building.

General Director of
THE TRUSCON LABORATORIES

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

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

TRUSCON Waterproofing Paste CONCENTRATED

ARCHITECTS' ANNOUNCEMENTS

ANNOUNCEMENT is made that the office of Louis H. Rush, architect, 1520 Locust Street, Philadelphia, Pa., has been closed indefinitely.

WARNE, TUCKER, SILLING & HUTCHISON, architects, Charleston, W. Va., are revising their files in accordance with A. I. A. document No. 172, and would be pleased to receive manufacturers' samples.

WILLIAM WESTERFIELD HAVENS, architect, builder, engineer, announces the removal of his office from 227 East 178th Street, to 400 East Tremont Avenue, Bronx, New York City.

CHAS. M. LOBEJAGER, R.A., architect, announces that he transferred his office from 102-46th Street, Corona, L. I., to his residence at 1801-147th Street, Whitestone, L. I. and will there continue the practice of architecture and building operations throughout the City of New York. He has also opened an office at 50 Glen St., Glen Cove, Nassau Co., L. I.

ROWE, DILLARD & ROWE, architects, announce the removal of their offices to Suite 1916, Engineering Building, 205 West Wacker Drive, Chicago, Illinois.

FULLER & STICKLE, architects, announce that they have dissolved partnership. Mr. Fuller will stay in the present office 721 Commerce Building, Erie, Pa., and Mr. Stickle has moved to 227-28 Commerce Building, Erie, Pa. Both request manufacturers' samples.

W. WARD WILLIAMS, registered architect, announces the removal of his office to Suite No. 712-713, Fitzsimons Building, 331 Fourth Avenue, Pittsburgh, Pa.

WILLIAM REICHERT, formerly a member of the firm of Ottenheimer, Stern & Reichert, and Sidney C. Finck, formerly associated with the same firm, announce the formation of a partnership for the practice of architecture. The new firm of Reichert & Finck has its offices at 35 South Dearborn Street, Chicago.

GEORGE C. NIMMONS & COMPANY, architects, announce the removal of their offices to 333 North Michigan Avenue, Chicago, Ill., and the change of the firm name to Nimmons, Carr & Wright to include George Wallace Carr and Clark C. Wright who have been associated with the firm as partners for the last eleven years.

JOSEPH A. GRAFT, architect and engineer, has established his office for the practice of architecture and engineering at Box 764, Pittsburgh, Pa., and would appreciate receiving manufacturers' samples.

RUDOLPH P. MILLER, consulting engineer, announces the removal of his offices to The Architects' Building, 101 Park Avenue, New York City.

LEON E. STANHOPE, architect, announces removal of his office to the Thirty-First Floor, Pittsfield Building, 55 East Washington Street, Chicago, Illinois.

HARRY M. HASKELL and LEO E. CONSIDINE, architects, have formed a partnership under the firm name of Haskell and Considine, with offices at 612-620 Hulett Building, Elmira, New York.

EDWIN S. RICHARDS, JR., and MANFRED MANCUSI-UNGARO have formed a partnership operating as Richards & Mancusi-Ungaro, architects, in the Federal Trust Building, 24 Commerce Street, Newark, N. J.

PRESTON J. BRADSHAW, architect, has moved to larger quarters at 718 Locust Street, St. Louis, Mo.

WILLIAM TEMPLETON JOHNSON, A.I.A., architect, announces the removal of his offices from 502 Electric Building to 1400 San Diego Trust and Savings Building, San Diego, Calif.

RAYMOND G. CLIFFORD, architect, has moved from the Gerlinger Building to 616 Guaranty Building, Portland, Oregon.

HAROLD O. SEXSMITH and WALTER W. WADE announce the formation of a partnership for the general practice of architecture, under the firm name of Sexsmith and Wade, architect and engineer, 6513 Hollywood Boulevard, Rooms 209-210, Hollywood, Calif.

THE OFFICE OF HOLABIRD & ROCHE, architects, has been moved from Room 1400, 104 South Michigan Ave., to Room 900, 333 North Michigan Ave., Chicago, Ill.

PARTNERSHIP in the architectural firm of Denham, Van Keuren & Denham has been dissolved. The practice of architecture will be continued by E. B. Van Keuren, Inc., at 407 Comer Bldg., (formerly Age Herald Building) 2nd Ave. & 21st St., Birmingham, Ala.

CHARLES ANDERSON, architect, has moved from 171 Madison Ave., to 420 Lexington Ave., New York City.

WILLIAM L. MARGRAFF, architect, has opened an office at 228 No. La Salle Street, Chicago, Ill.

CHAS W. VALENTINE, architect, has moved from 445 Milwaukee St., to 373 Broadway, Milwaukee, Wis.

D. W. B. HAINING, architect, has moved from 225 Guarantee Trade Bldg., Atlantic City, N. J., to 206-7 Sheen Bldg., 1536 Atlantic Ave., Philadelphia, Pa.

BERENSON & MOSES, architects, formerly of 30 Allyn Street, have moved to 252 Asylum Street, Hartford, Conn.

CARL E. MOORE, architect, is now located at 345 Grant Street. Old address: 117 W. 5th Ave., Gary, Ind.

ED. G. HOEFLER, architect, 728 Keith Bldg., East 17th & Euclid, Cleveland, Ohio, formerly of Best & Hoefler, 838 Keith Bldg., requests manufacturers' samples.

A. P. COOLIDGE, architect, has moved to 229 Cherry Street from Interstate Bank Bldg., Helena, Arkansas.

CLEMCO
DESK



A "CLEMCO" Maynard Suite in the office of Dr. H. E. Sharrer, President and Gen. Mgr. of the Northern States Life Insurance Company, Hammond, Indiana. Installation made by Tribe of K, Hammond and Gary, Indiana

Architects: Childs & Smith, Chicago

A Wise Selection

SELECTION of executive office furniture should be of vital interest to every architect who plans bank or commercial buildings. A wise selection may so easily produce the finished effect of a perfect interior. Thus you have justified the confidence placed in you.

"CLEMCO" Fine Office Suites offer to architects so complete a range as to meet—in style and price—every type of office demand.

A word on your letterhead will bring "Pointers In Planning An Office," "CLEMCO" Office Plan Material and Catalogs illustrating and describing "CLEMCO" Fine Office Suites

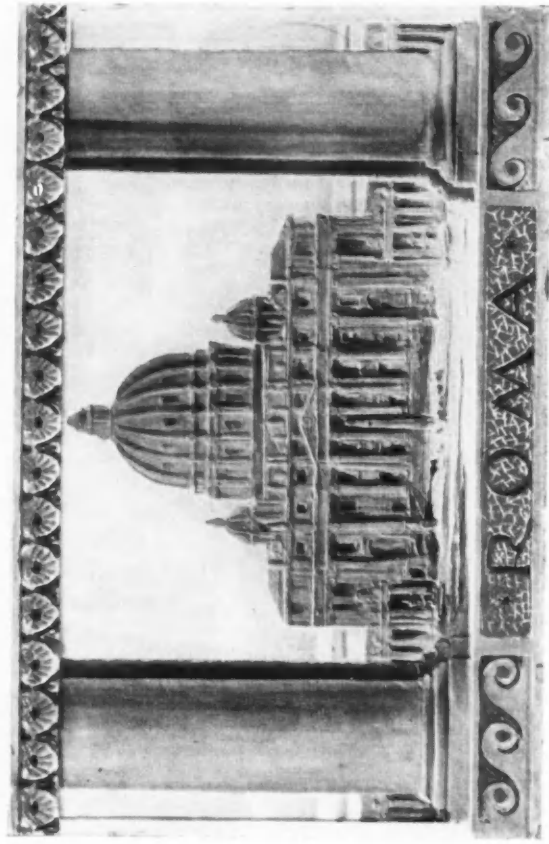
THE CLEMETSEN CO., 3413 Division Street, Chicago, Illinois

Export Office, 17 Moore Street, New York City

Makers of a Complete and an Exceptional Line of Desks and Fine Office Suites for Business, Bank and Professional Use

The three panels in polychrome terra cotta shown on the reverse side were designed by Messrs. Dennison & Hiron, Architects, to adorn the façade of the new building of the Beaux-Arts Institute of Design, 304-306 East Forty-fourth Street, New York City. They represent the three great seats of learning in the arts of Architecture, Sculpture, Painting—Athens, Rome, Paris.

The architectural setting for the panels is shown on pages 498, 499 and 502 of the current issue of the magazine.



Polychrome Terra Cotta panels
for the façade of the new building
of the Beaux-Arts Institute
of Design, New York City.



DENNISON & HIRONS, Architects
RENE CHAMBELLAN, Sculptor
These studies were made from
plaster models with applied color.

THE ARCHITECTURAL RECORD

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



VOLUME 63

JUNE 1928

NUMBER 6

THE NEW BUILDING OF THE BEAUX-ARTS INSTITUTE OF DESIGN

DENNISON & HIRONS, ARCHITECTS

BY PHILIP L. GOODWIN

IN THE last three years the architectural work particularly, and the departments of Sculpture and Mural Painting, have increased so greatly that the old building of the Beaux-Arts Institute of Design, at 126 East 75th Street, has been crowded beyond its capacity. This building was formerly the private stable of Mr. Jacob Schiff and was bought by Lloyd Warren in 1914 and occupied by the Institute in the following year. It served the purpose excellently until a few years after the war, when the expansion of the work of the Beaux-Arts began to take on extraordinary proportions. The old building became thoroughly unsatisfactory practically overnight, both as regards space for exhibitions, for the ornamental sculpture class and the life class, and particularly for the administration of the Institute. It was also threatened with complete submersion by two large apartment houses. All this would not have been sufficient reason to move out had it not been for the position of the school. It is so definitely on the East Side and quite a distance from the Forty-second street

centre, or even the Fifty-ninth street centre, that it did not seem likely to be other than out of the way for many years to come.

The committee in search of a new site decided that the Forty-second street centre was the best one. As we could not afford to get plenty of space and still be very close to Grand Central Station, a site was found on high ground, directly adjoining Tudor City within two blocks of Forty-second Street and looking directly up to the Graybar Building. It is at this site, 304 and 306 East Forty-fourth Street, that the new Beaux-Arts Building is about to rise.

The competition for the new building, which was held last November, was won by Frederic C. Hirons with a very simple, very architectural and very appropriate design; it has been slightly modified but contains the original characteristics of the sketch. The building consists of a high basement, which includes the gallery of the exhibition hall, three floors and a set-back apartment on the roof. There has been great discussion as to the material to be used. It would have been fine to have

stone or marble, but quite out of the question on account of the cost. Space and facilities were absolutely necessary and the whole plan has been very largely based on utilitarian considerations. Beside good proportions, however, it would seem suitable to have something to differentiate this building from the loft building, for if the architects themselves do not care enough about beauty to make some slight sacrifice for it, how can they induce other people to do so? It is hoped that some day the two pieces of sculpture may be carved, although they will appear only as rough blocks to begin with. The statues shown on the design are also things of the future. Maybe some good friends of the Institute will take enough interest to present these and, at the same time, provide some commissions for sculptors.

The basement, beside the boiler room and machinery room, has a large storage space for old drawings and scenery for the Beaux-Arts Ball, etc. A large, well ventilated dining room adjoins the kitchen. There is also here a place for the sculptors' clay. The first floor has enough additional office space to take care of present requirements, with some expansion. It is well adjusted for modern metal filing cabinets and space saving devices of various kinds. The small vestibule gives another opportunity for decorative treatment by

mural decorations, provided special funds for this purpose are forthcoming. This and the façade are the only portions that furnish the slightest architectural opportunities. The vestibule leads into a large exhibition hall, sixty-five feet by forty-eight feet, with a wide gallery around it which can be used for the loges for the Paris Prize when they are needed, and for ordinary exhibition space at other times. At the back is

more space available for future office expansion. Trap-doors are placed in the floor for letting the drawings down to the storage space below. Plain painted brick or plaster walls and unfinished ceilings prevail throughout.

The second floor has additional exhibition floor space which may not be required at first, but at the present rate of expansion will surely be needed before long! There is also a library on this floor for which the Carnegie Foundation has provided a fund. The whole exhibition space amounts to something like two and a half times what we now have. The third floor is simply a

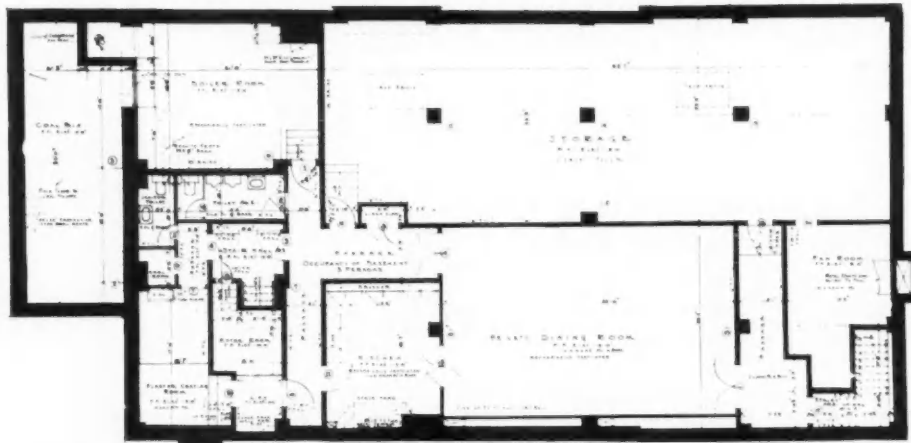
loft floor, entirely open, devoted to the ornamental sculpture class and an office for the resident executive secretary, Mr. Clarke. The fourth floor is exactly like the third floor and is given up to the life class and the secretary's studio. The top floor is partly covered by Mr. Clarke's apartment; this has a set-back forming a balcony on



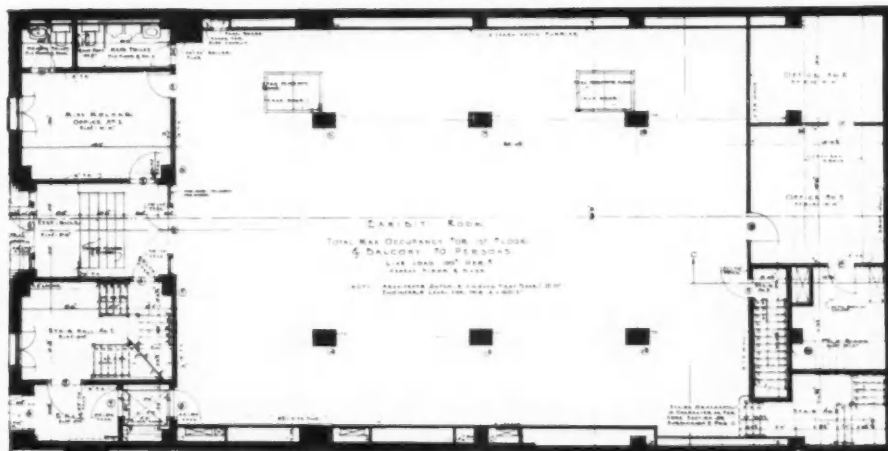
MODEL OF THE NEW BUILDING OF THE BEAUX-ARTS INSTITUTE OF DESIGN



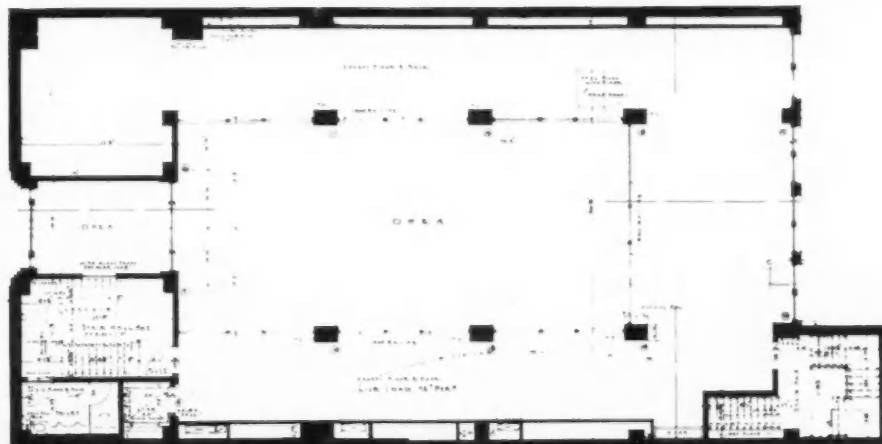
PERSPECTIVE DRAWING OF THE NEW BUILDING
BEAUX-ARTS INSTITUTE OF DESIGN, NEW YORK
DENNISON & HIRONS, ARCHITECTS



• BASEMENT FLOOR PLAN •



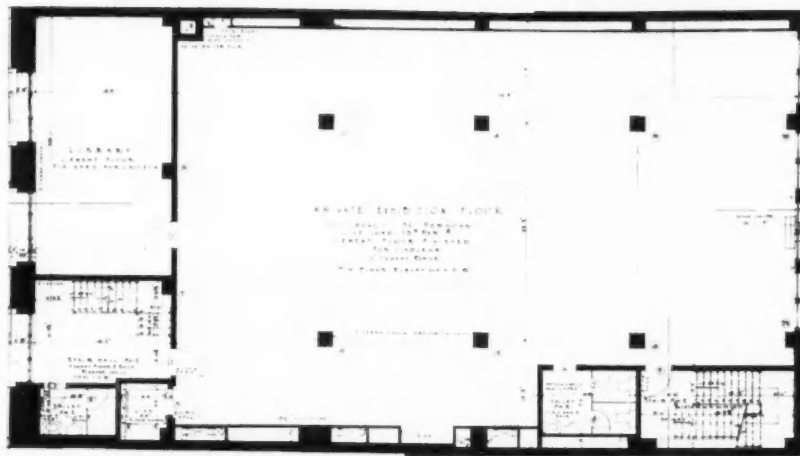
FIRST FLOOR PLAN



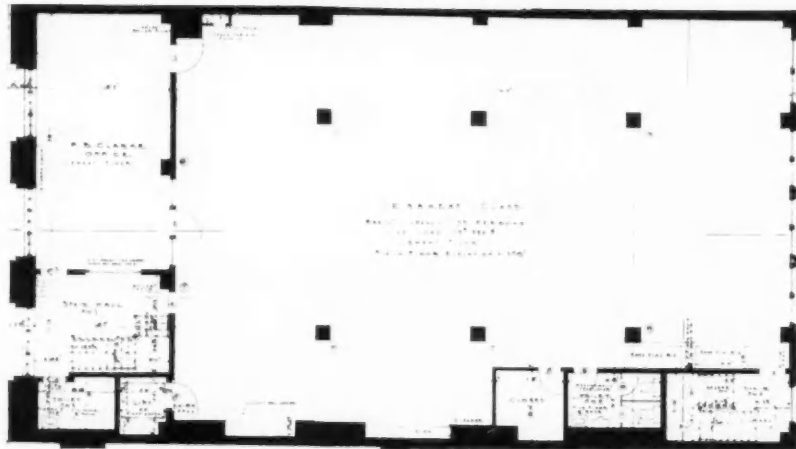
BALCONY FLOOR PLAN •

NEW BUILDING OF THE BEAUX-ARTS INSTITUTE OF DESIGN,
NEW YORK

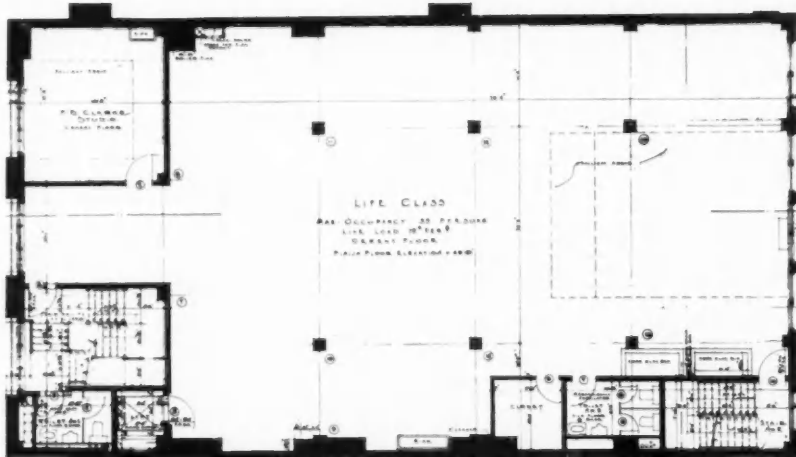
DENNISON & HIRONS, ARCHITECTS



SECOND FLOOR PLAN



THIRD FLOOR PLAN



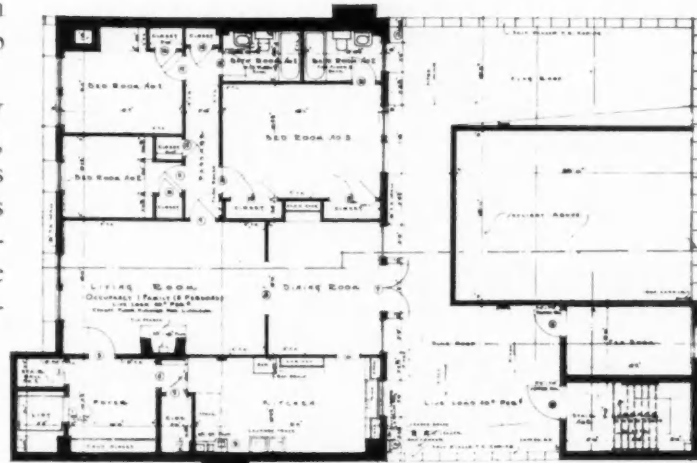
FOURTH FLOOR PLAN

NEW BUILDING OF THE BEAUX-ARTS INSTITUTE OF DESIGN,
NEW YORK

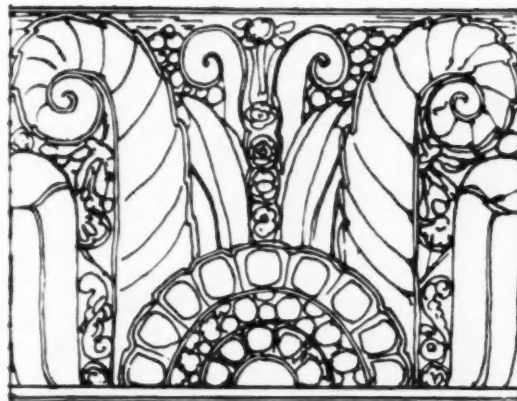
DENNISON & HIRONS, ARCHITECTS

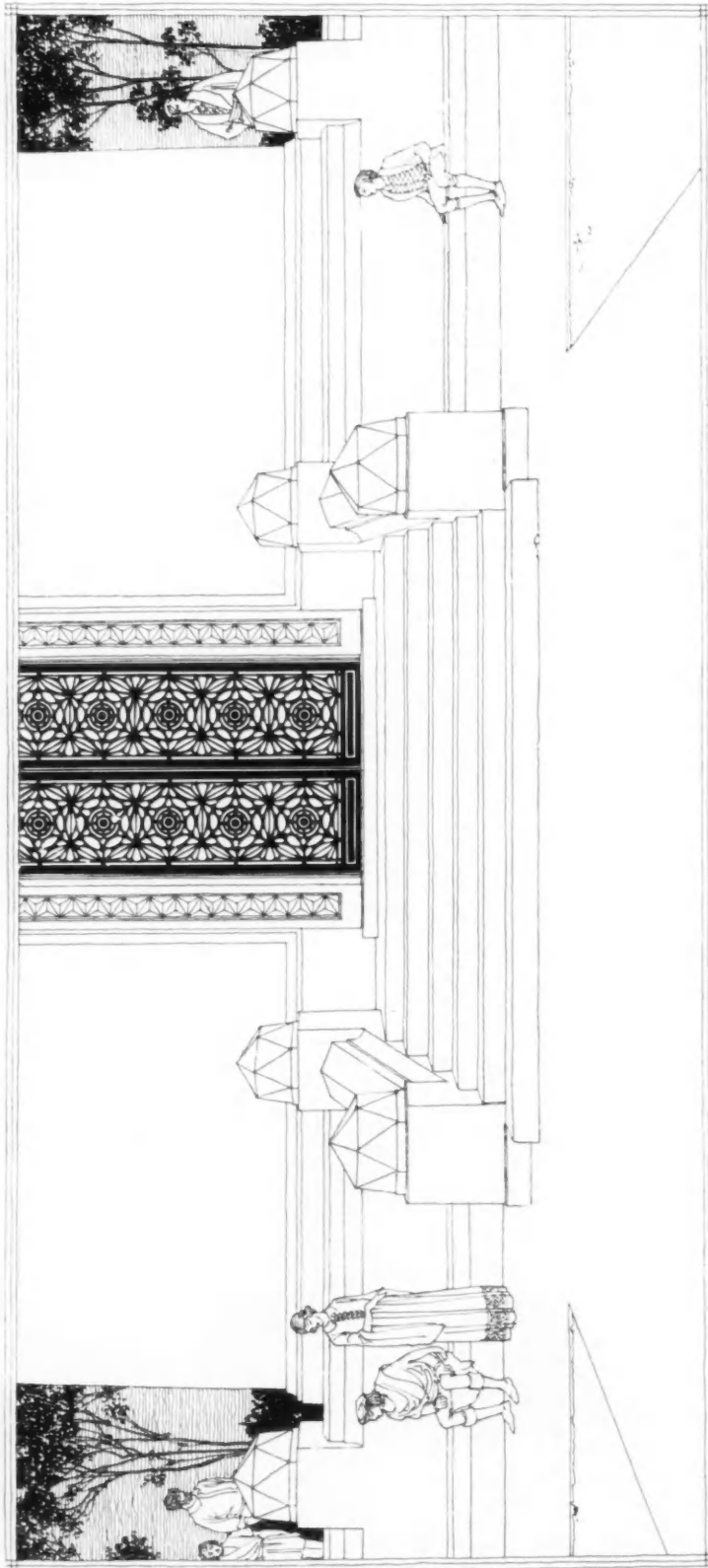
the front and a sort of roof garden at the rear, where it is not taken up by skylights.

The new building will be amply provided with plumbing facilities, fireproof staircases and as much glass area as is possible. These are things that were conspicuous by their scarcity in the old building. It will be entirely fireproof as well. In embarking on the new building it has been a difficult question to foresee the future. At present the Institute forms a clearing house for a very large number of architectural schools all over the United States. The number of drawings that pour in for each judgment is so large that not only has it exhausted the physical space of the old building, but almost the powers of the juries. Time alone can show whether the work will continue to expand or whether some new solution will be necessary to make the judgments better still, in order to maintain the high standard—the highest in the country—which has existed in the past. Although it



is not an agreeable occupation to all, and perhaps not one in which architects excel, members of the Beaux-Arts Society and Institute should actively try to spread information on the work going on here. The public is inclined to think of the place exclusively as one that has a Grand Ball once a year. Until it is more fully informed of the great and useful work that is being done, they will not give the Institute as much support as it needs and deserves.





ENTRANCE TO A MAUSOLEUM—ORNAMENT DERIVED FROM THE PLATONIC SOLIDS—THE TETRAHEDRON AND ICOSAHEDRON

FIG. 7

ORNAMENT FROM THE PLATONIC SOLIDS

BY CLAUDE BRAGDON

WHEN I delivered to the editor of The Architectural Record the manuscript and drawings for my second essay on "Ornament from Magic Squares" with the bright assurance that there would certainly be more to follow, despite his unfailing hospitality to these children of my brain, some vision of the Infinite may have for the moment daunted him, or perhaps it was only a glimpse of the ghost which haunts all editors, the Average Subscriber. Anyway, he suggested that by way of variety I should write an article on a subject of great moment to the architectural profession, because so deeply involved with the future development of the art itself. I was asked to discuss those modifications of form and design which a building undergoes—or should undergo—by reason of the use of this or that material, or the employment of one or another structural method. I was to consider the architectural art not as an array of passing fashions, but as the expression, in terms of form, of varying functions.

This seemed an excellent idea, and I set to work on it at once; but presently something happened—the sort of thing that at one time or another grips every sincere artist and gives him the reputation of being "temperamental." I found that instead of writing, as I intended, about architecture as a revelation of the qualities of various materials and as a dramatization of structure, I was "still harping on my daughter"—still discussing the mathematics of the arts of design. I am reminded of a story told by E. S. Willard, the actor. He had made such a success in "The Professor's Love Story" that he engaged Barrie, the author, to write for him another play, and they were in the habit of meeting often to talk it over. The first act went very well, but after a time

Willard noticed that he saw less and less of Barrie, and that when they did meet he was constrained and embarrassed. When called to account for this, Barrie said, "Well you see this isn't your play at all, Willard, it's turning out to be a woman's play, and I can't seem to help it either," and their negotiations came to an end.

More thrifty than Barrie, I shall try to give the editor something at least of what he has asked for, and at the same time advance the discussion of mathematics as a source of design; accomplishing this dual purpose by developing fresh ornamental motifs through new devices, and then showing what modifications these would naturally undergo when interpreted in terms of different materials.

The reasons for undertaking this quest for a new ornamental mode, and for the belief that it is to be found in mathematics, are doubtless by now familiar to the reader and need not be repeated for the third time. Abandoning for the time being research along the line of magic square formations, let us go prospecting elsewhere. The reason why I so reiterantly employ this figure is because in this quest we are indeed *miners*, not searchers after already minted money worn by use and stamped with the heads of ancient emperors, but prospectors for that virgin gold which must be extracted from the hard rock of mathematics with labor of the mind, refined by the creative imagination, and then shaped into forms of beauty sufficiently compelling to woo all misguided seekers after pirates' gold into these same delectable mountains where are King Solomon's mines, let us call them, since their riches yield only to the courageous and the wise.

Now what every miner wants to find first and above all is the mother lode—the par-

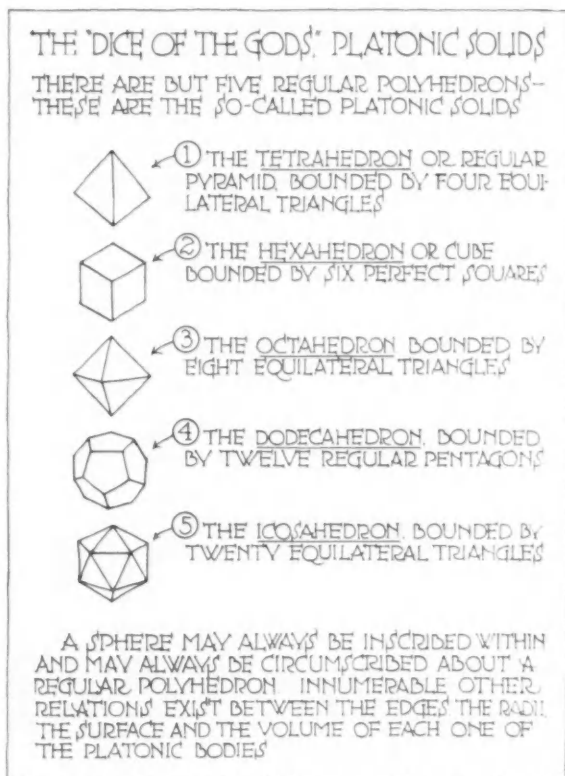


FIG. 1

ent source of all the gold uncovered by chance here and there. In our particular quest this would have its correspondence in the archetype, the form of all forms, the class of all classes. One of these archetypes, and the most inclusive and universal, is the logarithmic spiral, which is at the root of Best-Maugard's "Method of Creative Design" and of Jay Hambidge's "Dynamic Symmetry." In this essay I shall deal with certain others, more suited to my present purpose. These are the so-called five Platonic solids, the symmetrical polyhedrons of three dimensional space: the tetrahedron, the hexahedron, the octahedron, the dodecahedron and the

icosahedron, having respectively four, six, eight, twelve and twenty polygonal faces, as shown in illustration 1. Now, if to these we add the point at the beginning and the sphere at the end, we have a seven-fold series, archetypal in the same sense that Hambidge's "root rectangles" and Best-Maugard's "seven forms" derived from the spiral are archetypal, the generating figure of the Platonic solids being the sphere.

The unique, the "cosmic" character of these solids has been recognized from the most ancient times. Among the playthings of the infant Bacchus, each having its own symbolical significance, were "dice" in the form of the five Platonic solids, the implication being that upon these patterns all things in the universe are built, an idea curiously in accord with modern conceptions with regard to atomic disposition and molecular structure. Ancient Greek philosophers and modern theoretical physicists are alike in their belief that the mystery of the constitution of the universe is revealed nowhere so clearly as in number, and Plato is in singular accord with the atomists when he attributes the difference between

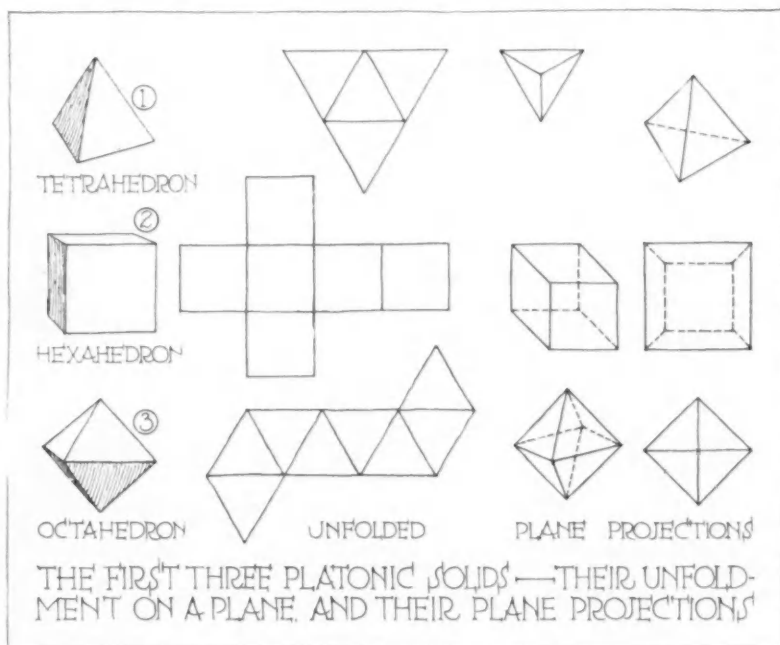


FIG. 2

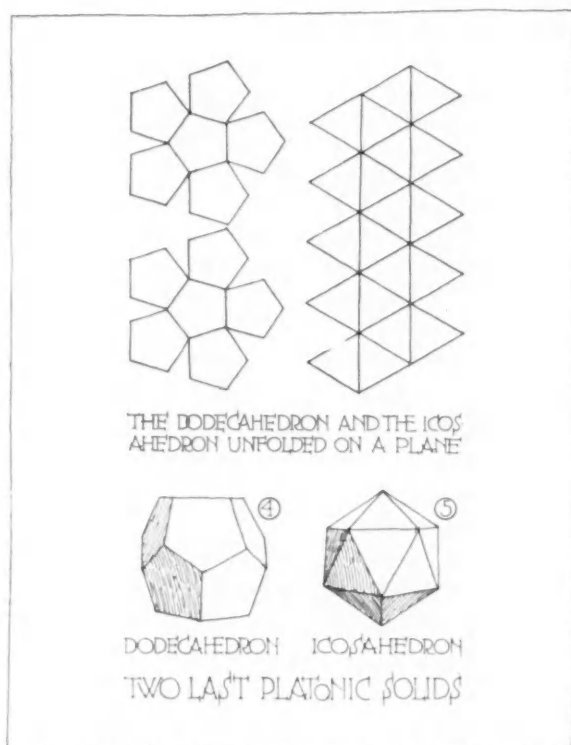


FIG. 3

the elements to differences in the arrangement of units in space.

Although Plato in his "Timaeus" is the earliest authority for the allocation "Platonic figures," it is to Pythagoras that Proclus attributes the discovery of their elements and proportions, while Theaetetus was the first to write at any length about the octahedron and icosahedron, as he was probably the first to construct all five theoretically and investigate fully their relations to one another and to their circumscribing spheres. Plato assigns the four solids to the four elements, earth, fire, air and water (the material principles, according to Empedocles, from which the universe was evolved), and the "vessel" in which they are all contained he conceives of as the sphere, which he identifies with the dodecahedron, approximating, as it does, the spherical form, and involving an element different from the other four, the regular pentagon.

These, then, by the testimony both of

ancient philosophy and of modern science are in the true sense archetypal, the "significant forms" of which we are in search. Let us therefore force them to yield the particular thing we seek. This should not be difficult, for Nature herself points out the way, having preëmpted these figures for her own pattern-making, along with the logarithmic spiral, the ovoid, and other generic forms, as even the most cursory study of botany and crystallography makes plain. Having discovered, for example, that the iris and the snowflake are both related to the icosahedron, we have only

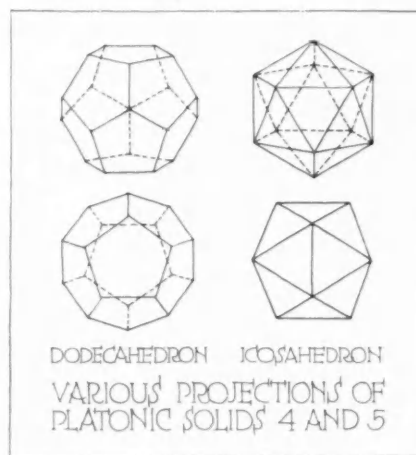


FIG. 4

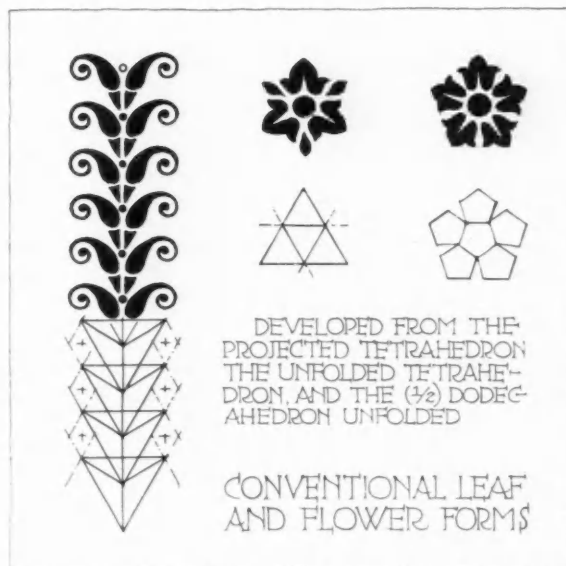


FIG. 5



MOTIFS "THE 4TH AND 5TH SOLIDS" UNFOLDED

FIG. 6

to follow Nature's method, not by blindly copying her patterns without insight or understanding, but making, with insight and understanding, new patterns of our own.

The first necessary thing is to become thoroughly familiar with the five forms under discussion, and the best way to do

this is to make models of them according to the familiar kindergarten method of cutting and folding, transforming them from plane figures into solids of three-dimensional space. It would be better still could we have models of them in glass, for then the far side would be visible as well as the near side, and the interesting and intricate relationships of lines could be studied by simply turning them about in one's hand. Lacking these glass models we shall be reduced to the study of their plane projections—the projections of the solids, that is—as *transparent* figures, for only by so considering them will we find the thing we seek.

Illustrations 2, 3 and 4 show, first, the five forms as opaque solids of three-dimensional space; second, the same "unfolded" in the two dimensions of a plane, and third, certain chosen aspects of the forms in plane projection, that portion of them contained in the hemisphere most distant from the eye being shown in dotted lines, thus indicating the effect of transparency.

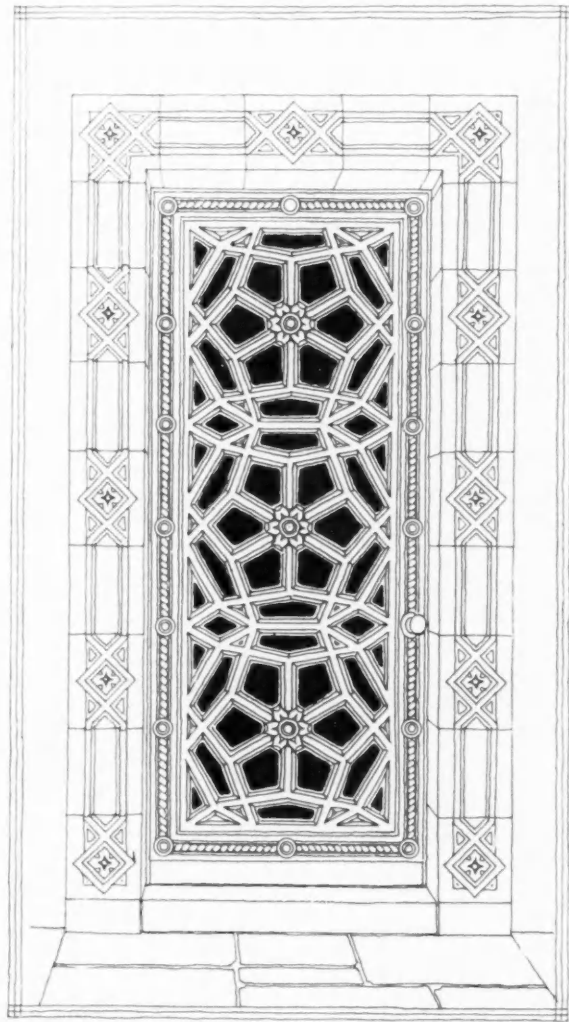
Now out of the material contained in these diagrams, if employed with skill and imagination, it is possible to construct many admirable patterns, the proof of which lies in the fact that throughout the remaining illustrations no other motifs for ornament have been introduced, and it would have been easy to multiply examples. The illustrations themselves give a sufficient indication of the method: the unfolded or projected figures representing the various polyhedrons yield a linear pattern which, employed either singly or in symmetrical repetition, is readily translated, with the aid of the aesthetic sense, into ornament. The mathematical framework is only the point of departure, so to speak: straight lines may be translated into curves, or the generating figure may be used only to determine the shape, size and disposition of ornamental motifs of an utterly different character, its reciprocal, as it were, in the same sense that the fleshly envelope is the

reciprocal of the skeleton, each cavity of the one answering to some protuberance of the other. Illustrations 6, 7, 8 and 11 represent a direct translation of the projected solids into essentially geometrical ornament, while in illustrations 5, 9, 12 and 13 the generating figure is only obscurely present, indistinguishable, indeed, though the determining factor of the design nevertheless.

The point I wish to make is the same I have tried to make in discussing magic squares: namely, that some forms are more *significant* than others, by reason of possessing certain interesting mathematical properties, and of illustrating certain mathematical truths. These the designer should search out and use, for by so doing he will snare, so to speak, a beauty transcending his personal power of evocation altogether. The particular manner in which he makes use of them his aesthetic intuition will determine, and his efforts will test out his powers as a navigator "on faery seas forlorn" no less surely than as though he set out sailless and rudderless. For these mathematical aids to design are indeed like sail and rudder, but captain and compass they are not—so save in the hands of a good navigator they are either useless or dangerous, and by a good navigator I mean one who knows at all times where he wants to go, and is able at all times to use the means at his disposal for getting there.

Approaching the subject of ornament now from a different angle, more in accordance with the suggestion of the editor—as affected, that is, by the material or medium employed—it should be stated again as at the beginning that this is a matter of much moment, and too little regarded by the architect. Housed of old in the same body, a gulf now separates the artist and the artizan. Not only are they twain, but often they neither see nor know one another and the mental processes of the designer are as much a mystery to the craftsman who executes the design, as the physical processes

he goes through are a mystery to the artist. This lack of understanding and coöperation is bad for both of them and its results are bad: some precious and vital quality has leaked out of the arts of space, they are too often either false or inexpressive. For one of the minor, though far from negligible, functions of the minor arts of space, as it is of the major art of architecture, is to show forth the *quality* of different materials—their strength, their delicacy, their native beauty of color and texture; they are put through their paces, so to speak, under the skilled directing hand of the artist-craftsman. In ancient times and among primitive



MOTIF: THE PROJECTED DODECAHEDRON

FIG. 8

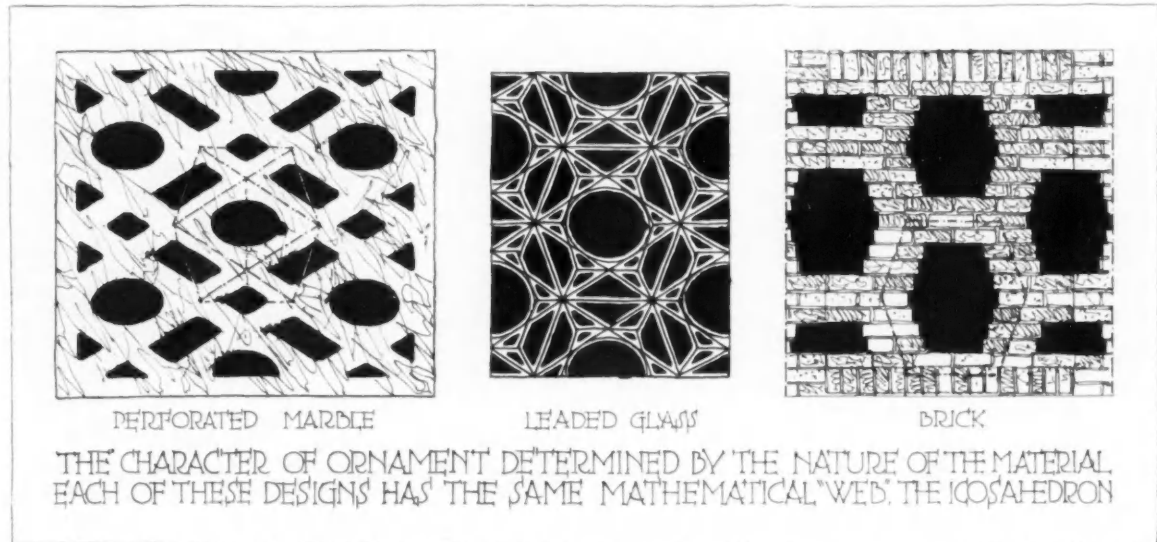


FIG. 9

peoples this particular function of art was fulfilled, as one might say, automatically, because the artizan was also the designer, and to him there was no way other than the right one. But to-day in civilized countries, by reason of a different consciousness and changed methods of production this canon of aesthetics is continually violated. Let me quote, in this connection, from one of my Scammon lectures, in which I assume the ungracious task of enumerating the shortcomings of the modern architect.

"The architect fails to think and work in terms of his materials."

"A proof of this failure is found in the

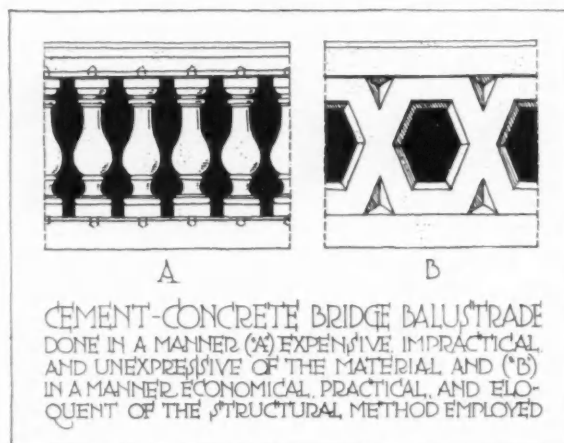


FIG. 10

common practice of substituting one material for another—wood for iron, terra-cotta for stone, stone for concrete, or vice versa—by reason of their difference in cost or to suit the whim of a client, without essential modifications in design. One of the most important functions of architecture is thus violated—the showing forth of the splendor and beauty (be it a beauty of strength or of fragility) of different materials, making the most of the unique characteristics of each.

"Now the beauty of terra-cotta, for example, is not less than that of stone, but it is different. Witness a Della Robbia lunette and a carved granite Egyptian bas-relief. Imagine the terra-cotta arcades of the Certosa of Pavia carved in stone. One would fairly ache at the thought of so much wasted labor, and feel a sort of terror at so great a weight so insufficiently supported. On the other hand, were the heavily rusticated street façade of the Pitti palace in Florence translated, without change, from stone to terra-cotta, the result would be no less distressing. There would be no charm of detail and texture to compensate for the splendid ponderosity of stone."*

*Six lectures on Architecture, p. 125, 126. University of Chicago Press, 1917.

Yet today one of the most common practices in the building trades, fostered and sponsored by architects, is the imitation of one material by another—sheet-metal mahogany doors, rock-faced cement blocks, linoleum encaustic tile and all the rest. This practice is not defensible unless lying is defensible, and I can think of no argument to justify it unless it be the negative one that these are deceptions by which nobody is deceived—like fibbing for the sake of being polite. Of course meretriciousness of this order is attractive to the type of mind to whom plated ware and imitation gems are attractive, but it is one of those things which now pettyfies and vulgarizes the noblest of all the arts of space.

In order to illustrate the sort of thing to which I have reference, let us consider only this one example, because it is so typical: the imitation of stone forms in cement-concrete. We can still sometimes afford to build our buildings of stone, but not our

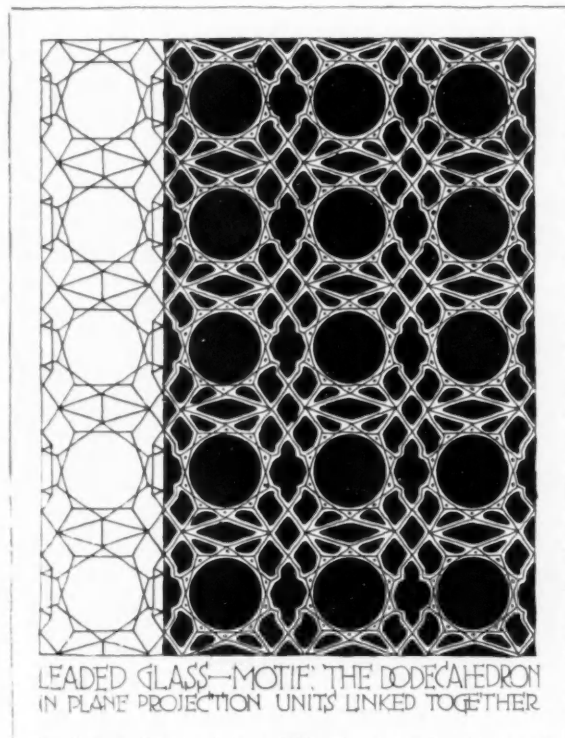


FIG. 11

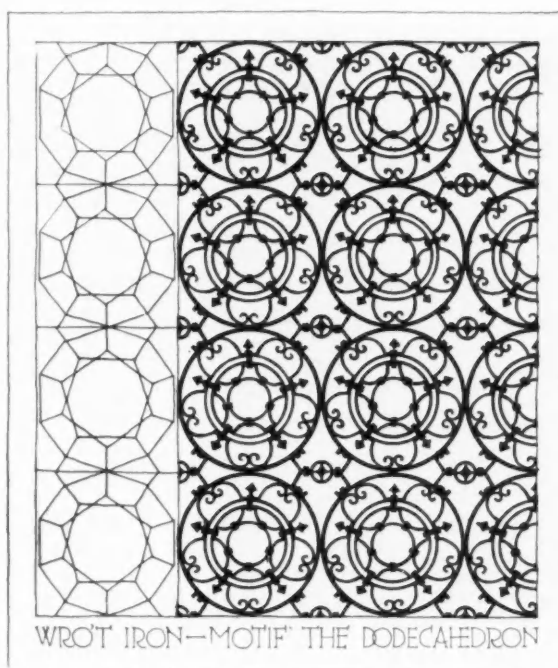


FIG. 12

bridges, and the necessity of making the bridge balustrade of cement-concrete is therefore usually imposed. How is this necessity met? Up to now, in the vast majority of cases by making a continuous solid paling with no slightest pretense to aesthetic interest, or by imitating the conventional stone balustrade with its mouldings and balusters—impractical, difficult, and expensive to make, each one separately doweled—totally false to the character of the material. For unlike stone, the nature of concrete is monolithic: it is poured in forms, which are removed after the cement has hardened. Simple shapes, flat surfaces, straight lines, the general absence of mouldings, particularly those with minute curves or reentrant angles—forms with these characteristics are easiest and cheapest to make and therefore most characteristic of the material. In illustration 10, "B" shows a bridge balustrade designed according to this general formula, for which any carpenter could make the forms, in contrast to "A," which would cost a great deal more and require an altogether different order of

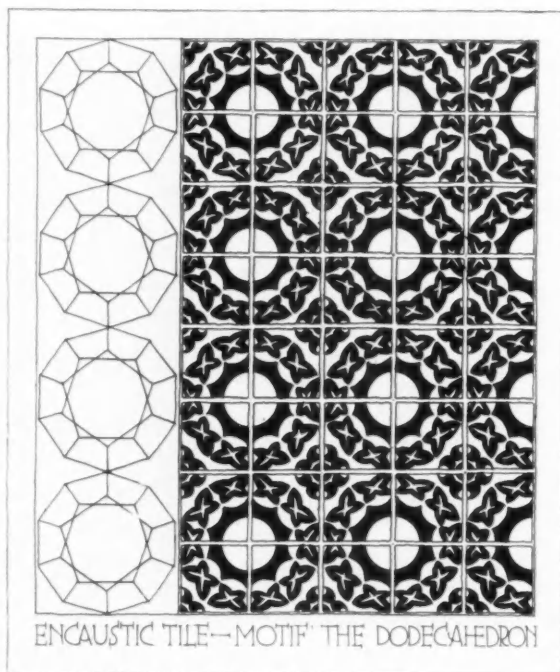


FIG. 13

skill and talent. I think that any open-minded critic would concede to "B," the greater beauty if only on the strength of the dictum, "Every increase in fitness is an increase in beauty."

Illustration 9 shows how profoundly ornament is modified by the nature of the material. For the three examples the same fundamental form has been used, an icosahedron in plane projection. When translated into brick, all that survives is the general outline; but the entire figure can be translated into leaded glass with scarcely the change of a phrase. In the perforated marble panel, though the generating figure

is not apparent, it controls and determines the entire pattern.

Illustrations 11, 12 and 13 represent all-over designs in which the dodecahedron in plane projection has been used as the determining figure, and they are also meant to show how the design is conditioned by the material. As in the former example, the leaded glass panel shows the fewest departures from the generating figure, because metal and glass lend themselves to geometrical patterns of this order with an especial ease and grace.

In the wrought iron design, on the other hand, the generating figure is scarce distinguishable, determining only the major elements and proportions. This is because heated iron is so readily *bent* that it flows as naturally to curves as does glass to straight lines, to which cutting is easy and bending impossible. The encaustic tile design lacks the interest of color, its very *raison d'être*, which must be left to the imagination of the reader. In this the basic figure is useful only as a *frame*, to determine and establish the major and minor units of the design.

More extended comment on the illustrations should be unnecessary: if they do not speak for themselves it is no use speaking for them. But whether or not they speak eloquently and convincingly, I feel sure that the reader will concede my main contention, that art is an expression of the world order, and therefore it is highly logical for the artist to seek inspiration where that world-order is writ clearest—in the field of number and geometry.



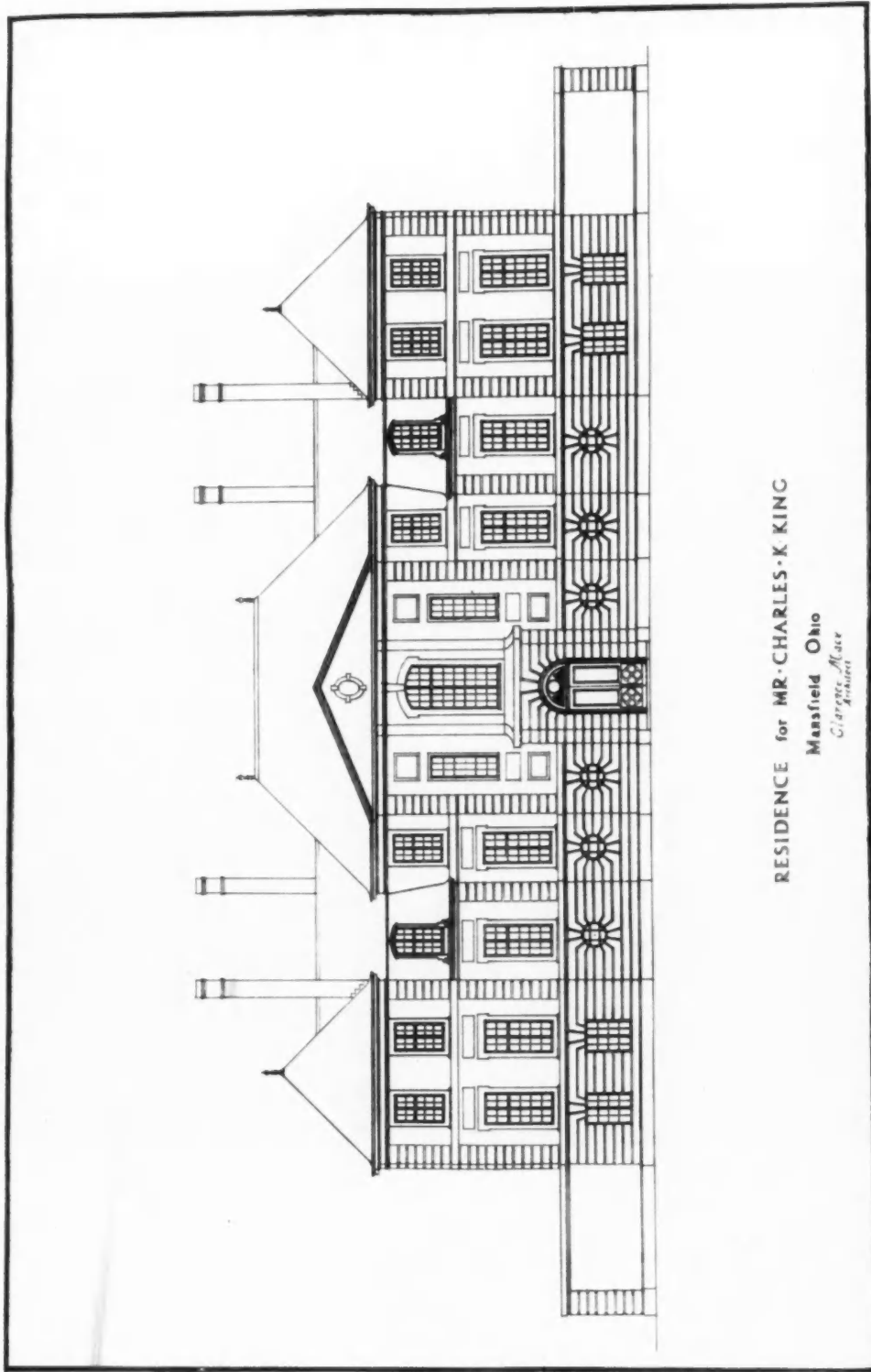
PORTFOLIO
OF
CURRENT ARCHITECTURE



Photo Tebbs & Knell

"Kingwood"
Residence of Charles K. King, Esq., Mansfield, Ohio
CLARENCE MACK, ARCHITECT
WILLIAM PITKIN, JR., AND SEWARD H. MOTT, LANDSCAPE ARCHITECTS

FEATURING
COUNTRY RESIDENCES



RESIDENCE for MR. CHARLES K. KING
Massfield Ohio
*Clarence M. Case
Architect*

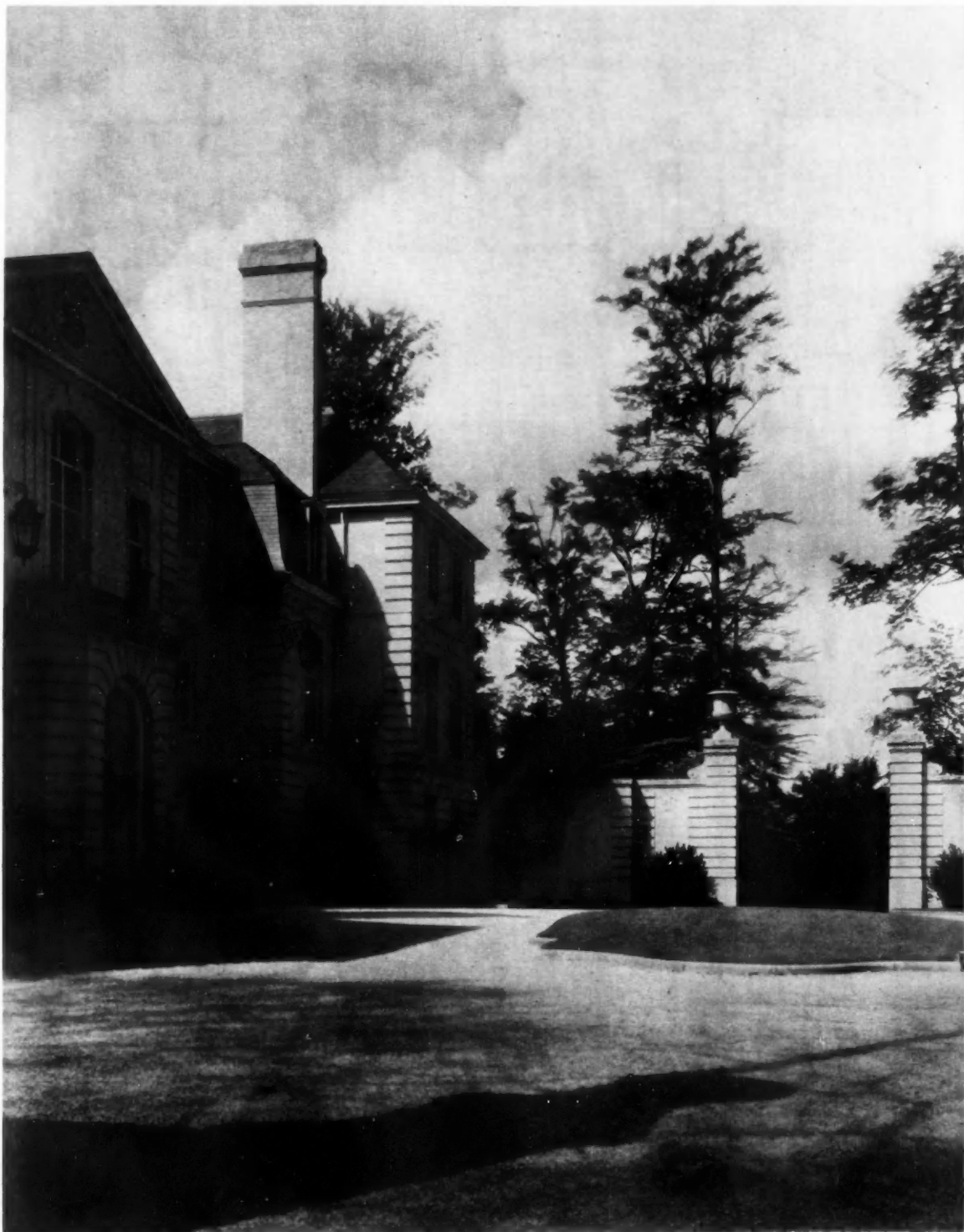
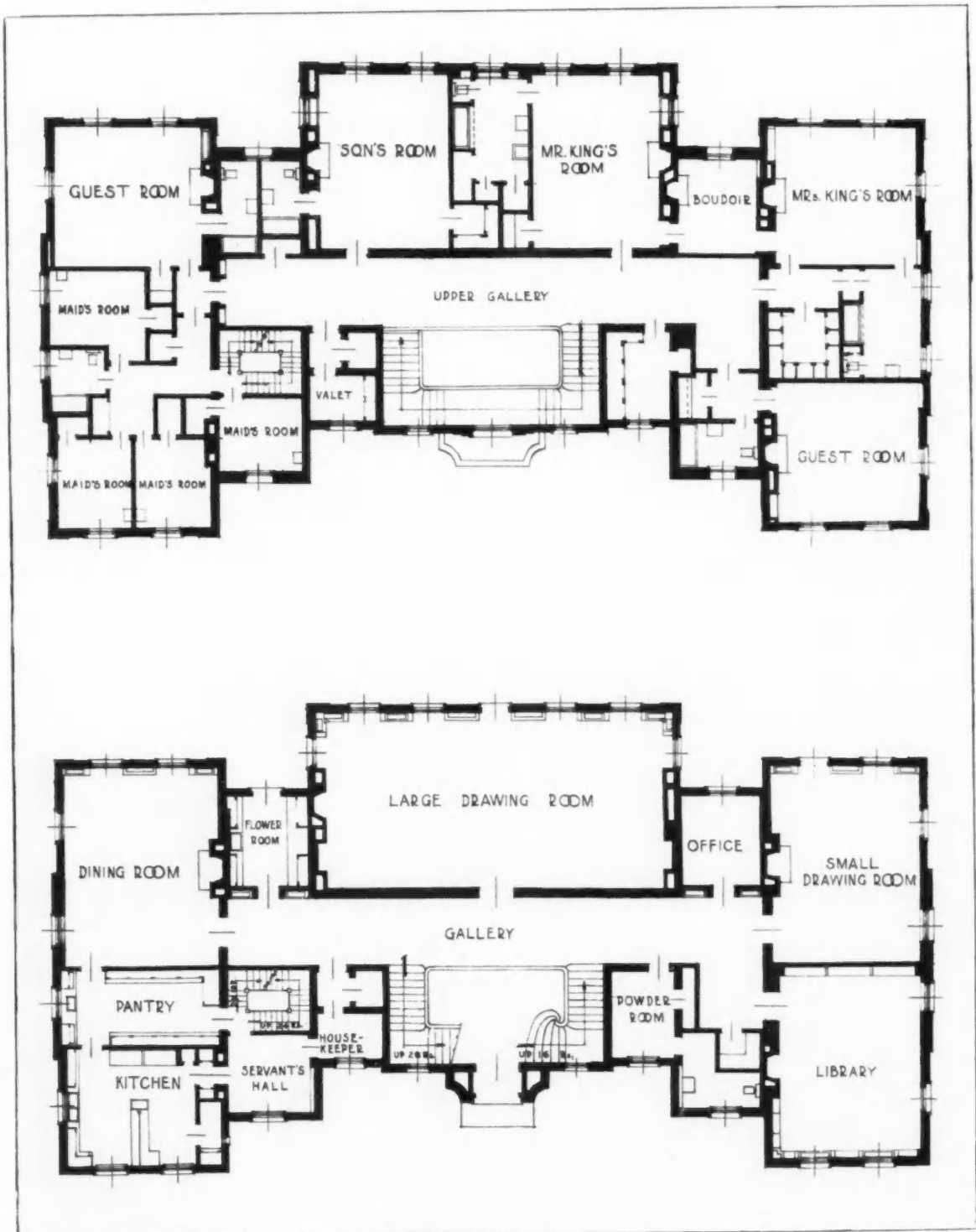


Photo Tabbs & Knell

"Kingwood"
Residence of Charles K. King, Esq., Mansfield, Ohio
CLARENCE MACK, ARCHITECT
WILLIAM PITKIN, JR., AND SEWARD H. MOTT, LANDSCAPE ARCHITECTS



"Kingwood"
 Residence of Charles K. King, Esq., Mansfield, Ohio
 CLARENCE MACK, ARCHITECT

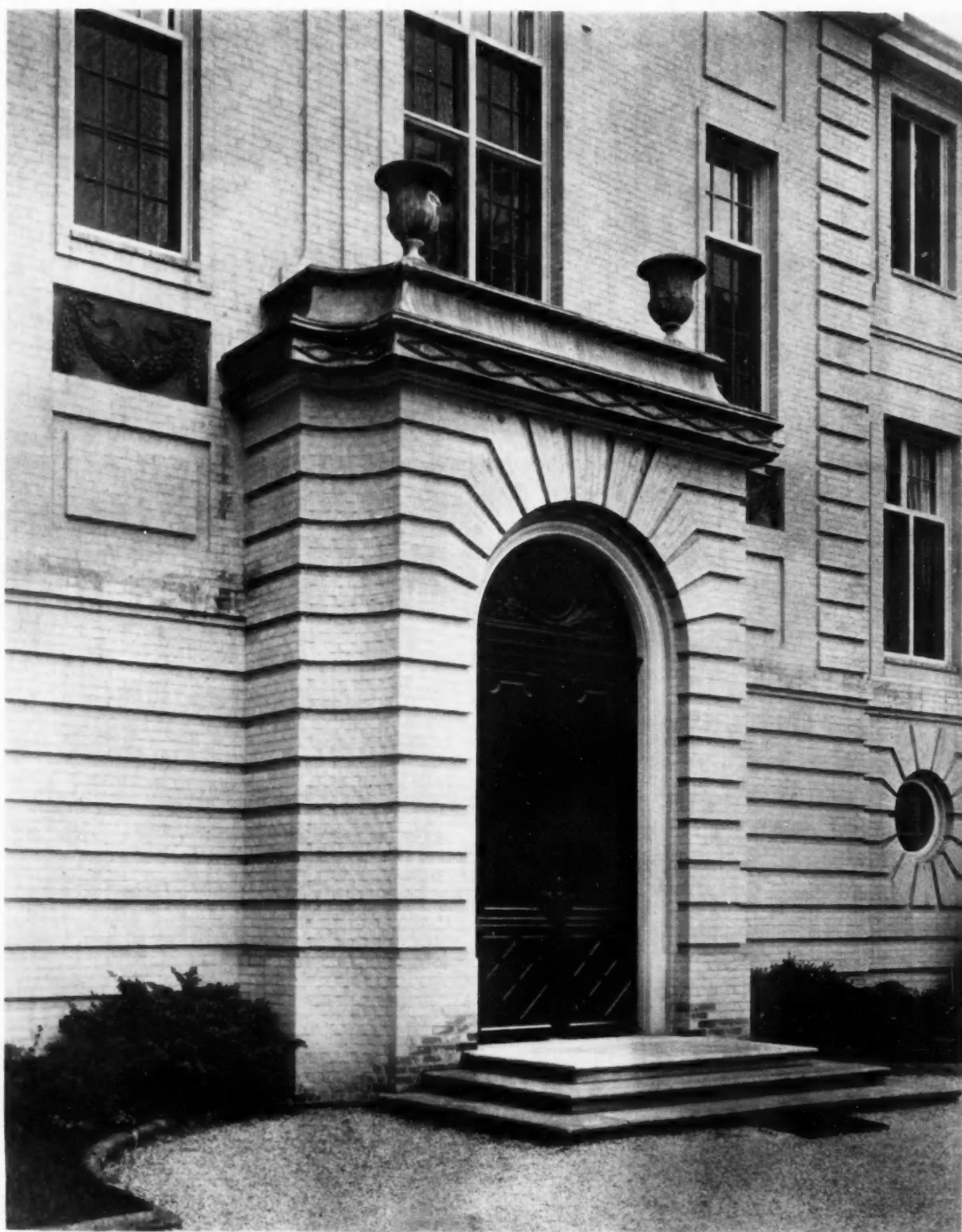


Photo Tebbs & Kistell

"Kingwood"
Residence of Charles K. King, Esq., Mansfield, Ohio
CLARENCE MACK, ARCHITECT

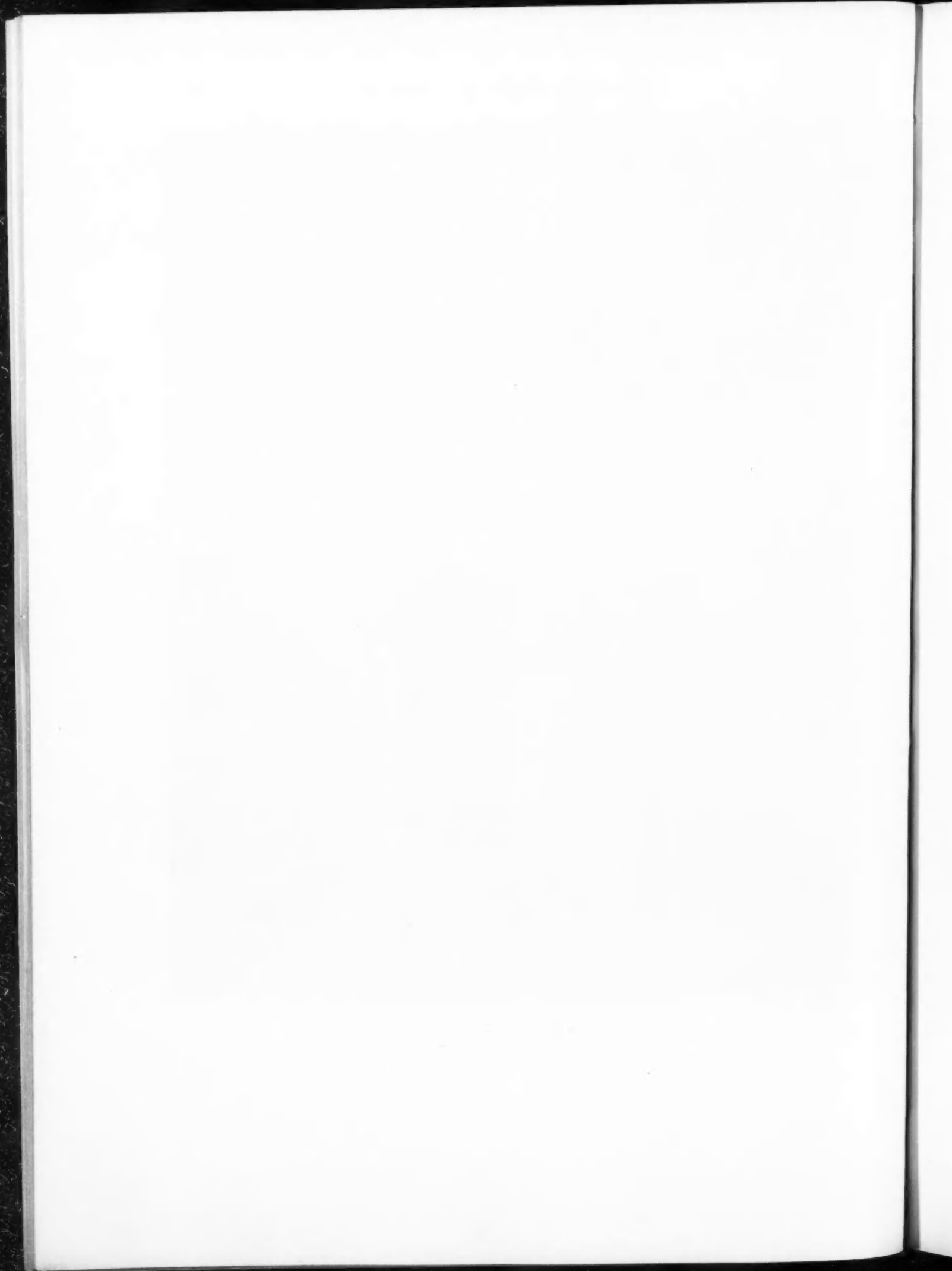
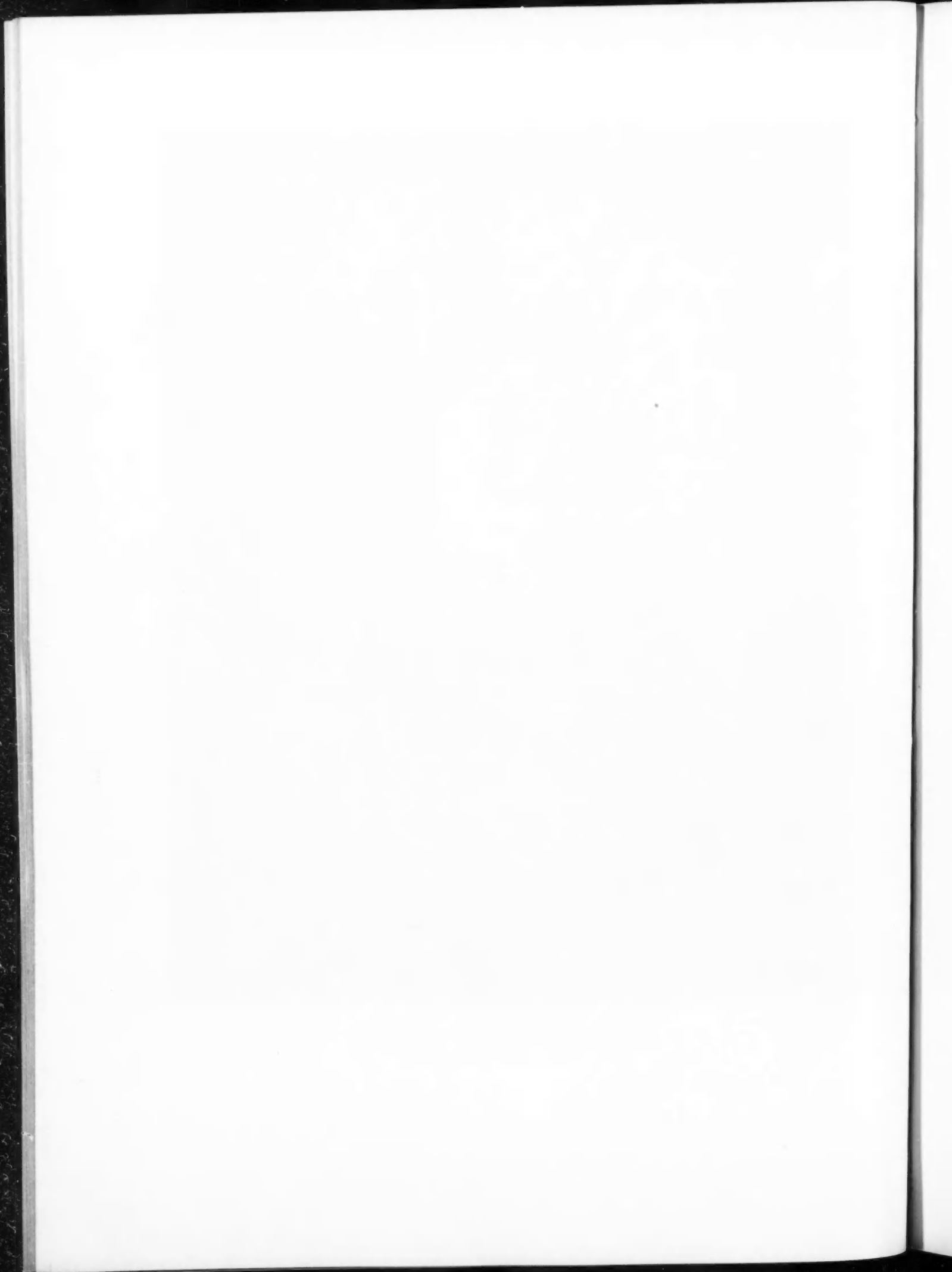




Photo Tobbs & Kneill

"Kingwood"
Residence of Charles K. King, Esq., Mansfield, Ohio
CLARENCE MACK, ARCHITECT



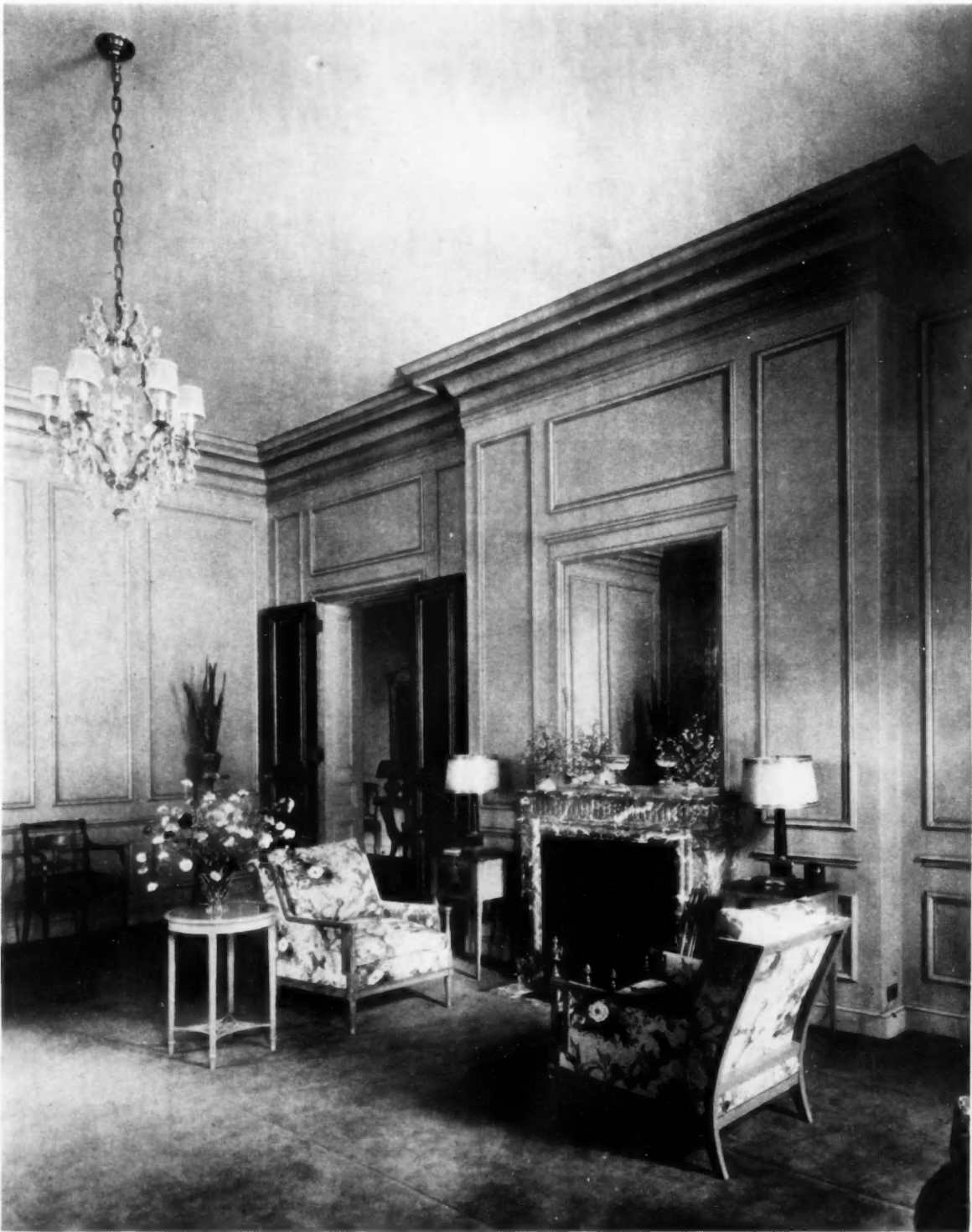
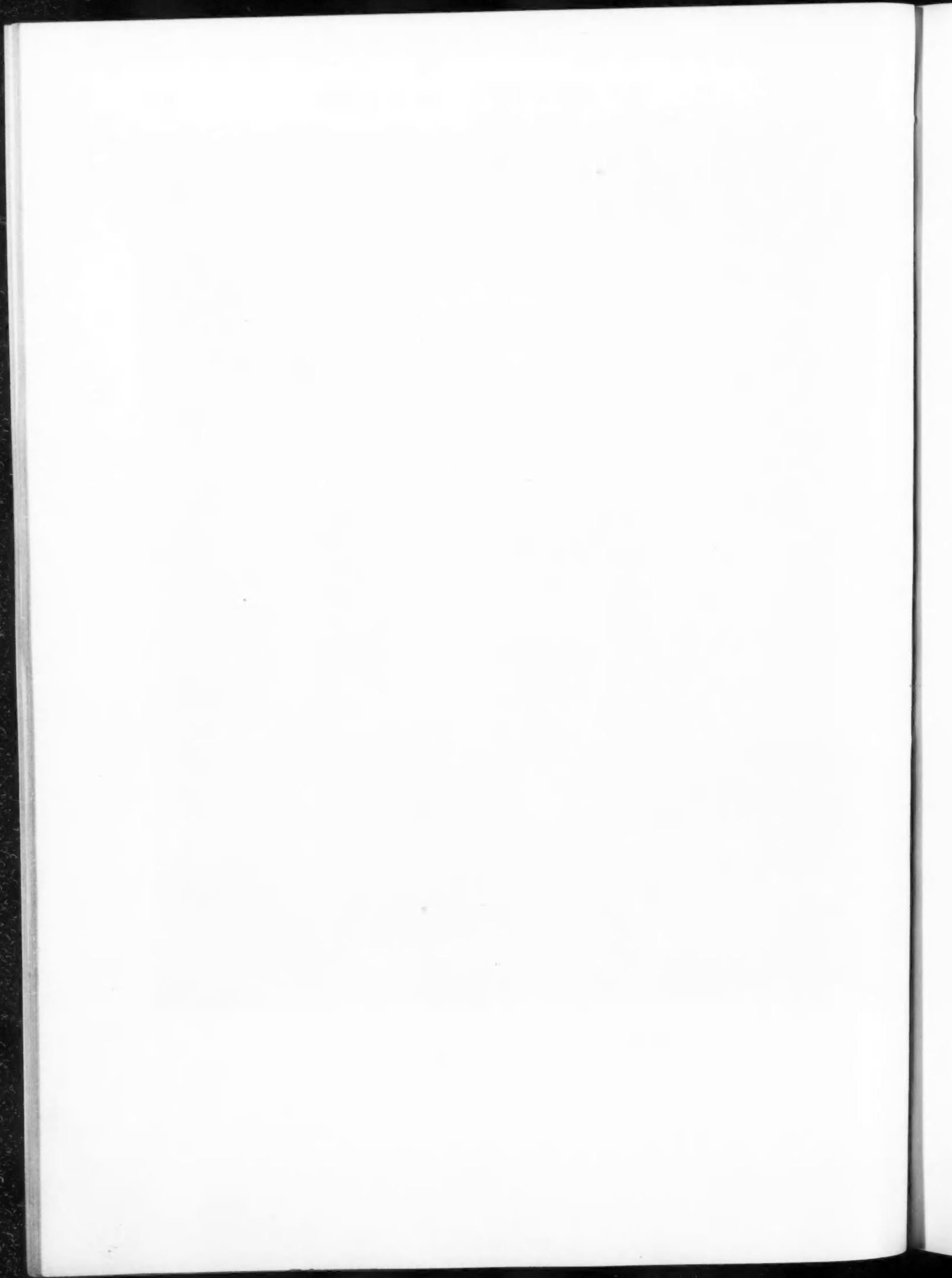


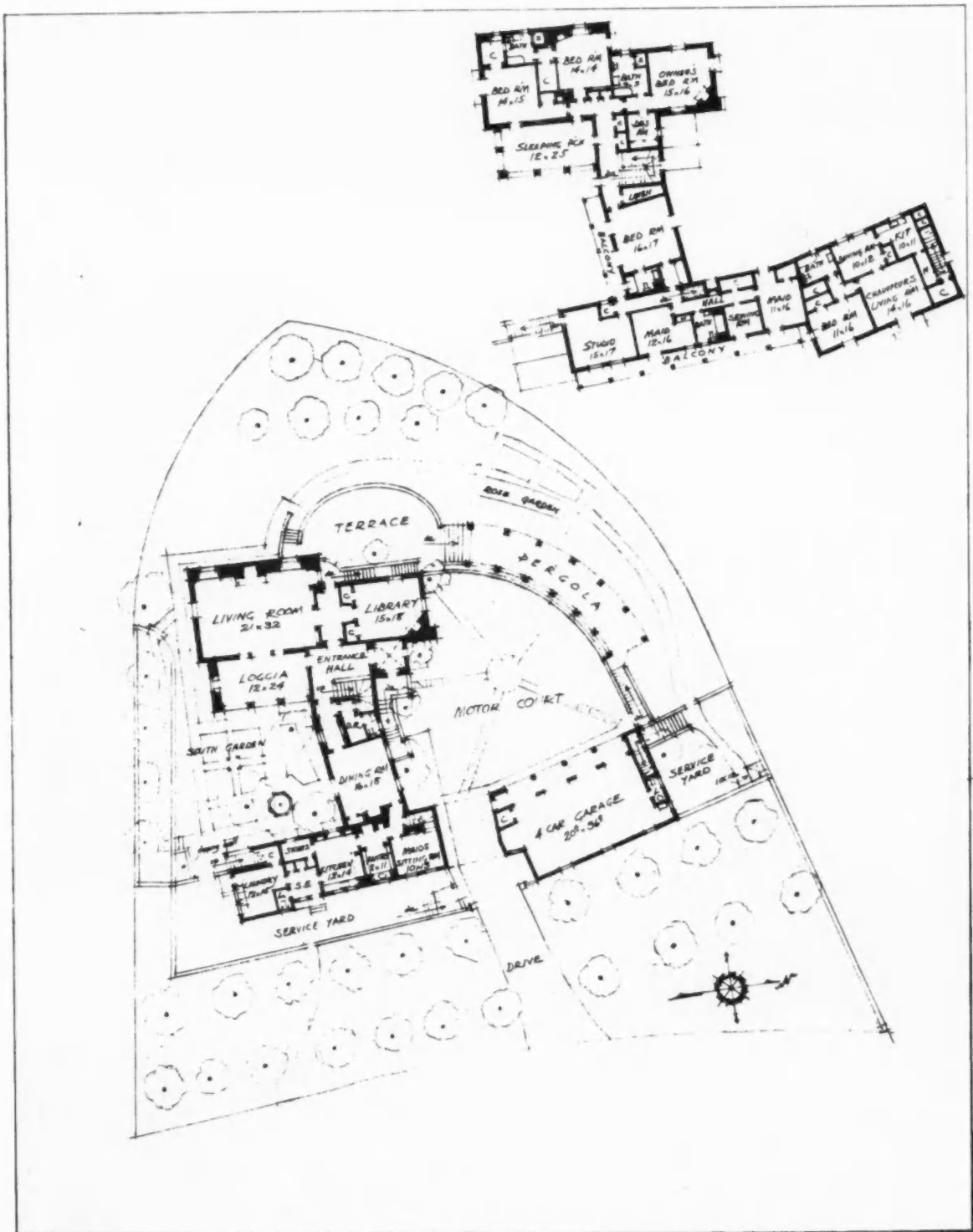
Photo Tebbs & Knell

"Kingwood"
Residence of Charles K. King, Esq., Mansfield, Ohio
CLARENCE MACK, ARCHITECT





Residence of Mrs. Richard B. Fudger, Los Angeles, Calif.
ROLAND E. COATE, ARCHITECT

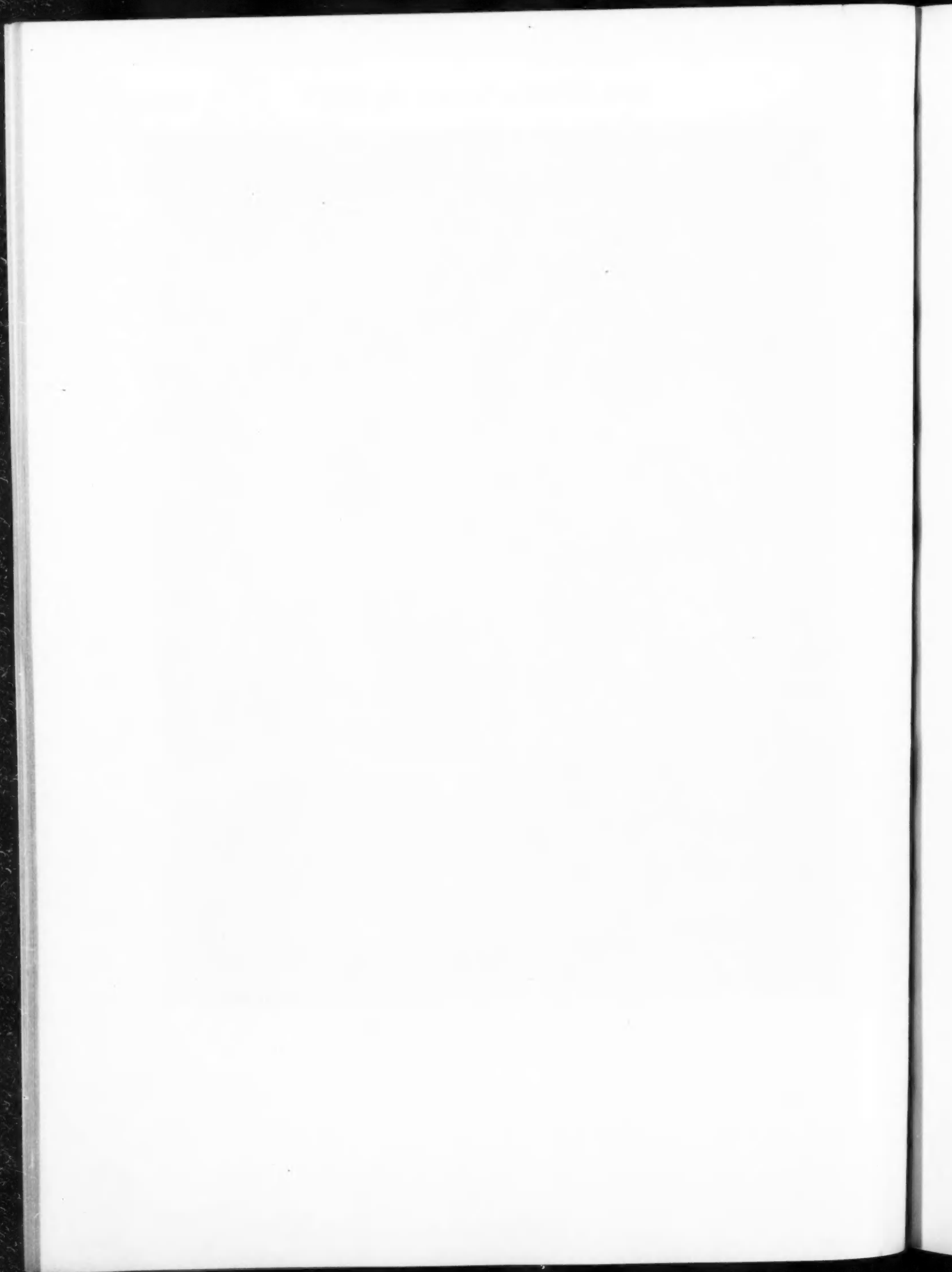


Residence of Mrs. Richard B. Fudger, Los Angeles, Calif.
 ROLAND E. COATE, ARCHITECT



Residence of Mrs. Richard B. Fudger, Los Angeles, Calif.
ROLAND E. COATE, ARCHITECT

710



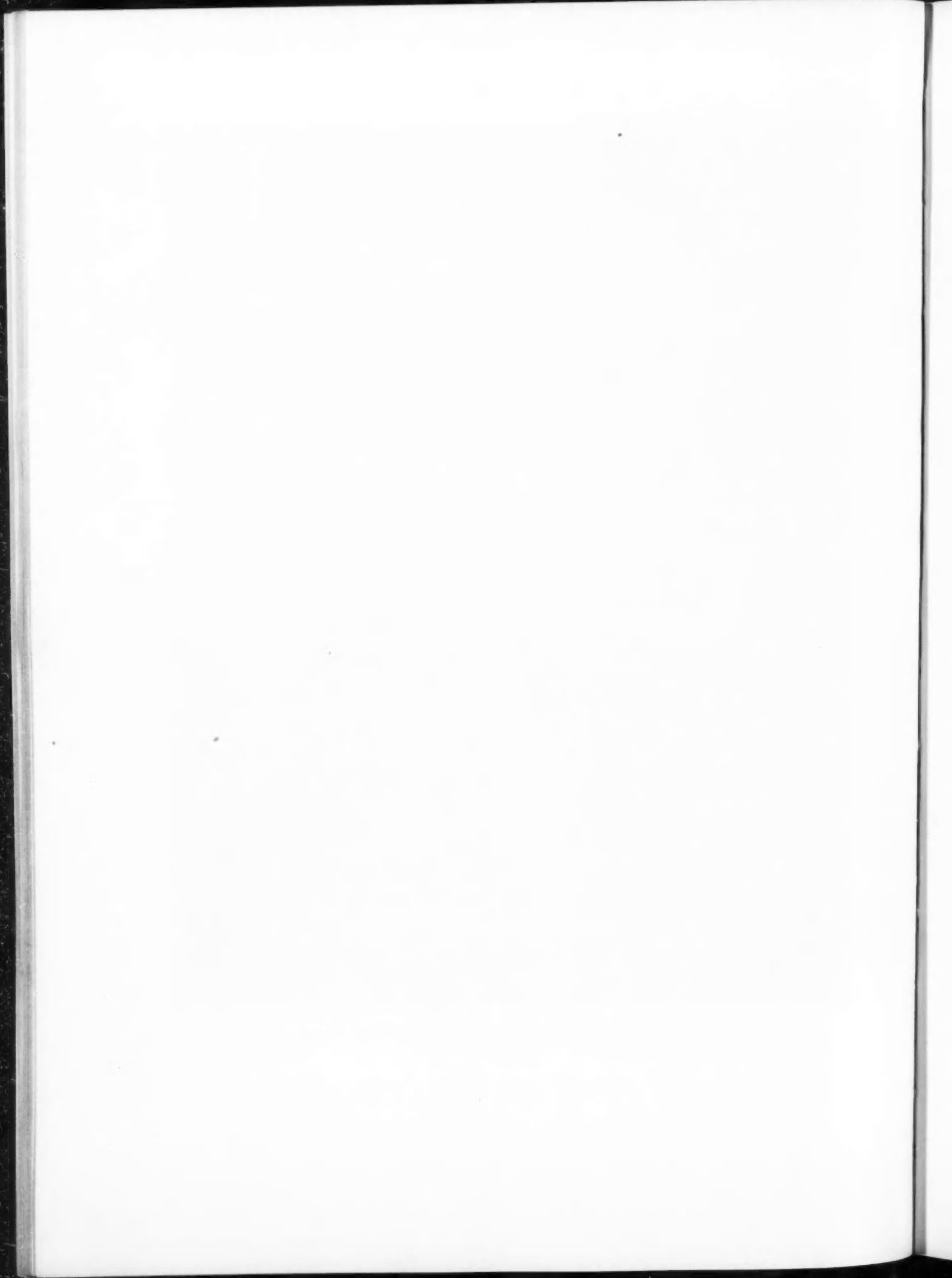


Residence of Mrs. Richard B. Fudger, Los Angeles, Calif.
ROLAND E. COATE, ARCHITECT





Residence of Mrs. Richard B. Fudger, Los Angeles, Calif.
ROLAND E. COATE, ARCHITECT





Residence of Mrs. Richard B. Fudger, Los Angeles, Calif.
ROLAND E. COATE, ARCHITECT





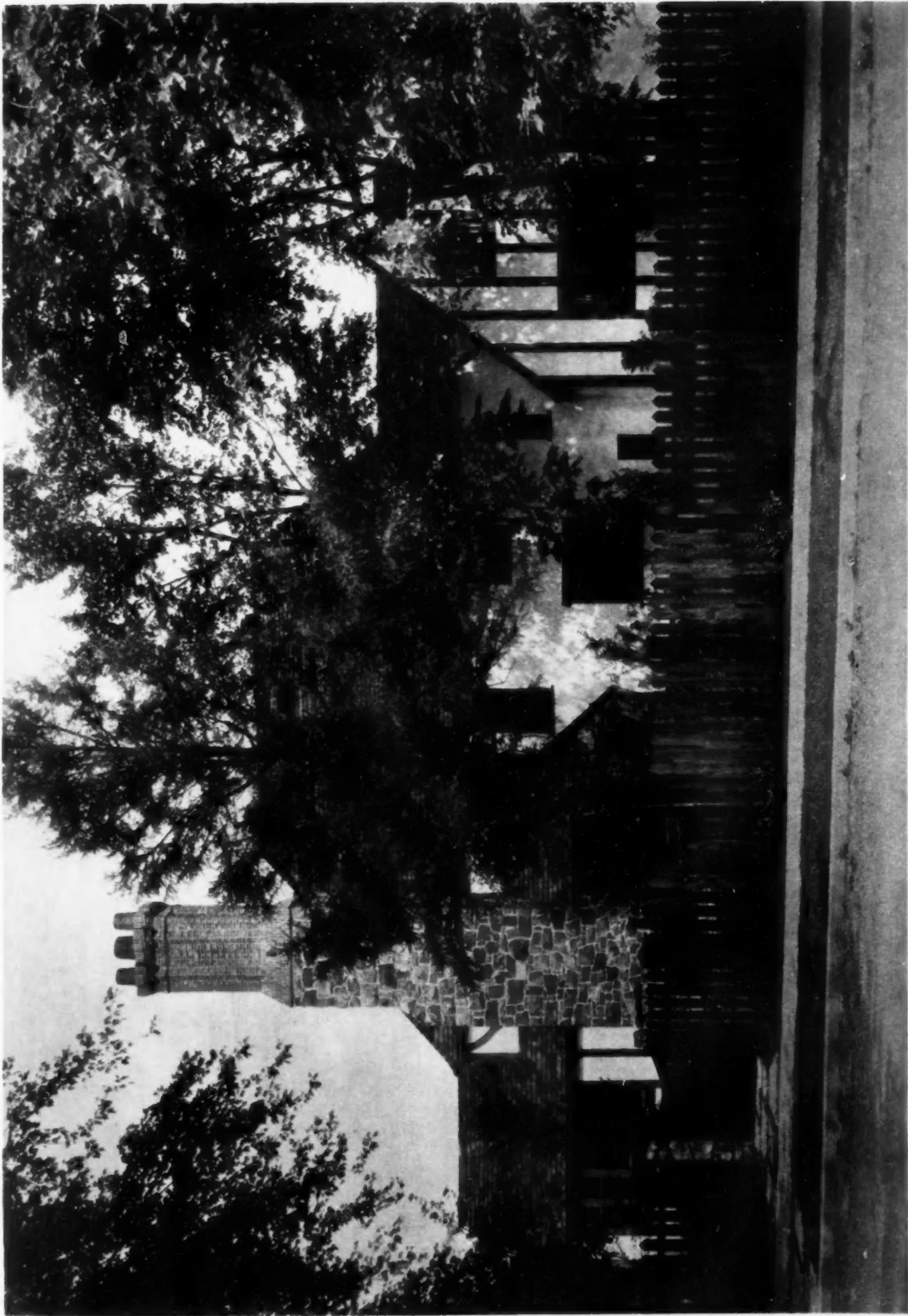
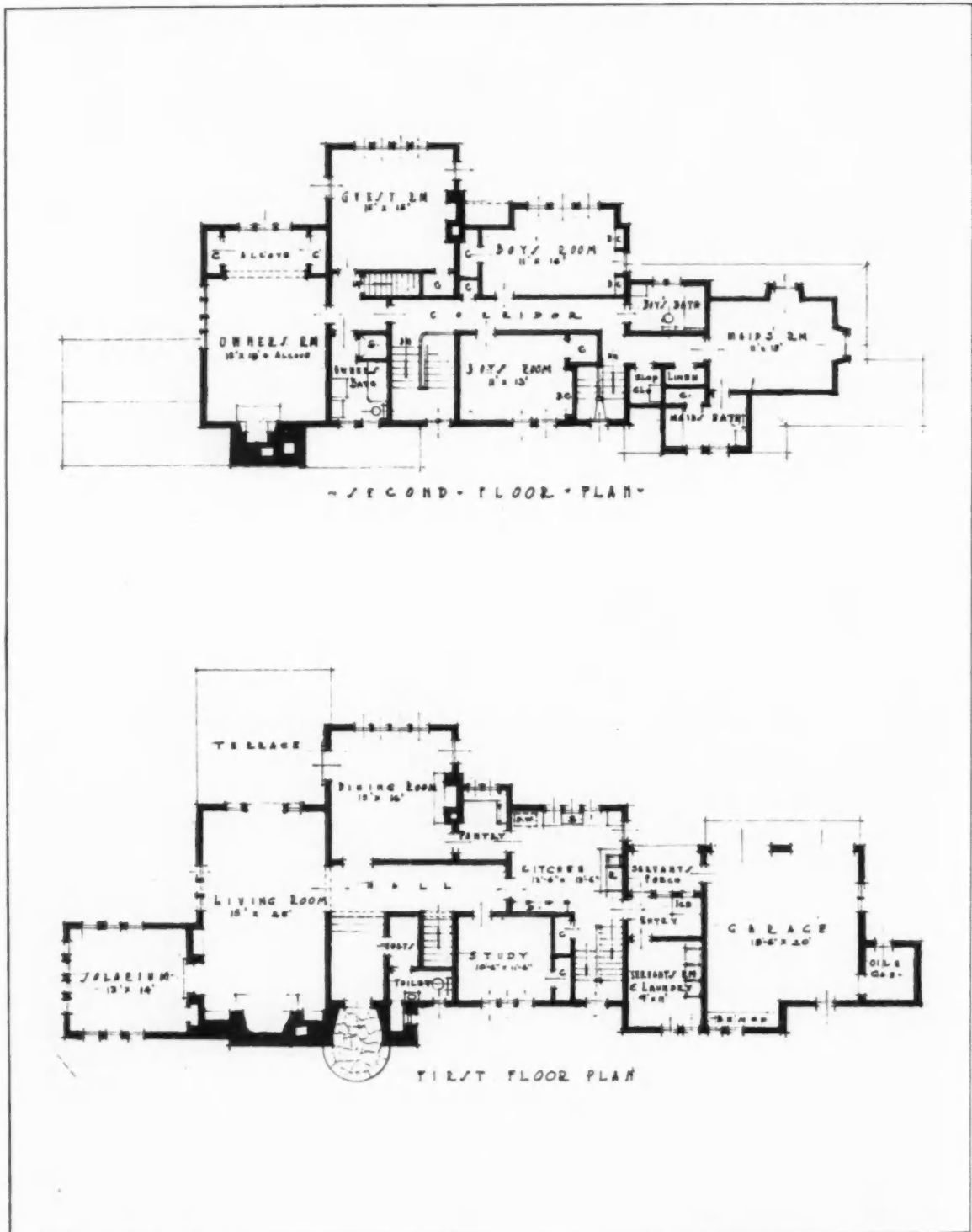


Photo Richard S. Grant

Residence of Mrs. C. A. Woodcock, Glens Falls, N. Y.
TOOKER & MARSH, ARCHITECTS



Residence of Mrs. C. A. Woodcock, Glens Falls, N. Y.
 TOOKER & MARSH, ARCHITECTS



Photo Richard S. Grant

Residence of Mrs. C. A. Woodcock, Glens Falls, N. Y.
TOOKER & MARSH, ARCHITECTS





Photo Richard S. Grant

Residence of Mrs. C. A. Woodcock, Glens Falls, N. Y.
TOOKER & MARSH, ARCHITECTS

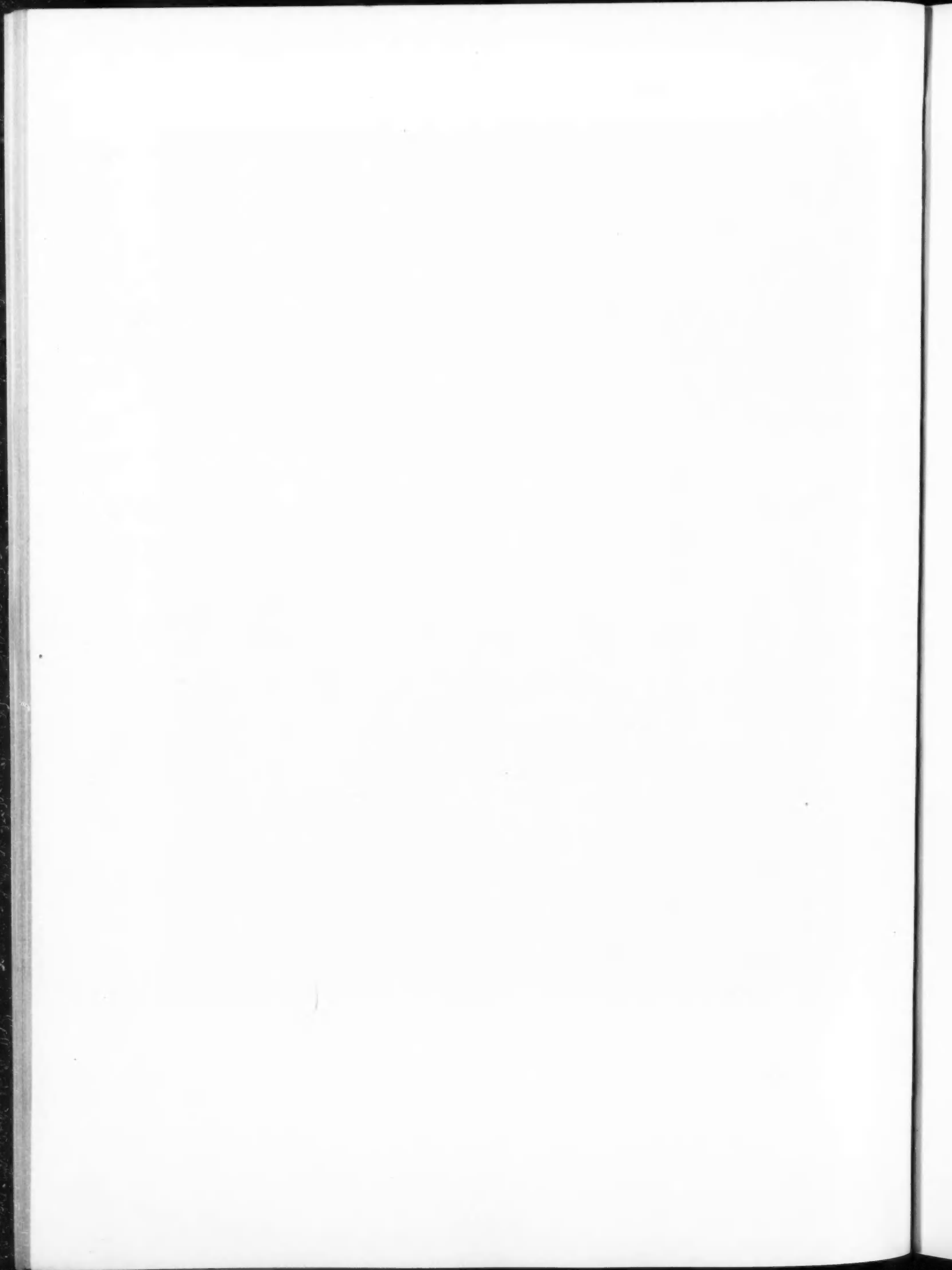




Photo Tebb & Knell

A Small House in Atlanta, Georgia
LAWRENCE FUNKE, ARCHITECT

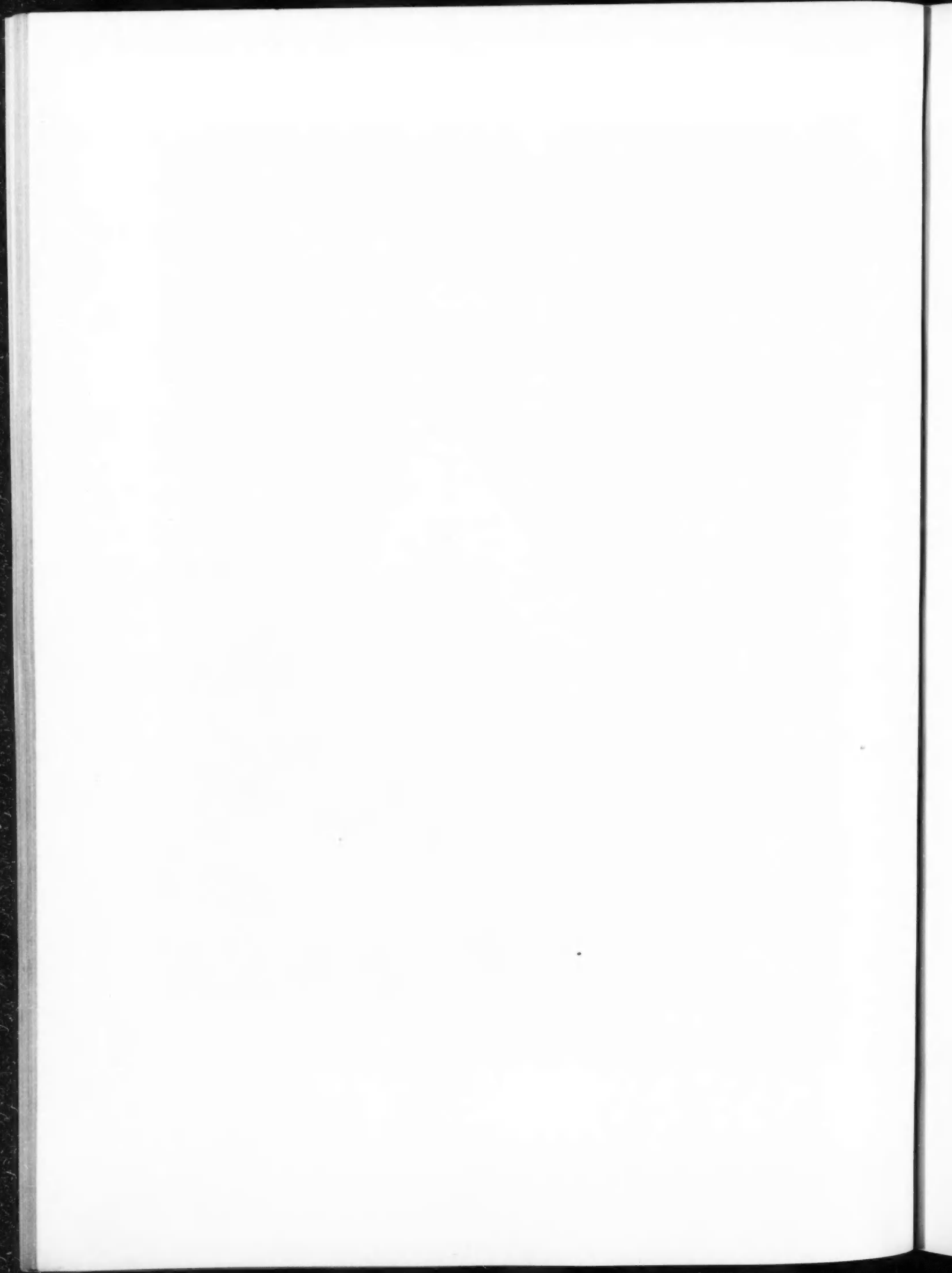
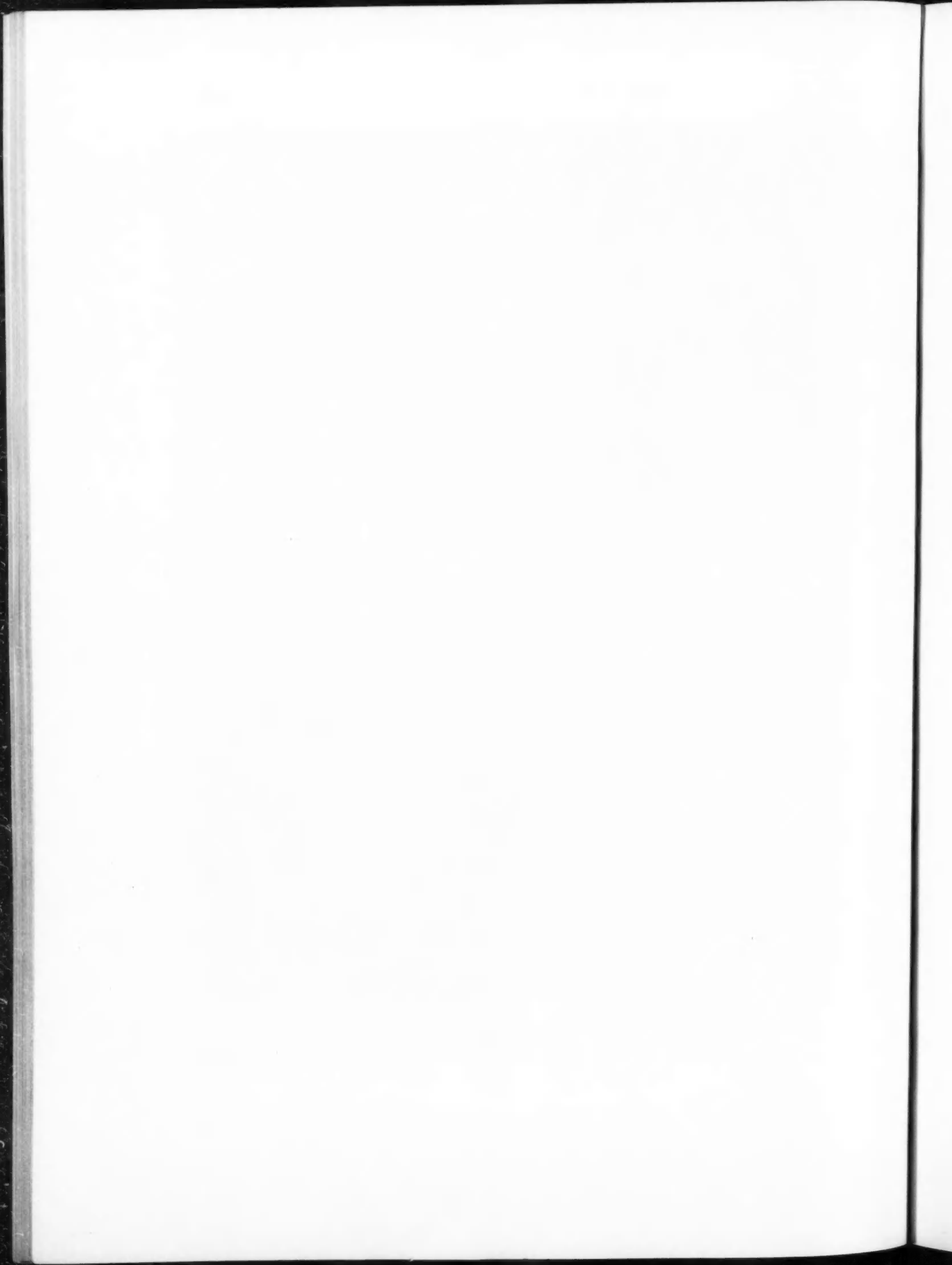
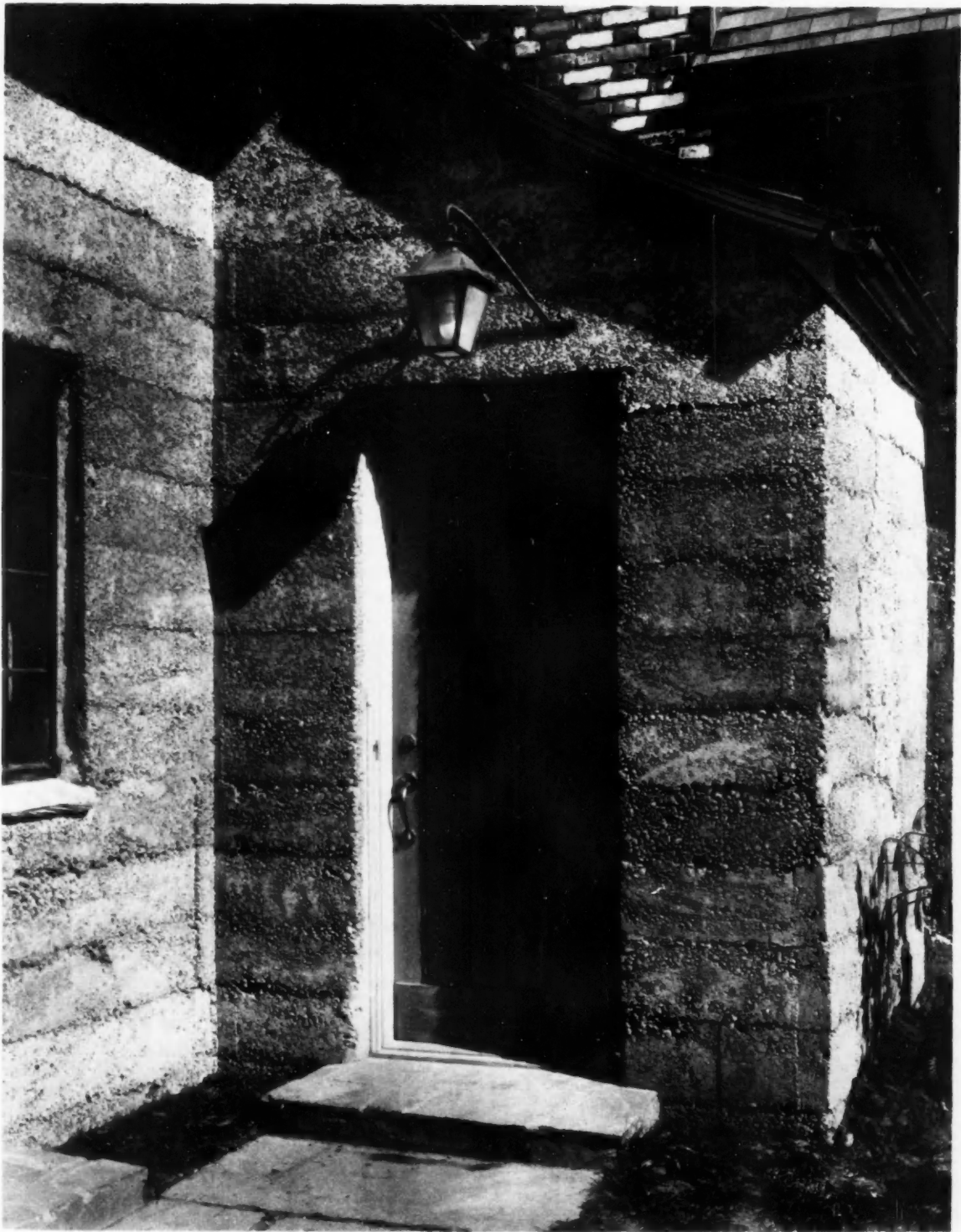




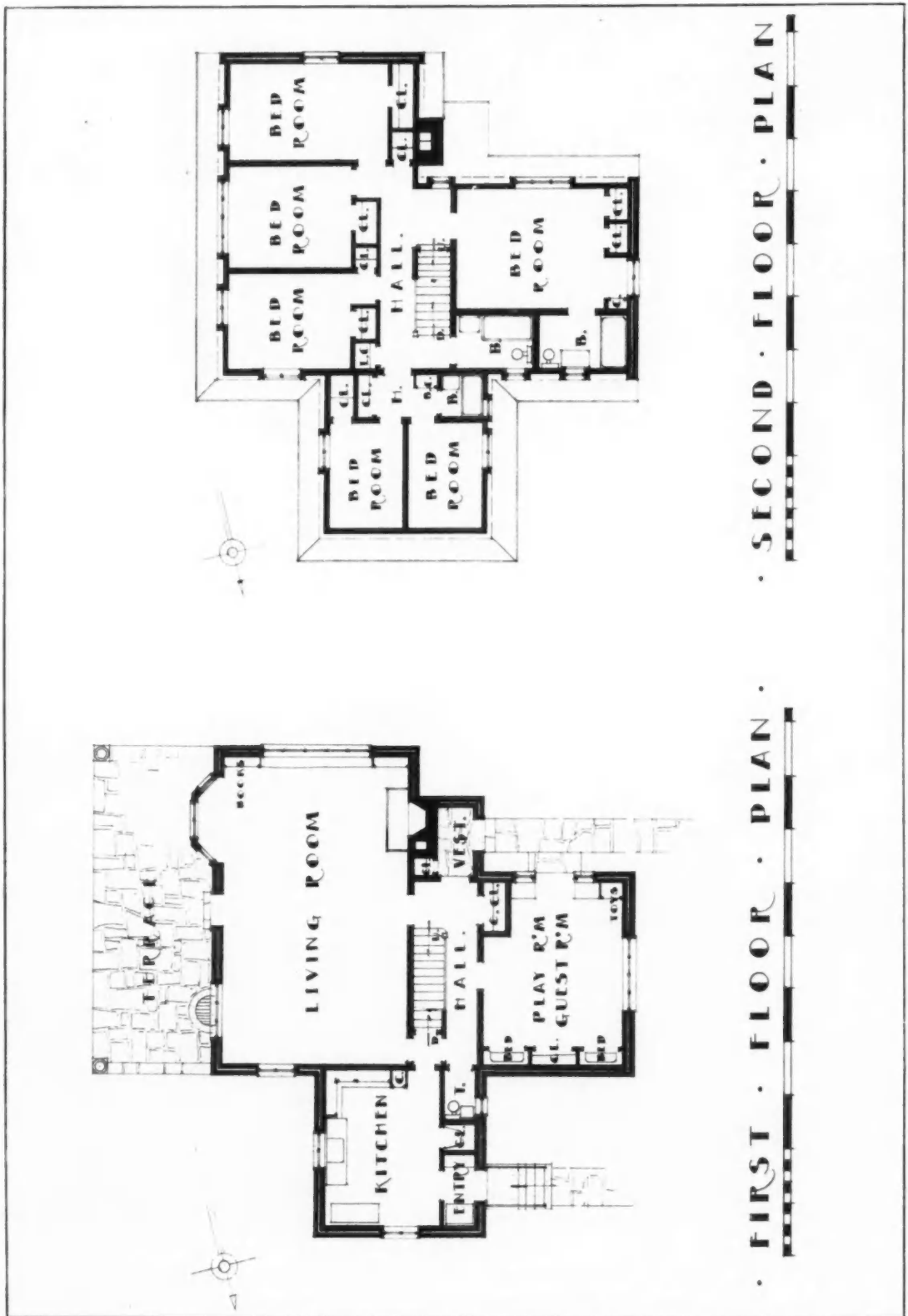
Photo Tabbs & Knull

A Small House in Atlanta, Georgia
LAWRENCE FUNKE, ARCHITECT





Entrance Door
Residence of Mr. and Mrs. A. Harris, White Plains, N. Y.
HERBERT LIPPMANN, ARCHITECT



• SECOND FLOOR PLAN •

• FIRST FLOOR PLAN •

Residence of Mr. and Mrs. A. Harris, White Plains, N. Y.
HERBERT LIPPMANN, ARCHITECT

WILLARD STRAIGHT HALL

DELANO & ALDRICH, ARCHITECTS

BY HERBERT CROLY

IN THE experience of the contemporary American architect the club-house assumes many different forms. It varies between the picturesque bungalow of a suburban golf course and a monumental building on a block front in some big city. But one of the most interesting of its forms, requiring at the same time something unusual in the way of design and an extremely complicated plan, is the students' union which has been or is being erected on the campus of many American universities. For these buildings must satisfy, not only all the catering, living and social needs which an ordinary club-house must satisfy, but they must also take care of a miscellaneous assortment of student activities. The students' union is not only a club-house which may have to serve one or several meals a day to fifteen hundred people, but an office building, a concert hall, a large assembly-room, a theatre and sometimes a gymnasium. It must, consequently, be a large building. Yet it should, like all club-houses and collegiate buildings, retain a certain domestic and reticent aspect, which forbids it to look as large as it is. One of the purposes of a university union is to neutralize in part for the student the feeling that he is a ward in an institution—to help him to the feeling that he is a citizen in a society and a human being in a fellowship. The union building should above all avoid the appearance of an institution. It should look like an inviting and an accommodating haven in which a student has a right to behave like himself.

In the case of Willard Straight Hall, which is illustrated herewith, the architects, Messrs. Delano and Aldrich, were in a sense expressly commissioned to build a

club-house which should by its looks ask the stranger-student in and promise him a warm welcome and congenial company. Willard Straight, after whom the building is named, was a graduate of the class of 1901 who had a positive gift for being attentive and kind to other human beings. Although he himself was an unusual social success at college, he may have remembered the forlorn feeling which overtakes many a shy freshman when he first matriculates at a large modern university. He may, perhaps, have remembered that in the case of Cornell, whose students are more apt to come from farmhouses and small towns than from cities or big preparatory schools, a large proportion of the entering class are perhaps peculiarly in need of domestication. They would find themselves much sooner in their new surroundings if something were done to make them feel that the university was a friend as well as an instructor, and offered them a fireside at which they could warm their hands and feet. At all events, when he died in December, 1918, there was found a provision in his will which bequeathed a certain amount of money to carry out a purpose of this kind. His widow, after considering carefully how such a purpose would best be realized, decided to build on the Cornell campus a university club-house which would, she hoped, help the strange student to feel at home and subsequently to provide means under one roof for the carrying on of all the non-athletic and non-academic student activities. It was important, consequently, that Willard Straight Hall should express in its design, as well as in its decoration, organization and policy, the fraternal and humane object which its founder had in mind.



Photo. J. P. Troy

WILLARD STRAIGHT HALL, CORNELL UNIVERSITY, ITHACA, N. Y.
DELANO & ALDRICH, ARCHITECTS

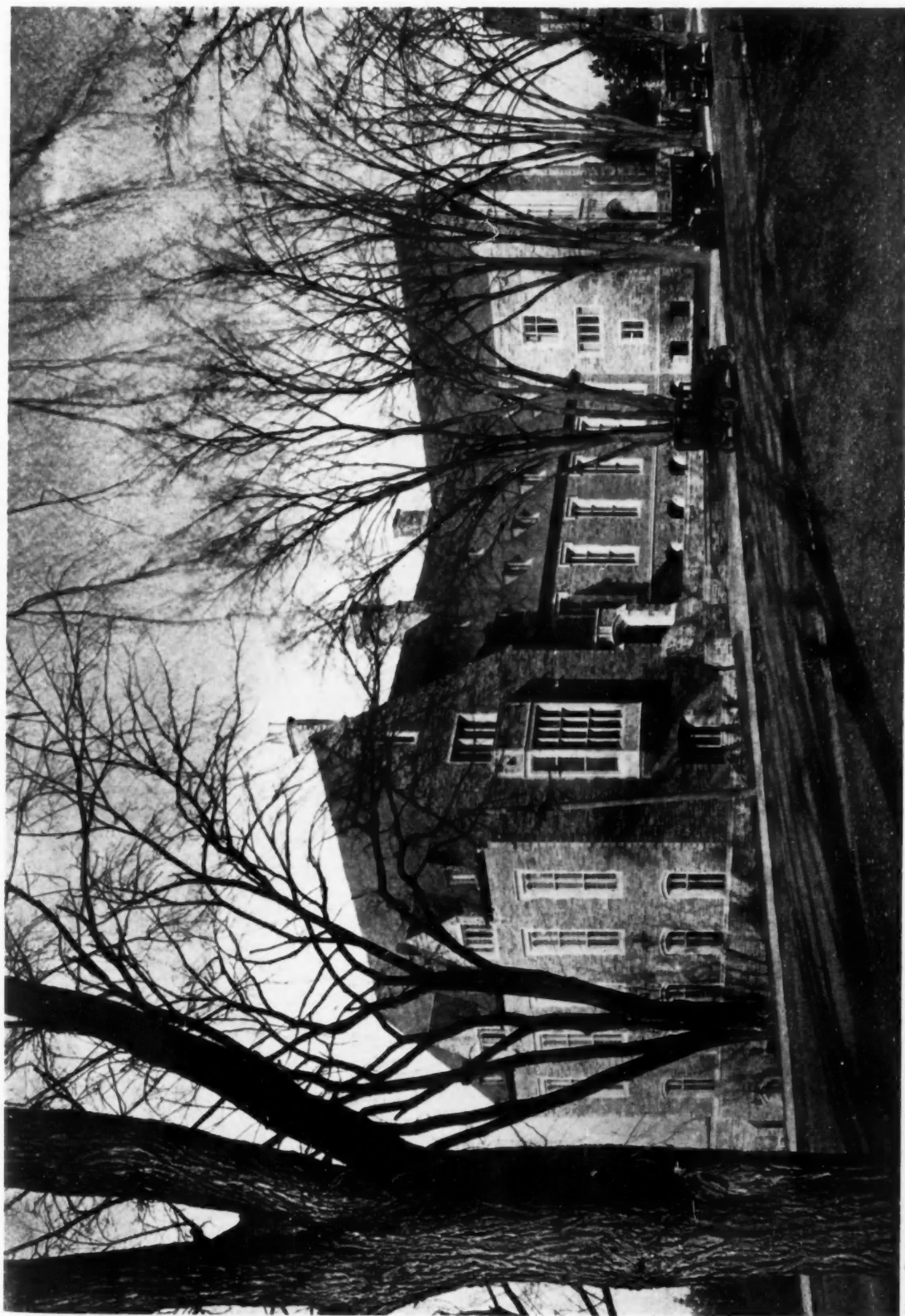


Photo. Fischer

WILLARD STRAIGHT HALL, CORNELL UNIVERSITY, ITHACA, N. Y.
DELANO & ALDRICH, ARCHITECTS

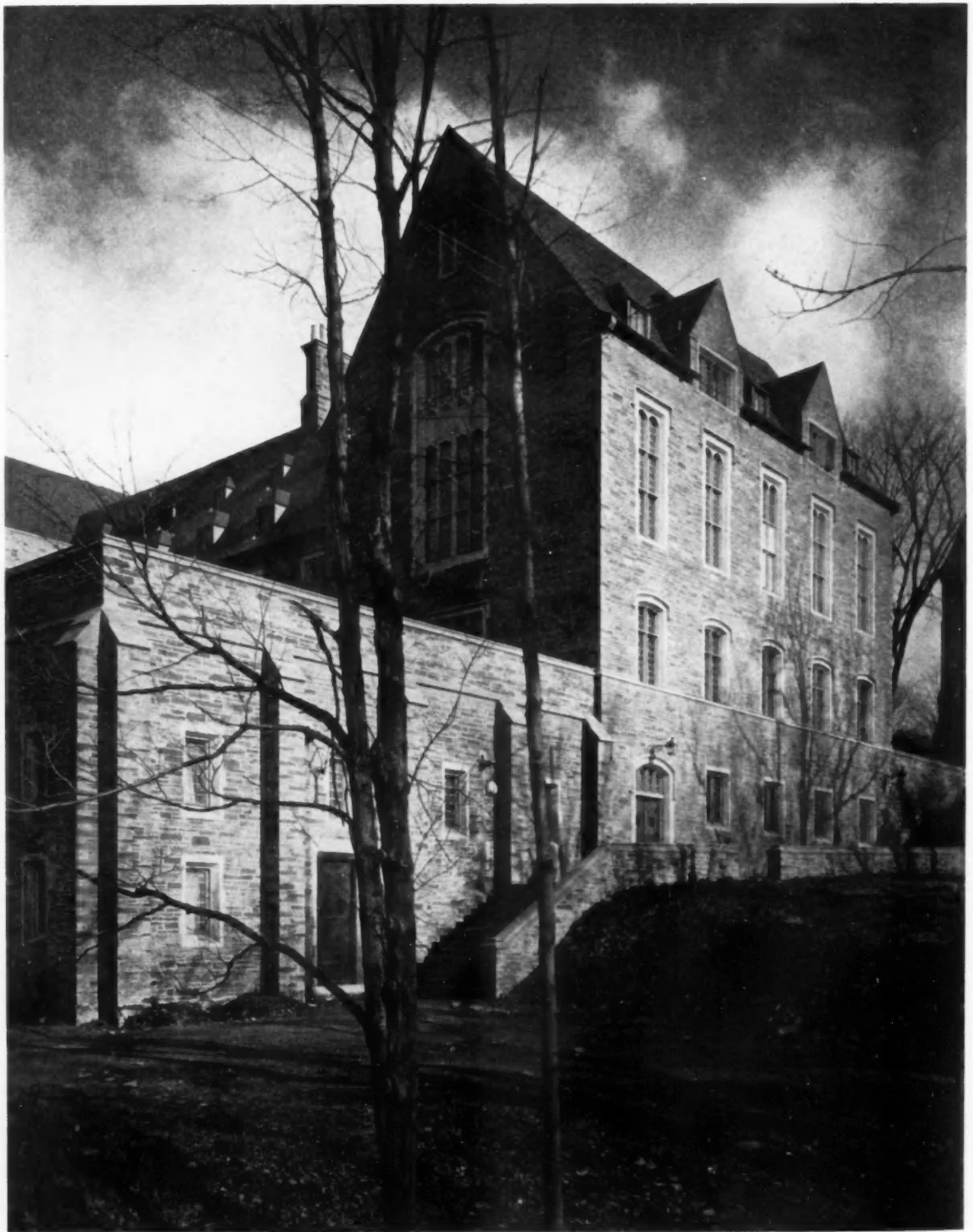
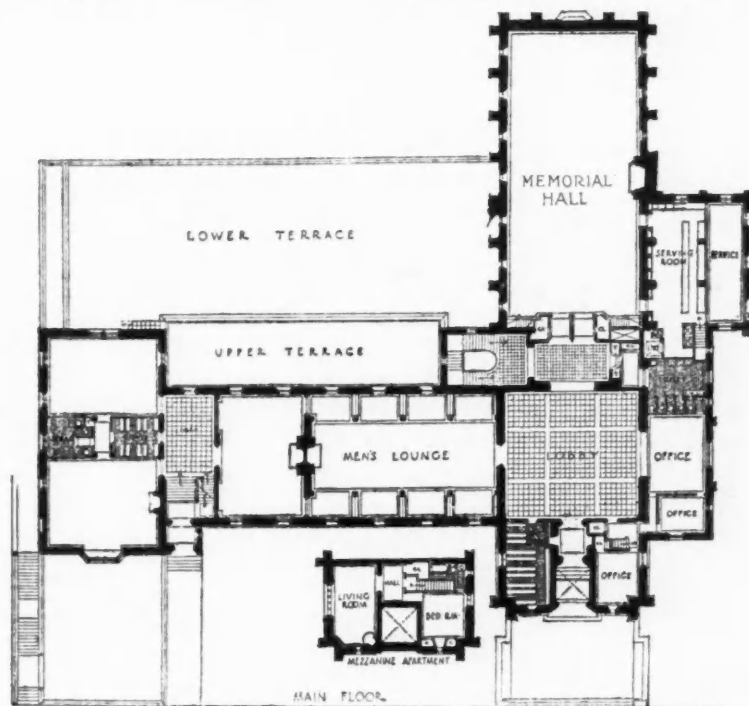


Photo. Fischer

WILLARD STRAIGHT HALL, CORNELL UNIVERSITY, ITHACA, N. Y.
DELANO & ALDRICH, ARCHITECTS

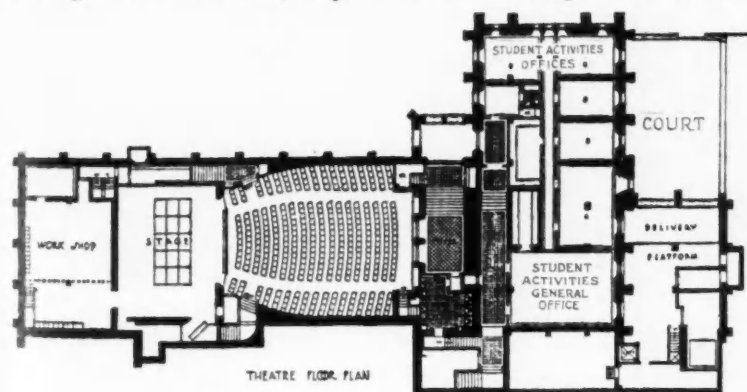
Before coming to a consideration of the design, it may be worth while to indicate the kind and variety of accommodation which, in return for the payment of a small fee, Willard Straight Hall offers to the Cornell student. The reader may get some sense of this by consulting the plans of the several floors which are published herewith. The main floor contains a spacious lobby decorated with wall paintings by Ezra Winter, which express with propriety and with a versatile imagination, the various aspirations associated with an intellectual life. On the axis with the entrance is the Memorial Hall to Willard Straight, which in scale and largeness of design is comparable to Harvard Hall in the Harvard club-house of New York. But while Harvard Hall is under-lighted from windows at only one end (the windows on one long side give upon a narrow court and afford little light) Willard Straight Hall, being similarly lofty, yet being lighted from spacious windows on three sides, is on the contrary in need of having its light subdued. Through the generosity of some alumni of the university, and particularly of Willard Straight's own class, a plan is now being

considered to substitute stained glass for the ordinary glass which now fills the sashes. If this is done it will relieve the students who occupy the hall during the



day from being too much exposed to sun and sky and not sufficiently enclosed. It will make of it more of a room in which to live, yet without taking away from its large nobility of style. The hall is used ordinarily as a lounge, but concerts are held in it on Sunday afternoons and other times, and on appropriate occasions it is given over to class dinners, dances and other festive purposes. On the other wing of the same floor there is another men's lounge which is really a library, a common lounge for students of both sexes, and two smaller lounges for women.

Below this main floor there is a basement, which, however, is a basement only in front. For the Willard Straight Hall is built on the side of a hill



which slopes gradually down to Cayuga Lake. So that a floor which is only a basement in front is in the rear a full-fledged story. It is by using the slope of the hill that the architect has obtained sufficient space to house on a still lower level the multifarious student activities which, if they had been provided for more conspicuously, would have made the building

rooms in warm weather; and he found abundant space for a small theatre, which is one of the most attractive, useful and popular parts of the edifice. The theatre and the rooms which are used for society meetings, offices and the like, are approached, of course, by separate entrances on the lower levels, so that the main entrance is not too much of a passage-way.

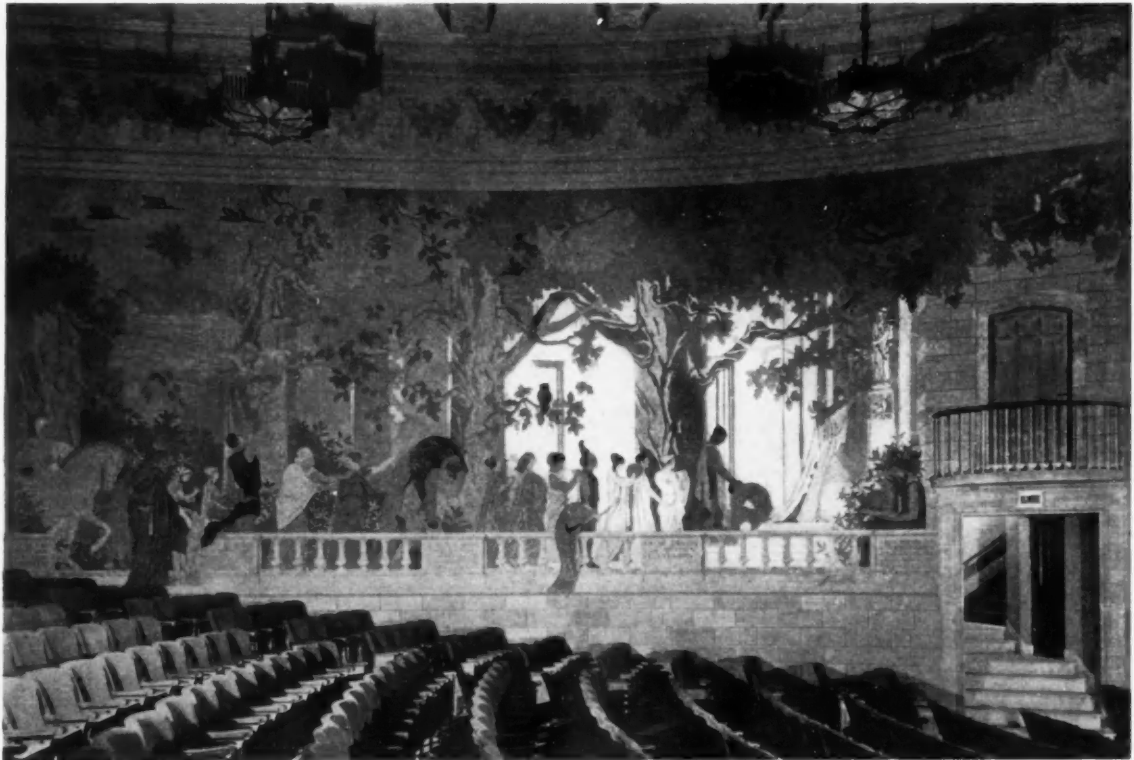


Photo. Fischer

MURAL IN THEATRE
WILLARD STRAIGHT HALL, CORNELL UNIVERSITY, ITHACA, N. Y.

DELANO & ALDRICH, ARCHITECTS

J. MONROE HEWLETT, MURAL PAINTER

look too big for a club-house. As it is he has placed the necessarily spacious kitchens and store-houses in the less well lighted front of the basement floor, and the dining-rooms, large and small and for men and women, in the better-lighted rear rooms. By increasing the area of the building on the lower levels, he has obtained on their roofs two magnificent terraces overlooking the lake, which provide outdoor

The upper part of the main building contains a billiard-room, a card-room, a dormitory for visiting athletic teams, and about a score of bed-rooms.

It is a singularly ingenious plan which meets successfully almost as many diverse and supplementary needs as a modern battleship. It takes full advantage of its superb site. In every possible way life in the building looks out upon the lake. Cornell uni-



Photo. Fischer

READING ROOM AND LOUNGE
WILLARD STRAIGHT HALL, CORNELL UNIVERSITY, ITHACA, N. Y.
DELANO & ALDRICH, ARCHITECTS



Photo. Fischer

LOBBY

WILLARD STRAIGHT HALL, CORNELL UNIVERSITY, ITHACA, N. Y.

DELANO & ALDRICH, ARCHITECTS

EZRA WINTER, MURAL PAINTER

versity is extraordinarily fortunate in its location. The lake is a large and long body of water, at the bottom of a spacious trough or valley. The slope down to the lake falls many hundred feet in a distance of a mile or more, and the slope on the other side takes about as long to attain a similar height. The view across the water to the opposite hill is most satisfactory as steady company. It is grand without artificiality or restlessness. The distance and the levels are well-proportioned and the land itself has the appearance of being well-cultivated, rich and fruitful. It is an appropriate site,

not for a villa, but for a living community such as a university. It is not a conventionally picturesque or pretty outlook. It is commonplace in composition and it is lacking in incident. But it remains much more satisfactory than most merely picturesque views. It is a comely but still essentially homely and rural countryside which looks as if it existed chiefly to be tilled and yield crops.

The situation of the university has not been used to any great architectural advantage, but neither on the whole has it been spoiled. Cornell has managed to keep a



Photo, Fischer

THEATRE
WILLARD STRAIGHT HALL, CORNELL UNIVERSITY, ITHACA, N. Y.

DELANO & ALDRICH, ARCHITECTS

J. MONROE HEWLETT, MURAL PAINTER

somewhat homely, miscellaneous unpretentious collegiate atmosphere, appropriate to a university which is partly supported by the state and which is distinguished particularly for its agricultural school. Willard Straight Hall fits naturally into these surroundings. It is not too formal. Neither is it too picturesque. The façade is a carefully balanced composition in a somewhat loose and free style. But it avoids pretensions of any kind—the pretension either of being an important institution or of being picturesque and eccentric. It finds space for one of the noblest rooms in any university in this

country, and for literally a multitude of petty conflicting requirements. Yet it does this without strain or pose or practical inconvenience. It provides the students of Cornell of both sexes with a gracious and hospitable mansion which is in a very real sense their own. It provides them with a community house to which they belong from the beginning as human beings, in which they will not be lectured and instructed and graded, and which asks nothing in return except a small fee and the ordinary decencies of human intercourse.

For practical purposes the students control

the building. The final governing body is a board which is appointed by the trustees of the University. It is made up of the president, three professors, three trustees, three alumni, the comptroller, the dean of women, two undergraduates who serve by virtue of the office which they hold as president of Willard Straight Hall and of the student council. This government meets, however, once a year and concerns itself only with finances and matters of broad policy. The director of the hall is appointed by the board of governors and is directly responsible to it. The actual administration of the building is confided to a board of managers. It is made up of fifteen members, of whom ten are undergraduates, elected by the student body. Eight of the undergraduates are men and two women, which corresponds roughly to the comparative number of students of the two sexes in the university. Of the ten seven are seniors and three juniors. Besides the ten undergraduates there are three members of the faculty, a resident alumnus and the director of the hall who serves *ex officio*. The chairman of the board of managers, who is also president of Willard Straight Hall, is a senior. The secretary is also a senior. The board of managers meets regularly every third Friday, and matters that come up between these meetings are handled by the executive committee which is made up by the secretary and the president of the board, the senior woman, and the director. It is stated that notwithstanding the existence of the board of governors, the board of managers feel themselves in a very real sense obliged to exercise administrative authority—as much authority, let us say, as a house committee would exercise in an ordinary club.

The chief drawback to the building at present is merely a repetition of the chief drawback of the union. It is too new and too inexperienced to serve and to look its purpose. After the Cornell student body has lived in it for a generation there will be a different story to tell. By that time, Cornell will, we hope, have become, in company with other American universities, more of an intellectual community and its student body will as a part of its common mental life carry on a variety of new and, let us hope, somewhat more leavening activities. Among those which are already accommodated in Willard Straight Hall, the one which obtains and deserves most space is the theatre. The students' dramatic club, under intelligent and enthusiastic faculty guidance, give throughout the college term a succession of plays amounting almost to one a week, and these performances, to judge from one sample, are at least creditable. They certainly provide a convincing example of a student activity which is more likely to be personally liberating and socially educational than, say, the playing of an athletic team or the editing of a college paper. Probably in the future activities of this kind, in which there is less competition and to which the victory over an opponent is less important, will gain at the expense of athletics, and as they gain, a community house such as Willard Straight Hall will mellow in its appearance and in its functioning. It will help both the students and the university administration to cultivate voluntary social and educational projects and interests, and by housing them under one roof give those who pursue them an increased sense that they are being carried on as part of the increase of one society.

IN THE CAUSE OF ARCHITECTURE

BY FRANK LLOYD WRIGHT

V. THE MEANING OF MATERIALS—THE KILN

I SEE TANG glazes and Sung soft-clay figures from Chinese tombs in my studio as I write,—a few of the noble Tang glazed horses that show Greek influence,—and Han pottery. Some fragments of the Racca blue-glazed pots and the colored tiles of the Persians in Asia Minor—"the cradle of the race,"—Egyptian vessels and scarabs.

It appears from a glance the oven is as old as civilization at least—which is old enough for us.

Our interest is not archaeological but architectural and begins with a lump of peculiarly pliable clay in the hand of the man who wants to make something useful and at the same time beautiful out of it,—at the time when he knows he can bake it hard enough to make it serviceable. Then it all begins to grow rapidly in the experimental search for different clays. The grinding of minerals, to make paste for a flux to pour over the vessels to make them impervious and beautiful—and the legion of earnest chemical experiments that followed. The research of devoted craftsmen for several hundred centuries have laid up treasure and all but lost it but for a specimen or two—times without number.

The remains are a fascinating record of man's creative endeavor on his earth. A record that tells more of him probably than any other—for in it we find not only pottery and building but painting, sculpture and script intimately related to the life of all the peoples who have inhabited the earth—since cave-dwellers built their fires.

All the materials we know, seem at one time or another in a state of flux. Fire is father-creator to them all—below ground. Light is mother-creator to all that rise in air out of the ground. Back to Fire again

goes that which Fire made to be fused with man's creative power into another creation—that of his use and beauty.

Anything permanent as a constructive material comes into man's hands by way of Fire, as he has slowly learned to approach in "degrees" the heat in which his globe of earth was formed—and courage to set what he has himself made, again at its beneficent mercy. He knows much. But fire knows more and has constant surprises for him.

He will never exhaust them all—nor need to.

He has the Brick.

He has the Tile.

He has the Pot and Bowl.

He has the Vase.

He has the Image.

He may color them all—forever so far as he knows—with the hues of nature and qualify each according to any or all the sensibilities he has—taught by the qualities he loves in the work of Nature all about him.

We have hitherto been speaking of "natural" materials. The natural material here is of earth itself. But to produce this material known as Ceramics, another element, that of the artificer, has entered with Fire.

This product should therefore be nearer man's desire—molded, as it is, by himself. His creation is seen in it. What he has sensed of the story of his creation, he has put into it.

He sees as he is and this record will tell us what he sees, how he sees—as he sees it.

He has seen nothing he is not himself. He is the imaginative geometrical tracery of the Persian and Moor and the noblest

brick buildings man has ever erected. He is the noble sculpture and pottery of the Han Dynasty in China, as well as the Satsuma and Nabeshima of Japan. His is the story painted on the pots and bowls of Greece no less than the flowered plaques of Byzantium, or upon the utensils of the Indian cliff dweller.

His sense of form he took from those forms already made as his natural environment. In his striving for excellence in quality he was taught what to love by stone, leaf and mold and flower—the book of "trees," the mosses and mists and the mosaics of foliage in the sun. Especially in China where his sense of Nature was profound did he learn from them. When he was at his best, he interpreted what he saw.

When he was inferior, he imitated it.

But always, superior or inferior, he was its reflection in his Ceramics as in a mirror.

And in spirit looking away from himself, his eyes fixed on Gods as God or God as Gods—fashioning and firing and building as he himself was burning, all the while, better than he *knew*.

What has Man to show for the Brick? I should offer the brick buildings of Asia Minor—Persia.

What he has to show for his Tile? Wherever Persian or Mohammedan influence was supreme.

What he has to show for the Pot and Bowl? Chinese pottery.

What he has to show for his Vase? The Grecian urn.

To show for his Image? Those of Egypt, Greece and China.

The modern contribution to Ceramics as building material is "Terra Cotta." A poor name for an important material—but so it is named. I suppose "earthen-ware" seemed inadequate or not specific.

And it is the greatest opportunity for the creative artist of all the materials he may choose. It is, of course, burned clay in any color or glaze for entire buildings—pottery

buildings! Earthenware on a great scale.

Modern terra-cotta has known but one creative master—only one—Louis H. Sullivan.

He is dead. His work in terra-cotta will live long after him. His was the temperament and the imagination that naturally found in this impressionable material the ideal medium for his genius. Terra-cotta lives only as it takes the impression of human imagination. It is a material for the modeler. It is in the architect's hand what wax is in the sculptor's hand.

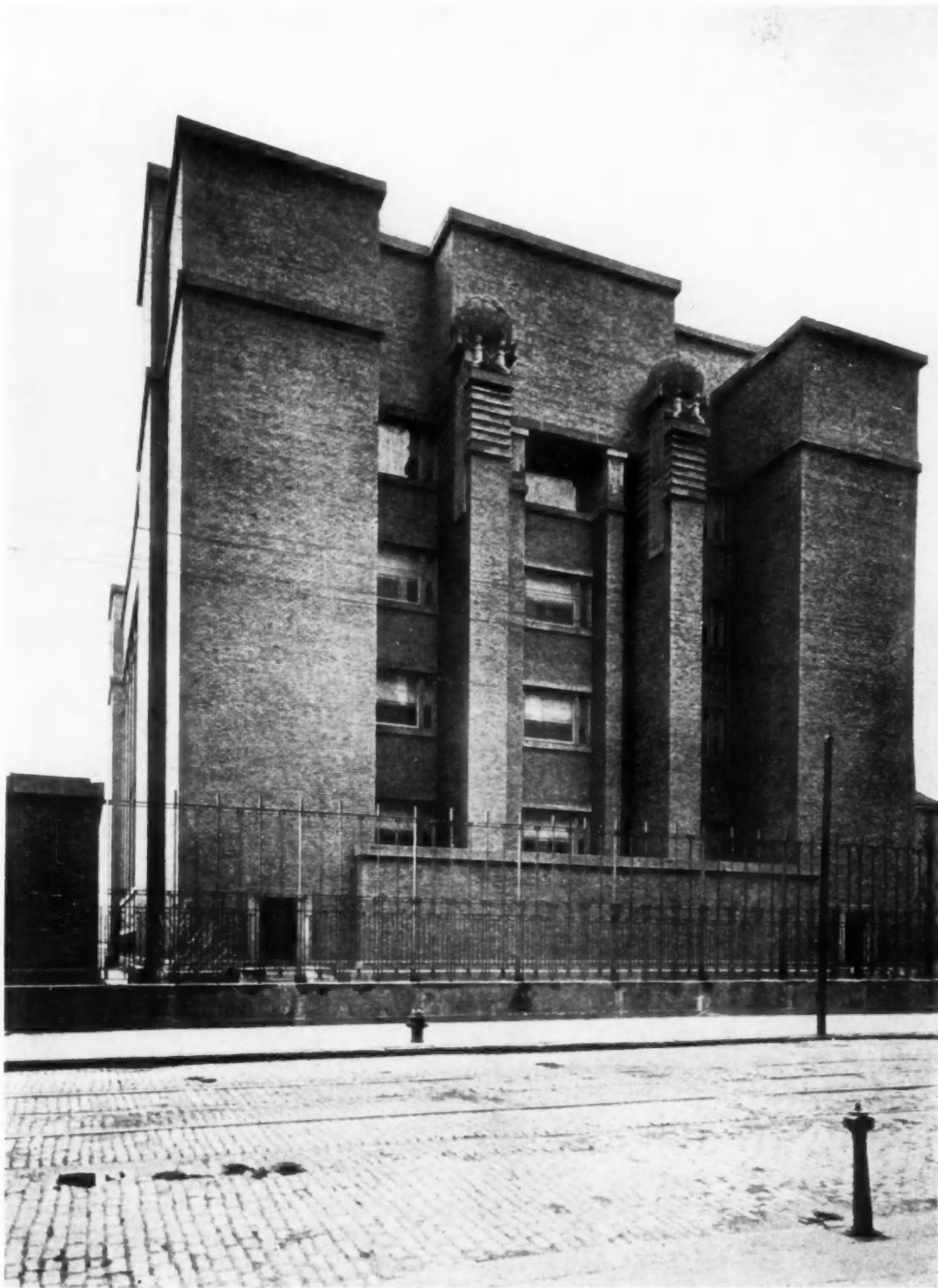
After the material takes shape, the surface treatments are all a matter of taste. They are limitless in quality and style.

And the chief business of terra-cotta has been to imitate stone. It would imitate anything else as readily—with gratitude—it seems. It is the misfortune of anything impressionable to be called upon to give imitations. Mimicry is all too human. To imitate is the natural tendency of men. Not Man.

But Louis H. Sullivan's exuberant, sensuous nature and brilliant imagination took terra-cotta—and it lived. It no longer asked permission of the Styles. It was *itself* because it was Louis H. Sullivan. In it this master created a grammar of ornament all his own. And notwithstanding certain realistic tendencies, an original style of ornamentation out of the man, astonishing in range, never lacking virility.

Into the living intricacy of his loving modulations of surface, "background"—the curse of all stupid ornament—ceased to exist. None might see where terra-cotta left off and ornamentation came to life. A fragment of Sullivanian Terra-cotta—were we at some remote period of time to be excavated—would be found with a thrill. It would mean that a man lived among us at a dead time in Art.

The Sullivanian motif was efflorescent, exvolute, supported by tracery of geometric motives—bringing up the clay in forms so delicate and varied and lively



BRICK MASSES
THE LARKIN BUILDING, BUFFALO, N. Y.
FRANK LLOYD WRIGHT, ARCHITECT



DETAIL OF BRICK WORK
 THE ROBIE HOME, WOODLAWN AVENUE, CHICAGO
 FRANK LLOYD WRIGHT, ARCHITECT

that no parallel in these respects exists.

We may see, for once, how completely a negative material can be appropriately brought to life by the creative artist. It is reassuring.

Is there in Architectural history another man who out of himself not only created an exuberant type of beautiful architectural relief but furnished it forth, always consistent in style, in amazing variety that could not have ended but with his death? Even toward the last of his life, enfeebled, disillusioned but indomitable, he drew with all his old-time freshness of touch a series of beautiful designs that show no falling off in power whatever—even in spontaneity.

His ornamentation was the breath of his life. Clay came into his hand, that both might live on forever.

Because, now that we know what terra-cotta can be, and how it can be, we shall never be satisfied to see it degraded to imi-

tation again—nor satisfied to see it imitating him.

Taught by him we should learn how to use it. If not so well as he, at least on principle for its own sake as he did. His sense of Architecture found a fulness of expression in the plastic clay. Few architects ever find any such expression in any medium whatsoever.

Terra-cotta should revere him as its God, sing his praises, but, better than that, be true to his teaching which would mean more to him than psalms in his praise and his statue in the hills.

In the terra-cotta or pottery of Earthenware building we may have, today, the sum and substance of all the kiln ever gave to architecture.

Modern methods have made the complete terra-cotta building, inside and outside, as definite a possibility as was the Han vessel in its time or the Greek vase. But—who



A COTTAGE OF SAND-MOLD BRICK
 THE CHENEY HOME, OAK PARK, ILLINOIS
 FRANK LLOYD WRIGHT, ARCHITECT

would look upon it in its present state after Sullivan left it, as a work of Art?

It cannot live either on its own texture or color—to any great extent. And as for its design? It is a mendicant feeding on crumbs from the table of the styles.

Why? Is it because Sullivan is dead? Did this most valuable of modern achievements in "material" die with him, as it never really lived until he came?

No. Materials never die. This material is only asleep, waiting for some master to waken it to life.

Here, young man in architecture, is a golden opportunity quite boundless so far as imagination goes. Rescue the royal beggar from penury and slavery.

Where is the pottery-building beautiful in form and texture and color—as such?

Why are there not thousands cleaning themselves in the rain—warming themselves in the sun—growing richer with age

instead of dingy and sad and old? Why do they look cheap and soon stale?

Just because there are no good pottery designs for good pottery buildings—so how can the pottery be good with no more inspiration than that?

A neglected minion of the Machine!

By way of terra-cotta we are here arrived at the matter of Ornament. Because terra-cotta chiefly lives by virtue of the human imagination in ornamentation.

As we intend to discuss ornament by itself on its merits, later, let us say now that true ornament is of the thing, never on it. The Material develops into its own ornamentation by will of the master. He does not impose forms upon it. He develops it into forms from the within which is characteristic of its nature—if he is "the master."

We may see this in Sullivanian Terra Cotta. The only limit to Sullivan's treat-

ment was the degree to which the substance of the pliable clay would stay up between the thumb and finger and come through the fire. Background disappeared but surface was preserved. There was no sense of background, as such, anywhere. All was of the surface, out of the material. So no sense of ornament as *applied* to Terra-Cotta, because Terra-cotta became ornament and ornamented itself.

Terra-Cotta was this master's natural medium because his sense of beautiful form was the subtle fluctuation of flowering surface, song-like, as found in organic plant-life—the music of the crystal is seen as a minor accompaniment only.

The tones of the main theme are those of organic efflorescence—*growth* as it is performed by plant species. This idea of growth was the theme—invariably—which he glorified.

He created a "species" himself—and kept on creating others.

This procedure of Growth intrigued his imagination—inspired him. "Organic" was his God-word, as he traced Form to Function.

When, I suggested, as I once did, that quite as likely the function might be traced to the form, he disposed of the heresy—by putting it on a par with the old debating-school argument as to which came first, the Hen or the Egg. His interpretation was to him the Song-of-creation and he never tired of singing it. As it was visible to him in the growth of the plant he saw it in all—as indeed it may be.

Think of this when you see his synthetic motifs in his sentient Terra-Cotta.

And realize that there are ways of making a pottery building, the joints of the material becoming unit-lines in the pattern of the whole—which he, the pioneer, touches upon but was called away before realization or called away *to* realization—who knows?—and imagine the glorious marvel of beauty it might be.

I remember going to Palermo some years

ago to see the mosaics of Monreale.

I had just got into the Cathedral-square and lifted my eyes to that great work when to the left I saw—or did I see it—for some moments I thought I dreamed—there against the sky—no not against it, of it, literally of the sky was a great dome of pure Racca blue.

I forgot the Cathedral for quite some time in the wonderful blue dome so simple in form—a heavenly thing. I have never recovered from it. And that effect was "Ceramic." Why not Terra Cotta? The old qualities in color firing can not be dead!

* * * *

To illustrate a simple use of brick I refer for noble examples to Ispahan, Sari, Veramin, Amol, Samarkand, Bokhara, and, of course, tile and pottery as well. Unfortunately I have little brickwork to my credit. I have chosen a few examples that show the walls solidified by emphasis of the horizontal joint, and examples showing the brick-pier and mass as I feel it to be natural in brick construction today. Brick is the material we in Usonia know and love best. We probably have brought brick-making to a pitch of perfection never existing in the world before at any time. And we use it, on the whole very well. Not only is the range inexhaustible in texture and color and shape, but the material itself is admirable in quality.

Together with it go all those baked-clay vitreous hollow bricks and hollow tiles which are probably the most useful of all materials in building in our climate.

* * * *

Usonian tiles and mosaics do not reach the quality of ancient or even contemporary materials of this nature. There is enough good material, however, to warrant a more general use which would inevitably cause it to grow better—and our day needs this development.

The nature of the mosaic either of stone, glass or ceramics is a truly architectural medium—useful in this era of the Machine and lending itself to plastic treatment with

no insult to its nature. I should like to see whole buildings clothed in this medium.

Our pottery is imitative. We have had Teco, Rookwood and other types—all deserving experiments with something of originality in most of them. But none proceeding on principle to develop style, but of the nature and character of the process.

The "vessel" does not inspire us, it seems, as it did earlier people. Perhaps because we know no such need of it as they knew. I have chosen some natural "vessels" to show the help nature generously offers in the matter, to mention only one humble resource.

* * * *

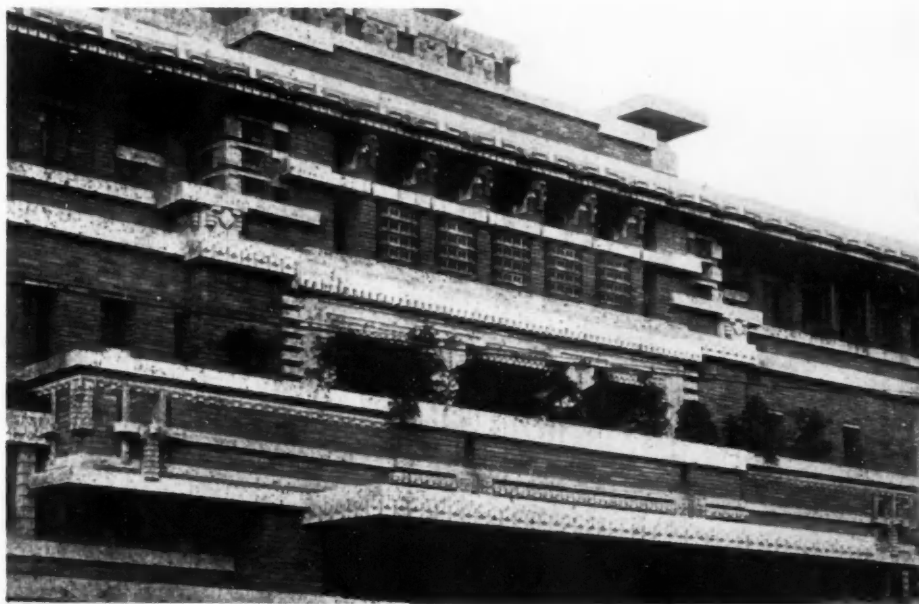
The Usonian Image, likewise the Vase, is tentative when not openly imitative.

We seem to have little or nothing to say in the clay figure or pottery vase as concrete expression of the ideal of beauty that is our own. No sense of form has developed among us that can be called creative—adapted to that material. And it may never come. The life that flowed into this channel in ancient times apparently now goes somewhere else.

A few natural forms found in the Champlain clays seem interesting to me in this connection.

* * * *

Again our subject remains in barest outline—for to go adequately into this most human and important feature of all Man's endeavor to be and to remain beautiful the "kiln" would exhaust interesting volumes.



BRICK AND LAVA. CANTILEVER BALCONY OVER PROMENADE ENTRANCE SHOWING PERFORATED BRICK SCREENS AND LIGHTING FIXTURES BUILT IN AS PART OF THE ARCHITECTURE

HOTEL IMPERIAL, TOKIO

FRANK LLOYD WRIGHT, ARCHITECT



SUSANNA FOUNTAIN, HOME OF CARL MILLES, LIDINGÖ, SWEDEN

CARL MILLES, SCULPTOR
EVERT MILLES, ARCHITECT

✓ CARL MILLES
SCULPTOR-ARCHITECT
BY KINETON PARKES

THE NEW ARCHITECTURE in Europe reaches its most vehement exposition in Sweden. Architecture is the mother of the arts and Ragnar Östberg in his great Town Hall at Stockholm, recognizing the relationship, has given sculpture and the other plastic forms of expression a maternal home. He has successfully substituted sculptural affection for plastic affectation.

Just outside the city there is a further and cognate manifestation of the relationship, architecturally on a smaller scale but greater in its intimacy, and sculpturally and architecturally satisfying. It consists of the studios, house, gardens and pleasure of Carl Milles.

There are few harbours more beautiful than that of Stockholm and in choosing the position, the artist gave an initial indication of his architectural instinct. It is an ideal setting for the activities of a great artist, on high ground at Lidingö above the Värtan surrounded by pine trees, their trunks ruddy in the sun.

This singular habitat is almost wholly the creation of Carl Milles himself, but his brother Evert Milles, a practising architect, helped in the constructional work. The Milles family is artistic, for Carl and Evert are brothers of Ruth Milles the sculptor—not unknown in America and with a European reputation.

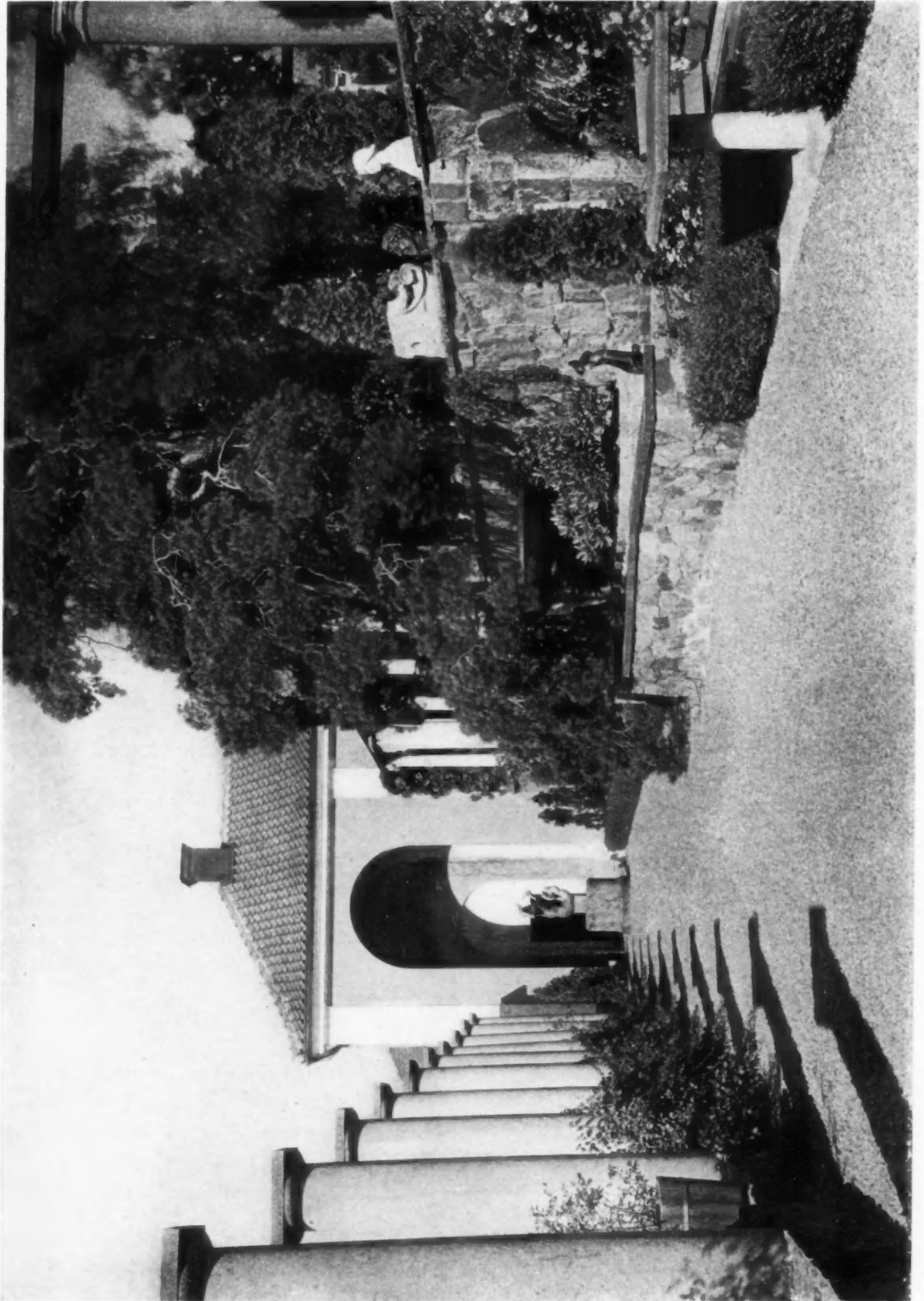
In this domain of beautiful buildings, picturesque walls broken by niches, pergolas and tiled walks, paved courts, ponds, terraces and flagged steps, the muse of sculpture reigns. It is a plastic conception of the finest kind realized with a singular integrity, without ostentation and without error of proportion, for composure is the necessity of art and life to the man who has

made this domain wherein to dwell and work.

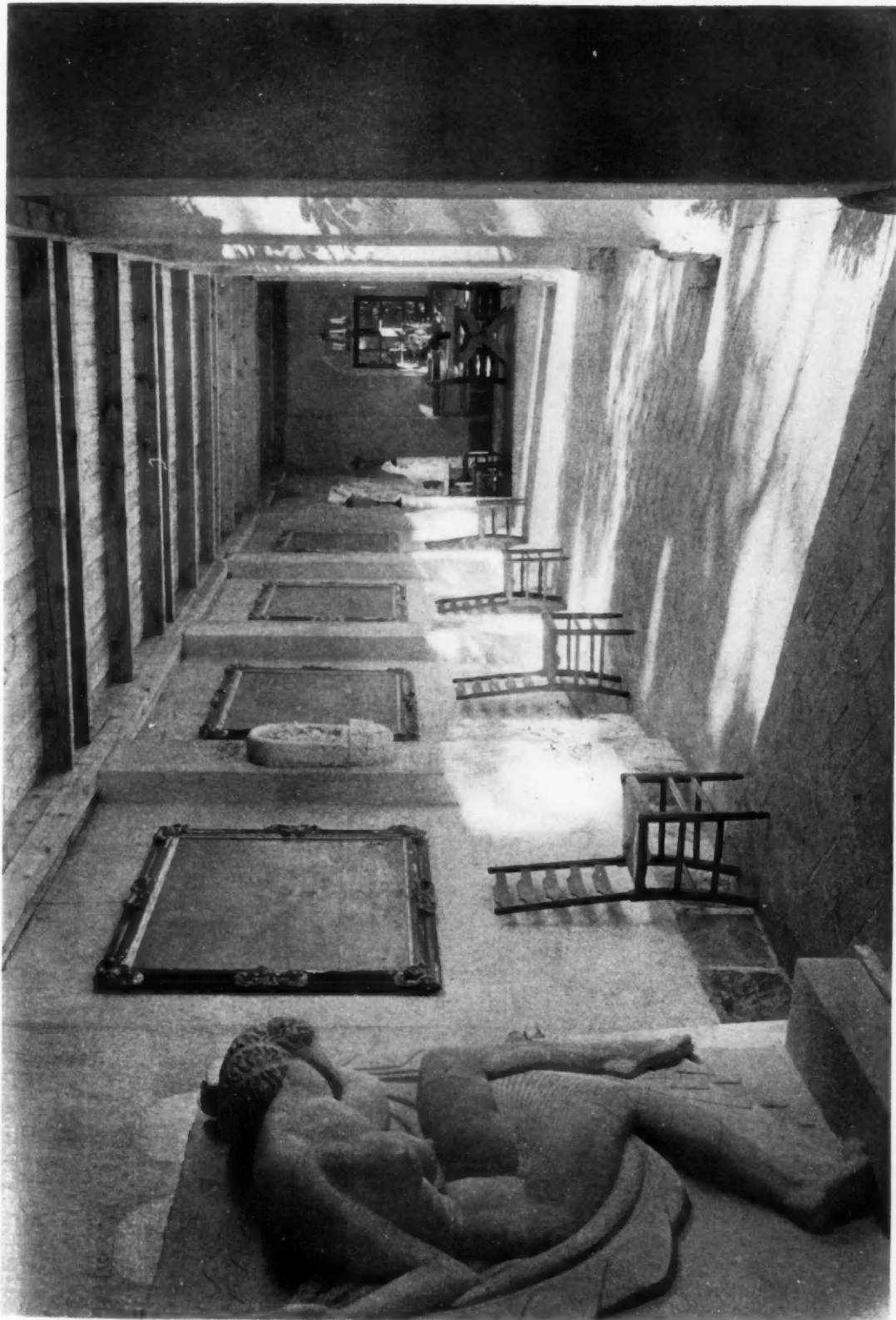
Carl Milles is slow-moving and slow-speaking, but his phlegmatism is illumined by the fire of genius. His demeanor is almost sad and he speaks gently and only when he has thought out what he wants to say. Sometimes what he says is brightened by a touch of gentle humor. He is very particular as to what opinion he may have to express, for his mind is occupied by the responsibility of his mission—a mission that gives new beauty in plastic form to the world. This weighs on him as he slowly paces the paths of his retreat at Lidingö.

He is by no means unconscious of tradition, little as his work owes to it directly. In his work there is no violation of the plastic or glyptic traditions, for, like all great artists, Carl Milles has realized the obligation which tradition imposes. He feels the weight of this and acutely, but not ponderously, acknowledges it. He says he owes much to Michelangelo and something to Rodin; to Carl Milles we owe what we owe to Michelangelo and Rodin—a new sculptural vision.

Tireless worker himself, Carl Milles makes others work. He has a latent energy which he is able to communicate; he has the will to create but an exuberance of production which is beyond the powers of a single individual. His kinetic energy is catching, and he is able to impose his will on those associated with him. He has always in his studios twenty men cutting granite. One man spends the whole of his time in repairing, tempering, sharpening their chisels. Granite is intractable, but Carl Milles shows his assistants how it becomes docile under his hands, for he is a



THE PILLARED TERRACE, HOME OF CARL MILLES, LIDINGÖ, SWEDEN
CARL MILLES, SCULPTOR
EVERT MILLES, ARCHITECT



LOGGIA, HOME OF CARL MILLES, LIDINGÖ, SWEDEN
CARL MILLES, SCULPTOR
EVERT MILLES, ARCHITECT

CARL MILLES, SCULPTOR
EVERT MILLES, ARCHITECT

believer in carving although he cannot carve everything that issues from his studios himself. But all the essential things are subject to his chisel.

Further, there are the bronze casters, for Carl Milles is a modeller as well as carver. He has no time to make the mould for the castings nor to cast, but his personality passes into his helpers and produces the exquisite patinas which are a characteristic of most of his bronzes. This abounding energy is a feature of both production and finished work. It is communicated to each piece that passes muster in the master's review. If it fails, it is thrown aside. This vital energy is possessed by all the acknowledged works without outraging the principles of sculptural statics. It is less a vitality of movement than a vitality of spirit that they all possess.

Carl Milles was born at Lagga in Sweden in 1875. After beginning his art education at the Stockholm Technical School he went to the École des Beaux-Arts and remained some years in Paris exhibiting at the Salons, sending to the expositions at Venice and later working in Munich. His health was not good, but the divine fire of art burned with no uncertain flame within him and he surmounted his bodily ailment and became one of the most prolific of the world's sculptors.

He was but twenty-seven years old when, in 1902, he came into the front rank of Swedish sculptors with his monument of Sten Sture for erection at Uppsala. It was not awarded the prize but was considered so good that the original sketch was developed some years later. From 1910 to 1914, when the memorial was at length finished, the artist worked at it laboriously while his friends collected the funds for its building. It is known as the Battle of Brunkebjärg memorial, for Sten Sture not only founded the University of Uppsala but led the peasant troops in 1471 against the Danes victoriously.

Apart from his own actual architectural

activities, the association of Carl Milles with architects has always been close. He believes in the maintenance of the most intimate relations between the structural and plastic arts, and assumes that the highest sculpture is necessarily that which is most architectural in character. Hence the symmetry and rhythm of his work. Whilst his sculpture is highly decorative, he has so contrived to work with his architectural colleagues that it never appears as merely adjunctive but always as a homogeneous part of the actual structure. The great bronze doors of the Church of the Revelation at Saltsjöbaden and the four fine altar reliefs in the same edifice were done in coöperation with the architect Ferdinand Boberg. The same may be said of his four colossal groups, in black granite, each three and a half yards high, carved almost in the round and representing the development of trade during the thirteenth, fourteenth, fifteenth and nineteenth centuries from barter to world commerce. These surmount the fluted pillars of the façade of the Enskilda Bank in Stockholm, designed by Ivar Tengbom.

His plastic contributions to other buildings include the fine heraldic carving of the royal coat of arms in the centre of the façade of the Royal Dramatic Theatre at Stockholm, as well as two sitting and three standing figures of women and the vivid groups of dancing children on the bases of the columns of the loggia. This building, the work of Fredrik Lilljekvist, owes its distinction largely to the work of Milles and some few others, for by reason of injudicious selection of some of its decorations it is unable to occupy the artistic position destined for it.

Other architects with whom Carl Milles has associated are Nils Asplund, Sigfrid Erikson and Arvid Bjerke of Gothenberg.

The relation of sculpture to architecture is not simple. It forms a complex of considerable subtlety to which too little attention is paid nowadays by either archi-

tect or sculptor. In Gothic and Renaissance times the principles were understood and acted upon. Either in person or in a dual personality the architect and sculptor were one. It is rare to find this today; it is rarer still to find an acknowledgment of its necessity.

In a building there are two primary considerations—constructive and decorative—and there should be no building permitted

perversity that it should ever have been neglected or misconstrued.

In the first place, therefore, the intimacy of the relationship is maintained when the sculpture on a building (either outside or in), is identical with the structure in the form of a frieze, a capital, a pediment, a mural relief. Pheidias, Ictinus and Calliocrates saw to this in the Parthenon.

In the second place the intimacy of associ-



COURTS OUTSIDE THE STUDIO OF CARL MILLES, LIDINGÖ

CARL MILLES, SCULPTOR

EVERT MILLES, ARCHITECT

which is either without the other. The subtle function of sculpture is that, unlike mural painting, it is structural. Sculpture and architecture, therefore, are linked by a living chord; they are Siamese twins—both are plastic, both are glyptic; both are made out of clay and stone and wood and metal by chisel and moulding tool. Their proper relationship is so obvious that it seems a

ation requires to be respected and preserved. There is much sculpture (exterior and interior) which is as essentially a part of the architectural design as though it formed a part of the actual structure. It is accessory, but it is integral. Architecture is responsible for spaces as well as for places and the function of sculpture in this respect is no less important; rather is it more essen-

tial than in purely structural work. Hence, in the decorated plaza, square, court, garden, sculpture demands and supplies the main factors, for in such designs utility stands less in the way than in buildings. In the design of open spaces beauty, less than use, is the desideratum.

Carl Milles understands these two principles and while he has been able only to a limited extent to exercise his understanding on the first, on the second he has triumphed, for in the realization of his idea of the true surroundings of a great sculptor he has consistently kept in view the architectonic character of the essentials of the sculptural art.

And, in the third place, sculpture is essentially structural although it may not form part of a purely architectural plan of a place or space. Fountains and monuments and grave memorials are good only when they are in spirit and form constructive and fitted to the positions they occupy, for placement of a work of plastic or glyptic art is a function of architecture, the exercise of the faculty of relation. This Carl Milles also possesses and it has enabled his remarkable sculptural powers to function to the finest advantage. He has enriched European plastic art by at least ten of the continent's greatest monuments, and they are all in Sweden.

While engaged on the Sten Sture monument, Carl Milles was fabricating the memorial to the Swedish poet Franzén, in the working of which he exploited the native granite of the country in which so much of his future work was to be made. As to style, apart from his naturalistic animal studies and his portrait busts, nothing of his is more realistic than the two daughters of the poet, Selma and Fanny, who are seated at the base of this statue.

To the same period most of the great monuments belong, the Gustav Wasa and the Rudbeckius included. The former is exceptional in that it is carved in oak and painted, a great figure on a massive architectural base of granite and marble in the

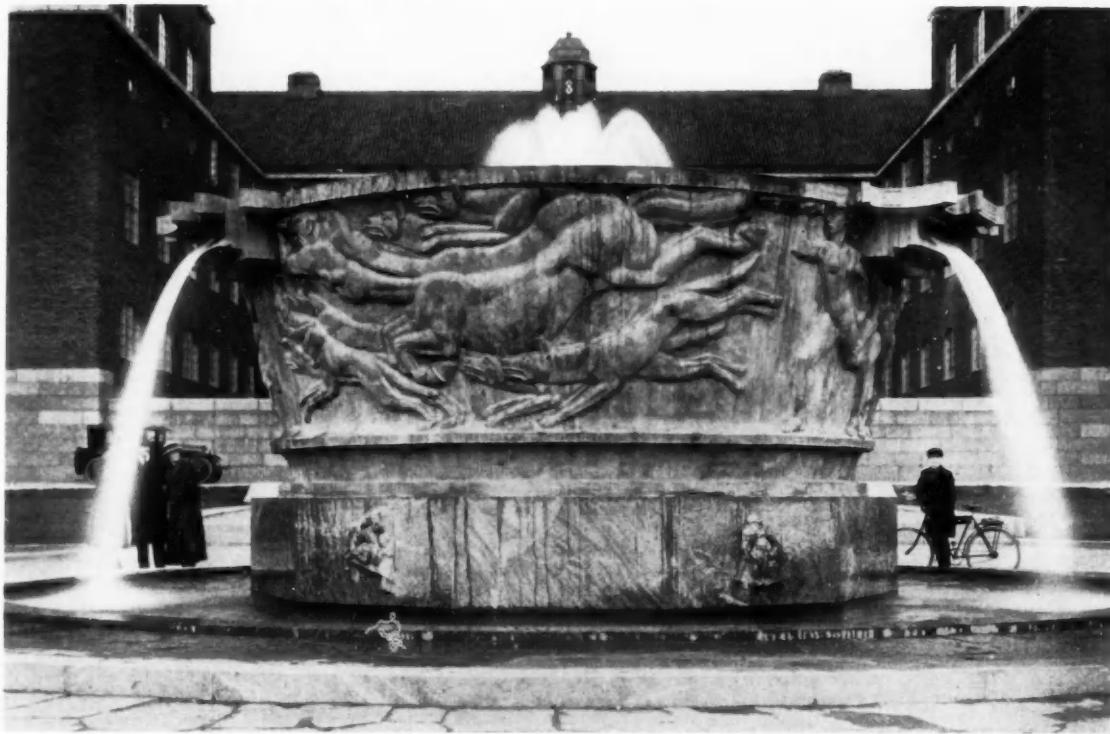
Nordiska Museum at Stockholm. It is the most important essay in polychrome sculpture since Max Klinger's celebrated chryselephantine Beethoven in the Leipzig Museum; and, in addition to the colored oak, includes ivory, gold and silver. The coat of arms carved in the round on the mouldings of the base is an arresting feature of the architecture.

An architectural setting is also a pleasing feature of the statue of Johannes Rudbeckius, the seventeenth century theologian and founder of schools, who stands on a square base supported by four pillars and is placed outside the Cathedral of Vesteras, of which place he was bishop. His saying "I take off my hat only to God and the Sun" is illustrated by the sculptor in placing a putto holding a gold-rayed sun on the bishop's shoulder where he is seen whispering engagingly into the prelate's ear. The figure of bronze is three metres high and the base of marble and stone two metres.

Carl Milles on his return to Sweden realized two natural features which became of the utmost importance to his work and a spiritual feature no less potent. He discovered not only granite as the material most appropriate and most suitable for the Swedish climate, but the waters of his native country as an incentive no less potent than the myths of Scandinavia.

The waters, the lakes, streams and incursions of the sea pointed to fountains as the finest expression in form to which a plastic artist could aspire, and some of the finest fountains of modern times have resulted. Modern architecture has a few fine examples to show both on the American and the European continents and Carl Milles has added to the number.

The most important is the great Fountain of Industry in front of the Polytechnic at Stockholm, the Cerberus Fountain showing hunting dogs in relief, an immense bronze basin with a green patina raised on a base of polished granite. This fountain forms the centre of the details of the Monument



CERBERUS FOUNTAIN (BRONZE AND GRANITE) OF THE MONUMENT OF INDUSTRY, STOCKHOLM

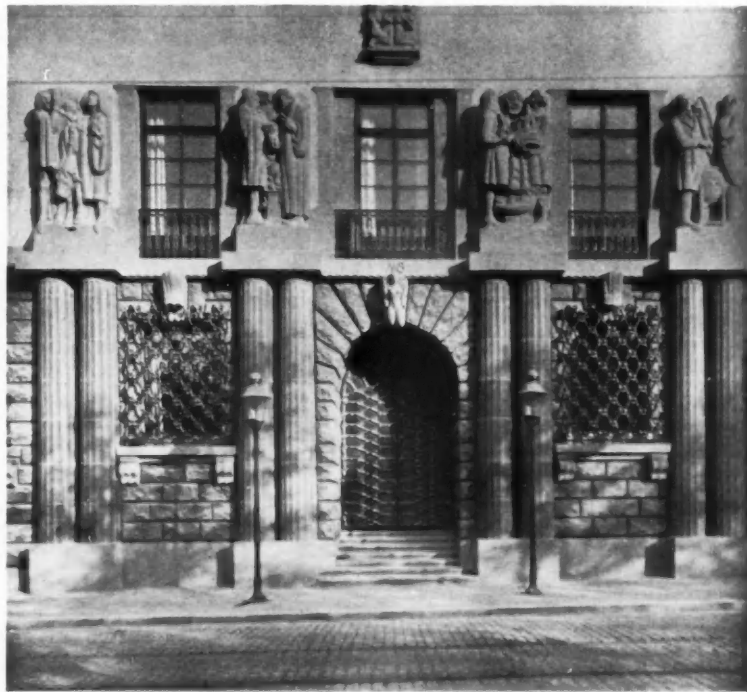


THE GREAT FOUNTAIN, HOME OF CARL MILLES, LIDINGÖ, SWEDEN
CARL MILLES, SCULPTOR

of Industry, another prominent feature of which is the granite gateposts surmounted by carved hounds in granite, a metre and a half high.

In the market place of the town of Halmstad is the beautiful Europa fountain, the central group of which supplies a startling new version of the old myth form. But it is to the sculptor's own garden that a return must be made for the real charm of the fountain found here more intimately than in the public examples. Here the very spirit of living water is captured and here is the very

marriage of sculpture and architecture. Here the real design of the fountain may be studied, the design that includes the play of the waters. No fountain is complete unless it is at play. Here, too, the real style of the sculptor's work may be studied, for, left to please himself, he has allowed his imagination to be his only guide. The style is the man—composed, deliberate, sound in its traditions, not traditional but original, owing nothing to any individual or school of the past or of the present—genial, provocative, stimulating, compulsive.



CARVED FIGURE GROUPS IN BLACK GRANITE
ENSKILDA BANK, STOCKHOLM, SWEDEN

CARL MILLES, SCULPTOR
IVAR TENGBOM, ARCHITECT

ALLIED ARTS
AND
CRAFTSMANSHIP



PAVEMENT PANEL IN BRONZE, PRINCETON UNIVERSITY, N. J.
GAETANO CECERE, SCULPTOR
HELMLE & CORBETT, ARCHITECTS

Featuring
SCULPTURE
MURAL DECORATION
LANDSCAPE ARCHITECTURE
THE CRAFTS



NAIAD WITH FISH—IN GREEN BRONZE
STATUE ON THE TERRACE OF PILLARS, HOME OF CARL MILLES, LIDINGÖ
CARL MILLES, SCULPTOR



FOUNTAIN FIGURE IN GREEN BRONZE
A DETAIL OF THE GREAT FOUNTAIN, HOME OF CARL MILLES, LIDINGO
CARL MILLES, SCULPTOR

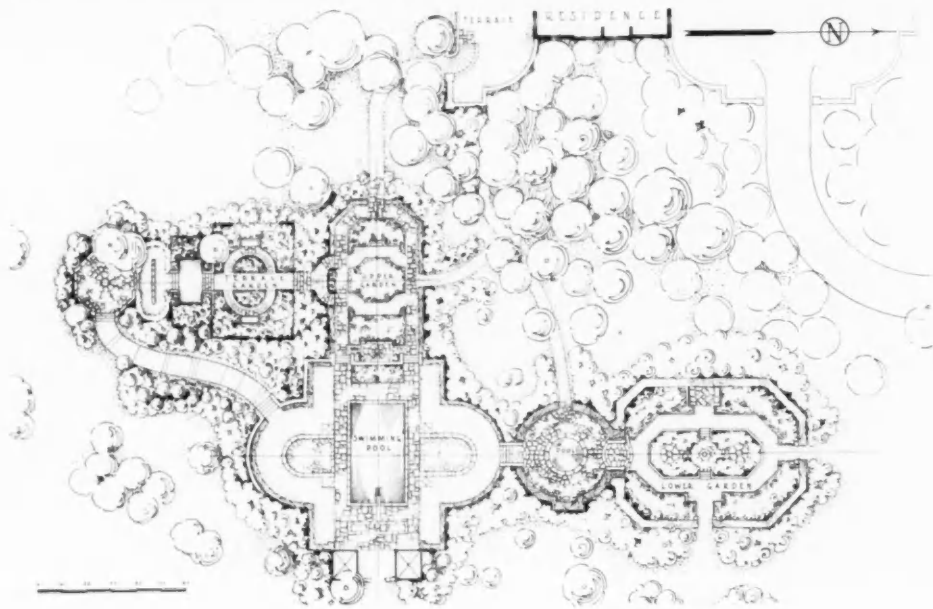


Photo. Tebbs & Knell

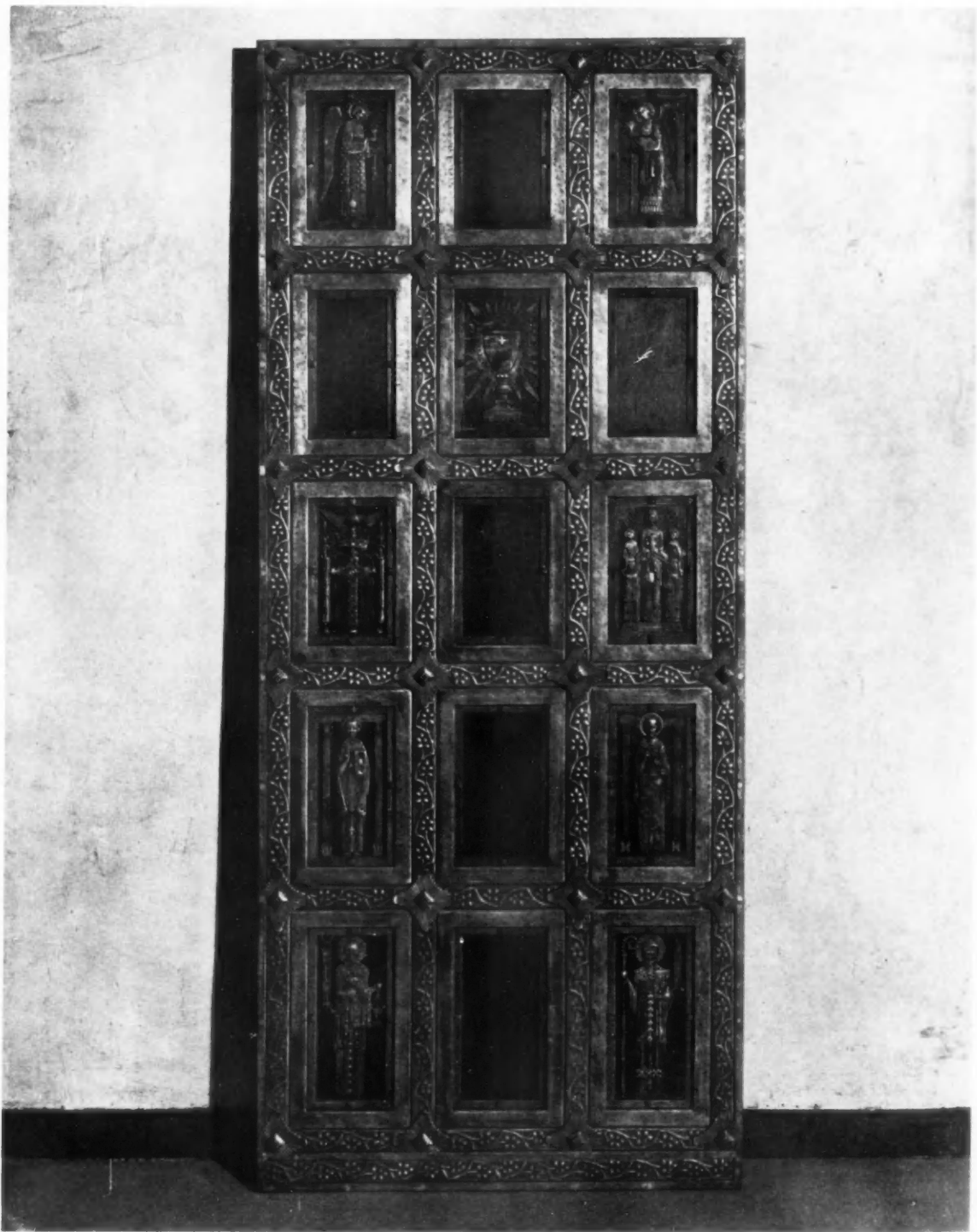
GARDENS OF THE RESIDENCE OF C. L. KING, ESQ., MANSFIELD, OHIO
WILLIAM PITKIN, JR. AND SEWARD H. MOTT, LANDSCAPE ARCHITECTS



Photo, Tebbs & Knell



GARDENS OF THE RESIDENCE OF C. L. KING, ESQ., MANSFIELD, OHIO
WILLIAM PITKIN, JR. AND SEWARD H. MOTT, LANDSCAPE ARCHITECTS



DOOR TO TREASURE ROOM, CHRIST CHURCH, CRANBROOK, MICHIGAN

OSCAR BACH, CRAFTSMAN

BERTRAM GROSVENOR GOODHUE ASSOCIATES, ARCHITECTS

(The repoussé steel panels are inlaid with gold and silver; the frame is of repoussé steel on heavy oak)

v

EARLY AMERICAN ARCHITECTURE AND THE ALLIED ARTS—A BIBLIOGRAPHY

*Supplement to the close of 1927**

BY RICHARD F. BACH

ACTIVE INTEREST in our formative architecture is now some forty years old; at least, that much may be assumed from dates of publications in the field. It has been a forty year period of ruthless destruction followed more or less suddenly by a largely unguided adulation, the former running amuck generally among the better buildings, while the latter fastened usually upon those less significant. During that time, and of course for scores of years before, men beheld Colonial and other early work without perceiving its merit; indeed, what merit could one ascribe to a McIntire house, a Savery highboy, or a Stiegel bottle in comparison with Franco-American Renaissance country residences, walnut *étagères*, brown stone fronts, Turkish cozy corners and wax flowers *en aspic*?

Slowly recognition came; as though the awakening which has made our architecture improve so rapidly in the last twenty years had brought also—and as a logical counterpart—a new reasonable interest in the work of the past on our own soil. And this is easily understood, for the study of records is one of the ways toward progress. It was not long before books and periodicals began to feed that interest. In fact, Early American titles now represent a regular feature in publishers' lists.

The result has been most beneficial. Many buildings have been preserved or restored; as have also many lesser items of furniture and other portable objects. With greater knowledge of the things themselves,

methods of preservation and restoration—the bugbear of the archaologist—have also improved. That alone is a prodigious gain. Museums and private collectors have been busy assembling material of Early American provenience; the American Wing at the Metropolitan Museum has had a record breaking attendance. The description Early American has been generally accepted as the best inclusive term covering our art from the beginnings through about 1825, embracing those of more limited meaning formerly used, such as Colonial, Georgian, Pioneer, Puritan, Early Republican, Federal, some of which now take their legitimate places as names of divisions—temporal or regional—of Early American art.

Throughout, this interest has become more and more thorough, appreciative and sensible; *schwärmerei* for the sentimental or the antique is gradually giving place everywhere to a sane regard growing out of an honest study of the material. Good things are separating themselves in the minds of the people from the mass of those that are merely old things. Incidentally there is now a flourishing and daily increasing trade in Early American antiques that formerly were only attic clutter; the capacity of attics, both then and now, has achieved eighth place among the wonders of the world, and the endless and indefatigable labor of Early American cabinet makers (and their modern helpers working in double shifts) is striving for the ninth.

* * * * *

*In The Architectural Record, vol. 38, no. 2, Aug. 1915, page 281, to vol. 42, no. 3, Sept. 1917, p. 283, was published a series of reviews entitled: Books on Colonial Architecture; and in vol. 38, no. 3, Sept. 1915, p. 382, to vol. 42, no. 2, Aug. 1917, p. 185, was published: A Bibliography of the Literature of Colonial Architecture.

Both were brought to date as of the close of 1917, in vol. 44, no. 1, 2, July and August 1918, pp. 85-90, 175-80. The compilation entitled: Early American Architecture and the Allied Arts—A Bibliography, in March to July 1926, included all titles previously listed as well as all that appeared from Jan. 1918 to the close of 1925.

During a number of years it has been our plea, many times urged and as often though always passively agreed to, that our early architecture must be not only preserved, but above all recorded; for there are many reasons why one might not be able to preserve a building, but none against its measurement, study and publication. In fact, in these pages, as long ago as November 1917, appeared an article entitled: *The Final Record**, an extended argument in behalf of adequate documentation of the treasures of Early American architecture, from which we quote: By these three steps will the final record of Early American architecture come into being—cataloging existing Early American buildings; establishing a collection of books and other data on Early American architecture, placing this in some centrally located library of deposit and keeping it up to date; drawing up an ideal form of publication for instructive as well as comprehensive books on Early American architecture, encouraging the publication of others patterned after such adopted form.

Now, a decade later, this work has been begun, though still lacking an inclusive plan, the catalogue suggested, or an ideal form of volume. The beginnings made, in addition to any general interest evidenced by collectors, publications and an increased appreciation among laymen, are anchored to three separate and in their own lines highly significant undertakings. First, the Metropolitan Museum of Art opened (1924) an American Wing, a kind of text-book of Early American art with illustrations in three dimensions in the form of room arrangements ranging from 1640 to 1825, and at the same time undertook to make an inclusive record of Early American art both in its Library and in its Reference Collection of Photographs, all publicly available. Second, *The Architectural Record* published (March to July 1926) a complete

bibliography under the title: *Early American Architecture and the Allied Arts: A Bibliography*, covering all publications of interest in this field to the close of 1925 and which is brought to January 1, 1928, by the present article. Third, the American Institute of Architects has published a complete and authoritative photographic record of early work in Charleston, South Carolina. These three efforts we regard as fundamentally important and as contributing directly to the final record of our formative art, of which many chapters have yet to be written and of these not a few will be without illustrations unless the processes of photographing, measuring and drawing are pursued more diligently than at present is the case.

* * * * *

In the pages following are listed titles of books and periodical articles which have appeared in 1926 as well as some earlier items first discovered in that year. They are grouped in classifications exactly in accord with those used when the inclusive compilation was published (March to July 1926), and for convenience the skeleton of the scheme is presented again. In its earlier form the Bibliography listed certain general titles, as of series of measured drawings or of photographs; in view of the interest of the material these series have now been analyzed and individual items inserted in their proper rubrics, though their actual date of publication may antedate 1926. Again, several series have been added to during the year and for the sake of completeness such titles have been entered here again in their completed form, to render double reference unnecessary. From time to time, when subsequent addenda sections are published in these columns, a similar procedure will be followed; by this means the reader is assured of the completeness of the Bibliography. And by completeness we wish to imply not the absolute of a quantitative maximum of titles that might

*In *The Architectural Record*, vol. 42, no. 5, Nov. 1917, pp. 486-91.

be set down, but rather the relative of thoroughness as to the quality of titles that it has been found wise to include.

*"A bibliography is somewhat like a ship under headway; equipped for service, supplied with needed materials and instruments to gauge speed and course, but unable to reach port without intelligent use of all these facilities. And in the running of the ship the master has at his command not only knowledge and purpose, but also imagination. The dangers which are not charted may be suspected and therefore the more easily conquered. And, finally, to do its work properly, the ship carries only essentials and each has its place. So in the

preparation of this Bibliography, the reader's imagination has been considered by the editor as an asset rendering his work more valuable. Cross references have not been resorted to, and he who is interested in Phyfe furniture will seek his quarry not only under furniture, but will remember that biography may also be a possible source. There is no field of human effort or interest which can dispense with imagination and succeed: bibliographies and their use are no exception. It will be the real test of value for these classifications if that quality, frequently requisitioned, serves to make out of dry rubrics of words and figures an instrument of current usefulness."

*In *The Architectural Record*, vol. 59, no. 3, Mar. 1926, p. 267.

✓ OUTLINE OF BIBLIOGRAPHY AND INDEX OF CLASSIFICATIONS

- | | |
|--|--|
| <p>I. GENERAL WORKS</p> <p>II. CHURCHES</p> <p>III. DWELLINGS</p> <p>1. General</p> <p>2. New England States</p> <p>a. Region as a Whole</p> <p>b. Separate States or Groups of States</p> <p>c. Separate Cities, Localities or Individual Houses</p> <p>3. Middle States</p> <p>a. Region as a Whole</p> <p>b. Separate States or Groups of States</p> <p>c. Separate Cities, Localities or Individual Houses</p> <p>4. Southern States</p> <p>a. Region as a Whole</p> <p>b. Separate States or Groups of States</p> <p>c. Separate Cities, Localities or Individual Houses</p> <p>IV. PUBLIC AND SECULAR BUILDINGS</p> <p>V. ALLIED (DECORATIVE, INDUSTRIAL) ARTS</p> <p>1. General</p> <p>2. Furniture and Furnishings, Interiors, Woodwork</p> <p>3. Glassware</p> <p>4. Metalwork, Hardware, Lighting Fixtures</p> <p>5. Pottery</p> <p>6. Silver and Pewter</p> <p>7. Textiles</p> <p>8. Wall Papers and Wall Paintings</p> | <p>VI. BIOGRAPHY</p> <p>VII. BIBLIOGRAPHY</p> <p>VIII. PERIODICALS</p> <p>1. General Articles (and articles on miscellaneous subjects not covered in sections following).</p> <p>2. Churches</p> <p>3. Dwellings</p> <p>a. New England States</p> <p>b. Middle States</p> <p>c. Southern States</p> <p>d. Central States</p> <p>4. Public and Secular Buildings</p> <p>5. Architectural Details</p> <p>a. Doors, Doorways, Fireplaces, Shutters, Stairways, Windows, etc.</p> <p>b. Fences, Brickwork, Stonework, etc.</p> <p>6. Allied (Decorative, Industrial) Arts</p> <p>a. Furniture and Furnishings, Interiors, Woodwork</p> <p>b. Glassware</p> <p>c. Metalwork, Hardware, Lighting Fixtures</p> <p>d. Pottery</p> <p>e. Silver and Pewter</p> <p>f. Textiles</p> <p>g. Wall Papers and Wall Paintings</p> <p>h. Miscellaneous</p> <p>7. Biography</p> <p>8. Bibliography</p> |
|--|--|

I. GENERAL WORKS

(Including a few regional descriptive and historical)

DOW, GEORGE FRANCIS

Domestic Life in New England in the Seventeenth Century, a Discourse delivered in the Lecture Hall of The Metropolitan Museum of Art in New York City, it being one of a series to mark the Opening of the American Wing. Octavo; pp. 48, illus. Topsfield, Mass.; The Perkins Press; 1925.

METROPOLITAN MUSEUM OF ART, THE

Addresses on the Occasion of the Opening of the American Wing. Octavo; pp. 34. New York; The Metropolitan Museum of Art; 1925. \$5.00.

WATERS, THOMAS FRANKLIN

Ipswich in the Massachusetts Bay Colony. 2 vols.; pp. viii+586, illus.; pp. x+839, illus. Ipswich, Mass.; The Ipswich Historical Society; 1905, 1917.

WHITAKER, CHARLES HARRIS

The Octagon Library of Early American Architecture. Vol. 1—Charleston, South Carolina. New York; Press of The American Institute of Architects; 1927.

II. CHURCHES

FARIS, JOHN T.

Old Churches and Meeting Houses In and Around Philadelphia. Octavo; pp. xvi+261, illus. Philadelphia; J. B. Lippincott Co.; 1926. \$6.00.

Report of the Committee on the Authenticity of the First Meeting House in Salem, together with the evidence. Pamphlet, pp. 85, illus. Reprint from the Historical Collections of the Essex Institute, vol. 39. Salem, Mass.

III. DWELLINGS

I. GENERAL

LATHROP, ELISE

Historic Houses of Early America. Octavo; illus. New York; Robert McBride & Co.; 1927. \$10.00.

MAJOR, HOWARD

Domestic Architecture of the Early American Republic: The Greek Revival. Large 8vo, pp. xxii+237, illus. Philadelphia; J. B. Lippincott Co.; 1926.

2. NEW ENGLAND STATES

a. Region as a Whole

No additions

b. Separate States or Groups of States

No additions

c. Separate Cities, Localities or Individual Houses

KIMBALL, FISKE

Elias Hasket Derby Mansion in Salem. 8vo, pp. 20, illus. Salem, Mass.; The Essex Institute; 1924. \$1.25.

MIXER, KNOWLTON

Old Houses of New England. Octavo, pp. xx+346, illus. New York; The Macmillan Co.; Price, \$5.00.

NORTHERN, MARY HARROD

Historic Doorways of Old Salem. 5 1/2x8 1/2 in., pp. xv+96, illus. Boston; Houghton, Mifflin Co.; 1926. \$3.00.

3. MIDDLE STATES

a. Region as a Whole

No additions

b. Separate States or Groups of States

No additions

c. Separate Cities, Localities or Individual Houses

No additions

4. SOUTHERN STATES

a. Region as a Whole

DENMARK, ERNEST RAY

Architecture of the Old South, with a Foreword by Lewis E. Crook, Jr. Photographic plates illustrating the better work between 1640-1850. Illus. Atlanta, Ga.; Southern Architect and Building News; 1920.

b. Separate States or Groups of States

SALE, EDITH TUNIS

Interiors of Virginia Houses of Colonial Times, from the Beginnings of Virginia to the Revolution. Octavo; pp. xxxiii+503, illus. Richmond, Va.; William Byrd Press; 1927.

c. Separate Cities, Localities or Individual Houses

CURTIS, ELIZABETH GIBBON; KIMBALL, MAXWELL; and HOLDEN, ARTHUR C.

Gateways and Doorways of Charleston, South Carolina, in the Eighteenth and the Nineteenth Centuries. Quarto; pp. xiii, frontisp. and 67 pl. New York; Architectural Book Publishing Co.; 1926.

SADLER, E. H.

Bloom of Monticello. Illus. Richmond, Va.; Whittet & Shepperson; 1920.

SIMONS, ALBERT and LAPHAM, SAMUEL, JR., editors

Charleston, South Carolina, with a Foreword by Samuel Gaillard Stoney. Quarto; pp. 219, illus. and meas. dwgs. Being vol. 1 of The Octagon Library of Early American Architecture, edited by Charles Harris Whitaker. New York; Press of The American Institute of Architects, 1927. \$20.00.

(To be continued in the next issue of The Record)

NOTES AND COMMENTS

CALIFORNIA BACKGROUNDS

As is common with people removed from metropolitan centers, Californians have in the past been more or less solicitous of the approbation of outsiders. Time was when we pointed with pride to things which were more our good fortune than our merit. I can myself remember when considerate "easterners" showed voluntary admiration for the climate and the scenery, and a willingness to be intrigued by the gold output and the size of turnips and oranges. I recall a college address delivered during my undergraduate days by some eastern university president or dignitary whom I have now forgotten. Yes, he said in substance, your sunshine is wonderful, and your flowers and your agricultural products and your Yosemite Valley and Lake Tahoe, and your timber and numerous other resources. And having thus worked us into a complacent enthusiasm for our vicarious virtues, he proceeded to ask, But what have you yourselves contributed? Given these physical bases for a distinctive culture, what are you doing to realize it?—Visitors were then not generally so frank.

Well, the gold output has ceased to interest even professional Californians. I believe that chambers of commerce and Californians Incorporated do not so much as refer to the "Golden State." We have also come to realize—even to admit—that in fruits and vegetables flavor is not necessarily commensurate with size. Interest in Yosemite Valley and Lake Tahoe is shifting; from objects of pride they are becoming sources of revenue, while those of us to whom nature offers literal re-creation pack further into the range to escape ukuleles and tips. Climate is still occasionally mentioned, though its field of exploitation has been moving from the center southward. In short, Californians are ceasing to expect admiration for their luck; and the significant thing is that along with this declining naïvete has been growing a recognizable cultural development.

Certain intellectual and artistic interests have long been manifest. From fairly early times until recent ones San Francisco enjoyed a theatrical reputation—not for production, but for discriminating taste. I have lately had the opportunity of hearing several actors and critics testify to the respect in which San Francisco's verdict was held. Several western literary figures have been decidedly more than local and ephemeral. The plastic arts, however, have been the latest to approach distinction and focus attention.

Architects first became aware that somebody was looking when the bungalow emerged. Don't ask me what is a bungalow or why. It is one of those

unscholarly subjects which can shatter a reputation for scholarship, like the origin and nature of jazz and the source of its name. The French are peculiarly fond of probing such questions. I look to some Gallic savant to give us a natural history of the bungalow which will make it seem like a really important matter. Meanwhile, whatever a bungalow is and however it came about, Californians and outside observers unite on its being an interesting contribution. At least it was until the speculative builders took it up. But to succumb to crass commercialism is no sign of weakness; the best things of life do.

If the bungalow was artistically a small beginning, it none the less set much more considerable forces moving. Here were outsiders concerned with something so simple and natural that it had not occurred to California architects to take it seriously, and neglecting our earnest efforts to conform to eastern standards. The inference was inescapable. Architects began attending to what was required rather than to what they imagined others might expect of them. This habit of independence has grown on California architects until now we are not bothered by what outsiders think of our work.

This statement may sound a little arrogant and hence misleading. There is a human approval for which we all have a weakness; or perhaps I should say a penchant, since within proper bounds it is really a commendable attitude. It is a satisfaction to think that our architecture is viewed with approval. But the important point is that we are not designing it with any presumed outside approval in view. Which, of course, is exactly one of the reasons why outsiders find it interesting. And which, again, is sufficient evidence that we have outlived our one-time provincialism. For this characteristic manifests itself not so much in the exhibition of local differences as in apprehension at exhibiting them. In other words, the essence of provincialism is the fear of being thought provincial.

When eastern architects profess interest in the work being done in California I am inclined to believe them. In the first place, were such not the case there appears to be no motive for their mentioning the subject at all. And in the second place, it is a pleasure to credit them with discernment. For, to be quite frank, I really think our current design is in large part among the best being done in the country today.

Just why this should have come about is of course an exceedingly complex matter, on some aspects of which I may have something to say in more detail

at another time. Suffice it to observe in passing that many of the laws supposed to determine these things with precision, and to which our histories cavalierly submit unprotesting past epochs, won't work now. Modern conditions modify much of their force, even supposing them ever to have had their alleged validity. Take the effects of local materials, for instance. It is practically as easy, sometimes easier, to get materials from the ends of the country, if not of the earth, as those existing nearby. Transportation and accidents of industrial development tend to that. There is therefore almost no section of the country which presents marked individuality in building materials. Compare social conditions in California with those of other parts of the country, and consider how much they really explain. The much-exploited effects of climate turn out to be more psychological than directly physical. And so on. No, the deterministic approach, unleavened by a little common sense and more imagination, will not yield much on California architecture. I am really inclined to believe that one of the principal reasons we are doing some of the most interesting architecture in the country is because some of the best architects in the country are in California.

IRVING F. MORROW

AN UNWISE REQUEST

THE DISTRICT OF COLUMBIA COMMISSIONERS request a temporary site upon the Mall for the farmers' market, ignoring the visible example of temporary buildings now destroying the utility and beauty of the Capital parks. The thought of adding a more unsightly object to their number is difficult to conceive.

The want of wisdom in requesting a park site for the objectionable structure, will be appreciated by a visit to the present market. On market days prominently in evidence are the unsightly portable stands, the dilapidated wagons, the forlorn horses and the scattered waste. The farmers leave upon the ground broken chicken coops, egg cases, decayed vegetables and debris of all kinds.

Instead of the stately buildings and formal parks of L'Enfant's plan we would have the farmers' market. Temporarily? We know and should not forget the long life of temporary buildings. When we celebrate the two hundredth anniversary of Washington's birth, citizens and foreigners will see flimsy stucco buildings and possibly a farmers' market upon the Mall instead of the order, dignity and beauty, which he with a broad vision contemplated.

Why do the District Commissioners make such an unwise request? The market must be removed to make way for the new Internal Revenue Building.

It is easier to put this place of barter with its unsightly accessories on the Mall than to select a permanent site. The District Committee in the House of Representatives has approved a site in the southwestern section of the city on the river where it will mar the connecting link between the War College and Potomac Park. The Efficiency Bureau strongly disapproved this location giving many good reasons for their action. The final selection of a permanent site must run the gauntlet of the House and Senate. With strong factions opposing each other it may be long before the question is definitely settled, hence the request for a place upon the Mall. The Commissioners with the possible failure to secure the Mall make a supplemental request for the use of B Street adjoining the park for portable stands and sheds with the Mall as a parking place for motor cars. As B Street borders the park and will be the main thoroughfare to the Memorial Bridge, it is unwise, being only less objectionable because they cannot make a temporary permanency in the street.

Let us recall briefly the flimsy structures placed on the Mall, under protest, as war emergencies. The frame stucco buildings between Third and Tenth Street not only destroy the beauty of the landscape, but bar the development of L'Enfant's plan, neglected for the past one hundred and thirty-nine years. These unsightly buildings preempt the ground where L'Enfant proposed his most imposing composition, the open vista between the Capitol and the Washington Monument, bordered by formal avenues of trees and stately buildings.

The most serious blunder perpetrated as a war measure are the reinforced concrete buildings erected by the War and Navy Departments on Potomac Park. These structures are good for at least a hundred years. They make futile the fine composition of the Park Commission which contemplated a densely wooded tract where these buildings thrust out their ugly prongs. Visitors to the shrines of our greatest Americans are distracted by their ugliness. Although their demolition is estimated at two million dollars, I believe the pride of the people in their Capital City and their reverence for Washington and Lincoln will insist upon their removal.

The temporary structures in Washington should be a warning not only to Government officials but to the city authorities of the country.

Roosevelt's breadth of thought and clear vision was illustrated when he ordered the destruction of the abandoned Pennsylvania Railroad station on the Mall, while Congress was preparing to wall in the train shed to fit it for Government offices. Although the House of Representatives went into hysterics over his supposed usurpation of power, investigation

proved he was acting within his rights. Had Roosevelt vacillated, the ugly train shed would have proved another barrier to park development.

The Institute as the guardian of the Park Commission plan should see that no permanent or temporary structures are erected in Washington that may hamper or prevent the speedy execution of the L'Enfant and Park Commission Plans.

The *Washington Post* in a forceful editorial says:

"The Mall belongs to the Nation. It has a more valid right to remain undefiled by ugly buildings than the farmers' market has a right to exist. If

Monroe, Michigan, at his resort project at Bitely, Michigan, after considerable experiment.

Mr. Greening has built five such cottages, which mark the attainment of perfection in log cottage construction. The logs used are second growth green white pine. He has these cut in the winter and peeled, leaving part of the cambium (inner) layer of bark. In the peeling process, by varying the shape and size of the cuts made through the cambium layer to the white wood below, many beautiful effects are secured.

After peeling, a coat of boiled linseed oil is applied



COTTAGE IN WHICH ALL LOGS AND POLES USED WERE TREATED WITH LINSEED OIL
Greening's Cottage, Bitely, Michigan

the Commissioners and Congress cannot find any other site for the market than the parkway that extends between the Capitol of the United States and the Washington Monument, let the market be abolished entirely. No backward step should be tolerated in the great work that is now under way for the beautification of the National Capital."

GLENN BROWN

TREATMENT OF LOGS FOR LOG CABINS

A NEW way of treating logs for the construction of log cottages has been adopted by Charles E. Greening, of the Greening Nursery Company,

with a paint brush to the logs. In a couple of weeks, another coat is given. When this coat is dry, the logs are ready for use. If the logs were not so treated, when they became dry the cambium layer would loosen and come off. The oil sets the bark so it remains on the log permanently. It also renders the logs impervious to water. This is a prime consideration. In the drying process, the oil retards checking to a large extent and if any small checks do appear, it makes them waterproof, thus preventing them from enlarging by the action of sun, water, and ice. The oil has still another use. It brings out the grain of the wood accentuating, in this way, the

contrast between the cambium bark and the wood.

Another innovation in Mr. Greening's method is the caulking between the logs with oakum instead of plaster. The oakum, being spongy, expands and fills the cracks when the logs shrink. In the case of plaster, when the shrinking comes it crumbles and falls out. The oakum can be stained the same color as the logs and coated with the linseed oil. This reduces shrinkage to the minimum.

The partitions in the cottages are constructed by a method of Mr. Greening's own that makes the cabins retain all their woodland savor. No sawed lumber is used at all. Pine poles of various sizes for the rafters, studding, etc., are used, and are treated the same as the wall logs. Those used in the partitions are sawed lengthwise in halves. The partitions are made of wall board in panels and the joints covered with these pine poles on both sides. The panels are painted in light colors and may be stenciled if desired. The use of wall board with the pine poles makes a simple and reasonable combination.

Trellises, pergolas, and other constructions are made of pine poles similarly treated, the whole giving the cottages the scent of the woods. By treating with the oil every second year, the cottages bid fair to survive the ravages of time better than most dwellings.

HARRY L. SPOONER

NEW HOUSING FOR OLD PARIS

A STREET in Paris was recently opened by the French triumvirate of authority—the Minister of Commerce, the Prefect of the Seine and the Prefect of Police. This street, according to the magazine "Housing," consists entirely of houses "built on the most approved principles of hygiene and on plans which recall some ultra-modern exposition of decorative art rather than the staid, uniform apartment houses of Paris.

"Situated in a district of Auteuil, which has retained its century-old trees and still boasts of many open spaces, the new street has been named rue Mallet-Stevens, after the distinguished French architect who designed this experiment in house construction.

"Seen from the outside the buildings present an entirely different aspect from those in the surrounding streets. Balconies, windows in rows and sloping roofs have disappeared. Stories are undefined, some being higher or lower than the adjoining ones. Windows are of huge size, and more like those

of some modern factory than of a private home.

"The walls are in gray cement, the roofs have been replaced by terraces, and every block presents a complicated geometrical figure of parallel straight lines, from which curves have been banished.

"The architect's idea was to make architecture subservient to comfort. The houses are, as it were, built from inside outward. When the rooms are large and airy, the windows are proportionately wide and high. But there is nothing hideous about these dwellings. The outer openings are painted in all colors blending harmoniously with the gray of the walls.

"The terraces are like hanging gardens, and on the sidewalks and window ledges there is a profusion of flowers and dwarf trees, which give the rue Mallet-Stevens the appearance of a street in some doll city.

"At first sight this new street of ten houses out in the Auteuil district looks like crazy geometric puzzles. It is all made of reinforced concrete, built in cubes and cylinders in the most fantastic manner.

"Enormous windows add to its queer very twentieth century look. It is only after the eye gets used to certain things that one begins to see elegance in the structure of these houses of the future.

"And once inside the houses of this queer street one realizes that the architect had some far better purpose than building an elegant frontage. He built his house from the inside out. He has tried to make a street of habitable dwellings, convenient, airy, full of light, easy to work in, comfortable and harmonious.

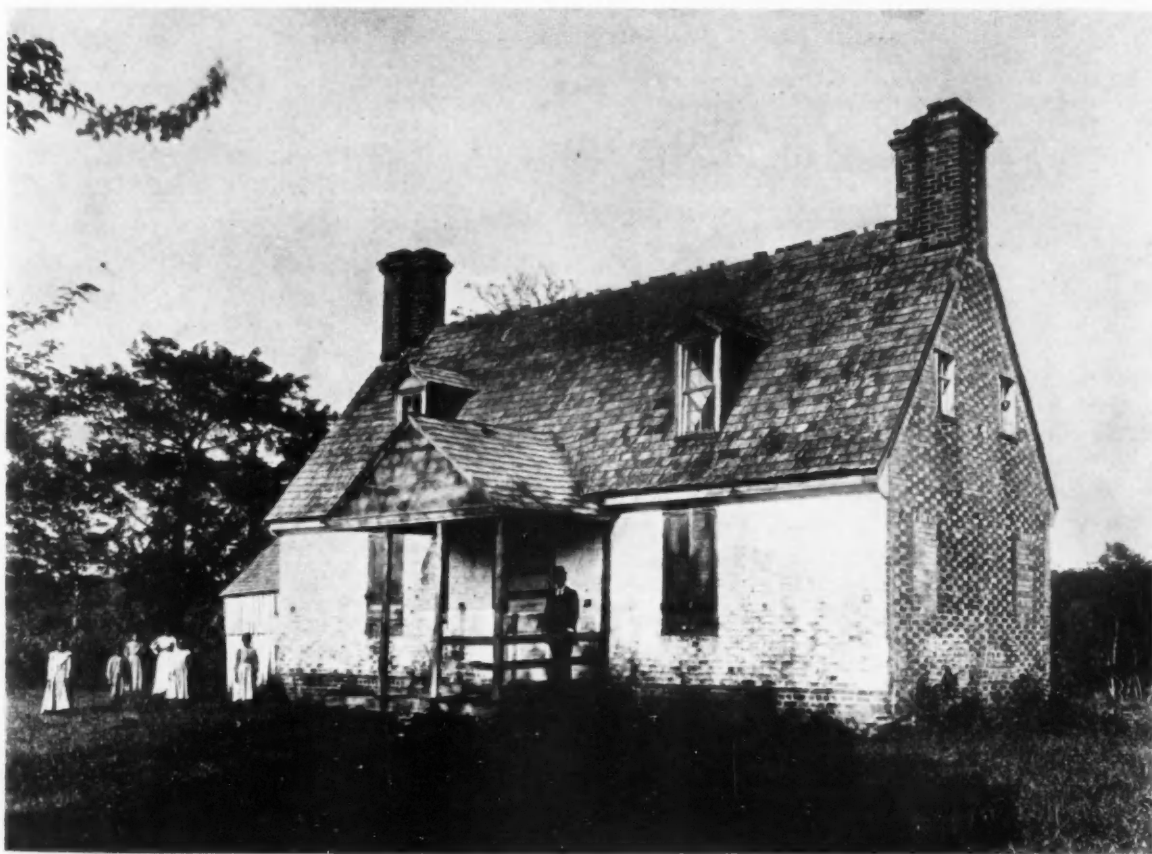
"The oddness of the outside does not appear at all indoors. The doors, windows and stairways are placed so as to give the maximum convenience. These houses are built for living in, just as an automobile is built for running on the road, and because they fit their purpose they are elegant. There is nothing superfluous.

"For the first time the flexibility of cement in place of stone as a construction material has been fully taken into account. Dwellers in these houses are not lodged in a square divided into more or less convenient parts. Around what they need in the way of living space a protective cover of cement has been built. Just as the house gives room for everything that is needed in a modern habitation, so it has no waste spaces.

"In only one thing does this street resemble every other street in Paris, and that is that there is nothing in it for rent."

MEASURED DRAWINGS

EARLY AMERICAN ARCHITECTURE

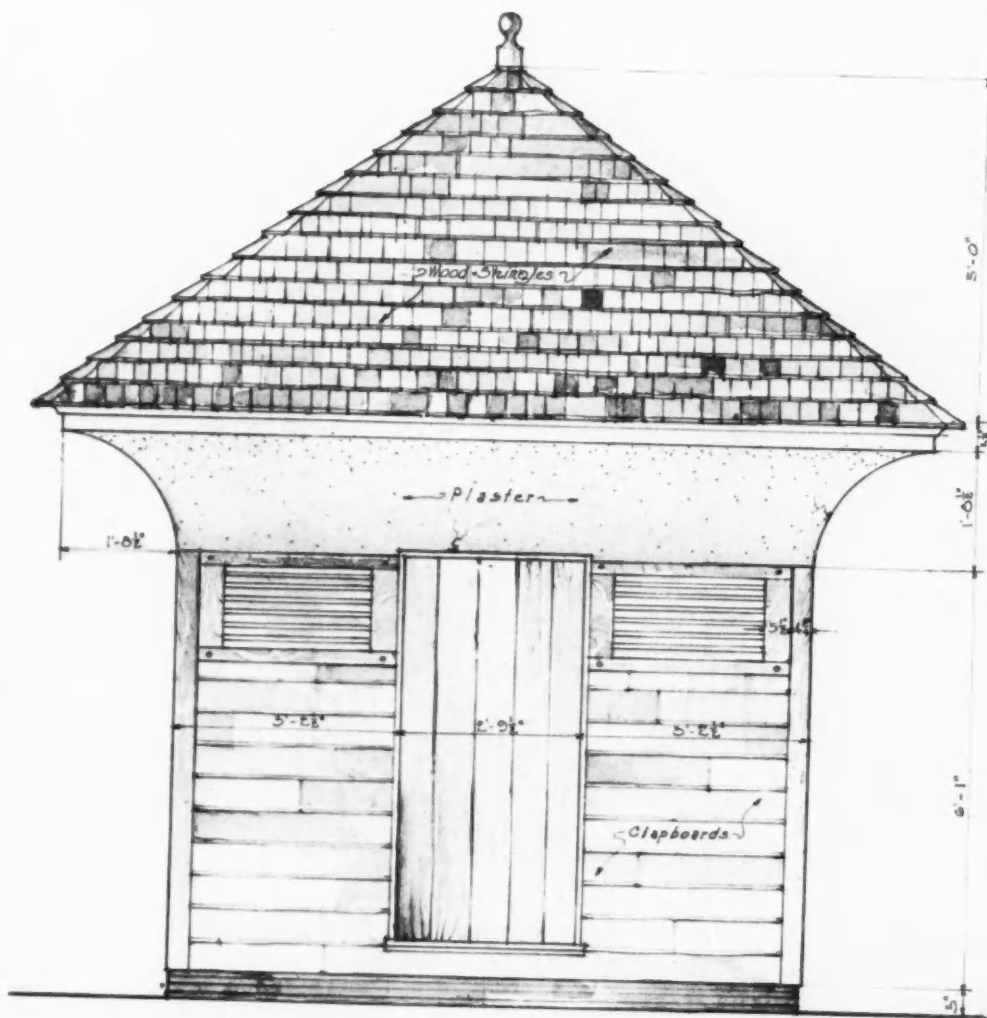


HOUSE NEAR WILLIAMSBURG, VIRGINIA



Photo, Metropolitan Engraving Co.

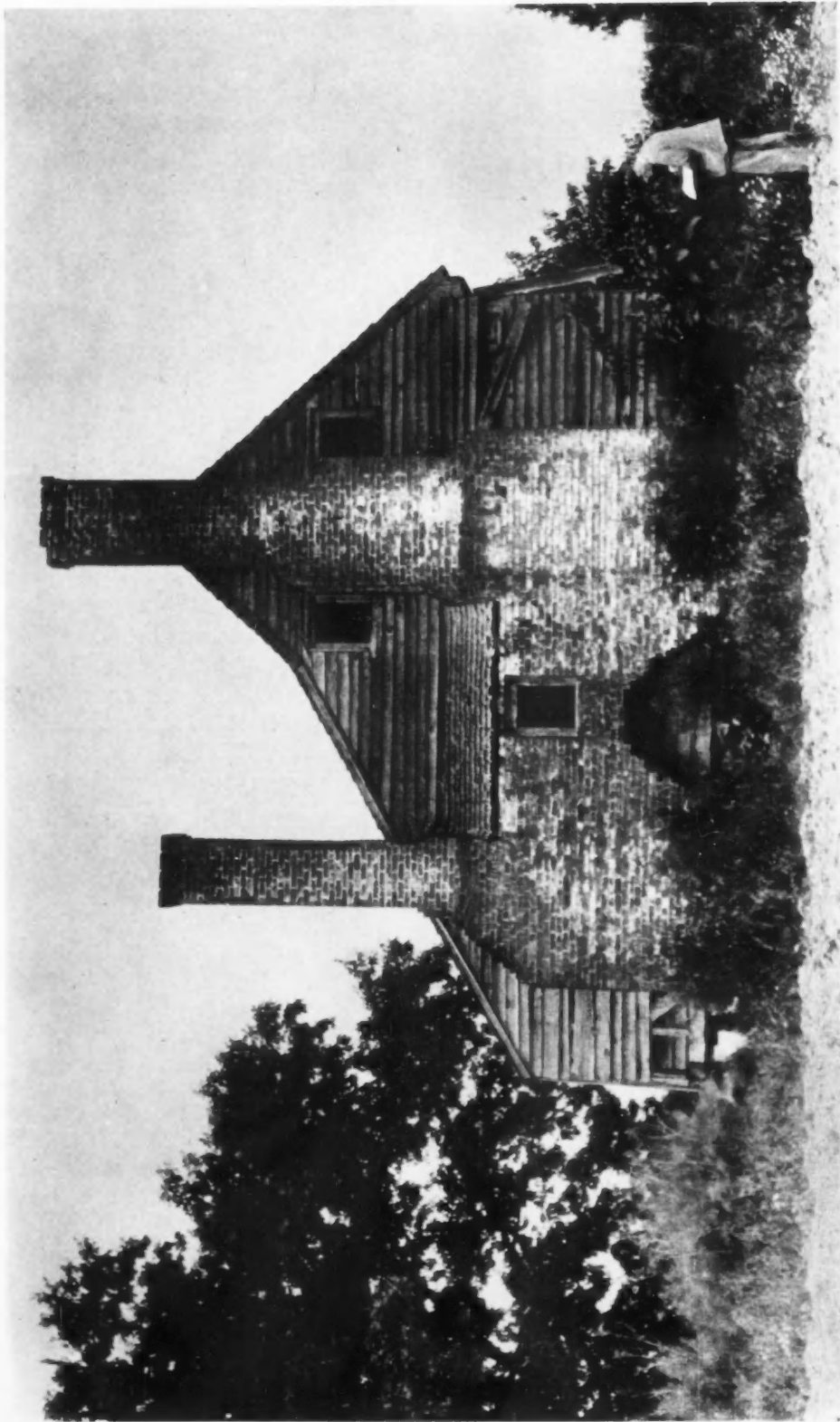
OLD DAIRY, WILLIAMSBURG, VIRGINIA



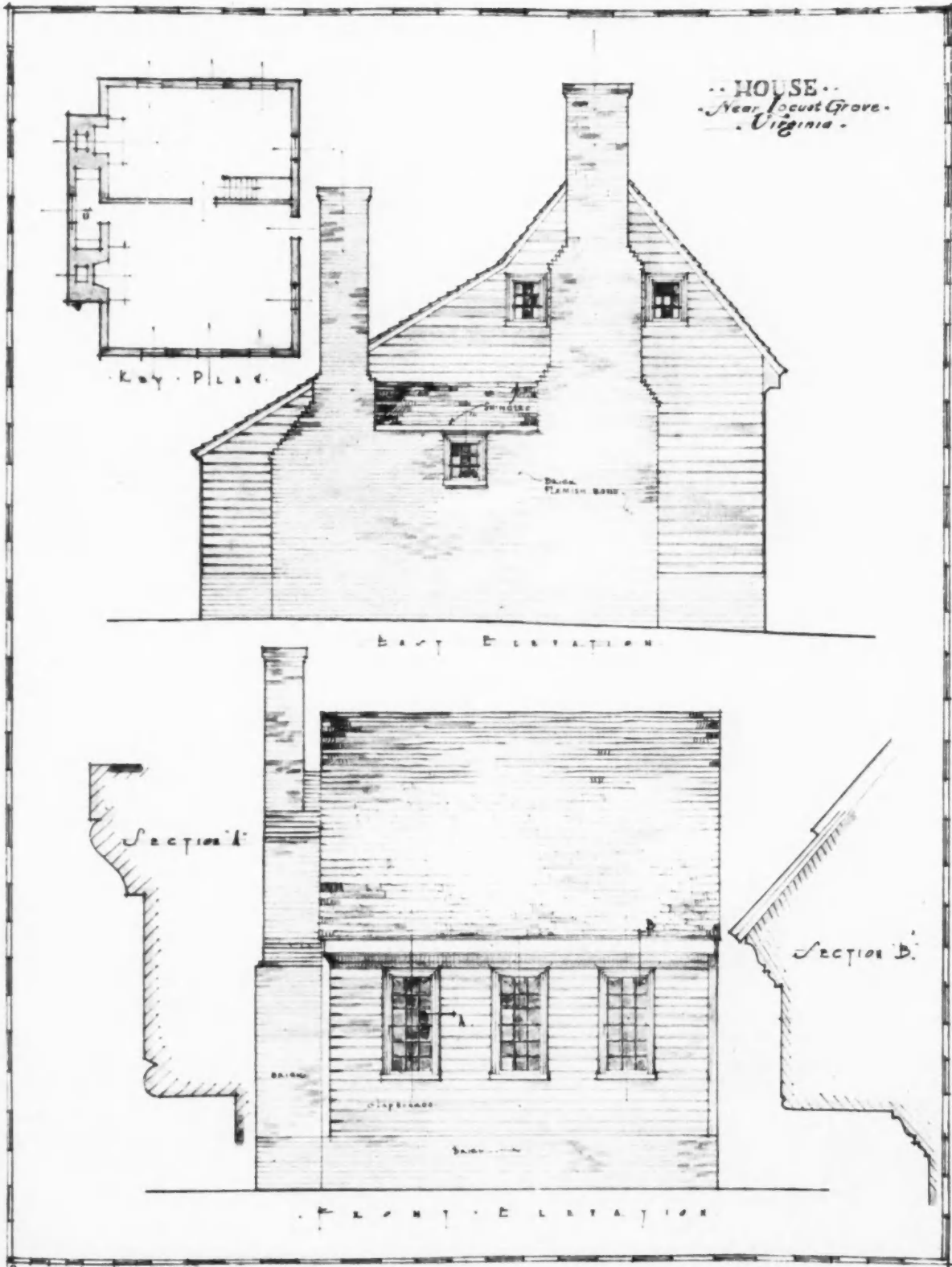
... FRONT ELEVATION ...

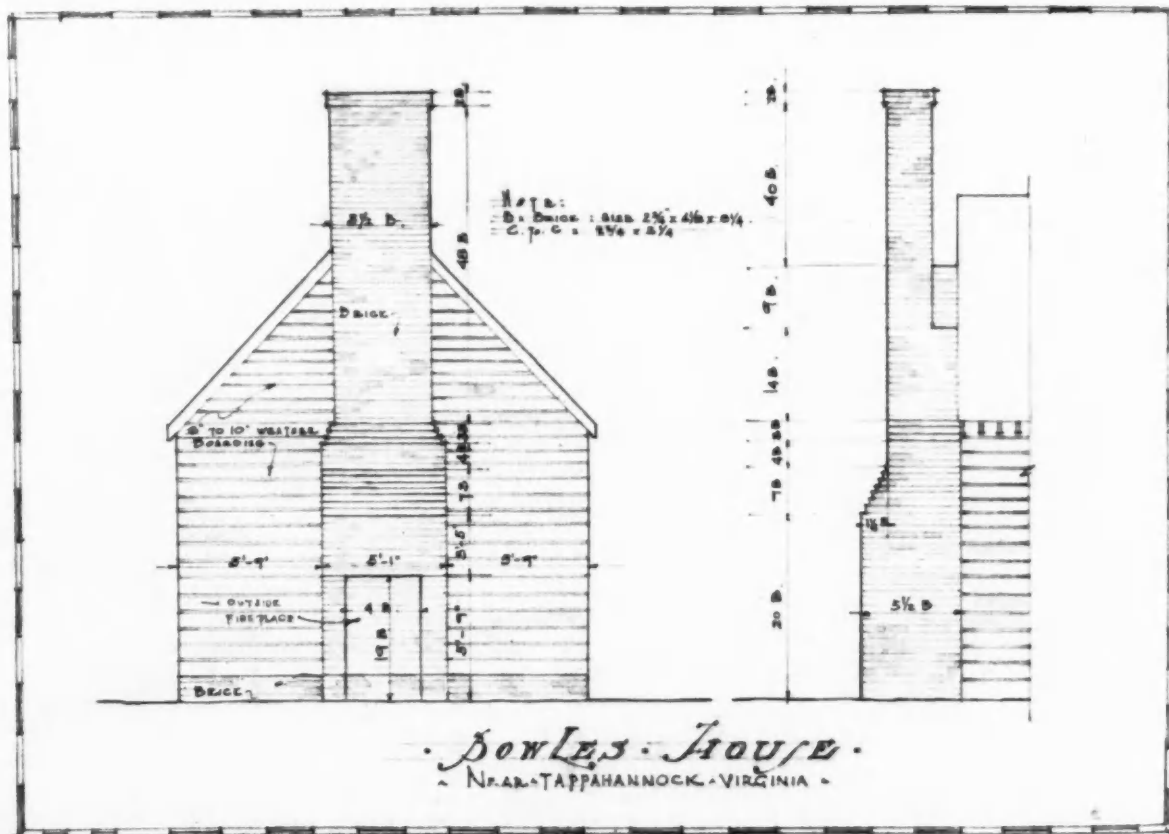
Measured & Drawn By
L. W. Ballou & T. C. Parker

... OLD DAIRY
+ WILLIAMSBURG VA +



HOUSE NEAR LOCUST GROVE, VIRGINIA





THE ARCHITECT'S LIBRARY

MAJORCAN HOUSES AND GARDENS

BYNE, ARTHUR, AND MILDRED STAPLEY.

Majorcan Houses and Gardens. Folio. Helburn. 1928. \$25.00.

THE BYNE AND STAPLEY books are always intelligent. In many such collections of photographs, while the photographic work is as good, the selection of things photographed seems haphazard and miscellaneous; but Mr. Byne is an architect and a draughtsman, and his selections and drawings are made with knowledge, purpose and plan. The texts of such books too are apt to be meagre or perfunctory or verbose, and the texts of the Byne and Stapley books are admirable.

A generation ago the Balearic Islands were seldom visited or described, but now Majorca, the largest of them, has become almost a resort. It can be reached conveniently from either Barcelona or Marseilles, and has many foreign residents. Yet its character and appearance are unchanged. Palma, the capital, got its name from the victory of Cecilius Metellus over the Carthaginian in 123 B.C. It was taken by the Moors in the 8th century; again by the king of Aragon in the 13th century, and the land parcelled out among the conqueror's captains. On the basis of that military aristocracy arose a still more opulent aristocracy of commerce, with a flourishing trade with Italy and the Levant. The splendor of Palma in the 15th and 16th century was often remarked. The great families in the 17th century lived in an almost regal style, and a surprising amount of their sumptuous furnishings is still there, not in museums but as the ordinary accompaniment of family life.

Of Moorish architecture there is hardly a trace remaining outside of certain vaults and foundations in Palma. "The story of domestic architecture in Majorca begins with a sort of medieval fortified manor transplanted from Catalonia and adapted." Every knight who received a grant of land in the general division or "repartimiento" of the 13th century, was required to fortify his house. Majorca was peculiarly exposed to Moorish piratical attacks for centuries. This fortified Catalonian style was modified in the 16th century in Palma partly as the result of a conflagration, and in the rebuilding features less medieval, more Italian and renaissance, appear. Some country houses still retain medieval features, but the more interesting ones were built or remodeled in the 17th and 18th centuries. The last building period in Palma was 1650-1750 (pl. 152). The old patriarchal system was then breaking up. It was a ruinous *modus vivendi* when the families were enormous. Estates began to be divided, and small

lots were even sold to the peasants. Large holdings of the monasteries were put up for sale. The new homes were built in the island tradition. In general these country houses are simple and spacious, but the change from the cramped intricacy of the medieval seems to have been made without transition.

The designation of these country houses is a curious abbreviation. *Son Oleza*, *Son Berga*, *Son Fortuny*, means Oleza's house, etc. and *Son* is a contraction of *So es de En Oleza*, or This is of Mr. Oleza. A *son*, so to speak, is a gentleman's farmhouse as distinguished from a villa for recreation, or from the estate itself which is called a *possessio* or *predio*.

Water is scarce in Majorca, and that is one determining condition. The island is wild and rugged, and in the mountains a beautiful view is almost unavoidable. The problem was to harmonize the house to its setting and make the right approach. The solutions are of many kinds. One of them has rocks and fountains above the roof line, pool and pergola below the house; another on a leveled hill top has gigantic terraces and a wide flung road. While a Castilian country house is usually planted directly on the highway with its amenities inside in the patio, a Majorcan has an exterior composition of fruit trees and terrace. The gardens are usually small and simple without sculpture or polychrome tiles. Most houses are surrounded with a high balustraded platform, which in reality is a watershed to an underground cistern.

Gothic Majorca was built of stone, but the 17th and 18th centuries introduced rubble and stucco. The stucco is generally of a warm ochre tint, sometimes banded with sea-green and blue. The Majorcan patio is not an outdoor living room, as in Andalusia. In country houses it is the focus of the farm life (pl. 85); in Palma it serves as an approach to the main stair, and the architectural treatment is reserved for the stair and loggia. The arches are curiously flat (pl. 142 or 149).

Sixteen palaces and country houses are described separately in some detail. La Granja may be taken as an example of a country house (pl. 20, 21, or 23). The property passed from the Arabs to the Cistercian monks, then to the Vida family, and finally to the Fortuny family, who still hold it and who built most of the present house in the 17th century. It stands on a steep hillside, with a cascade behind of abundant water falling into a rock garden. There is a pool and pergola in front. Architecturally it is an important example. The façade is a composition of two towers and an arched gallery. The stucco is a soft ivory tone with pale green window trimmings, and the gallery is of a yellowish sandstone.

Majorca seems always to have had a vigorous local craftsmanship. Carpets were woven on the island, furniture carved and upholstered, friezes and dados painted by local artists. The Spanish window grille or *reja* is seldom found, but there is a wealth of iron balconies. Majorca glass rivaled that of Venice and Valencia. There is a peculiar island fabric called "catalufa," thick, shaggy, woven of raw silk and used for wall hangings (see pl. 178).

ARTHUR W. COLTON

HOW AMERICA BUILDS

NEUTRA, RICHARD J.

Wie Baut Amerika? 4to. 105 abb. 77 pp. Hoffmann. Stuttgart: 1927. Paper. \$2.50.

IN THIS BOOK Mr. Neutra, the Austrian aide of Frank Lloyd Wright in the building of the Imperial Hotel in Tokio, now an American architect practicing in the west, answers for German readers the interesting question, "How does America build?" Even were this all he did the book might have interest in America: for thus to have the new building methods of our time summarized and analyzed by a foreigner to whom European methods and our own are both familiar, brings before us many phases of these methods which we know too well to appreciate in full their implication. The very completeness with which Mr. Neutra omits consideration of traditional frame and masonry construction is highly significant. It is his claim that the super-personal style-formation now in development, originated in the United States, while some of the theoretical speculation was and is done abroad.

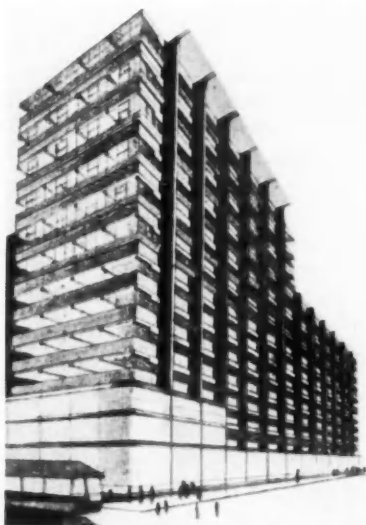
But Mr. Neutra goes further than his programme perhaps implies, and discusses the traffic question which is so closely related to the question of our building methods; and in this discussion he offers suggestions with regard to automobiles for handling both the matter of distribution and of garaging, and with regard to trains for railroad stations devoted to commuting traffic. His scheme for a large commuting station is interesting and ingenious both in plan and in design and his "Rush City" would be fortunate to be so well provided.

He further considers the relation between the almost universal use of taxis and private automobiles and the zoning question both as regards New York and Chicago; and proposes essentially a scheme

(such as neither New York nor Chicago approach, but rather Cleveland, Detroit or Hartford), with a business center of rather high buildings surrounded by a wide-spreading low building zone for residences, apartments and the necessary adjuncts, theatres and so forth, to large city life. Thus the first third of his book is of a theoretical but not utopian nature, outlining the conditions which control American building, how they are regulated and how they might well be further regulated to give to our cities something of the logical organism which, with somewhat less advanced traffic conditions, the newer Central European city planners have sought—as for example in the enlargement of Cologne or Vienna.

The central third of his book is devoted to a discussion in great detail of the new Palmer House in Chicago as a typical example of American large scale city building. This requires in America no particular comment since it is of conventional steel construction.

The concluding section is again, like the introduction, to a large extent theoretical and takes up various new methods of construction for use in small scale buildings. The first of these materials is a sort of standardized concrete plate (made in St. Louis) used on a reinforced concrete or steel skeleton: a method of building which one would associate rather with the experimentations of the Dessau Bauhaus in Germany than with America where wood and masonry traditions still seem all but universally dominant in such small scale construction as is considered "Architecture." This method is illustrated with plans and perspectives which are per-



From *Wie Baut Amerika?*

haps even more convincing from an artistic than from a structural point of view. One can only hope that such attractive modern designs are really practical and possible in the suburbs of "Rush City." The costs are said to compare favorably with those of conventional American wood construction. He also discusses the "Knitlock" system of reinforced construction used in the last few years by Frank Lloyd Wright in his California houses and already described by Andrew Rebori in *The Record*.

In conclusion Mr. Neutra discusses the aesthetic effect of the use of the materials and methods he advocates both in downtown "Rush City" and in its suburbs. He gives as well illustrations of technical details such as windows in skyscrapers, doors in garages, model kitchenettes and fitted

closets in apartments; and shows comparable treatment of such civic necessities and luxuries as covered market places, swimming baths, and jails. There is also a design of his own for the exterior of an office building which has the practical and artistic advantages of contemporary American factory design unobscured by masonry wall filling and cast ornament. Finally for the comfort of the retrospectively minded are a few illustrations of Pueblo architecture—today so universally admired—and an ingenious indication of the parallelism of its aesthetic with the aesthetic of the architecture of "Rush City."

Even in a brief notice the reviewer has felt it desirable in the interests of the American reader to summarize rather fully the unfamiliar material of the first and third sections of this very important book, which through its illustrations—which might have been larger and more frequent—asks only to speak for itself even to those who do not read German. Mr. Neutra shows himself here one of the less than half a dozen architects working in this country—all but Wright, of whom he is the only worthy follower, foreign-trained—who are as fully convinced as the leaders of French, German and Dutch architecture of the essential relation between modern design and the methods and materials it works with: with the architect of "Rush City" as with the architect of Pessac, of Dessau, or of Rotterdam, architecture is the aesthetic crystallization of the engineering solution of the building problem. Creation is again, as in the time of the great structural architectures of the past, a possibility, and nowhere more so than in America.

HENRY-RUSSELL HITCHCOCK, JR.

EXPRESSION IN CONCRETE

T. P. BENNETT, F.R.I.B.A.

Architectural Design in Concrete. Photographs compiled by F. R. Yerbury. Oxford Univ. Press, American Branch, New York. \$10.00.

IT is proper, in reviewing the text of this book, to consider the American section first. This is very fully illustrated by plates at the end of the book supplemented by a number of analytical studies. These plates have one feature in common—namely, an inadequate recognition of the claims of modern methods of concrete construction. In several magnificent examples which include a monumental archway, churches, hotels and temples, the constructive methods employed have been relegated to a place of secondary prominence while motives of enrichment, door and window incidence, and silhouette seem to have engaged the whole attention of the designers. That this is not the final word in the expression of concrete architecture in America one

is assured, and in this connection I cannot do better than quote Irving K. Pond, former President of The American Institute of Architects, and F. S. Onderdonk of the University of Michigan.

"We have, in this country, developed a wide variety of textures and surfaces," says Mr. Pond, "but we have in small measure as yet developed the constructional side as has been done in other lands, particularly in Germany and France. This is a field in which the structural imagination may well be allowed to play; a field in which our designers, with their material instinct for bigness and spiritual instinct for simplicity, should be eminently successful."

Professor Onderdonk says: "Although the new material has wonderful possibilities, the architects of our generation scarcely realize what a treasure has fallen into their hands. As all parts of a concrete building are tied together by steel reinforcing rods, joints as well as minor mouldings which separate bases, shafts and caps from each other in traditional styles are no longer necessary or desirable. Large smooth planes contrasting with openings piercing the concrete wall are the result; this must eventually result in the creation of a concrete tracery."

Both these authorities cover the theoretical field, yet I think I am right in saying that up to the moment of writing there are no examples extant in America of this approved practice.

If the statement near the end of the book is true, then the outlook for architecture is gloomy indeed. "The tendency of all industries," he says, "appears to be in the direction of the employment of a small number of skilled men and a large number of operatives who are unskilled or only slightly skilled." This means that the buildings of the future are to be produced by unintelligent people for the most part—i.e., people of slavish mentality. But, as I have said, certain of the author's deductions are difficult to accept. Personally, I believe that the architecture of the future will demand as the first requirement that everyone concerned shall be more than slightly skilled and shall be much more than slightly interested. Many—too many—of the buildings of the present time show evidence of the fact that they were produced by the methods advocated by the author. Is it too much to hope that the author may be wrong in his deduction?

Again, the fundamental differences between Roman and modern works are summarized for present-day construction as follows:

1. Greater economy of cost.
2. Reduction of period of erection.
3. Maximum amount of daylight in all rooms.
4. Reduction of number and extent of obstructions on plan.
5. Relatively low floor heights.

It would seem that these are not fundamental differences—they are secondary or even more remotely removed results. The fundamental differences in the matter are the combined use of steel and concrete, the exact knowledge of the properties of this combination, and the scientific application of this knowledge to the constructional problems of modern work. The author attributes lack of mathematical knowledge to early historical construction (he it noted that mathematics is only a humble handmaid of science) and hints that he will further investigate the difference mentioned above numerically, but one is disappointed by being confronted next by the announcement of the principle of using one material as a constructional element and covering it with another. One would have expected the author at this point to indicate at least the basic fact underlying the matter, which is the tensional property of Ferro-concrete, but there is no reference to it.

In the opening chapter "originality" is referred to as an expression of individuality, and individuality is in all arts a contemporary characteristic. If this be true, then Louis Quinze and Strawberry Hill Gothic horrors are both original and individual. And so they may be—but with vicious, modish frippery at the heart of them. Originality and individuality of worth come only from the sincerity of purpose of the designer. It is difficult to avoid complete dissension from the author in regard to many things in this book, but in none more so than in his deduction that touches upon constructional expression.

The author produces for the expression of modern architecture "the dominating idea of verticality" and produces it as the result of constructive impulse. Let it be stated as a simple fact that the true expression of modern architecture is no more dominantly vertical than horizontal—rather less so, in fact. The example taken to illustrate the dominating idea of verticality is very far from

being conclusive proof of the author's hypothesis. Page 8, paragraph 1, runs as follows: "The main vertical constructive element is repeated as a number of bays on the façade, and a suitable lighting element is obtained by dividing these bays with suitable vertical features." But on turning to the illustration which is to bear out this assumption (plate XL showing the Hollywood Terminal Building) we find there is scarcely a sign of the repeated vertical constructional element referred to, and no sign at all of the horizontal element which everyone knows to be there, and which in actual fact dominates the whole

hidden skeleton. It is only necessary to consider the amount of steel laid horizontally in a modern building with the amount fixed vertically to arrive at a just estimate of what is the dominating idea.

Messrs. Morgan and Walls and Clements, the architects of the building in question, were entitled to make their design as vertical in expression as they liked, but I do not think the author is justified in attributing to it a mediaeval modernism which does not exist and which should not exist.

In the present transitional state of architecture, I think it is regrettable that the author of this book did not make the following distinction clearly and emphatically, for it is one that is intimately bound up with the development of concrete architecture, and it is this:

Concrete construction is one thing—ancient—chiefly compressional.

Ferro-concrete construction is another—modern—chiefly tensional.

In a book which sets out to review the whole field of "architectural design in concrete" the omission of such a vital distinction and the emphasis of it is a grave defect. Heretofore, tensional forces in a building were considered to be disastrous agents leading straight to disruption. Now we can lock them up with the complete assurance of continually increasing safety. This means that we have the astounding



RADIO TOWER, KOOTWYK, HOLLAND

J. M. LUTHMAN, ARCHITECT

From *Architectural Design In Concrete*

phenomena of a new constructive material to our hand that only awaits scientific application to modern architectural problems, and as yet we have practically no new architecture. A casual glance at history will show conclusively that a new architecture invariably comes with a new constructive material and here we are with practically none.

Let me conclude with the following extract—page 24, last paragraph—"It is therefore of the greatest possible importance that at frequent intervals a survey should be made of the efforts of the individual designer to produce façades, interiors, color com-

sitions, textures and ornament which represent his personal ideas." This is the author's own summary of his intention in publishing the book called "Architectural Design in Concrete." Façades, interiors, color, textures and ornament, but very little about the great new constructional principles which have in their heart the source of inspiration of all the noble works of the future. It would almost seem that the root of the matter is not of prime importance to the author and one is forced to say in conclusion that the book is chiefly an excellent collection of plates.
S. WOODS HILL.

✓
LIST OF NEW BOOKS ON
ARCHITECTURE AND THE ALLIED ARTS

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

—◆—
ARCHITECTURE

ARCHITECTURAL LEAGUE OF NEW YORK.

Yearbook and Catalogue of the Forty-Third Annual Exhibition. Building of the American Fine Arts Society, February fourth to March fourth, inclusive. New York: Press of the Kalkhoff Company, 1928. 82 unnumbered leaves, illustrations. f°. \$1.50. 720.6

An annual record of important work in the field of architecture, crafts, sculpture and decorative painting.

Cafés, Bars, Restaurants.

Paris: Construction moderne, 1927. 2 plans, 38 plates. obl. 4°. 75 fr. 725.71

A collection of photographs showing both exteriors and interiors of Parisian cafés and restaurants, arranged alphabetically under architects.

HARRISON, FREDERICK.

York Minster. London: Methuen & Co., Ltd., 1927. xii, 212 p. Front., plans, plates, 12°. 6s. 726.6

Bibliography, p. 204-205.

A study of the history and architecture of this English cathedral by its vicar-choral and librarian. Small half-tone illustrations from photographs.

KEYSER, CHARLES EDWARD.

A list of Norman tympana and lintels with figure or symbolical sculpture still or till recently existing in the churches of Great Britain. 2d ed. rev. and enl. London: Elliot Stock, 1927. lxxxiv, 80 p. Front., plates. 4°. 35s. 729

A long and detailed introduction reviews the literature of the subject, discusses the dating of examples, and describes the sculptured ornament. The catalogue lists individual examples alphabetically by location. There are, in addition, a topographical classification; indexes of illustrations, of subjects and of places, with a list of photographers.

MARÇAIS, GEORGES.

Manuel d'Art Musulman; l'Architecture Tunisie, Algérie, Maroc, Espagne, Sicile. Paris: A. Picard, 1926-27. 2 v. Diagr., illus. (incl. map, plans). 8°. 100 fr. 723.3

Bibliography, p. 421-441 and 917-929.

A chronological and a regional study of the architecture of the western Muhammedan world.

MIXER, KNOWLTON.

Old Houses of New England. New York: Macmillan Co., 1927. xx, 346 p. Front., illus. 8°. \$5.00. 728

A discussion of typical examples of the early domestic architecture of New England in relation to the historical background of the period.

POLEY, ARTHUR F. E.

St. Paul's Cathedral, London; measured, drawn and described by Arthur F. E. Poley. London: Printed for the author, 1927. xvi, 29, vii p. Front., illus., 32 pl. 1 ed. f°. 6 guineas. 726.6

At head of title: Erected 1675-1710.

Printed at the Chiswick Press.

"Mr. Poley's beautiful drawings of St. Paul's represent several years of devoted labour and the result is worthy of the splendid building which forms their subject. For the first time, there will be available for students of architecture an accurate and complete record of what is, on the whole, the finest example of neo-classical architecture in existence."—Introduction by Sir Reginald Blomfield.

POWER, ETHEL B.

The Smaller American House; fifty-five houses of the less expensive type selected from the recent work of architects in all parts of the country. Boston: Little, Brown & Co., 1927. x, 100 p. Illus. (incl. plans). 4°. \$3.00. 728

A volume of illustrations from photographs, with brief descriptive captions, grouped according to the building material employed. There is an index of architects and of owners.

REQUA, RICHARD S.

Architectural Details, Spain and the Mediterranean. Cleveland, Ohio: J. H. Jansen, 1927. 4 l. 144 pl. f°. \$20.00. 729

"The securing of the photographs and half-toned reproductions contained in this work were made possible through the co-operation of the Monolith Portland Cement Company of Los Angeles, California.

By special arrangement with them this edition was published." Excellent reproductions from photographs illustrating characteristic examples of façades, doorways, grilles, balconies, roofs, towers, courts and garden details.

WALTERS, SIR JOHN TUDOR.

The Building of Twelve Thousand Houses, Illustrated.

London: E. Benn, Ltd., 1927. xi, 38 p. Front., 98 pl. (incl. plans), port. 4°. 21s. 728

An English solution, by the Industrial Housing Association, of the housing shortage in certain colliery districts. Fully illustrated by plans and drawings.

ALLIED ARTS

BAYARD, EMILE.

L'art de Reconnaître les Tapisseries. Paris: E. Gründ, 1927. 342 p. Illus. 12°. (Guides pratiques de l'amateur et du collectionneur d'art.) 18 fr. 745

A compendium of information concerning tapestry, its types, history, marks, care, etc.

BORENIUS, TANCREDO, and E. W. TRISTRAM.

English Medieval Painting. Firenze: Pantheon,

1927. 66 p. Illus., 101 pl. f°. £4 14s 6d. 759-2

Bibliography, p. 58-61.

A chronological study covering the twelfth through the early sixteenth century, with a special chapter on technique. Wall paintings and panel pictures are reproduced in drawings and water colors by Professor Tristram.

BOSSERT, HELMUTH THEODOR.

Peasant Art in Europe: 100 plates in full colours and 32 plates in black and white, reproducing twenty-one hundred examples of peasant ornament and handicraft taken directly from unpublished originals. London: E. Benn, Ltd., 1927. 95 p. 132 mounted pl. (mainly col'd). f°. £9 9s. American edition published by Weyhe at \$50.00. 740

Bibliography, p. 41-44.

FOREIGN PERIODICALS

Reviewed by Henry-Russell Hitchcock, Jr.

THE PERIODICALS here reviewed give a more consistent and intelligible picture of current architecture than did the varied lot of last month. For the present it would seem that the German architects (with Schneider the furthest to the left, and Kaufmann the furthest to the right), have the most definite and mutually understandable programme. The tendency of the more important German periodicals to devote practically an entire number in plates and text to one architect or group of related architects, certainly gives the foreigner a better idea of the dominant style than the more casually chosen material in the other European journals. *Die Baukunst* in this month's number devoted to Tessemow, and *Moderne Bauformen* devoted to the work of the Vienna architects, offer a most satisfactory picture of the typical work of architects who are neither reactionary nor

An excellent collection of decorative motives, very completely indexed.

COOPER, C. S.

The Outdoor Monuments of London: statues, memorial buildings, tablets and war memorials; illustrated from photographs specially taken by Will F. Taylor. London: The Homeland Assoc., Ltd., 1928. viii, 236 p. Front., plates. 4°. 18s. 735

"The present volume is an attempt at cataloguing and recording London's statues of famous men and women, its war memorials, and the commemorative tablets placed upon buildings and sites of historical interest."—Preface. There is an index of sculptors and architects.

Decoration in Colour.

100 modern interiors in colour. Stuttgart: J. Hoffmann, 1927. vi p. 100 col'd plates. 4°. English edition by Batsford, price 38s. Title of German edition *Farbige Raumkunst*, price 38 marks. 747

Austrian and German examples showing interior detail, color combinations, furniture and accessories.

SITWELL, SACHEVERELL.

German Baroque Art. London: Duckworth,

1927. 109 p. Col'd front., 48 pl. 4°. 25s. 709-43

Printed by the Riverside Press, Edinburgh.

Bibliography, p. 103-108.

The author's point of approach is indicated by the three divisions of the volume: the historical scene; an architectural tour; and an epitome of painters and craftsmen.

WEBBER, F. R.

Church Symbolism: an explanation of the more important symbols of the Old and New Testament, the primitive, the mediaeval and the modern church. Introduction by Ralph Adams Cram. Cleveland: J. H. Jansen, 1927. 4 p., ix, 3 95 p. Front., illus. 4°. \$7.50. 726

Bibliography, p. 371-376.

A detailed explanation of various symbols, illustrated by drawings and half-tones with glossary and index.

revolutionary in their programme—the architectural center, so to speak, to which most of the civic work in the other periodicals belongs.

The British periodicals show, amid a mass of reminiscent work, little that is different in spirit from the majority of work on a similar scale produced in America. There are, to be sure, one or two houses in which the continuance of tradition seems less binding than with us, with more of simplicity and less negative in quality. It is also significant that the very completely modern house by the well known and long established firm of Sir John Burnet and Partners compares very favourably with the most advanced French, Dutch and German work. The plan however is closer to the American norm.

ENGLAND:

The Architects' Journal. January 18. A housing development at Weybridge by Louis de Soissons and Arthur W. Kenyon. Some rejected designs



HOUSE IN ESSEX BY SIR JOHN BURNET AND PARTNERS
From *The Architect and Building News*, Feb. 17, 1928

for the Shakespeare Memorial Theatre.

Feb. 1. Second installment of Nathaniel Lloyd's article on brick sizes. An article by P. Morton Shand based on a lecture by André Lurçat on the "Aims and Inspirations of Modern Architecture."

Feb. 8. A well illustrated article on Birchanger, Northwood, a fine conservative modern English house. Measured drawings of a Regency interior.

Feb. 15. Mosaic decorations by Boris Anrep in the chapel at Keir, Dunblane, Scotland.

Feb. 22. A mildly modern building in Paisley.

The Architect and Building News.

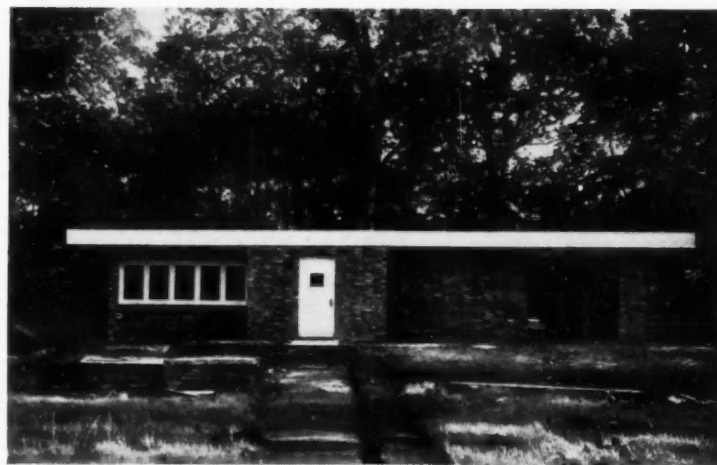
Jan. 6. An article on Sir Edwin Lutyens' designs for the British Embassy in Washington. A complete publication of the winning designs of Elizabeth Scott for the Shakespeare Memorial Theatre; also four rejected designs of which two are American. The interiors of the *Ile-de-France*. A very excellent traditional house near Oxford. An illustrated account of the "Trend of Architectural Ornament" in England. Some excellent remodeling. A London factory.

Jan. 13. Recent London County Council Housing Progress. German theatres by Oskar Kaufmann.* Modern design for a Covered Market.

*Illustrated in these pages.



HOUSING IN JÜLICH, RHINELAND
From *Zentralblatt der Bauverwaltung*,
Feb. 8, 1928



A SUMMER HOUSE DESIGNED BY KARL SCHNEIDER
From *Bauwelt*, Feb. 23, 1928

Jan. 20. "Architecture and Thomas Hardy." An article on the Rue Mallet-Stevens in Paris. New factory, Sidcup, for Crittall Metal Windows.

Jan. 27. "England, France and the Ultra-Moderns" with illustrations of Boston work by Strickland, Blodgett and Law.

Feb. 3. An article on the Danish Architect Kay Fisker, a leading neo-classicist. A note on the *Daily Mail* "House of the Future." An Exhibition of Modernist Furniture at Shoolbred's.

Feb. 10. The spandrel sculptures of the southeast transept of Worcester. De Bÿenkorf, a modern Dutch Department Store of P. Kramer, architect.

Feb. 17. A very fine completely modern house of Sir John Burnet and Partners.*

Journal of the Royal Institute of British Architects. Feb. 11. A verbatim report of a discussion of Harvey W. Corbett's talk on skyscrapers.

FRANCE:

La Construction Moderne. Feb. 12. Restoration of the Cathedral of Soissons. E. Brunet, architect.

SWITZERLAND:

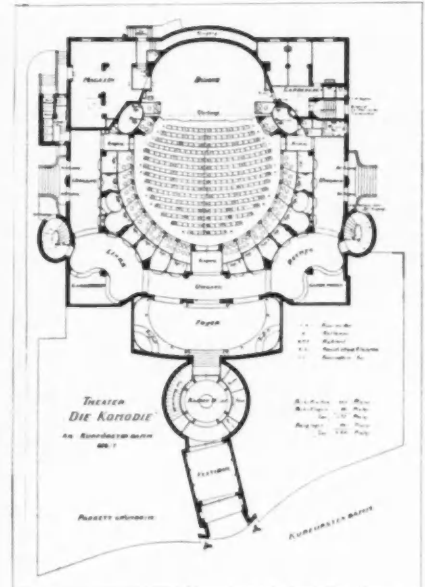
Das Werk. Feb. Article on Modern Kitchen arrangements. Modern architecture at Jerusalem.

ARGENTINA:

Revista de Arquitectura. Feb. A modern bank in Buenos Aires and



THEATER, DIE KOMÖDIE, BERLIN, BY OSKAR KAUFMANN
From *Die Kunst*, Feb., 1928



From *The Architect and Building News*,
Jan. 13, 1928

a modern house, both by Alejandro Virasoro.
CANADA:

Jan. *The Journal*, Royal Architectural Institute of Canada. An editorial on the problem of the skyscraper. An early nineteenth century house at Stamford, Ontario.

GERMANY:

Moderne Bauformen. Feb. The number is devoted to work by Vienna Architects, Strnad, Hoffmann, and others. Interiors and students' work is included. Standardized modern interior and exterior doors from Frankfurt am Main.

Die Kunst. Feb. An article on American Country Houses. Die Komödie theatre by Oskar Kaufmann.* Modern Architecture and the League of Nations Competition: the Fahrenkamp and the Le Corbusier design.

Baukunst. Jan. A full study of the work of H. Tessemow; including his installation of the Dresden Art Exposition of 1925.*

Die Baugilde. No. 2, 1928. Competition Drawings for the Solingen High School.

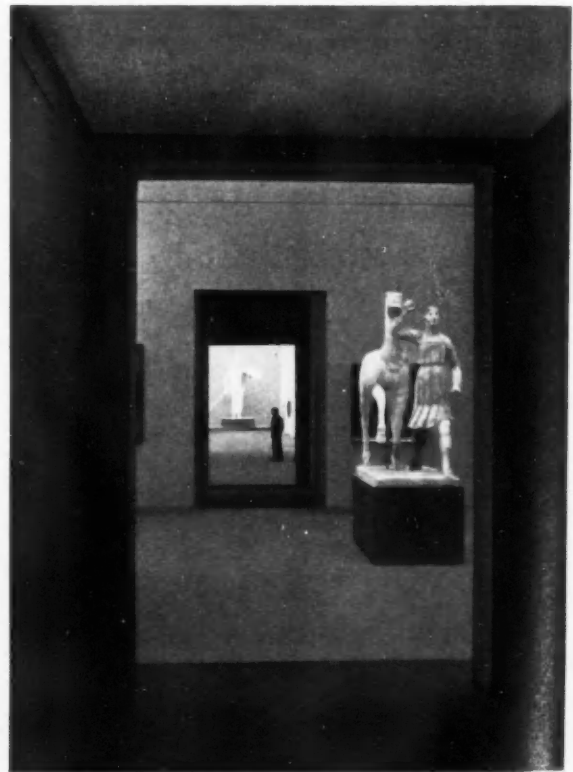
No. 3, 1928. A Theatre in Essen by Metzendorf and Schneider. A Berlin cinema by Schöffler, Schlönbach and Jacobi. Competition drawings for the Reichstag building extension, Berlin.

Bauwelt. Feb. 23. A discussion of modern architecture, between an architect, a sculptor, and a painter. Works of Tessemow and Schneider.*

Zentralblatt der Bauverwaltung. Feb. 1. Competition Drawings, Reichstag Building addition.

*Illustrated in these pages.

Feb. 8. Workers' apartments in the Rhineland; Architect, Martin Kiessling.*



INTERNATIONAL EXHIBITION, DRESDEN, 1925
From *Baukunst*, Jan., 1928



Residence of Arthur Lawrence, Esq., Bronxville, N. Y.
Penrose V. Stout, architect.
Roof of slate from the O'Brien Bros. Vermont quarries.

WE BELIEVE that unusual interest will be felt by architects in one of the most pleasing of the products of our Vermont quarries—our

***Emerald Dark
Unfading Green Slate.***

This roofing slate, split to three-sixteenths thickness, affords a most charming combination of tint and texture, adaptable as regards color to virtually any type of residential architecture and absolutely non-fading under all circumstances. It has been used to extraordinarily good effect in some of the most interesting of modern residential work, and we ask your consideration for it on your next undertaking of this type.

See Sweet's for details—page A458

O'BRIEN BROS. SLATE CO., INC.
GRANVILLE, NEW YORK

NOTES IN BRIEF

TRAVELING EXHIBITS

The Portland Cement Association announces the following information regarding a traveling exhibit of prize-winning designs in the T-Square Club Competition for duplex and semi-detached houses of concrete masonry.

"The photos sent out have been enlarged to 15x20 and mounted on heavy board backing suitable for display. There are eleven drawings in the set and they will be shipped by express, charges prepaid, to any architectural club or chapter of the A. I. A. interested in the same. Shipment will be made in a suitable container to prevent the photos from being damaged in transit and a description of the drawings will accompany the exhibit.

The T-Square Competition was conducted, first—for the purpose of obtaining competent architectural studies in the design of semi-detached and duplex houses of concrete masonry. Then it was the hope that attention would be brought to the distinctive possibilities of concrete as an economical structural medium."

Clubs wishing to obtain these drawings as an exhibit should write to W. F. Lockhardt, District Structural Engineer, Portland Cement Association, 347 Madison Avenue, New York City.

CHICAGO FAIR—1933

The Architectural Commission for the world's fair of 1933 has been determined. It consists of Raymond Hood, Paul Cret, Harvey Corbett, William Holabird, Edward H. Bennett, Hubert Burnham, Arthur Brown and Ralph T. Walker.

It is tentatively proposed to locate the group of exposition buildings on a chain of islands built and to be built in the lake between Jackson Park and Grant Park.

The membership of the Committee promises a fair that will have little resemblance to classical Greece or Rome but rather an exposition of the arts, construction and thought of our own times.

INTERNATIONAL EXPOSITION IN SEVILLE

Ceramic decoration which has been cultivated bril-

liantly and continuously in Spain from the early prehistoric times, will be one of the notable features wrought into the fabric of the Ibero-American International Exposition in Seville which is to be formally opened on Columbus Day, October 12th, to continue through June, 1929, and in which the United States will officially participate.

A novel feature is the lavish use of azulejos ornamentation employed in almost every phase of this great Spanish-American fair which includes the Iberian countries of Spain and Portugal, with those Western Republics which owe their existence in whole or in part to the discoveries and colonization of the glory days of the Spanish world empire. Through a congressional appropriation of \$700,000 the United States' participation is well under way and former Governor Thomas E. Campbell of Arizona, United States Commissioner General to the exposition, is now in Seville with a group of American architects and engineers to supervise the erection of three exhibition pavilions.

WAYSIDE REFRESHMENT STAND COMPETITION

The prizes in the second Wayside Refreshment Stand and Gasoline Station Competition have been awarded. The competition is forwarded through the medium of the Art Center of New York and the American Civic Association of Washington, D. C.

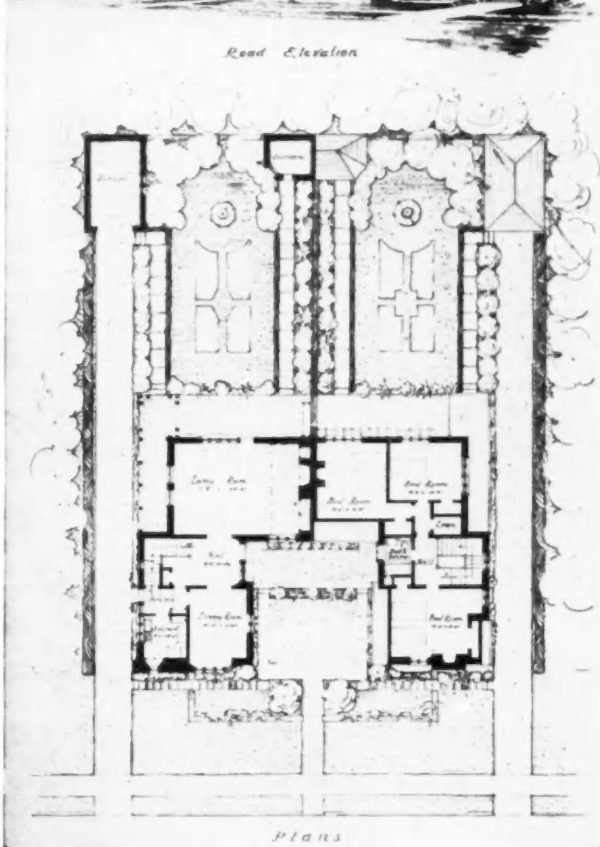
The purpose of the competition is to better the appearance of the roadside stands which, through ugliness of conception or carelessness of construction, are beginning to menace the beauty of highways and countryside.

The first prize of \$500 was won by Henry Ives Cobb, Jr.,

of New York City for a refreshment stand and gas station. It is colonial in design and, according to the prize jury, "stands out from all the drawings submitted for its sheer charm." The second prize of \$400 went to Malcolm P. Cameron, also of New York, whose Spanish mission design was treated with tile and stucco. The third prize of \$300 won by Sam F. Swales—a structure shingled and clapboarded. Morley Geety won



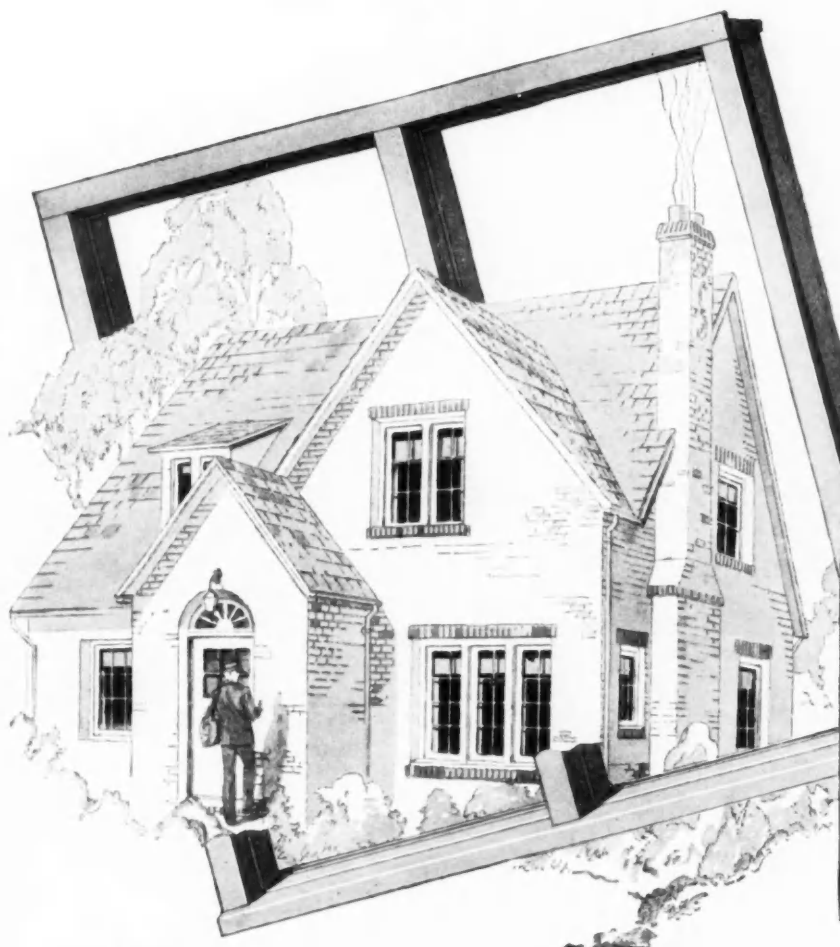
Road Elevation



Plans

FIRST PRIZE DESIGN FOR A DUPLEX RESIDENCE

Portland Cement Association Competition



A Frame for Every
Kind of Building

SUPERIORITY
GUARANTEED
by this trade mark

Andersen
Frames
Genuine
White Pine
Sills and Casings

White Pine for PERMANENCE Styles and Sizes for BEAUTY
Weather-tight for HOME COMFORT Available at dealers for CONVENIENCE
Standardized Quantity Production for ECONOMY

Solve your problem of making Casements weather-tight

Andersen

Distinctive Features

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

See Sweet's Architectural Catalog, page B 1160 for frames, page B 1785 for pulleys

The weather-tight bugaboo of casement windows is banished when you specify Andersen Casement Frames* with Genuine White Pine sills and casings.

These frames have exclusive patented features allowing the economical use of wide blind stop construction. They are so accurately milled that sash can be fitted snugly. They are made of seasoned lumber to reduce variation to a minimum. All

sills and casings are of genuine, soft, white pine. Screens, storm sash and metal weather-stripping can be easily and cheaply installed.

These are the simple reasons why Andersen Casement Frames are becoming so popular with architects seeking casement charm and beauty with utility and economy.

For Andersen Frame information check and mail coupon below.

Andersen

*The Andersen Trade Mark is on every frame.

FRAMES

ANDERSEN LUMBER COMPANY
Box 4106, Bayport, Minnesota

I will be interested in receiving items checked:

Andersen Catalog No. 300—Complete, detailed information for the drafting room and specification writer.

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

Name _____ Street Address _____ City _____ State _____

fourth prize of \$200, the fifth going to A. S. Cropsey and Charles Leonbardi.

William E. Frenaye, Jr., was winner of the first prize of \$500 in the design in the competition for separate refreshment stands. Mr. Frenaye designed a rustic structure which the jury characterized as "delightfully simple and straightforward and exceptionally economical." Franklin Scott received the second prize of \$400. The third prize of \$300 went to Laurence Doubleday of Ithaca, N. Y.; fourth prize of \$200 to James A. Britton of Boston, Mass., and fifth prize of \$100 to Burton A. Bugbee of Ithaca, N. Y.

CHICAGO ARCHITECTS AND COMPETITIONS

In the selection of the architect for the new auditorium to be built in Chicago, the Bulletin of The Illinois Society of Architects strongly favored a world-wide competition with no intention to detract from the ability of Chicago architects.

"Chicago," says the Bulletin, "is especially proud of the Tribune Tower, the architects of which were selected by means of an open competition held under the regulations of the American Institute of Architects. Nebraska is the proud possessor of a new State capitol which is recognized as one of the most magnificent buildings standing. The architect of this building was selected by means of an open competition. Los Angeles has its new public library which was handled in the same way, and there are dozens of other instances where important public and monumental buildings receive the benefit of the best architectural talent in the country through the medium of a competition."

OUT-GRIMMING GRIMM

The following item appeared on the Bulletin Board of the Architectural League of New York:

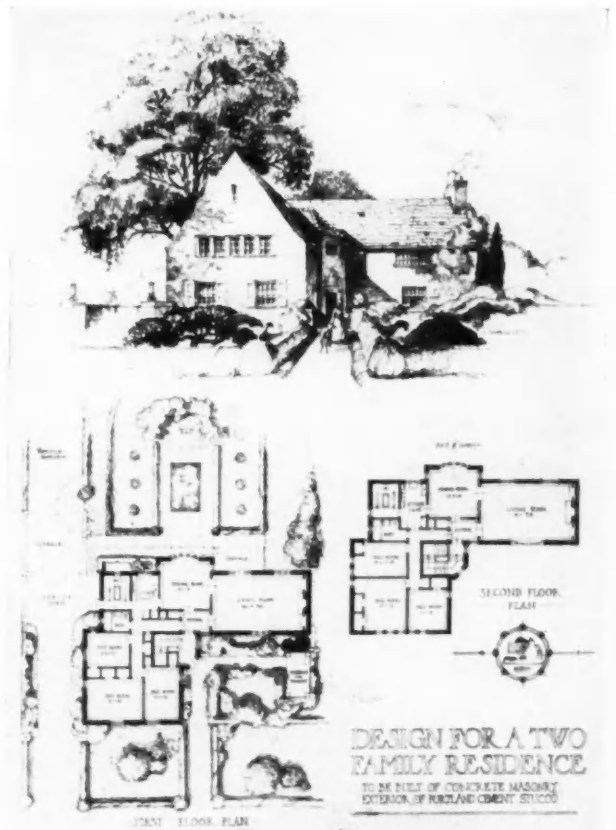
"Once upon a time there was an architect who designed a building so good that all the architects admired it."

SCHOOL PRIZE

For performing the best work among the competing universities and colleges in the competitions of the Beaux-Arts Institute of Design in New York City, this year, the University Medal of the American Group of the Société des Architectes Diplômés par le Gouvernement Français, has been awarded to the Department of Architecture of the Carnegie Institute of Technology.

CIRCULATING ART

The Arts Council of the city of New York has instituted a plan whereby objects of art may be borrowed, taken to the home for a limited period and then exchanged, just as one does a



FIRST PRIZE DESIGN FOR A TWO-FAMILY RESIDENCE
Portland Cement Association Competition

CONTRIBUTORS

PHILIP L. GOODWIN, architect of New York City; Chairman of Building Committee, Beaux-Arts Institute of Design.

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

CLAUDE BRAGDON, architect; stage designer; author of "Beautiful Necessity", etc.
IRVING F. MORROW, architect, member of firm Morrow and Morrow, San Francisco; Associate Editor, "The Architect and Engineer."

RICHARD F. BACH, Associate in Industrial Arts, The Metropolitan Museum of Art, New York City; formerly Curator, Avery Architectural Library, Columbia University.

KINETON PARKES, English critic of art; author of "Sculpture of Today"; contributor to Athenaeum, Studio, etc.

PROFESSIONAL ANNOUNCEMENTS

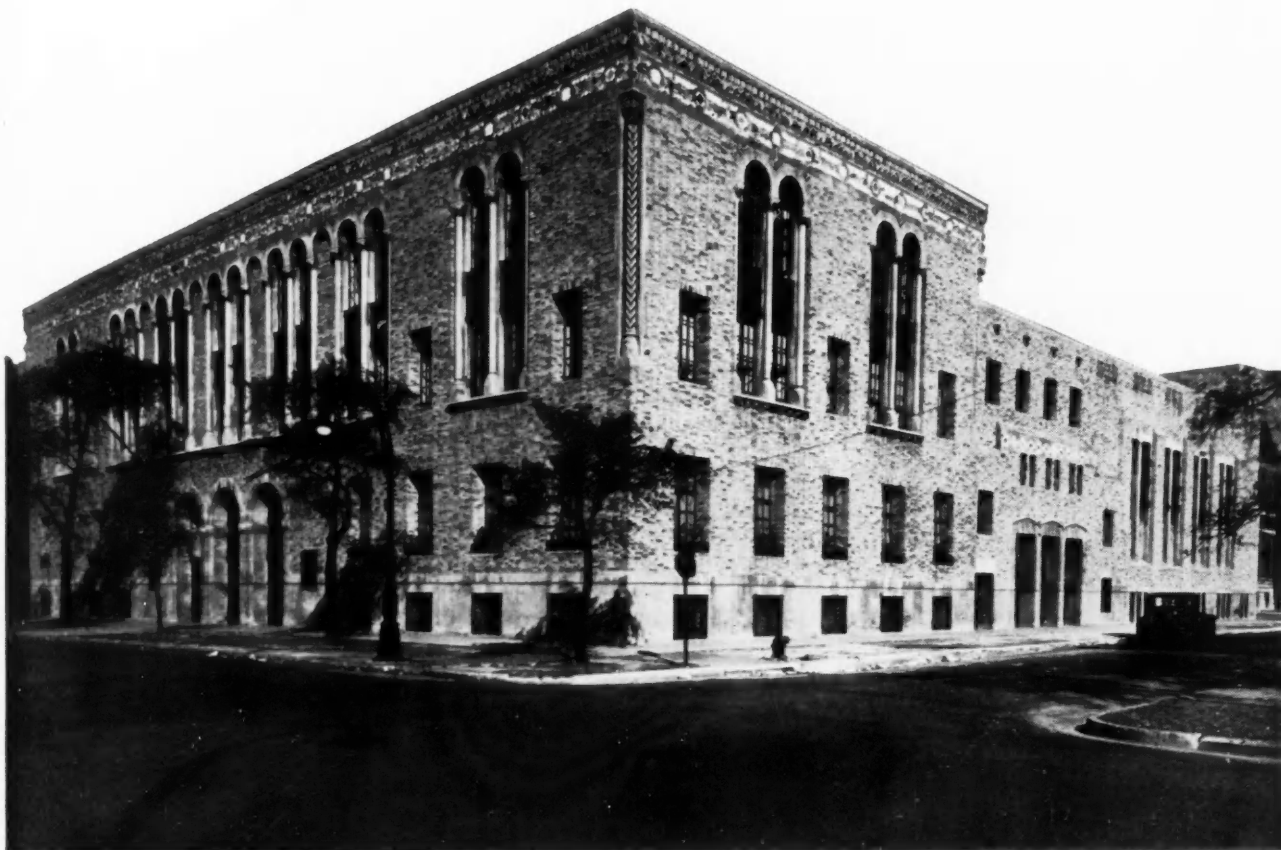
	Page*
Architects' Announcements	69
Notes in Brief	148
News of the Field	152
Construction Statistics	154
Received from the Publishers	156
Recent Trade Publications	158

Advertising Section

book from a library. Mr. Harvey Corbett has characterized the method adopted circularizing such art objects. "The present exhibition," he says, "is an innovation. To borrow a book from a library is now commonplace but to be able similarly to borrow prints, paintings, sculpture, textiles and other works of art is a new idea. The right use of leisure is one of the great problems of today and an interest in one or more of the arts points to the safest and most satisfactory solution."

BACK COPIES OF THE ARCHITECTURAL RECORD

The Architectural Record frequently receives requests for back numbers of The Record. Subscribers who wish to dispose of such issues should communicate with L. N. Harvey, Circulation Manager, The Architectural Record, 119 West 40th Street, New York City. We also have on file addresses of architects who have bound volumes of The Record available for purchase. Inquiries for these volumes should be addressed to Mr. Harvey.



SARGENT
HARDWARE

JEWISH PEOPLE'S INSTITUTE
Chicago, Illinois

Eugene H. Klaber and
Ernest A. Grunsfeld, Jr.
Architects

EVERY building is a materialization, a realization of some architect's vision. Unique in design, this Institute stands as a significant contribution to modern architecture by Eugene H. Klaber and Ernest A. Grunsfeld, Jr. Here, they have planned a structure that is worthy of sincere study. In its construction, the outside brickwork has been handled in an interesting manner.

This building is another example of the fact that Sargent offers hardware suitable for every type and every class

of building. Sargent locks and trim, Sargent pieces of solid brass and bronze, are sound building investments for any type of structure. Sargent Hardware is long lasting, carefully and faithfully made. Of time-defying materials, all moving parts are exactly machined and fitted to insure a minimum of wear, and long years of certain, silent operation. Sargent cylinder locks, secure, firm and thief-resisting, can be master-keyed in any practical combination for use in public or semi-public buildings.

SARGENT & COMPANY

Hardware Manufacturers
NEW HAVEN, CONN.

New York: 94 Centre Street
Chicago: 150 N. Wacker Drive (at Randolph)

SARGENT
Locks & Hardware

NEWS OF THE FIELD

REPRESENTATIVES of the leading manufacturers of wrought iron in various parts of the country met at the Duquesne Club recently and formed the Wrought Iron Research Association, the principal object of which is to gather and disseminate information about this time-honored metal.

The members of the Association are the American Swedo Iron Co., Philadelphia, Pa.; The Burden Iron Co., Troy, N. Y.; A. M. Byers Co., Pittsburgh, Pa.; Cohoes Rolling Mill Co., Cohoes, N. Y.; Ewald Iron Co., Louisville, Ky.; Glasgow Iron Co., Philadelphia, Pa.; Highland Iron and Steel Co., Chicago, Ill.; Hughes & Patterson, Philadelphia, Pa.; Logan Iron & Steel Co., Philadelphia, Pa.; Lockhart Iron & Steel Co., Pittsburgh, Pa.; Penn Iron & Steel Co., and Pittsburgh Forge & Iron Co., both of Pittsburgh, Pa.; Reading Iron Co., Reading, Pa.; and Ulster Iron Works, Dover, N. J. Headquarters of the Association will be in Pittsburgh, Pa.

SAMUEL CABOT, Inc., of Boston, Mass., have signalized their fiftieth anniversary in several distinctive ways, one of these consisting of the publication of a small booklet containing twelve reproductions on tinted stock, hot pressed, of steel portrait engravings of old time architects including Palladio, Sansovino, Bernini, etc. The reproductions are very well executed and well worth framing. Should any architect have been overlooked in the distribution of these sets of portraits, Samuel Cabot, Inc., will be happy to forward a copy on request, as long as the edition lasts.

AN INFORMATIONAL and technical service for users of lumber and wood in other forms has been established by the National Lumber Manufacturers Association. This service will be rendered at their request to those having construction, manufacturing or utilization problems, in specific cases, and generally through bulletins compiling results of various research activities.

Thirty consultant engineers and specialists have already been retained by the Association for this service. They are located in groups available to every section of the country and are prepared to handle problems related to construction, architecture, engineering, agricultural and industrial uses, forestry, merchandising, wood technology, lumber grades and a multitude of other topics.

The technical staff of the Association is continuously engaged in fundamental research and in addition maintains a continuous association with the Forest Products Laboratory of the United States Forest Service, at Madison, Wisconsin, the Forest Service headquarters in the United States Department of Agriculture, the United States Bureau of Standards and the Wood Utilization Committee of the U. S. Department of Agriculture, all at Washington. It also maintains a system for securing information on the peculiarities of wood and new practices in production and distribution from forests and mills. Further information may be secured from the headquarters of the Association, Transportation Building, Washington, D. C.

THE SECOND NATIONAL FUELS MEETING arranged for those who are interested in the production, distribution or utilization of fuels and heat will be held in Cleveland, Ohio, September 17 to 20, 1928. The Meeting will be under the auspices of the Fuels Division of the American Society of Mechanical Engineers. Further particulars may be secured from Mr. H. M. Hammond, Publicity Committee, 1050 Ivanhoe Road, Cleveland, Ohio.

ALBERT PICK & COMPANY—(furnishings, equipment and supplies for hotels, restaurants and institutions)—announce that their entire general offices are now located in new quarters in their main building, 1200 West 35th Street, Chicago, Illinois. This, they state, makes possible the concentration of their entire executive, sales, merchandising and operating organization under one roof.

WE ARE informed that a license arrangement has recently been completed between The Permutit Company and the Paige & Jones Chemical Company whereby the Paige & Jones Company is privileged to sell Zeolite softeners under the Gans (Permutit) patents, and that both present and future users of Paige & Jones Upflow Zeolite Softeners may operate them without being involved in any way legally.

OFFICIAL announcement is authorized by The Northwestern Terra Cotta Company of the purchase of the Advance Terra Cotta Company located at Chicago Heights, Illinois. The Northwestern Terra Cotta Company now owns and operates four terra cotta plants and one crucible plant. The latter is the Chicago Crucible Company located at Chicago. The four terra cotta plants are located at Chicago, Chicago Heights, St. Louis and Denver. The new plant at Chicago Heights, modern in every way, considerably increases the facilities of The Northwestern Terra Cotta Company, already the largest as well as the oldest manufacturer of terra cotta in the world.

FOLLOWING a recent session of the convention of the American Concrete Institute, thirty-four manufacturers of concrete stone held a meeting and formed the Association of Cast Stone Manufacturers, with the following officers:

President, C. Van de Bogart, Economy Concrete Co., New Haven, Conn.

1st Vice-President, Wm. P. Eddy, Onondaga Litholite Co., Syracuse, N. Y.

2nd Vice-President, M. A. Arnold, Arnold Stone Co., Jacksonville, Fla.

Secretary, Frank M. Brooks, Brooks Art Stone Corp., Pasadena, Calif.

Treasurer, Paul Formigli, Formigli Architectural Stone Co., Philadelphia, Pa.

Temporarily, C. G. Walker, of the Portland Cement Association, 33 West Grand Avenue, Chicago, is the active Secretary.



THERE is only one Tapestry brick in the world. It is made by Fiske from a special clay found only at their Tapestry plant in Ridgway, Pa. The rich blending of colors in Fiske Tapestry Brick is the result of a special method of firing that our brick-making experience of sixty years has developed. Tapestry Brick is made only at this plant. No other plant can duplicate it—not even one of our own.

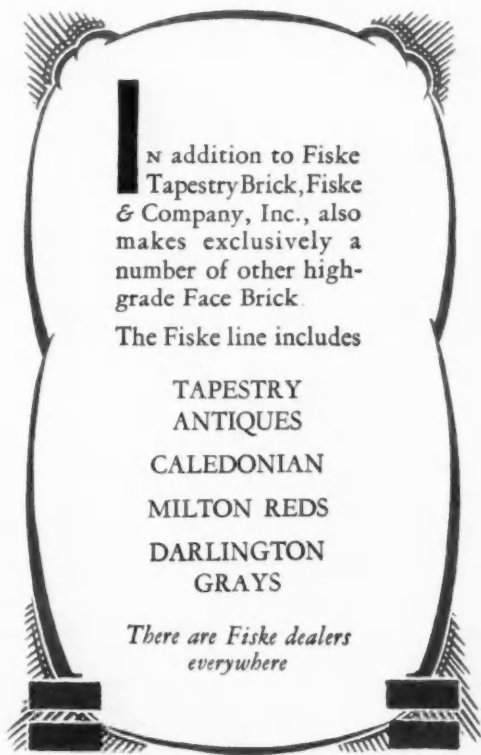
To protect everyone, from the architect who wants Tapestry Brick used on the job to the owner who thinks he is getting it, the name "Tapestry" is plainly marked on each Tapestry Brick.

FISKE & COMPANY, Inc.

NEW YORK: 17 W. 46th Street BOSTON: 115 Federal Street

PLANTS

MILTON, PA. RIDGWAY, PA. DARLINGTON, BEAVER COUNTY, PA.
BUCKEYSTOWN, MD.



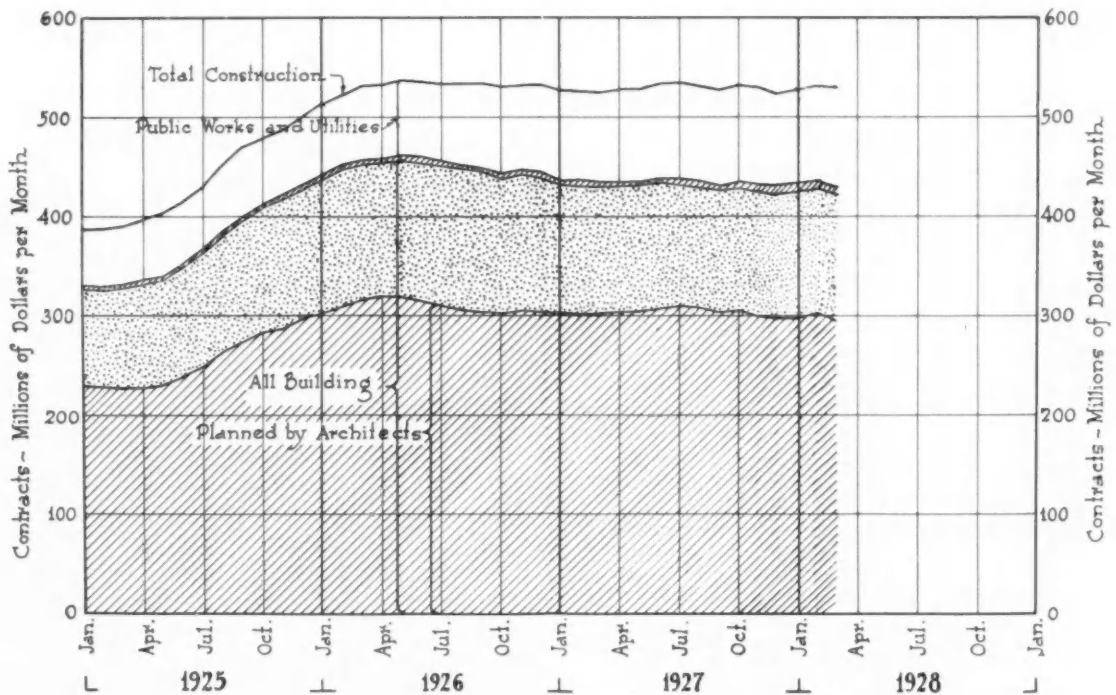
FISKE BRICK

CONSTRUCTION STATISTICS

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

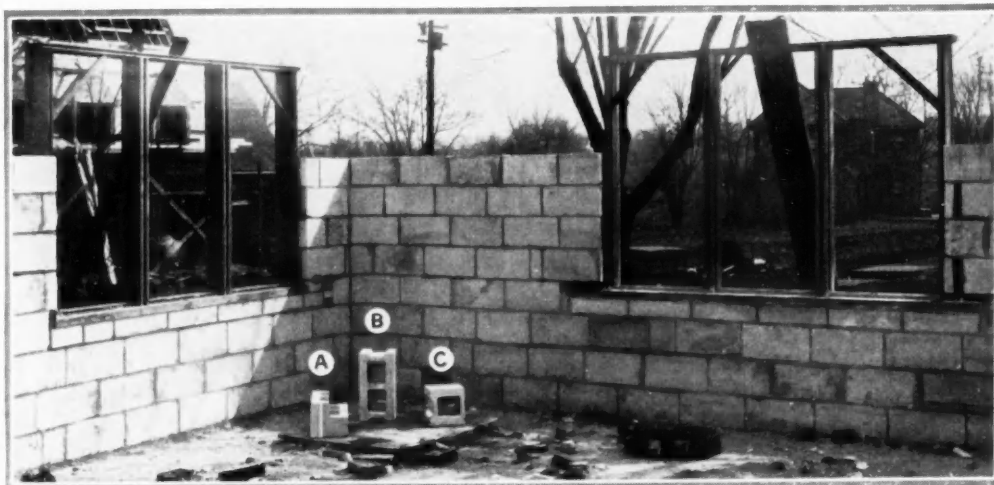
First Quarter, 1928

Classification	TOTAL CONTRACTS		PLANNED BY ARCHITECTS		
	Number of Projects	Valuation	Number of Projects	Valuation	Per cent. of Total
Commercial Buildings	5,814	\$ 199,622,100	2,423	\$157,282,400	79%
Educational Buildings	674	75,900,900	579	73,488,600	97%
Hospitals and Institutions	209	29,317,000	152	28,093,100	96%
Industrial Buildings	1,441	121,655,600	507	43,329,000	36%
Military and Naval Buildings	39	2,722,200	16	1,061,900	39%
Public Buildings	241	17,493,000	142	16,185,300	93%
Religious and Memorial Buildings	476	26,078,200	343	23,840,400	91%
Residential Buildings	31,770	707,365,900	8,955	467,254,400	66%
Social and Recreational Projects	603	62,555,000	383	57,865,200	93%
Total building	41,267	\$1,242,709,900	13,500	\$868,400,300	70%
Public Works and Utilities	2,825	242,357,100	65	5,616,600	2%
Total construction	44,092	\$1,485,067,000	13,565	\$874,016,900	59%
Total construction, First Quarter, 1927	37,706	1,398,776,100	12,248	860,224,200	61%



General Trend of Building and Engineering Construction

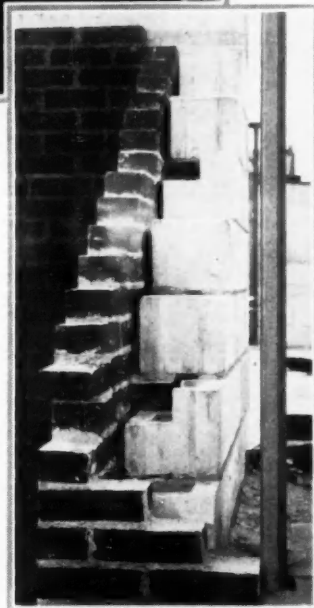
As contributing to adaptability, note ease of cutting on the job to fit around openings. Illustrated are—A, bond tile; B, standard tile; C, half standard tile. No special shapes or sizes required to build a tight, workmanlike job.



This picture shows how light weight and smooth surface of tile contribute to ease and speed of placing. Wide side walls contribute to ease of placing mortar and materially reduce mortar loss.



As shown in this picture, header brick bonding is easily accomplished with Structolite Tile. Practically all patterns of bonding are easily adaptable to a simplified construction without requiring continuous brick work clear through the wall.



Note air space between face brick and tile, also between end of bonding brick and tile. This method is an assurance of a dry wall to keep insulation value at a maximum. The finished construction is better than ordinary masonry in that it gives the effectiveness of an additional separate insulation without the added cost.

Camera tells why *this tile outranks other masonry*

WITH insulating value as its outstanding characteristic (Heat conductivity per square foot per hour 8" tile, 352 B. T. U.—Peebles) Structolite Tile offers to the architect and builder a number of advantages not to be found in any other building material.

Manufactured "neat" of Structolite cement—no sand or other aggregate being used—it is: Very light in weight. Pure

white in color. Uniform in strength and appearance. Accurate in dimension with no warping. Easily cut with trowel or saw—no shattering. Nailable—no wood strips or blocks required. Fireproof of course. Better construction and more thorough insulation with no added cost. Write for further facts about this superior insulating and load-bearing tile.

UNITED STATES GYPSUM COMPANY
Fireproofing Dept., 300 W. Adams St., Chicago, Ill.

STRUCTOLITE

INSULATING LOAD-BEARING TILE

Made by the United States Gypsum Company

MAIL UNITED STATES GYPSUM COMPANY, Fireproofing Dept., 300 West Adams Street, Chicago, Illinois
Send me data on Structolite Tile.

MAIL

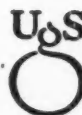
THIS

TODAY

Name..... Address.....

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

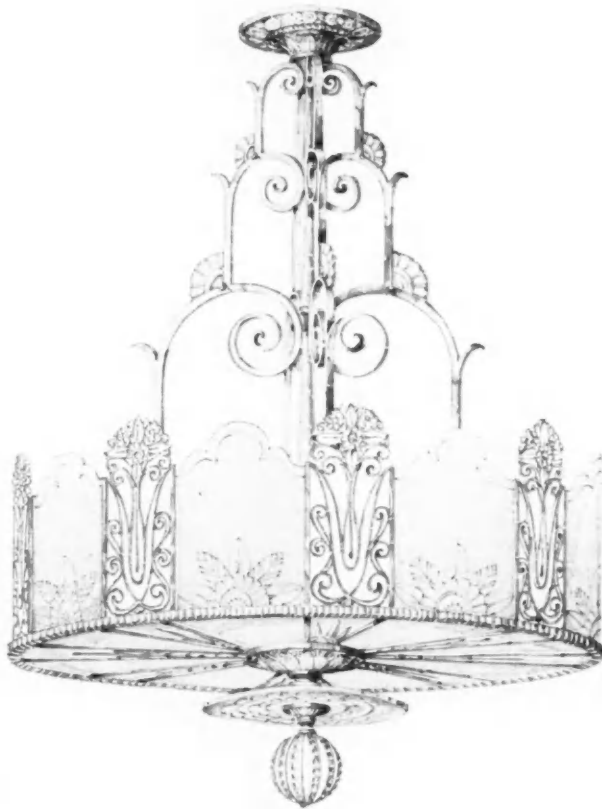
Architectural Record, June, '28



STANDARD
BUILDING
MATERIALS

FRENCH MODERN

Designed by PEARLMAN



A recent example of the Pearlman technique in Bronze and Engraved Matted Crystal Plaques. Full particulars and Brochure of Installations on request.

VICTOR S. PEARLMAN & CO.

Designers and Makers of

Exclusive Lighting Fixtures

533-35 SOUTH WABASH AVENUE

Just around the corner from the Congress Hotel

CHICAGO, ILL.

ANTIQUES AND OBJETS D'ART

RECEIVED
FROM THE PUBLISHERS

HOOKER, KATHARINE.

Through the Heel of Italy. New York: Rae D. Henkle Co., Inc., 1927. 1st ed. xiv. 305 pp. Ill. 6 x 9 in. Cloth. \$5.00.

SITWELL, SACHEVERELL.

German Baroque Art. New York: Doubleday, Doran Co., 1928. 1st ed. 109 pp. Ill. (48 plates.) 7½ x 9 7/8 in. Cloth. \$6.00.

DORAU, HERBERT B., AND ALBERT G. HINMAN.

Urban Land Economics. New York: The Macmillan Co., 1928. 1st ed. xvi. 570 pp. Ill. (Diagrams & maps.) 5¼ x 8 in. Cloth. \$4.00. (Land Economics Series.)

BAILEY, L. H.

The Garden Lover. New York: The Macmillan Company, 1928. 1st ed. 154 pp. 4½ x 7 in. Cloth. \$1.50.

ROLFE, WILLIAM J.

A Satchel Guide to Europe. (Revised and Enlarged by William D. Crockett). 1928. 48th Annual ed. cvi. 596 pp. (Ill. maps.) 4½ x 6½ in. Cloth. \$3.00. Leather. \$4.00.

HOPKINS, R. THURSTON.

This London: Its Taverns, Haunts and Memories. Philadelphia: J. B. Lippincott Company, 1928. 1st ed. viii. 280 pp. Ill. 5¾ x 8¾ in. Cloth. \$4.00.

KIMBALL, FISKE.

American Architecture. New York: The Bobbs-Merrill Company, 1928. 1st ed. 262 pp. Illustrated. 5¾ x 8¾ in. Cloth. \$4.00.

THE PENCIL POINTS PRESS, INC., PUBL.

Winning Designs 1904-1927 Paris Prize in Architecture (Lloyd Warren Memorial). Introduction by John F. Harbeson, New York. The Pencil Points Press, Inc., 1928. 1st ed. Portfolio 35 plates (20 plates 15 x 20 in.; 15 plates 10 x 15). Board. Price \$6.00. (Society of Beaux-Arts Architects.)

WILSON, ERNEST H.

More Aristocrats of the Garden. Boston: The Stratford Co., 1928. 1st ed. ix. 288 pp. Ill. 6½ x 9½ in. Cloth. \$5.00.

GRAY, GRETA, A. M.

House and Home. Philadelphia: J. B. Lippincott Co., 1927. 2nd ed. xi. 356 pp. Ill. 5¾ x 8½ in. Cloth. \$3.00.

EBERLEIN, HAROLD DONALDSON, AND ROGER WEARNE RAMSDELL.

Small Manor Houses and Farmsteads in France. Introduction by Leigh French, Jr., Philadelphia: J. B. Lippincott Company, 1926. 1st ed. xx. 303 pp. Ill. 7¾ x 11¼ in. Cloth. \$15.00.

GOULD, MR. AND MRS. G. GLEN.

Period Lighting Fixtures. New York: Dodd, Mead & Company, 1928. 3rd ed. ix. 274 pp. Ill. 6¼ x 9¼ in. Cloth. \$3.50.

THOMAS, MINOR WINE, PH. D.

Public School Plumbing Equipment. New York: Teachers College, Columbia University, 1928. 1st ed. 128 pp. Ill. (Charts and Diagrams.) 6¼ x 9¼ in. Cloth. \$1.50.

(Continued on page 158)



BRIXMENT *for Stucco*

ARCHITECTS know by experience that the only stuccos that have successfully withstood the test of time are true-cement stuccos—that is, stuccos made with either portland cement or BRIXMENT.

It has been definitely proved, however, that the same characteristics that make BRIXMENT preferable to portland cement and lime for masonry make it equally preferable to these two materials when used for stucco.

Unusual Advantages Described in This New Handbook

All the unusual advantages of BRIXMENT for stucco have been clearly presented in this new, compact, conveniently-arranged book—strength, permanence, economy, water-resistance, uniformity, color, estimating data, specifications etc. "BRIXMENT for Stucco" will make a valuable and helpful addition to your data file.

BRIXMENT *for Perfect Mortar*

Send for Your Copy Today

Size, 8½ by 11 inches with A.I.A. file number for ready reference. Your copy will be promptly mailed you on request. The coupon below is for your convenience.

LOUISVILLE CEMENT CO., Incorporated
General Offices: Louisville, Ky.
Mills: Brixment, N. Y. and Speed, Ind.

District Sales Offices
1610 Builders Exchange Bldg., Chicago
301 Rose Bldg., Cleveland 602 Murphy Bldg., Detroit
1015 Chestnut St., Philadelphia

LOUISVILLE CEMENT CO., Incorporated
Louisville, Kentucky

Send, without obligating me, copy of the new handbook, "BRIXMENT for Stucco".

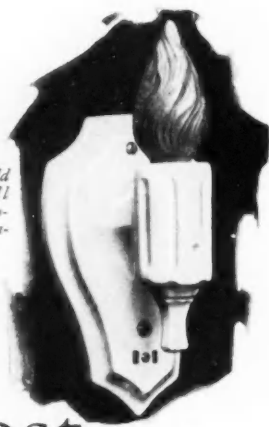
Name

Address

City State

(Please check whether Architect or Contractor)

No. 513-C—Shield
shape side wall
bracket with lever
switch and con-
venient outlet.



The Utmost in Beauty and Utility

NOTHING could better typify the originality, skill and artistry behind the designing of Lighting Fixtures by Franklin Pottery than this rich, graceful side wall bracket. Yet nothing better represents the careful consideration given by Franklin to convenience and utility than the original and ingenious, fully insulated operating lever of Vitrified Pottery. One touch of the tapering base of this socket—in any direction—turns the current on or off.

Franklin Vitrified Pottery Lighting Fixtures—"As Easily Washed As A China Plate"—are inherently clean, sanitary, non-corrosive and durable, and lend themselves perfectly to permanent coloring. To these natural advantages, Franklin Pottery adds the creative artistry of master designers, the skill of experienced pottery craftsmen, expert practical electrical knowledge and a color technique that has won widespread acceptance as the quality standard.

Hence, the unusually high percentage of all Franklin Pottery installations (40% for 1927) that have been the direct result of architects' specifications. **Franklin Pottery (Inc.), Lansdale, Pennsylvania.. Member Associated Tile Manufacturers. See our catalog in Sweet's.**

See our exhibit, Space No. 2,
National Lighting Equip-
ment Exhibition, Hotel
Sherman, Chicago, June
11-16.



FRANKLIN

VITRIFIED POTTERY

Lighting Fixtures

TILES BATHROOM ACCESSORIES
SWITCH PLATES LIGHTING FIXTURES

RECEIVED FROM THE PUBLISHERS (Continued)

DIXON, ROLAND B.

The Building of Cultures. New York: Charles Scribner's Sons, 1928. 1st ed. x. 312 pp. Ill. (Diags. and maps.) 9 $\frac{1}{4}$ x 6 $\frac{1}{4}$ in. Cloth. \$4.00.

SCHOMMER, P.

L'Art Décoratif au Temps du Romantisme. Paris, France: G. Van Oest, 1928. 1st ed. 41 pp. xxxii plate illustrations. 6 $\frac{3}{8}$ x 8 $\frac{3}{8}$ in. Paper. 18 francs. (Architecture and Decorative Arts Series.)

GRABAR, ANDRÉ (University of Strasbourg).

La Décoration Byzantine. Paris, France: G. Van Oest, 1928. 1st ed. 43 pp. xxxii plate illustrations. 6 $\frac{3}{8}$ x 8 $\frac{3}{8}$ in. Paper. 18 francs. (Architecture and Decorative Arts Series.)

GORDON, GEORGE BYRON.

Rambles in Old London. Philadelphia: Macrae Smith Co., 1928. 2nd-Travelers' Edition. 334 pp. Ill. 5 $\frac{1}{2}$ x 8 in. Cloth. \$2.50.

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

A History of Architecture on the Comparative Method. New York: Charles Scribner's Sons, 1928. 8th ed. xxxvi. 929 pp. Ill. 6 $\frac{1}{4}$ x 9 $\frac{3}{4}$ in. Cloth. \$12.00.

RECENT TRADE PUBLICATIONS

ISSUED BY MANUFACTURERS OF CONSTRUCTION
MATERIALS AND EQUIPMENT

[These may be secured by architects on request direct from the firms that issue them, free of charge, unless otherwise noted.]

WALL FINISHES

"A Treatise on Textured Wall Finishes." "Textone" finish for interiors of Spanish design, English, Colonial, antique plaster, Italian Travertine stone, caenstone and modern designs. How to produce designs: mixing and application, smoothing, lining, sandpapering and sealing. Multi-color effects. Miscellaneous textured finishes including palm, scroll, grass cloth, monastic, English trowel, paper stipple. Relief ornament; stencils. Ornament in colored "Texsand." Treatment of wood trim, panel mouldings and plaster or papier maché ornament. Preparation of surface for "Textone." Mixing and application. How to use "Textone" glaze. Preparation of various wall surfaces and number of coats required for finished job. Typical installations. United States Gypsum Company, 300 West Adams Street, Chicago. Ill. 8 $\frac{1}{2}$ x 11 in. 60 pp. Ill.

CONCRETE

A. I. A. File 413. "The Key to Firesafe Homes." Different types of concrete floors for hotels, apartments, large buildings, etc. Structural advantages; convenience, beauty and comfort. Coverings for concrete floors. Terrazzo, ceramics, marble, mosaics, art marble, slate and concrete floor tile. Types of concrete floor construction. Detailed drawings. Typical installations. Portland Cement Association, 33 West Grand Ave., Chicago, Ill. 8 $\frac{1}{2}$ x 11 in. 20 pp. Ill.

WINDOWS, CASEMENTS

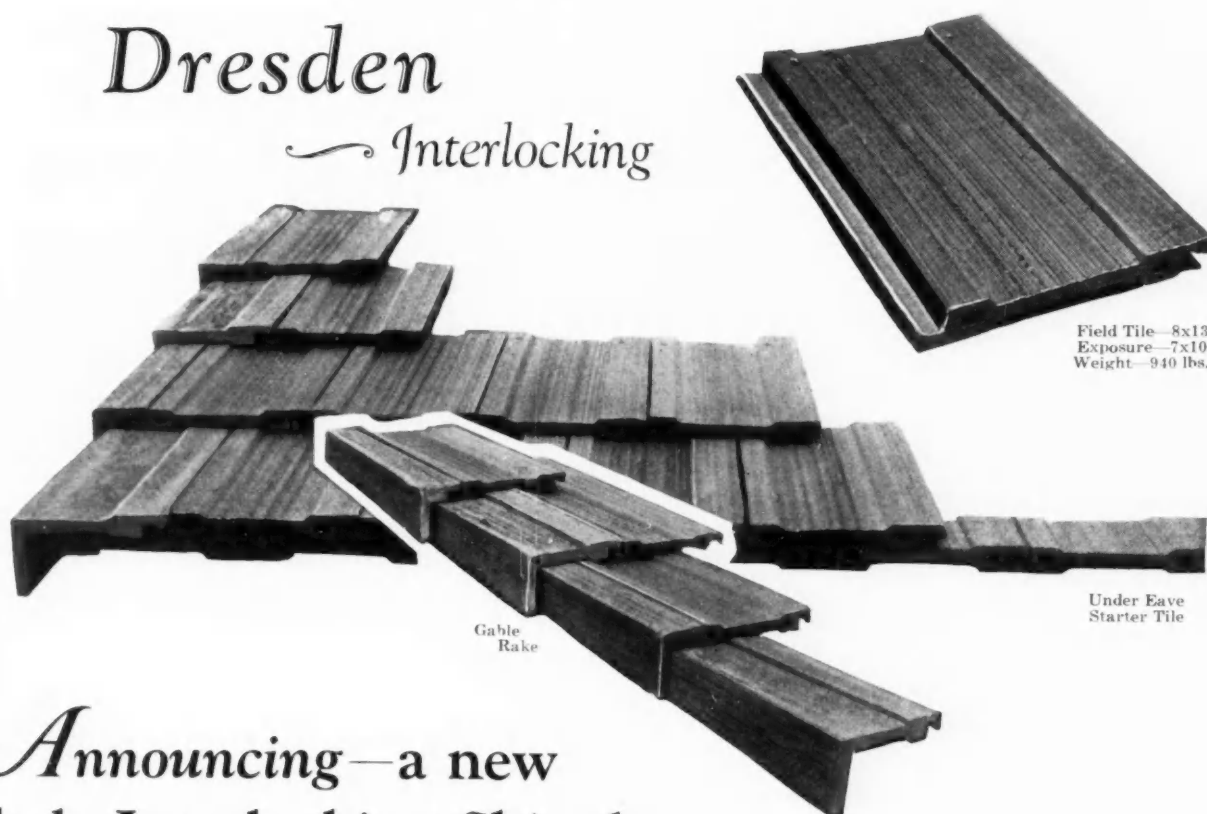
File No. 16E1. Detail Sheet No. 101. Lupton Heavy Casements. Detailed drawings. Brief Specifications. David Lupton's Sons Company, Allegheny Avenue & Tulip St., Philadelphia, Pa. 8 $\frac{1}{2}$ x 11 in. 4 pp. folder. Ill.

(Continued on page 160)

The Architectural Record, June, 1928

Dresden

Interlocking



Field Tile—8x13
Exposure—7x10
Weight—940 lbs.

Under Eave
Starter Tile

Gable
Rake

Announcing—a new shale Interlocking Shingle

Never before has an economical Interlocking Shingle been produced with the addition of such art value in texture and color tone, practically eliminating the mechanically rigid metallic appearance of the ordinary Interlocker.

Most adaptable to the better designed low-priced home, industrial housings, commercial and educational buildings.

Economical in factory cost as well as installation—light in weight for the lighter sub-structures.

The European practice of the use of stand-

ard straight barrel mission tile for hips and ridges is most pleasing as well as economical in precluding the necessity for costly trimmings and cut work.

The body of the highest quality hard burned shale enables it to withstand perfectly the most severe winter climate, at the same time insuring absolute permanency of the original color value, under the hottest sun.

Made in a "velvety" combed texture only. Samples and descriptive literature will gladly be sent on request. Address all tile inquiries to Dept. "R", Daisy, Tennessee.



B. MIFFLIN HOOD COMPANY
ATLANTA, GEORGIA



"Above All Things Use Hood Roofing Tile"



Residence Models as Low as \$95.00

— and the masonry adds but little more when regular chimney is used.

THE better a client is satisfied with his new home the more he will add to your reputation as an architect when he talks to his friends. It is just such outstanding conveniences as the Kernerator that assure you valuable returns in the form of good will.

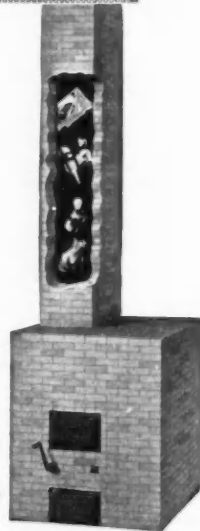
The Kernerator is the finishing touch to the modern kitchen. Your client will not always think of it in time but he will welcome the suggestion enthusiastically when you mention it. He will be especially interested when he learns there's—

No Operating Cost

All waste — not only garbage but sweepings, tin cans, broken glass and crockery, paper, and the like—dropped through the handy hopper doors, falls to the brick combustion chamber, where an occasional lighting is all that's needed. No gas, oil, wood, coke or any fuel required. Non-combustibles (tin cans and the like) are flame sterilized for removal with the ashes.

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

KERNER INCINERATOR CO.
717 East Water St., Milwaukee, Wis.



67

KERNERATOR

REG. U.S. PAT. OFF.

THE CHIMNEY-FED INCINERATOR

*Garbage and Waste Disposal
without Leaving the Kitchen.*

RECENT TRADE PUBLICATIONS (Continued)

FURNITURE, STEEL

A. I. A. File No. 35 C-12. Catalogue No. 5. The White House Line. Detailed drawings and layouts of sectional units for kitchens. Information regarding construction, finish, fittings, size, etc. Installation data and typical installations. Janes & Kirtland, Inc., 101 Park Avenue, New York. 8½ x 11 in. 2 pp. Ill.

CASEMENTS, STEEL

"Decorating with casements." Practical suggestions for the curtaining and screening of Steel Casement Windows of all types. Advantages of casement windows. Detailed drawings of screens. The Detroit Steel Products Company, 2250 East Grand Boulevard, Detroit, Michigan. 6¼ x 9 in. 31 pp. Ill.

HEATERS, UNIT

"How to cut heating costs." Features and advantages of the Trane system of unit heating. Cost and general information on unit heating. Partial list of installations. The Trane Company, La Crosse, Wisconsin. 8½ x 10¾ in. 18 pp. Ill.

JOISTS AND STANCHIONS, STEEL

"Bethlehem Steel Joists and Stanchions for Dwellings, Apartment Houses, etc." Catalogue S-28. Weights and dimensions. Properties and safe loads. Spacing of joists. Standard specification for structural steel for buildings. Building code and ordinances. Weights of bolt heads and rivets. Approximate weights of roof coverings. Bethlehem Steel Company, Bethlehem, Pennsylvania. 4½ x 6½ in. 70 pp. Ill.

INCINERATORS

A. I. A. File No. 35J41. "The School Problem of Waste Disposal is Solved with the Kernerator." What the "Kernerator" is. The by-pass flue and vertical grate. Advantages. General information. Typical installations. Kerner Incinerator Co., 641 East Water Street, Milwaukee, Wis. 8½ x 11 in. 6 pp. folder. Ill.

PARTITIONS, METAL

A. I. A. File No. 28-A-3. "Thinking Today in Terms of Tomorrow." Metal partitions finished in the graining of natural wood. Typical installations. The Mills Co., Wayside Rd. and Nickel Plate R. R., Cleveland, Ohio. 8½ x 11 in. 4 pp. folder. Ill.

WATERPROOFING

"Masterseal" colorless surface waterproofing for preserving the beauty of buildings of stucco, brick, concrete, natural or artificial stone, etc. Description of treatment and directions for applying. The Master Builders Company, Cleveland, Ohio. 3½ x 6¼ in. 6 pp. folder. Ill.

INSULATING BOARD

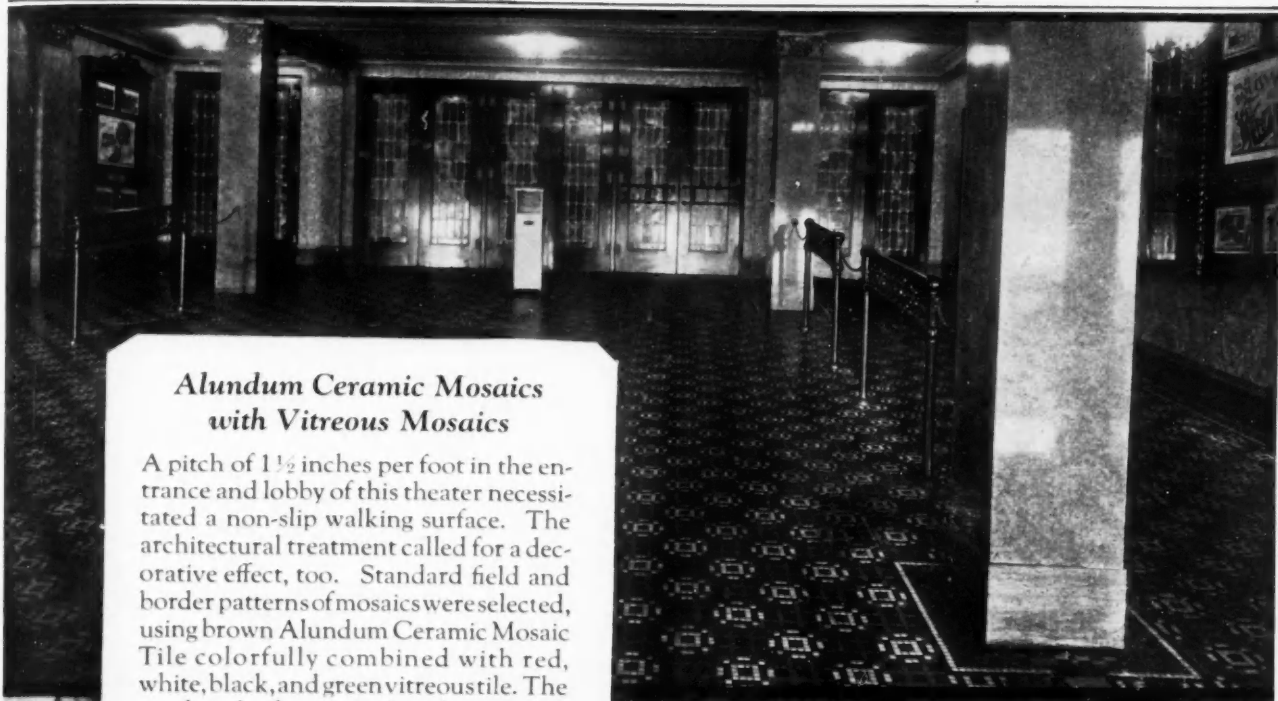
Architect's Bulletin No. 3. A. I. A. File No. 3741. Roof and Wall Sheathing. Raw material and manufacture of "Maftex." The purposes and value of sheathing for walls and roofs. Method of application. Special notes on roof and wall sheathing. Detailed drawings. MacAndrews & Forbes Co., 3rd & Jefferson Sts., Camden, N. J. 8½ x 11 in. 16 pp. Ill.

CEMENT

Carney Cement for brick and tile mortar. Installations including Lake Shore Drive Hotel, Chicago, Book Tower, Detroit, etc. Advantages. Specifications. The Carney Co., Mankato, Minn. 8½ x 11 in. 20 pp. Ill.

(Continued on page 162)

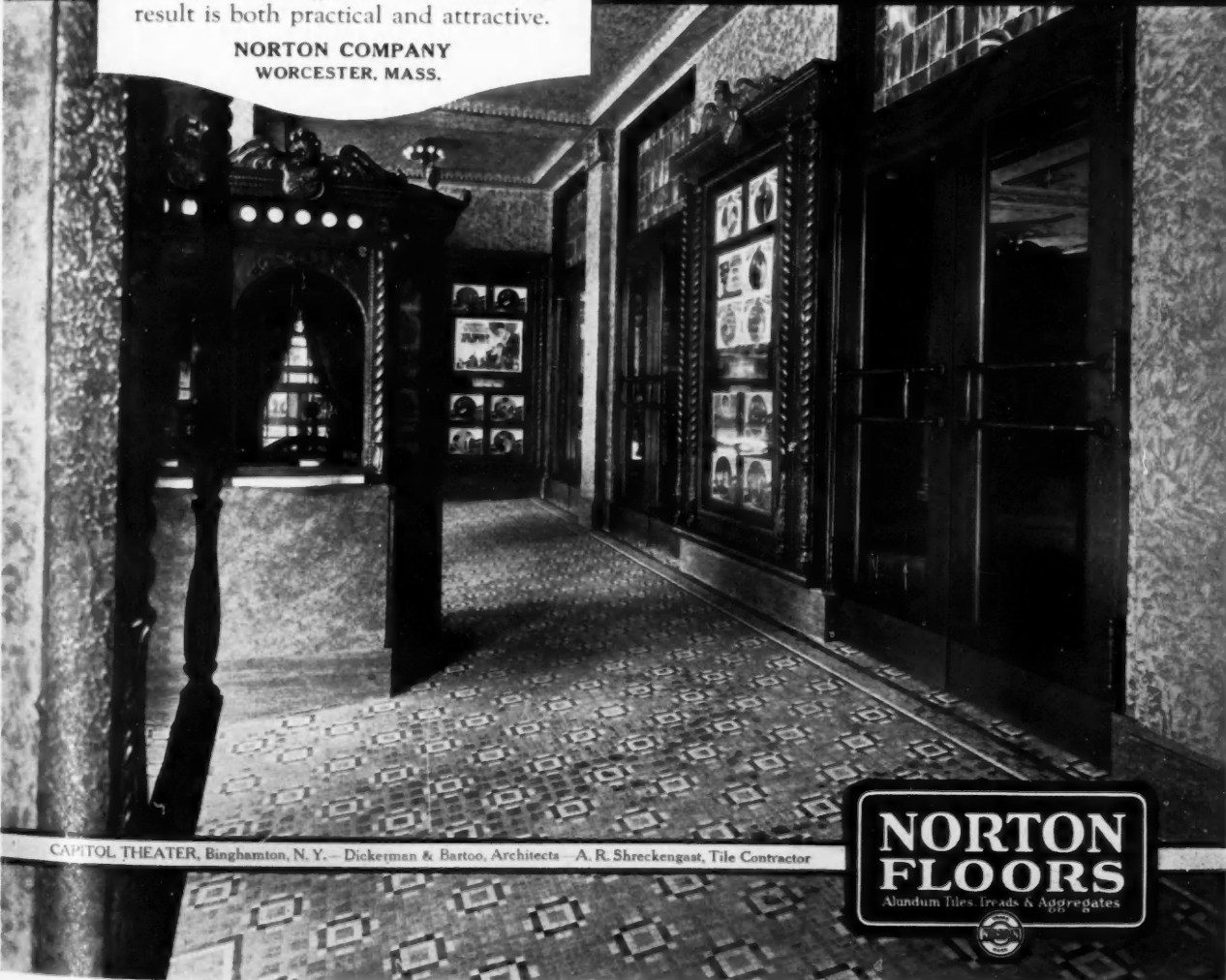
A Non-Slip Ceramic Mosaic Floor—Wet or Dry



Alundum Ceramic Mosaics with Vitreous Mosaics

A pitch of $1\frac{1}{2}$ inches per foot in the entrance and lobby of this theater necessitated a non-slip walking surface. The architectural treatment called for a decorative effect, too. Standard field and border patterns of mosaics were selected, using brown Alundum Ceramic Mosaic Tile colorfully combined with red, white, black, and green vitreous tile. The result is both practical and attractive.

NORTON COMPANY
WORCESTER, MASS.



CAPITOL THEATER, Binghamton, N. Y.—Dickefman & Bartoo, Architects—A. R. Shreckengast, Tile Contractor

**NORTON
FLOORS**
Alundum Tiles, Treads & Aggregates





Built and owned by C. W. Hurlbut, West Hartford, Conn., from plans by Architect D. S. Douglass, WEATHERBEST Old Colony Hand Rived Shakes stained gray on Sidewalls and 18-in. dark gray WEATHERBEST Stained Shingles on the Roof.

Good Architecture Demands Best Materials

In the manufacture of WEATHERBEST Stained Shingles there is sixteen years' experience behind this rigorous policy: "NOT TO CHEAPEN MATERIALS OR PROCESS TO MEET PRICE COMPETITION."

Only 100% straight grain red cedar shingles are used. The bundles are opened and shingles stained by hand, insuring uniform colors and full penetration of preserving oils. This process eliminates all imperfect shingles. Bundles are repacked to full count with good shingles. There is no waste.

Let us send Sample Colors with large Portfolio of Photogravures showing different combinations for sidewalls and roofs. Check your files for WEATHERBEST literature and then check the coupon below for data on WEATHERBEST Old Colony Hand Rived Shakes, Construction of WEATHERBEST Thatch Roofs, and Booklet on Modernizing Old Homes. WEATHERBEST STAINED SHINGLE CO., Inc., 2306 Main Street, North Tonawanda, N. Y. Western Plant—St. Paul, Minn. Distributing Warehouses in Leading Centers.

Weatherbest
STAINED SHINGLES
FOR ROOFS AND SIDE-WALLS

WEATHERBEST STAINED SHINGLE CO., Inc.
2306 Main St., North Tonawanda, N. Y.

Please send WEATHERBEST Sample Colors and Portfolio of natural color photogravures showing color combinations and floor plans of WEATHERBEST Homes.

Literature on WEATHERBEST Old Colony Hand Rived Shakes, Construction of WEATHERBEST Thatch Roofs, and Booklet on Modernizing Old Homes.

Name

Address

RECENT TRADE PUBLICATIONS (Continued)

LOCKS AND BUILDERS' HARDWARE

A. I. A. File No. 27b. (As presented in the 22nd edition of Sweet's Architectural Catalogue.) Specially prepared for the use of architects and specification writers. Cast and wrought bronze loose pin butts in Standard and Templet styles. Cast iron butts in Loose Pin, Fast Joint Asylum and Loose Joint styles. Size, classification and finishes of door checks and springs. Brackets, hinges and pivots. Fire exit devices including automatic exit bars and bolts, exit latches and door locks. Period designs of hardware trim. Modern designs of hardware trim for commercial buildings. Entrance door handles and escutcheons. Handles and door knobs, etc. Definitions and terms applying to locks and types of Corbin lock construction for public buildings, asylums and institutions, schools, apartment houses and residences, hotels. Window hardware. Transom lifters and operators. Hooks, letters, numerals and knockers. P. & F. Corbin, New Britain, Conn. 8½ x 11 in. 72 pp. Ill.

CONCRETE CONSTRUCTION

Effects of calcium chloride on concrete. Uses and advantages of Solvay calcium chloride in concrete construction, including lower water-cement ratio, greater strength through proper curing, early strength and acceleration. Waterproofing. Effects of calcium chloride on reinforcing. Effect of temperature on strength of concrete. Use of calcium chloride in cold weather. Solvay calcium chloride in various types of concrete construction. Typical installations. Concrete products. Specifications. Solvay Sales Corporation, 40 Rector Street, New York. 7½ x 10¾ in. 32 pp. Ill.

WALL DECORATION

"Rufkote Text Book of Artistic Wall Textures," by F. N. Vanderwalker. Guide for producing practical and artistic plastic stone wall textures with the use of "Rufkote." Full description of tools, methods and materials necessary. Preparation of various types of wall surfaces and application of "Rufkote." How to use with color. Producing texture patterns. Glazing, staining, highlighting, bronzing, starching, sizing and smut coats, polychrome. Relief and stencil effects. Ornament. H. B. Wiggin's Sons Co., 233 Arch Street, Bloomfield, N. J. 5 x 8 in. 96 pp. Ill.

GLASS

Catalog No. 727. Globes of Celestialite glass. Method of manufacture. Types of globes for all purposes with particulars of size and wattage. Uses of Celestialite glass. Gleason-Tiebout Glass Co., 200 Fifth Avenue, New York City. 3 7/8 x 8 1/2 in. 20 pp. Ill.

REFRIGERATION

Carbonic anhydride system for apartments, theatres, stores, office and commercial buildings, clubs, hotels and restaurants, hospitals, schools. Typical installations and advantages obtained by use. Brunswick-Kroeschell Co., New Brunswick, N. J. 8½ x 11 in. 24 pp. Ill.

VENTILATING SYSTEM

A. I. A. File No. 30D. Special features of Lakeside ventilating systems, including all steel construction, easy installation, positive air control, great power and quiet operation, easy operation and low price. Specifications of various units. Lakeside Co., Hermansville, Mich. 8½ x 11 in. 6 pp. folder. Ill.

77

THE ARCHITECTURAL RECORD

PUBLISHED
MONTHLY



JUNE, 1928

WINDOWS *of* BEAUTY



NOW AVAILABLE

MODEL NO. 5 TRUSCON CASEMENTS

in Single and Combination Units

Truscon announces a new and distinctive type of steel casement, Model No. 5, in factory-built single and combination units. These Casements are a forward step in casement window equipment possessing a high degree of beauty, utility, permanence and economy.

Model No. 5 Truscon Casements are delivered complete ready to fill the opening and can be set up in place for the glazier with a minimum of field labor.

These Casements provide the latitude so desired by the architect and builder in the execution of his design and assure to the owner lasting satisfaction and the greatest investment value.

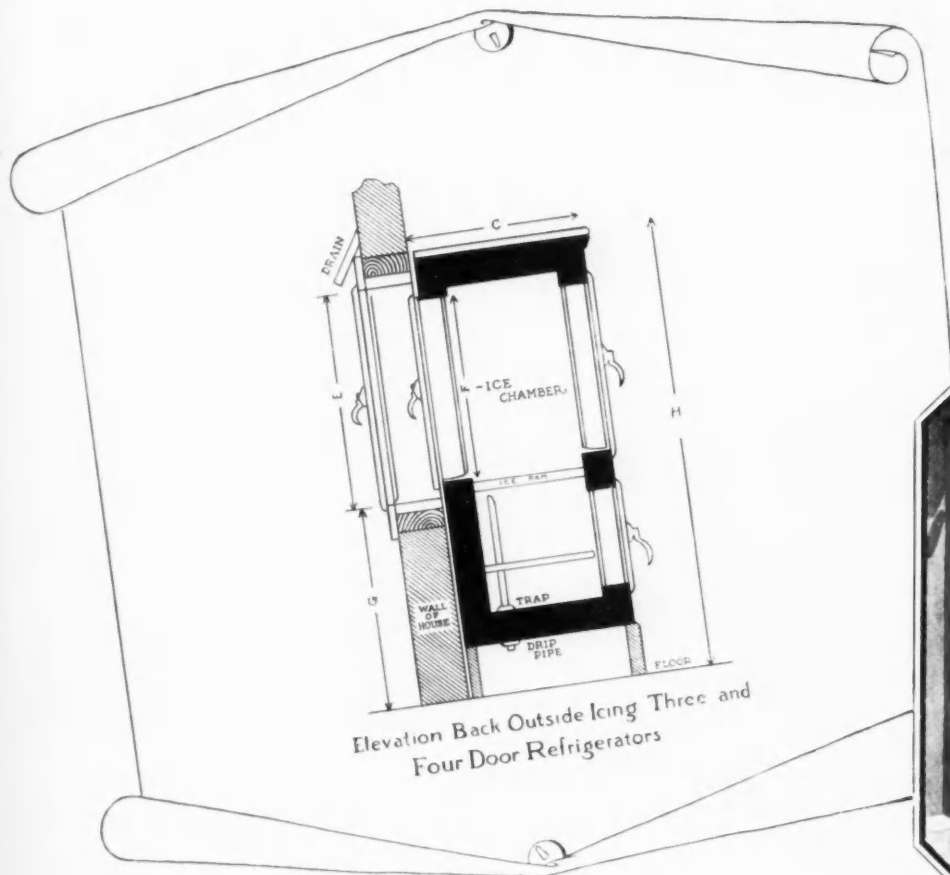
Illustrated Catalog and Architectural Details on Model No. 5 Truscon Casements will be sent on request.

TRUSCON
STANDARD
CASEMENTS
MODEL NO. 5

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO

ESTABLISHED 1903

The World's Largest Manufacturer of all Types of Steel Windows, Warehouses and Offices in all Principal Cities



Elevation Back Outside Icing Three and Four Door Refrigerators

This feature adds little to the cost, but much to the convenience and marketability of homes and apartments.



Put "Outside Icing" in the BLUE PRINTS of Homes and Apartments

THE growing popularity of "outside icers," which permit the iceman to deliver ice without entering the kitchen, is evidenced by the increasing number of new homes, apartment buildings and residential hotels equipped with such facilities.

Many refrigerator manufacturers build special models designed for outside icing. These manufacturers gladly furnish blue prints which are very helpful to architects and builders who wish to include the

"outside icing" feature in their plans.

Ice refrigeration is so economical and satisfactory that a great many people prefer it. With outside icing facilities, it is the last word in convenience. The iceman relieves the housewife from any responsibility for keeping the ice chamber filled. That's *his* job.

The architect who incorporates this valuable feature in his plans is rendering a service which his clients will appreciate very highly.

NATIONAL ASSOCIATION OF ICE INDUSTRIES



163 WEST WASHINGTON STREET, CHICAGO, ILL.



Experience
has proved that

* **Herringbone**
Doublemesh *Metal Lath*

meets every test that is required for a good plaster base

The superior merits of Herringbone Doublemesh Metal Lath have been proved on actual performance on the job. Plasterers and contractors have demonstrated to their satisfaction that this lath offers the most rigid, smooth, plaster-saving base they have ever worked over — that it meets every practical requirement. And what is more, it insures the fire safety, the freedom from cracks, the adaptability to forming around windows, door arches, etc., that are necessary in the better building of the day. Any good plasterer is glad to use Herringbone.

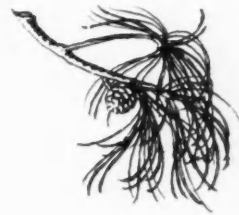
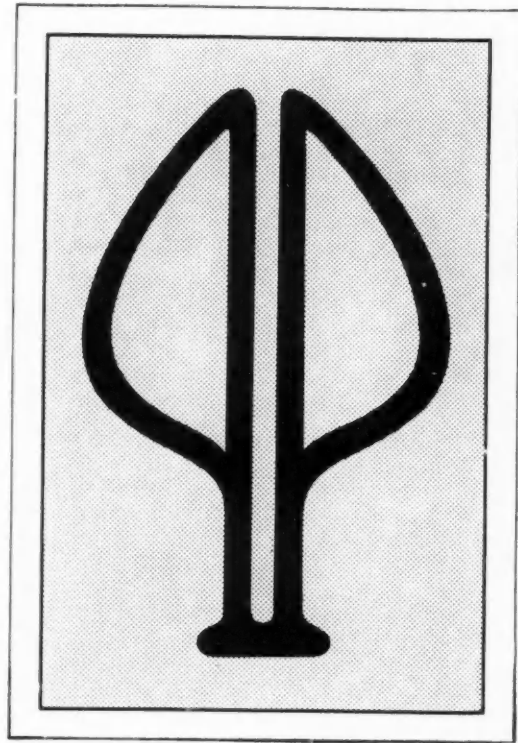
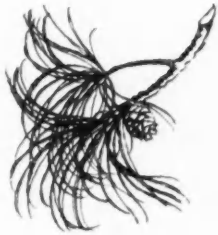
** Herringbone Doublemesh is made by the maker of Genfire Steel Casement and Basement Windows, T-Bar and Plate Girder Joists, Duplex Steel Bridging, Steel Lintels, Stucco Steel, Corner Bead, Concrete Reinforcing and other firesafe building products.*

GENFIRE STEEL COMPANY
YOUNGSTOWN, OHIO

Genfire Dealers everywhere assure prompt deliveries and satisfactory service. Call on them

Available in
genuine





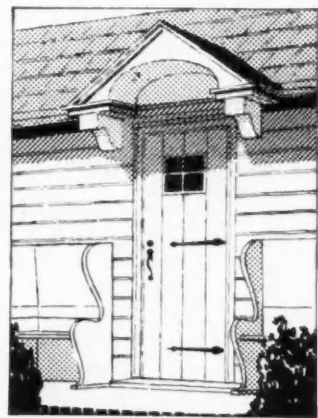
There may be a new *architecture* but Pondsosa Pine remains the same useful wood

America is evolving its own architecture. Architects are no longer satisfied to restate the ideas of their predecessors. New forms are being created; details and designs improved. Yet with all this change, nothing can replace good wood for finishing purposes.

Wherever a soft-wood finish is required, you can trust your reputation to Pondsosa Pine. Doors and sash of this good wood stay snug and true. Sidings and

baseboard remain firm and tight. Used for stairways, mouldings, built-in features, and all interior trim, Pondsosa gives years of splendid service. The finish keeps smooth and even; few repaintings will be necessary. Continual use will have little effect on Pondsosa.

There is an abundant supply of Pondsosa Pine, trademarked at the mills to protect the user. Western Pine Manufacturers Association, Portland, Oregon.



Pondsosa Pine 
The Pick o' the Pines

After the plans—the bids

*The architect wants EVERY DOLLAR HE SPENDS
for Construction to SHOW IN THE WORK DONE*

You are interested in having the work, for which you have prepared plans, completed in every detail according to your specifications. You want it handled by reliable builders and contractors who take pride in pointing to the satisfaction which the successful execution of their contracts has given the owners. There are thousands of such contractors who value their reputations more highly than the profits from their contracts.

GET THESE MEN TO BID ON YOUR WORK

The American Contractor is the ONLY weekly paper that is EXCLUSIVELY for general building contractors who handle the important work planned by architects. Foresighted contractors read it because it gives them the facts, news and ideas that help them in their business.

Publishing a sealed proposal in The American Contractor is your assurance that it will be read by the KIND of contractors you want to interest. It is the one way to make sure that EVERY DOLLAR WILL SHOW UP IN THE WORK DONE.

ONLY \$3 AN INCH

less 10% for 3 insertions

is the special rate for official proposals. The American Contractor goes to press every Thursday morning and is mailed the following day. This gives service that is quick, economical and 100% satisfactory.

The American Contractor

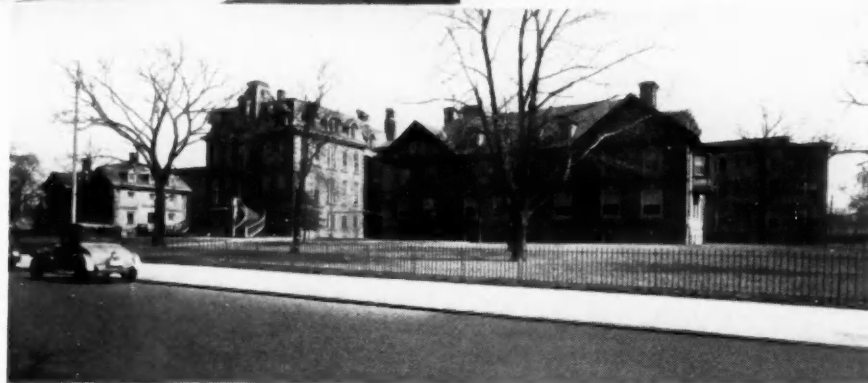
173 WEST MADISON STREET

CHICAGO, ILL.

The American Contractor is one of the periodicals of F. W. Dodge Corporation, publishers also of Dodge Construction Reports, Architectural Record, Sweet's Architectural Catalogue, Sweet's Engineering Catalogue, Graphic Review, and Record and Guide.



Left—The West Jersey Homeopathic Hospital at Camden, New Jersey. Here 800 gallons of Barreled Sunlight have been used for interior painting—in pure white and buff tint.



Below—The Cooper Hospital, at Camden, New Jersey—a satisfied user of Barreled Sunlight for the past several years.

They are exacting about their interior painting



*Pure, lustrous white—
or easily tinted*

By simply mixing colors in oil with Barreled Sunlight white, the painter on the job can easily obtain any desired shade. In quantities of five gallons or over we tint to order at the factory, without extra charge. For tinting small quantities our dealers carry handy tubes of Barreled Sunlight Tinting Colors.

THE two Camden, New Jersey, hospitals shown above are painted for lasting, cheerful cleanliness and good looks. Both of them use Barreled Sunlight as best fulfilling their exacting requirements.

Barreled Sunlight Gloss gives a rich enamel finish with a "depth" peculiar to itself. It reflects adequate light free from glare. Its surface is so smooth and unbroken it can't hold dirt embedded and washes like tile—without wearing away.

Barreled Sunlight Flat produces a surface extremely handsome and uniform.

Barreled Sunlight Semi-Gloss strikes a nice balance between the Gloss and Flat.

Containing no varnish, Barreled

Sunlight flows with remarkable freedom, whether applied by brush or spray. And it possesses unusual opacity.

Guaranteed to remain white longer than any gloss paint or enamel, domestic or foreign, applied under the same conditions.

Sold in large drums and in cans. For priming, use Barreled Sunlight Undercoat.

See our complete catalog in Sweet's Architectural or Engineering Catalog.

U. S. Gutta Percha Paint Co., 22-F Dudley Street, Providence, R. I. Branches: New York, Chicago, San Francisco. Distributors in all principal cities.

Barreled Sunlight

Reg. U. S. Pat. Off.

U. S. GUTTA PERCHA PAINT CO.
22-F Dudley Street, Providence, R. I.

Please send me your booklet, "Information for Architects," and a panel painted with Barreled Sunlight. I am interested in the finish checked here:

Gloss () Semi-Gloss () Flat ()

Name.....

Street.....

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

BUILDING WONDERS NEVER CEASE

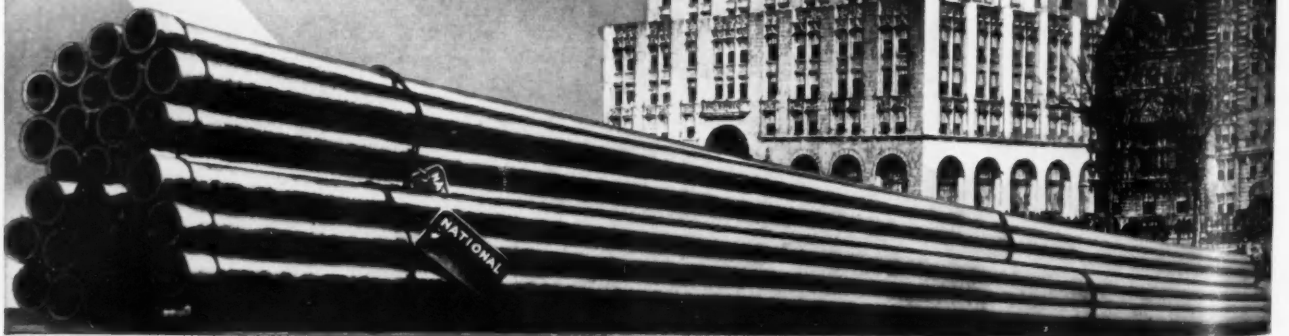
OUT beyond the harbor a deep toned whistle announces the approach of a great ocean liner racing for her port, with a new trans-Atlantic record . . . overhead the roar of powerful motors signals the conquest of the air . . . in the studio the click of a switch sends a radio message around the globe . . . this is the day of speed . . . of wonders . . . of progress unrestrained.

In the midst of these bewildering changes, great towering structures rise along the avenues of America's leading cities . . . others are being planned . . . each one seems more beautiful, more enduring, more wonderful. The genius of the modern architect and the skill of his plans will stand as wonders of this age; for while he brings forth a new interpretation of beauty and charm he has endowed his creations with enduring qualities. There has been no compromise with dependability in the selection of materials used—only products of acknowledged leadership entered these magnificent edifices. The pipe lines . . . the very arteries of these great structures . . . how necessary that they should efficiently perform . . . that they should not fail. Underneath floors and behind walls, they silently and faithfully carry on . . . meeting the increasing demands of passing years, that service shall endure.

The New York Life Building, illustrated, is another addition to the long list of America's superstructures whose major pipe tonnage is "NATIONAL"—The Recognized Standard for Building Purposes.

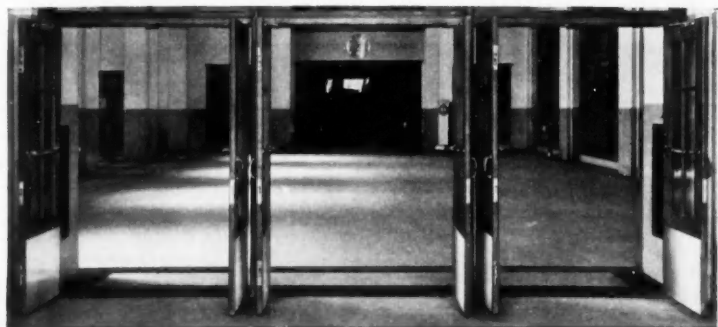
NATIONAL TUBE COMPANY
PITTSBURGH, PA.

NEW YORK LIFE INSURANCE CO. BUILDING
NEW YORK CITY
Architect: Cass Gilbert
General Contractors: Sharratt Brothers
Heating Contractors: Baker, Smith & Co., Inc.
Plumbing Contractors: W. G. Cornell Co.



H
in th
on
hope
face
Wha
stati
than
place
But
hard
near
patro

The A



SOUTHERN RAILWAY PASSENGER STATION
GREENSBORO, N. C.

Architects: Felenheimer and Wagner, New York
Contractor: Consolidated Engineering Co., Baltimore

Good Buildings Deserve Good Hardware



Hardware and O. Henry

HERE in the new station at Greensboro, his home town, O. Henry would see at train time humanity in the raw—the hurrying hundreds he loved, all intent on their own missions, gay or tragic, setting out on hopeful journeys, seeking fresh fortune, returning to face joy or sorrow, meeting, parting.

What does the hardware on the new station mean to them? No more than it means to users of any public place. It means little or nothing. But to the Southern Railway, the hardware on the Greensboro station means much—part of its service to patrons. It knows that in Greens-

boro there will be no inconvenience because of faulty hardware. It knows that the hardware will not call attention to itself, will not interrupt service to its patrons. It knows very well why the new station is equipped with Good Hardware—Corbin.

Here are other railway stations completely equipped with Good Hardware—Corbin

B. & A. Passenger Station, Springfield, Mass.
Union Passenger Station . . . Chicago, Ill.
Union Passenger Station . . . Havana, Cuba
Grand Central Terminal . . . New York City
Pennsylvania Terminal . . . New York City
All Passenger Stations . . . Boston, Mass.
Union Station . . . Washington, D. C.
Union Station . . . Baltimore, Md.
New York Central Station . . . Utica, N. Y.
Texas & Pacific Pass. Station, Dallas, Texas
Kansas City Terminal . . . Kansas City, Mo.

Corbin butts on which doors swing easily and surely. Corbin door checks that close doors quickly, gently, quietly. Corbin latches that work unceasingly. Corbin locks that guard. All have their part in making the way easier for hurrying, anxious, absorbed travelers who must never have cause to think of them.

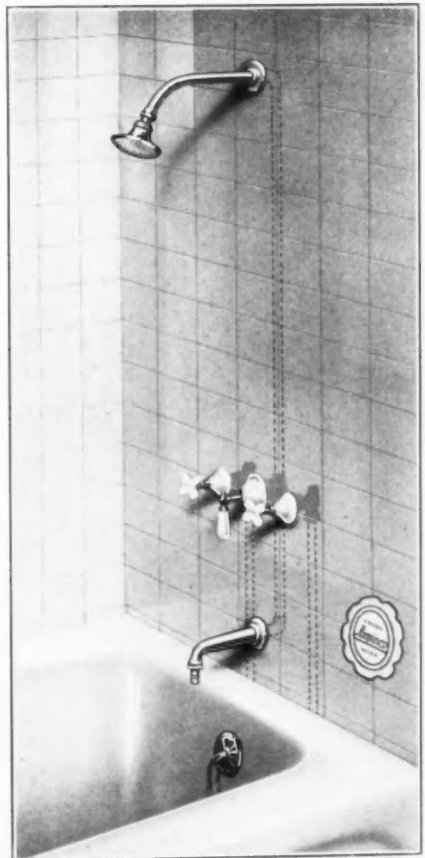
P. & F. CORBIN Since 1849 NEW BRITAIN Connecticut New York Chicago Philadelphia

The American Hardware Corp., Successor





Residence at Noble Vista, Jenkintown, Philadelphia, Pa. Rendering by Herbert S. Kates; Ridgeway and Tomlinson, architects and builders.



No. 13202
AMPINCO concealed overhead shower with shower-head combination "A".

Ampinco Showers & Bath Fixtures

IN no detail of modern buildings is quality more apparent or important than in the bathrooms. That is why architects who specialize in designing the finer type of homes, apartments and hotels so frequently specify AMPINCO showers and bath fixtures.

AMPINCO represents the far-sighted choice. For in addition to furnishing immediate satisfaction, they can be relied on for long-term usage and freedom from repair needs. Our illustrated catalog will show you how the line is varied to meet all construction needs. *Write The American Pin Company Division, Scovill Manufacturing Company, Waterbury, Connecticut.*

A SCOVILL PRODUCT

Scovill means SERVICE to all who require parts or finished products of metal. Great factories equipped with the last word in laboratories, and modern machinery manned by skilled workmen, are at your disposal.



HAND hewn beams above—walls of caen stone and a floor of mellow golden copper colored tile. A reception hall exquisite in its simplicity and old world grandeur.

The floor is of brown Faience Tile set in a random design. Six inch squares, three inch squares and three by six tiles are used. The border is of the same shade in decorated Faience and the base repeats the same tone.

Specification Writers—New and simplified standards have been adopted for classifying

and packing tile. To insure delivery of the specified grade of tile on any particular job members of the Associated Tile Manufacturers furnish grade certificates and sealed packages—in accordance with simplified practice recommendations No. 61 U. S. Bureau of Standards. A brochure explaining these new and simplified standards will be mailed to any architect on request.

ASSOCIATED TILE MANUFACTURERS
220 Graybar Bldg., 420 Lexington Av., New York, N. Y.

K E R A M I C T I L E S

ALHAMBRA TILE CO., Newport, Ky.
AMERICAN ENCAUSTIC TILING CO., Ltd.
Zanesville, Ohio
CAMBRIDGE TILE MFG. CO., Covington, Ky.
FEDERAL TILE CO., Columbus, Ohio
FRANKLIN POTTERY, Lansdale, Pa.
GRUEBY FAIENCE & TILE CO., Perth Amboy, N. J.

MATAWAN TILE CO., Matawan, N. J.
MOSAIC TILE CO., Zanesville, Ohio
NATIONAL TILE CO., Anderson, Ind.
OLEAN TILE CO., Olean, N. Y.
THE C. PARDEE WORKS, Perth Amboy, N. J.
ROSSMAN CORPORATION, Beaver Falls, Pa.
STANDARD TILE CO., Zanesville, Ohio

THE SPARTA CERAMIC CO., East Sparta, Ohio
UNITED STATES ENCAUSTIC TILE WORKS
Indianapolis, Ind.
UNITED STATES QUARRY TILE CO.
Parkersburg, W. Va.
WHEATLEY TILE & POTTERY CO.
Cincinnati, Ohio
WHEELING TILE CO., Wheeling, W. Va.

CARNEGIE BEAM SECTIONS

for Apartment Construction



Edgewater Beach Apartment Hotel

IN CHICAGO, in 1884, the first skyscraper in America was built — the Home Life Insurance Building, still standing at LaSalle and Adams Street. Carnegie Steel Company furnished the steel beams used in this building. They were Bessemer steel.

Many improvements in structural steel have been made since that time. Today, the new Carnegie Beam Sections represent the latest improvements in structural steel design.



Benjamin H. Marshall, Arch't & Steel Designer

Descriptive handbook—"Carnegie Beam Sections"—will be sent at your request

IN CHICAGO, in 1928, these new Carnegie Beams are being used in the construction of the 19-story Edgewater Beach Apartment Hotel, at Sheridan Road and Bryn Mawr Avenue.

For apartment house construction, or for tier buildings where typical floors exist, these new sections are especially suitable. The constant depth principle, exclusive with this new series, effects substantial savings in detailing, in fabrication and erection.

CARNEGIE STEEL COMPANY

PITTSBURGH ~ PENNA.

TERRA COTTA

for the

MODERN STYLE



To express fittingly the concepts of our own time requires a flexible medium capable of infinite variety in permanent color effects. Outstanding success awaits those who capitalize the opportunity which the resources of Terra Cotta offer. It is the coming material for the new style.

NATIONAL TERRA COTTA SOCIETY

19 WEST 44th STREET :: :: :: NEW YORK, N. Y.



Biltmore Hotel of Santa Barbara, Santa Barbara, Calif. Architect, Reginald Johnson. General Contr., P. J. Walker. Lathing and Plastering Contr., Edward Westberg.

Beautiful Stucco Effects . . . *made truly permanent*

Fashioned after the style of a Spanish grandee's palace, this new Santa Barbara Biltmore, with its richly tinted stucco walls, is another example of architectural beauty made permanent.

Here the YPS Stucco Method, as in thousands of beautiful structures throughout the country, has

formed a vital part of the foundation for attractive exterior effects. Here, again, YPS Stucco-mesh, properly centered in the stucco slab by YPS Economy Stucco Nails, is responsible for this permanent result. For data and specifications see YPS pages in Sweet's Architectural Catalogue.

THE YOUNGSTOWN PRESSED STEEL COMPANY
102 UNIVERSITY ROAD, WARREN, OHIO

An interesting article featuring the Santa Barbara Biltmore will be found in the February issue of Architect and Engineer.

FIREPROOFING

METAL LATH
STUCCOMESH

BASEMENT WINDOWS
COPPER STEEL COAL DOORS



PRODUCTS

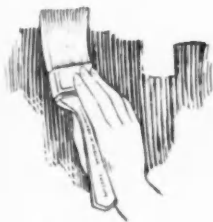
CHANNEL
CORNER BEAD

JOIST PIN ANCHORS
STEEL BRIDGING



No Rubbing—Yet a Fine “Rubbed” Finish!

NO costly rubbing! No day-to-day drying delays! Here's an aristocratic, artistic, distinctive finish that combines beauty, economy and speed!



Apply Mixed Stain and Lacquer

Mimax [Pronounce it M y - m a x]

Architectural Lacquer

Saves days of time — dollars of cost! Merely mix Lacquer and Stain and apply in one coat. Wipe off surplus in twenty minutes! Interior ready for use same day!

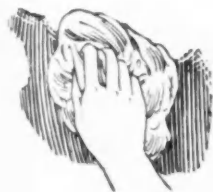
Do finishing without waiting for completion of other work. Dries so fast there's no danger of disfigurement from dust and dirt!

Mimax Architectural Lacquer *white* is like finest enamel but with its own rich distinction in texture and effect. Tintable to all pastel shades.

For any interior surface — wood trim, floors, plaster walls, etc. Useable over old paint and varnish without danger of “raising.”

One—Two—THREE coats a day!

Write for Architect's Specification Book on all Mimax Architectural Lacquer finishes.



— then Wipe!

PITTSBURGH PLATE GLASS CO.

Paint, Varnish and Lacquer Factories, Milwaukee, Wis.

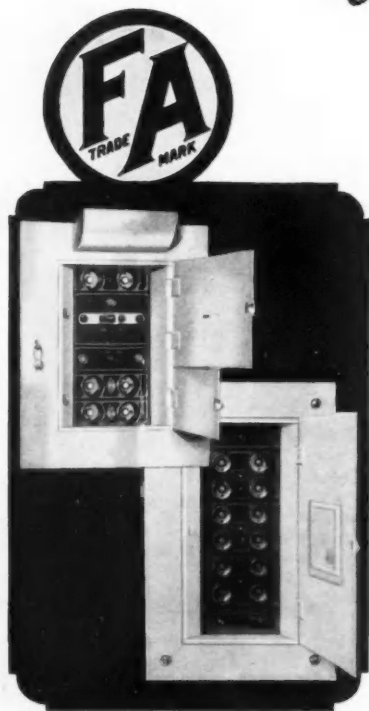
Newark, N. J., Portland, Ore., Los Angeles, Cal.

PITTSBURGH
Product
 Glass
 Paint - Varnish
 Lacquer - Brushes



Home is a Woman's Domain

Convenience and Safety her right



If women could be technically informed of **FA** Panelboard features of safety and dependability, as well as attractiveness of finish, very likely you would not recommend any other kind.

They always enthuse when they find **FA** Panelboards part of the home equipment; for while it cannot be explained to them they recognize the **FA** virtues at once.

FA
NRSS

[Full co-operation from all offices, estimates and catalog furnished free, gladly]

FA
NR

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

Atlanta, Ga.
Baltimore, Md.
Boston, Mass.
Buffalo, N. Y.

Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio

Dallas, Texas
Denver, Colo.
Detroit, Mich.
Jacksonville, Fla.

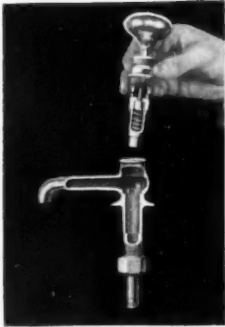
Kansas City, Mo.
Los Angeles, Calif.
Memphis, Tenn.
Minneapolis, Minn.
Muskogee, Okla.

New Orleans, La.
New York City, N. Y.
Omaha, Nebr.
Philadelphia, Pa.

Pittsburgh, Pa.
San Francisco, Calif.
Seattle, Washington
Tampa, Fla.

Montreal, Que.
Toronto, Ontario
Vancouver, B. C.
Walkerville, Ontario
Winnipeg, Man.

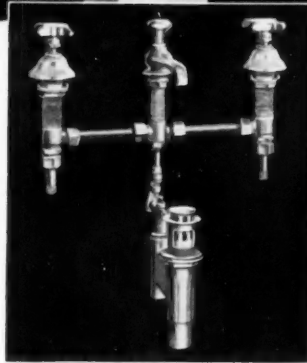
K-8065 Interchangeable Lavatory Faucets with self-closing units on a Kohler Vitreous China Lavatory



K-8065 Kohler Interchangeable Lavatory Faucet with self-closing unit and oscillating handle. To change to compression faucet, remove compact self-closing unit.



K-8067 Kohler Interchangeable Lavatory Faucet with compression unit. To change to self-closing type, take out removable seat and compression unit.



K-8002 Kohler Combination Lavatory Fitting. May be equipped interchangeably with compression valves as shown or with the self-closing type. This fitting has the positive-acting Kohler lift drain with patented spring ball to keep the drain open or closed.

New Kohler Faucets

with *interchangeable* "insides"

Here are improved types of fittings to be included in the Kohler line of superior plumbing brass.

The new self-closing faucet on the lavatory illustrated above permits an easy changeover to the compression type without disturbing the faucet body, by simply unscrewing the self-closing unit and inserting in its place a compression unit. The combination lavatory fitting allows the same interchange.

The self-closing units give an even flow of water simply by pushing the oscillating handle in any direction. When the handle is released the faucet closes promptly. The compression units open at half turn and give a strong, even flow of water.

Both the self-closing and the compression types are designed to make the replacement of wearing parts easy. The compression unit has a removable seat unit, with encased removable swivel disc washer. The finest materials are used and long life and satisfactory service assured.

The Kohler line of plumbing brass contains many other new and superior fittings which will appeal to your more discriminating clients. You may find it advantageous to keep in touch with these important developments by reading the KOHLER OF KOHLER NEWS. If you are not receiving this interesting monthly publication, please send us your name.

KOHLER CO., Founded 1873, KOHLER, WIS. · Shipping Point, Sheboygan, Wis. · Branches in Principal Cities

KOHLER OF KOHLER

Plumbing Fixtures



For Safety and Saving
Build with



ARCH LATH

Today you may offer the home builder fire-safe walls and ceilings at no greater cost than for inflammable construction! Arch Lath—the fire-safe plaster base—makes this possible.

Arch Lath is a plaster saver! Due to a distinctive arch design, only the correct amount of plaster is permitted to squeeze through the openings for perfect "key". There is no piling up of plaster between walls, the hidden waste that runs up the plastering bill.

Arch Lath is a time saver! Immediately after application, the first coat of plaster may be scratched and made ready for the second coat. There is no delay, waiting for plaster to dry. There is no need to remove and re-erect scaffolding. The sheet of Arch Lath is so RIGID that it takes the force of the trowel without "giving" at any point thereby assisting rapid, efficient workmanship.

Arch Lath is a labor saver! Because it is nearly a solid sheet of steel, Arch Lath is very rigid and therefore easy to handle and erect. One man can place the sheets and nail them up. Nail hole starters facilitate application.

Arch Lath—the ideal plaster base! A firm scratch coat is possible on Arch Lath because the arches "grip" the plaster at many angles. This security is best demonstrated by the fact that one sheet of Arch Lath (27"x96") grips the plaster at 8064 points. It is because of this perfect anchoring that the new plaster texture effects are properly executed on Arch Lath at low cost.

Let us send you additional information and a sample of Arch Lath for close-up inspection.



One sheet of Arch Lath (27 x 96) grips the plaster at 8064 points; making the wall an integral unit of rigidity and strength, while minimizing possibility of cracking.

WHEELING CORRUGATING COMPANY · Wheeling, West Virginia

Branches: New York Philadelphia Chicago Minneapolis St. Louis Kansas City Chattanooga Richmond Des Moines



Have You Seen the New Spanish Metal Tile?

Beautify your home with a roof suggestive of picturesque old Spain. Specify Wheeling Spanish Metal Tile. It is proof against lightning, rust and leaks. Lowers rates of insurance and is practical and permanent, artistic and beautiful. Write for full information.

Copyright 1928,
Wheeling Corrugating Company

Building Materials Backed by a Generation of Experience



Painted by A. Magnanti

HOSPITALITY

— in the modern manner

Number 2. This illustration is from a booklet entitled "Analyzing the Problem of Resilient Floors in Clubs, Lodges, Apartments and Hotels"—one of a series of booklets on polychrome resilient floors.

Each booklet gives suggestions for the proper use of resilient floors in a different type of building. A complete set of the booklets is yours for the asking.

See next page

SELECTING FINISHED FLOORING MATERIALS FOR CLUBS, LODGES, APARTMENTS AND HOTELS

Relative Importance of Various Characteristics of Finished Flooring Materials in Twenty-two Divisions of a Composite Residential and Club Building

Amount of attention to be given each characteristic is indicated by points in 100. Thus, the properties of predominant importance rate 100; secondary properties by lower figures.

Type of Space	Appearance	Sanitation	Durability	Maintenance	Quietness	Comfort	Resistance to Abuse or Stains	Low Cost
Entrance Vestibules	80	100	100	100	20	30	0	90
Public Corridors	100	90	100	90	80	60	0	70
Lobbies	100	80	90	90	100	90	0	70
Front Office	10	50	100	90	70	90	0	40
Lounges (and Lodge Rooms)	100	40	70	60	90	90	0	60
Writing Rooms	100	40	60	50	100	90	0	40
Restaurants, Tea Rooms	100	90	80	80	70	70	30	50
Kitchens, Food Service	100	90	80	60	60	70	30	50
Bed Rooms	80	100	90	80	40	40	40	60
Bath Rooms	20	100	90	100	10	10	100	80
Living Rooms	40	100	80	100	30	70	10	50
Dining Rooms	60	100	70	100	50	80	10	50
Reception Rooms	0	100	100	100	10	50	60	80
Offices	0	100	100	100	0	0	50	80
Stairways	0	40	100	80	0	0	0	80
Corridors	70	70	100	90	60	80	0	80

For your copy of this and other booklets in this series write to: Architectural Service Department, BONDED FLOORS COMPANY, Inc., Kearny, New Jersey.

Other types of buildings analyzed include: Hospitals, Schools, Office Buildings, Stores.

Analyzing the Problem of Resilient Floors in CLUBS, LODGES, APARTMENTS and HOTELS

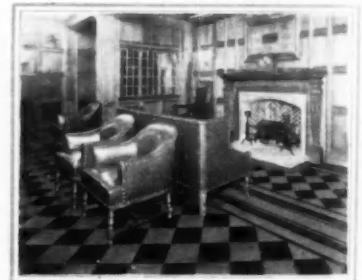
When you send for a book offered free in an advertisement, we know you want information—facts that you can get at *quickly*. We know the architect hasn't time to wade through five-page chats about extraneous matters.



The very title of this new booklet, "Analyzing the Problem of Resilient Floors in Clubs, Lodges, Apartments and Hotels," is in itself a time saver. This book concentrates on a group of buildings, the flooring problems of which are closely related.

If you do not design this type of building, you need not waste a second reading this book. Other titles in the series will be more useful to you.

See the yellow panel above for a complete list of this set of booklets. The information in each is concisely presented. These studies of resilient floors were written by architects—not by an optimistic advertising department. By the chart method (shown above) a great deal of ground is covered in very little space.



We think that you will find these booklets useful—and worthy of preservation in your information file. Write for your set.

BONDED FLOORS COMPANY, INC.
General Office: Kearny, N. J. Branches and distributors in principal cities

BONDED FLOORS

Resilient Floors Backed  *by a Guaranty Bond*



Stop Guessing!

Prevent cutting concrete floors by installing Orangeburg Underfloor Duct System when building

Many structures, especially office buildings, must be planned without definite knowledge of the points at which electrical outlets will be required. In other cases a few outlets are wanted at first, more later on.

Whether the position of outlets and their number is known exactly, or is entirely conjecture, the use of an Orangeburg Underfloor Duct System settles simply, economically and for all time the whole matter of floor outlets for every type of electrical service—light, power, bell, or telephone.

The Orangeburg Underfloor Duct System is made in both Fibre and Metal. While the Fibre system is preferable for all installations, it is essential for floors with a cinder fill. Fibre duct used in such installations will not corrode and

provides a cheaper, roomier wireway than any other material. For thin monolithic floors, the metal system is sometimes necessary.

Whether of Fibre or Metal, the system provides a tunnel or ductway for wires which may be opened at any point by merely drilling a small hole in the floor. This system once installed, with parallel lateral runs at intervals of five or six feet and header runs at much greater intervals, amply provides for all future electrical equipment and relocation of existing equipment.

Johns-Manville, sole selling agents of the Orangeburg Underfloor Duct System, maintain an engineering staff who offer their services without obligation to architects and consulting engineers to assist them in planning their layouts.

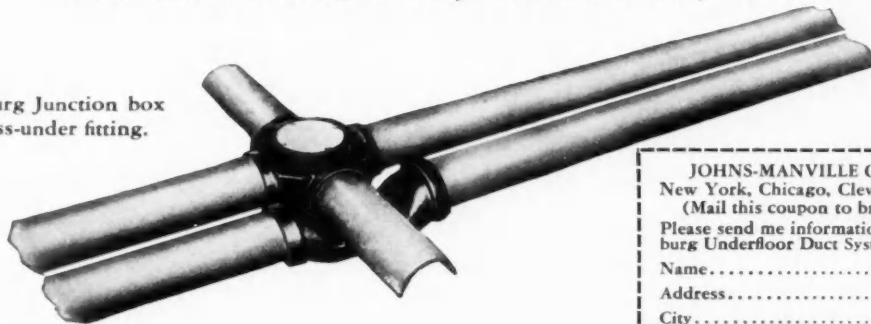
Specify an Orangeburg Underfloor Duct System for every building of permanent construction.

JOHNS - MANVILLE

Sole Selling Agent for

THE FIBRE CONDUIT CO., ORANGEBURG, N. Y.

Orangeburg Junction box and cross-under fitting.



JOHNS-MANVILLE CORPORATION	
New York, Chicago, Cleveland, San Francisco	
(Mail this coupon to branch nearest you)	
Please send me information about the Orangeburg Underfloor Duct System.	
Name	
Address	
City	State



“Certified by Centuries of Service”

“CERTIFIED by Centuries of Service,” the prize winning slogan adopted by the National Lumber Manufacturers Association, applies particularly to Shevlin Pine. For centuries, Pine like this has proven its worth as the nation’s building material.

Colonial housewrights recognized the workable qualities of Pine and employed it to produce attractive woodwork. Many of the homes they built are still standing today and stamp Pine as the economical building material in the long run.

Today it is Shevlin Pine

Today Shevlin Pine is the ideal building material. Its close, fine grain and uniformly even texture work under tools with a willingness.

Nails feel at home in its close fibre and fine texture. They readily penetrate this wood even at the very edge without splitting it. The fibre closes in, grips the nails tightly and the boards stay put.

The nation’s oldest homes testify to the ability of Pine to withstand centuries of abusing weather.

SHEVLIN PINE

**A New Source of "Old Fashioned"
White Pine**

There is no shortage of quality Pine lumber. Shevlin has sufficient Pine holdings in selected districts to meet the demand for decades.

The new Shevlin Northern White Pine mill at Blind River, Ontario, will supply 100,000,000 feet of lumber yearly and 90% will be exactly the same species of Pine used in colonial days.

The stand is said to be the largest virgin tract of Northern White Pine on the continent. Selective logging and scientific reforestation promises an indefinite supply.

Specializing in Pine

When you select Pine make certain that it is produced by specialists as there are many kinds and many sources. For more than forty years the Shevlin interests have logged and milled selected Pine for all purposes.

You can secure Shevlin Pine from



Detail of front entrance of the Gov. Jonathan Trumbull House at Lebanon, Connecticut. Built in 1740, this home certifies to the centuries of service given by Pine.




The Henry House at North Bennington, Vt. was built in 1769. The wide Pine clapboards and the porch with its square Pine columns give an atmosphere unique in old homes of the North.

leading lumber dealers. There are five varieties: Shevlin Pondosa Pine, Shevlin California Sugar Pine, Shevlin Northern White Pine, Shevlin Norway Pine and Shevlin California White Pine.

Use Coupon for Booklet

The coupon below is for your convenience in obtaining "Specify Shevlin Pine." This thirty-two page booklet is full of information about Pine—its uses, characteristics and physical properties.

Shevlin, Carpenter & Clarke Company
902 First National-Soo Line Bldg., Minneapolis, Minn.
Chicago Sales Office: 1866 Continental & Commercial Bank Bldg.
San Francisco Sales Office: 1028 Monadnock Building.
Toronto, Ontario Sales Office: 606 Royal Bank Building
Sold in New York by N. H. Morgan, 1205 Graybar Bldg.



Shevlin, Carpenter & Clarke Company
902 First National-Soo Line Bldg.,
Minneapolis, Minn.
Please send me the booklet, "Specify Shevlin Pine."

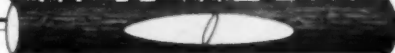
NAME _____

BUSINESS _____

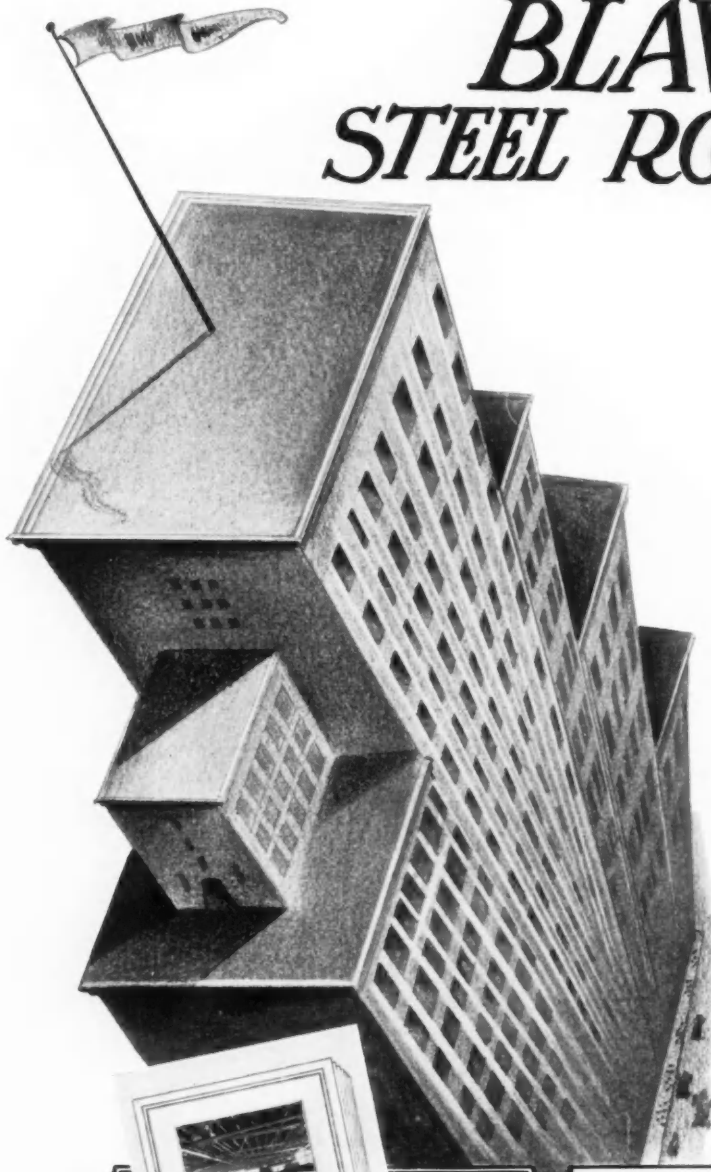
ADDRESS _____

CITY _____

SHEVLIN PINE



BLAW-KNOX STEEL ROOF SHEATHING.



Blaw-Knox Steel Roof Sheathing offers the ultimate in efficiency and economy as a supporting surface for any specified insulation and roofing. This copper-bearing, galvanized steel roof sheathing is extremely strong, light weight, non-corrosive and unshrinkable. It has met with the warmest approval of owner and contractor alike because it replaces such heavy and expensive materials as gypsum and concrete and reduces the dead load on supporting members. It is firesafe and its use results in reduced insurance and fire safeguard.

It can be erected in less time than other types of roof sheathings and allows construction to be carried on regardless of the weather. It is a better material with decided features of economy. We will be glad to send you detailed specifications without obligation.

BLAW-KNOX COMPANY

660 Farmers Bank Building, PITTSBURGH, PA.
 New York Philadelphia Buffalo
 Chicago Birmingham Detroit
 Baltimore Cleveland

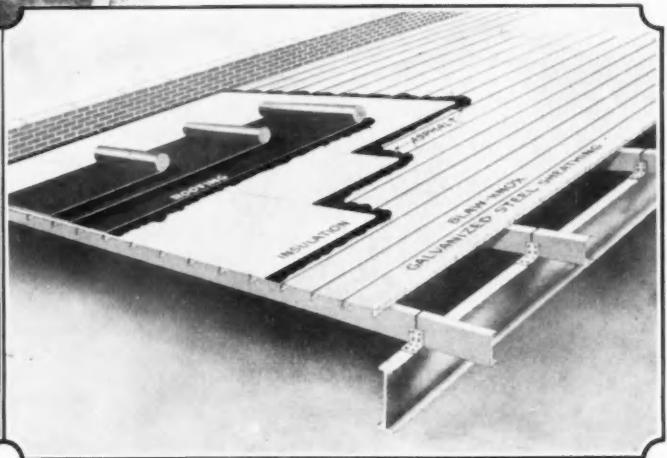
Export Division:

Milliken Bros.-Blaw Knox Corp.
 Canadian Pacific Bldg., N. Y.



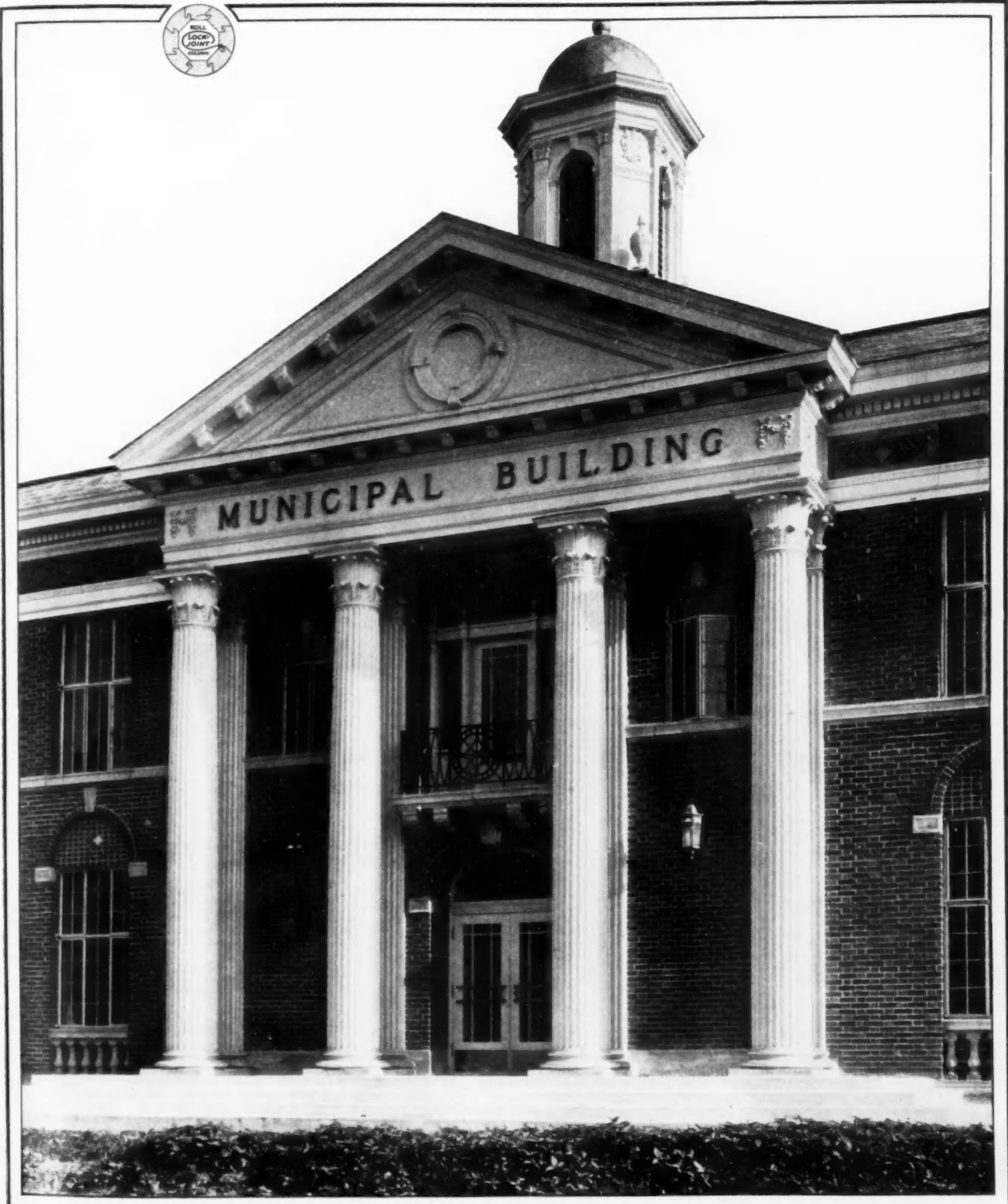
Just Off the Press

A new book on Flat Roof Buildings and Standard Steel Roof Sheathing. Write for your copy today. Ask for Bulletin 1036.



BLAW-KNOX





Municipal Building, Niles, Illinois—Hyland and Coarse, Architects

Down through the years to the present day, stately columns have added a classic note to many of the world's outstanding works of architecture.

The Municipal Building at Niles, Illinois, a suburb of Chicago, is a notable example not only of the happy use of beautiful columns, but also of fine cooperation between the architect, the builder and those trained and experienced craftsmen in the Hartmann-Sanders studios.

Upon request, we gladly send Catalog R. 47 of Columns or Catalog R. 53 of Model Entrances. Hartmann-Sanders Co., 2152 Elston Avenue, Chicago, Eastern Office and Showroom: 6 East 39th Street, New York City.

HARTMANN-SANDERS

Pergolas
Rose Arbors

Colonial Entrances
Garden Equipment

Koll
Columns



First National Bank Building
Detroit, Mich.
Albert Kahn, Inc.
Architects
Detroit

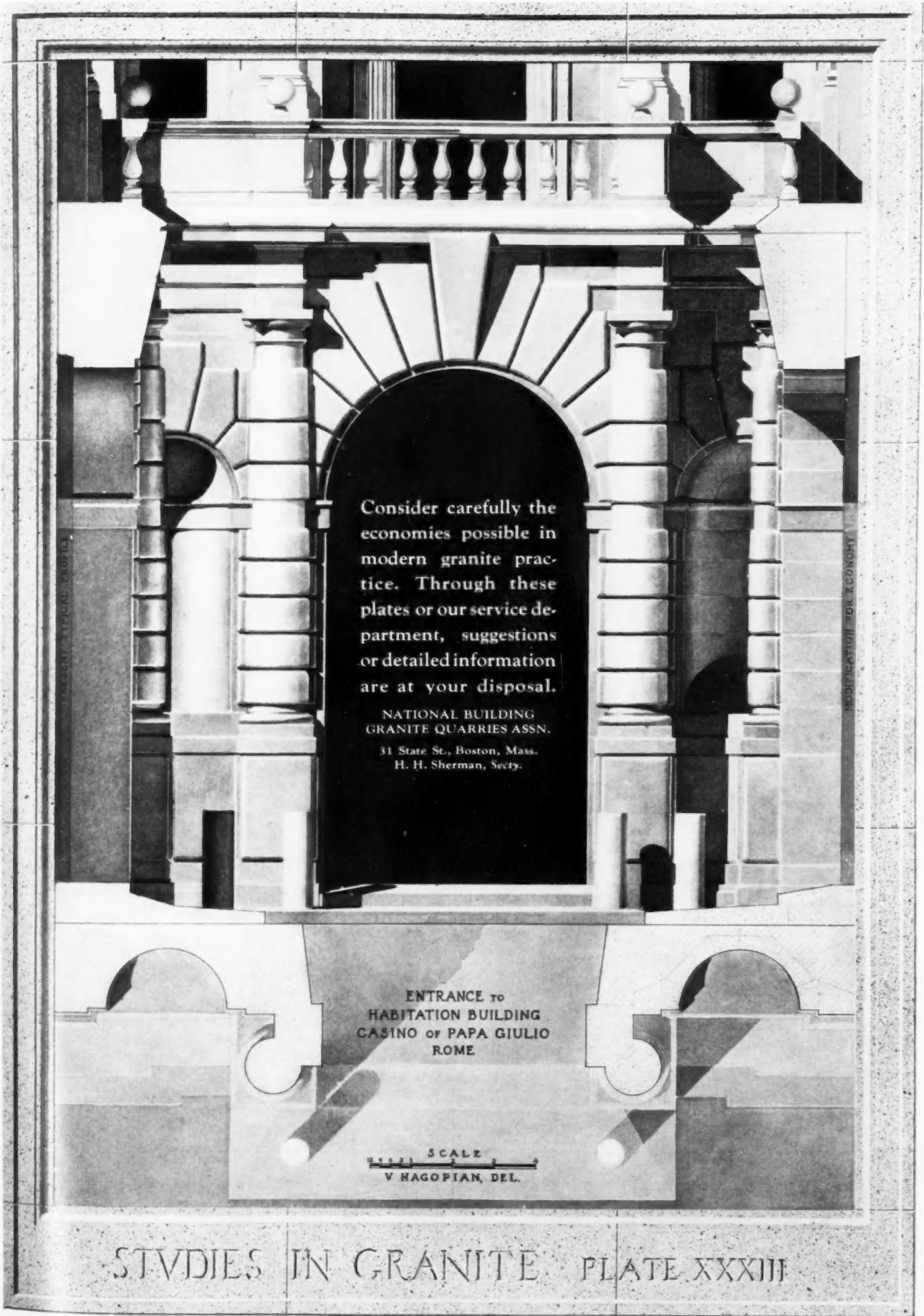
These 3,000 Windows Cleaned Safely and at Low Cost

WILLIAMS Reversible Window Equipment was installed on 1,600 windows in the original unit of the First National Bank Building in Detroit, in 1921. After seven years of satisfaction with this equipment, the owners again ordered it for the great addition now nearing completion. In all, there will be nearly 3,000 Williams Equipped Windows in this huge structure. This equipment will insure economical and safe window cleaning for the life of the building because both sides of the glass can be cleaned from inside the building.

THE WILLIAMS PIVOT SASH COMPANY
E. 37th Street, at Perkins Ave., Cleveland, Ohio

Write now for illustrated catalog.

WILLIAMS REVERSIBLE WINDOW EQUIPMENT



Consider carefully the economies possible in modern granite practice. Through these plates or our service department, suggestions or detailed information are at your disposal.

NATIONAL BUILDING GRANITE QUARRIES ASSN.
31 State St., Boston, Mass.
H. H. Sherman, Secty.

ENTRANCE TO
HABITATION BUILDING
CASINO OF PAPA GIULIO
ROME

SCALE
V HAGOPIAN, DEL.

STUDIES IN GRANITE PLATE XXXIII

On request a complete folio of these Granite Studies will be reserved for you



The Columbia-Presbyterian Medical Center, New York, N. Y., as it will appear when finished. James Gamble Rogers, Inc., architects; Werner Nygren, Inc., consulting heating engineers, Gillis & Geoghegan, heating contractors.

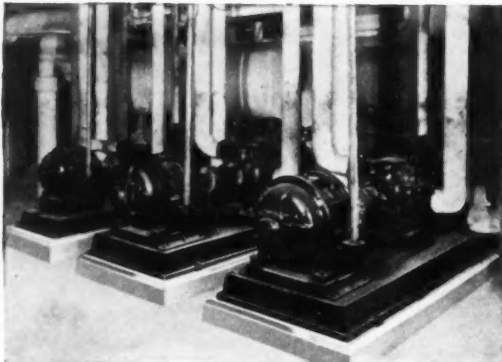
For the world's largest hospital



THE Columbia-Presbyterian Medical Center in New York City will, when completed, occupy about nine city blocks. It is said to be the largest hospital in the world.

Four Jennings Vacuum Heating Pumps have been installed—for removing condensate and air from the heaters for the hot water heating system and for the domestic hot water supply.

Three of the four Jennings Vacuum Heating Pumps installed in this hospital.



NASH ENGINEERING CO., 13 Wilson Road, South Norwalk, Conn.

RETURN LINE AND AIR LINE VACUUM HEATING PUMPS~CONDENSATION PUMPS~COMPRESSORS AND VACUUM PUMPS FOR AIR AND GASES~STANDARD AND SUCTION CENTRIFUGAL PUMPS~HOUSE SERVICE PUMPS~SEWAGE EJECTORS SUMP PUMPS

Jennings Pumps

*Architects
are Specifying*
Hardinge Fuel Oil Burners



H. W. GOSSARD CO.
Chicago



NOYES RESIDENCE, Arlington, Mass.

Below—EIGHTEENTH CHURCH
OF CHRIST SCIENTIST
Chicago

BOOTH TARKINGTON
RESIDENCE
Indianapolis



Y. M. C. A., Chicago—West Branch

See Our
Catalog
in
Sweet's

*Extra bound copies will be sent
to anyone desiring same*

Architects may safely specify Hardinge because of its long continuous record for high-class performance. Our two models, Industrial and Domestic, in 12 different sizes and combinations enable specific treatment for any heating problem.



HARDINGE BROTHERS, Inc.

Manufacturers of Precision-Built Machines for 38 Years

Factory and General Offices:

4149 Ravenswood Avenue, Chicago, Ill.

Factory Branches

Chicago—Michigan Ave. at Ohio St. Boston—839 Beacon St.

You can safely have confidence in

**HARDINGE
FUEL OIL HEAT**

STERLING LIFELONG BLACKBOARD

*Guaranteed
for the Life of the Building*

A. I. A. FILE No. 35-b.-12

FREE—TO ARCHITECTS

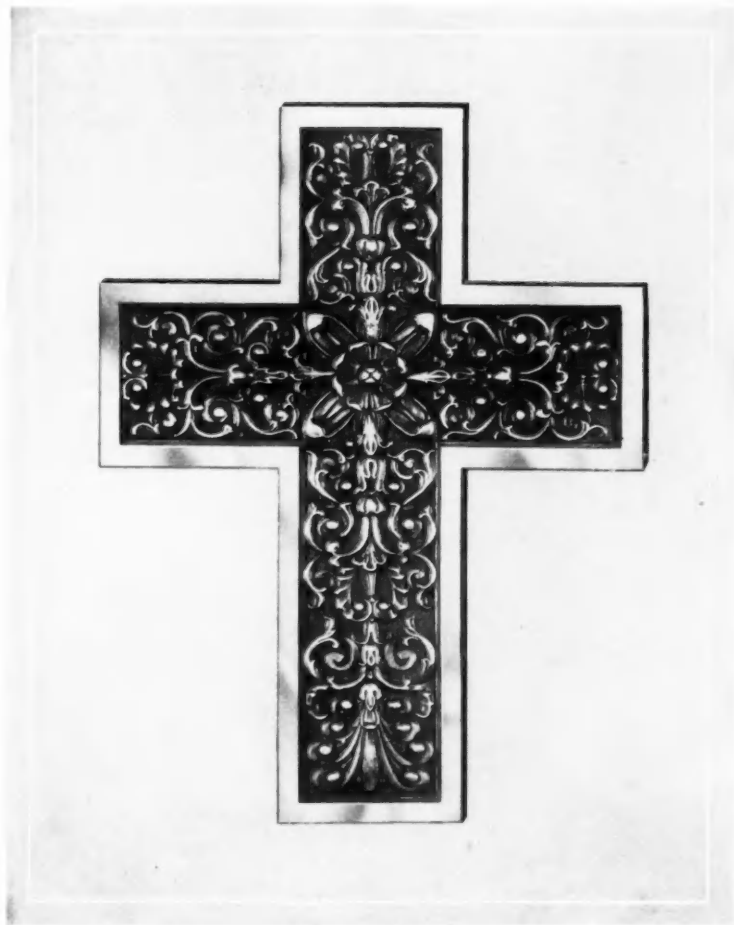
Prepared for you by our architects—ready for your files—fifteen pages of plans, elevations, and detailed specifications for the installation of this foremost Blackboard. Q Guaranteed for the life of the building by a 46-year old institution. Hundreds of thousands of feet of Sterling are giving Sterling performance daily, in better schools throughout America. Q Black—and black all through. A finer writing surface, and a body that seasons and improves with age. Warp and buckle proof—strictly fireproof. Easy on eyes and nerves—and schoolboard pocketbooks too. If you don't know all about Sterling Lifelong Blackboard send for free sample and A. I. A. File No. 35-b.-12. Address Department Y.S. 6

Weber Costello Co.

Chicago Heights



Illinois.



The Style "08" Ornament, made of cast bronze, is intended for ecclesiastical work. This can be furnished in any desired color or finish, and attached to any style stamped grille.

Another New Departure in Grilles!

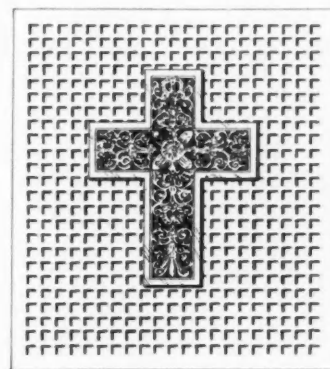
IN announcing an additional line of beautiful cast bronze ornaments, for use in conjunction with Tuttle & Bailey stamped steel grilles, this House closes in still further the gap between ordinary stamped and Period design cast grilles. For, while lower in cost than cast grilles, an appearance of high quality and the effect of depth and richness is accomplished where these Ornamental Steel Grilles are installed.

Architects and Builders are invited to write for illustrations of designs available, both as to grilles and grille ornaments. Or we shall gladly estimate on any special requirement of your own.

TUTTLE & BAILEY MFG. CO.

Makers of FERROCRAFT Heating and Ventilating Grilles

441 Lexington Avenue, New York City

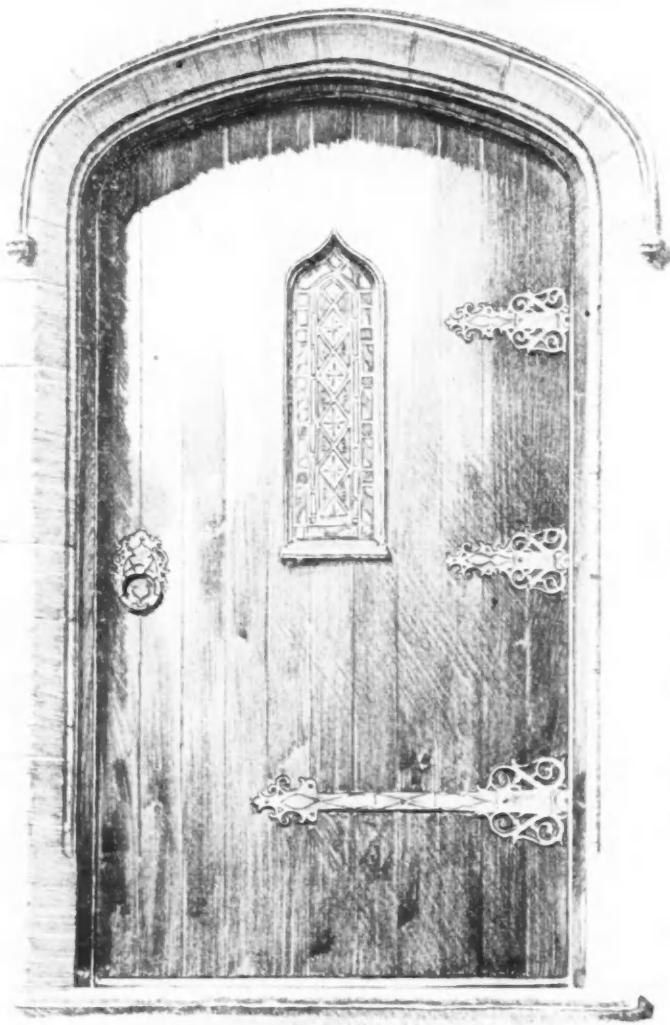


The Style "08" Ornament as it appears when attached to our Style "01" plain lattice grille.

ORNAMENTAL Steel GRILLES



MCKINNEY



THE strikingly beautiful McKinney hinge straps and handle shown here are representative of the "Alhambra" design, one of a number of McKinney patterns fashioned in Forged Iron.

The inspiration for this graceful design comes from the masterly examples of ironwork found in southern European architecture of earlier centuries, notably that of Italy and Spain.

For dignity and rugged strength of character alone, the Alhambra, the Warwick and other pieces of McKinney Forged Iron warrant the wide-spread acclaim with which architects have received them.

**MCKINNEY
FORGED IRON
HARDWARE**

*Permanent Exhibit:
Room 431, 101 Park Ave., New York City*

But consider in addition these facts: standard pieces for prompt delivery, accurately gauged for application, texture reflecting the rugged character of the metal itself, a rust-proofed finish in Relieved Iron or Colonial Dead Black Iron, and prices which make your door "possible" when despair at costs seems hovering too close for comfort.

For cathedrals or cottages, there is always Forged Iron Hardware by McKinney. Catalogs and information on request. Forge Division, McKinney Mfg. Co., Pittsburgh, Pa. *Branches: New York, Philadelphia, Boston, Baltimore, Chicago, San Francisco, Los Angeles, Atlanta, Montreal, Toronto*

Raymond Concrete Piles

dominate the field. Everywhere you see the famous spirally reinforced steel shells being driven to receive the concrete, to act as a protective "form," to resist pressure, heaving, water infiltration—in short, to preserve the length and taper, ground compression and skin friction. Ask experienced foundation men. They'll tell you.

CAST IN PLACE PILES
COMPOSITE PILES
PRECAST PILES
PIPE PILES

FORM FOR EVERY PILE
A PILE FOR EVERY PURPOSE

BRIDGE FOUNDATIONS
BULKHEADS & DOCKS
UNDERPINNING ETC.
BRIDGES

RAYMOND CONCRETE PILE COMPANY

NEW YORK
90 West Street

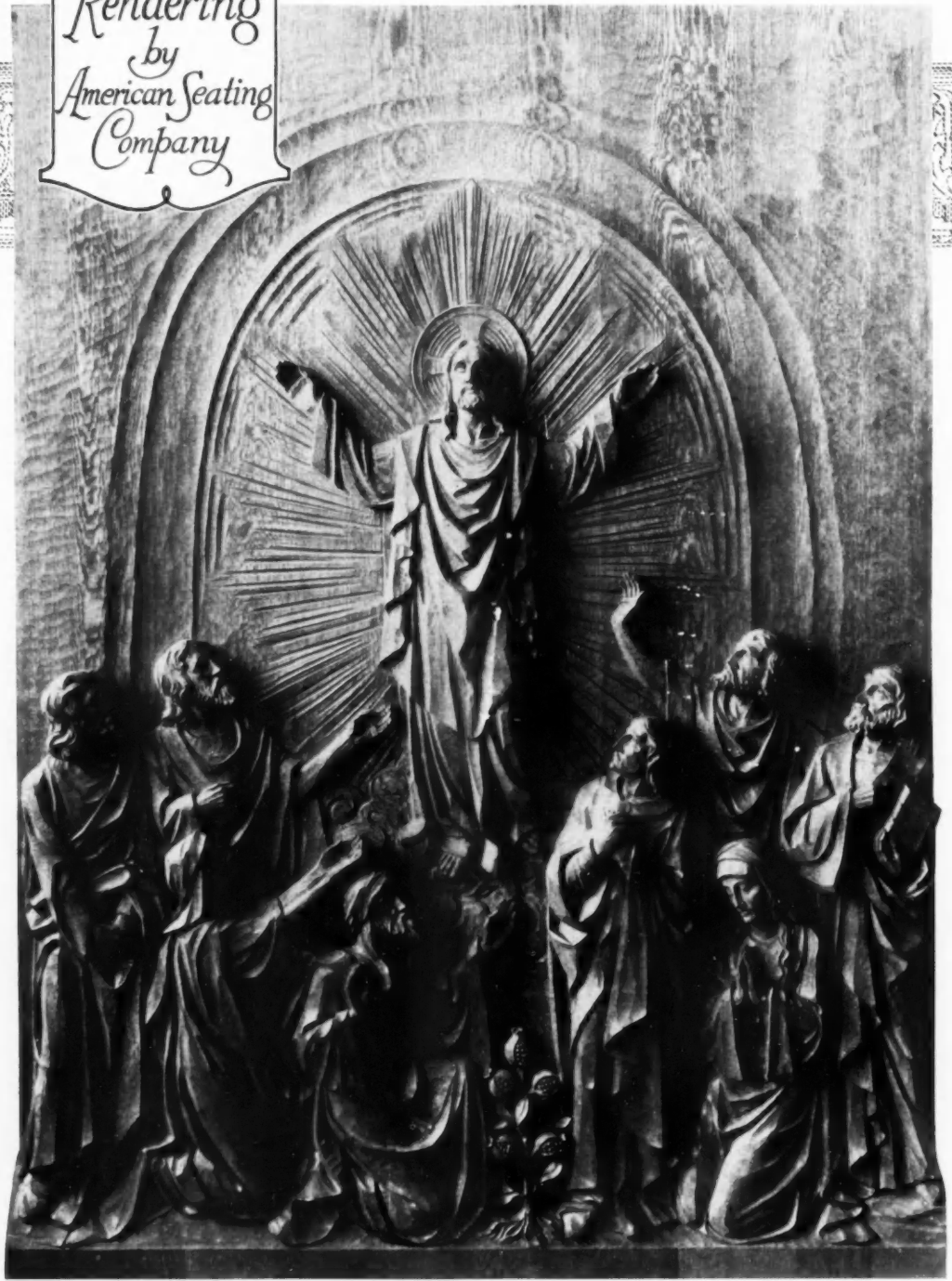
CHICAGO
111 W. Monroe Street

CANADA
Montreal

Branches in Principal Cities



Rendering
by
American Seating
Company





ALFRED HOPKINS, *Architect*

Plaster Ornament! Just a Detail, but—

a detail that has transformed into a distinctive home many an otherwise ordinary house.



WHY this steady drift toward plaster ornament? Pick up any of the architectural magazines or such periodicals as *House and Garden*, and notice how, in interior after interior, plaster ornament is being used with amazing effect in all types of dwellings—small as well as large.

In some cases, there is just a suggestion—perhaps a pediment over a doorway, a tiny medallion repeated in the walls of one or two rooms, perhaps an interesting cornice or molding. Often it is an entire ceiling in rich period design.

Of course there is nothing new in plaster as a decorative medium. The real reason for its present popularity lies in the marvelous effects it can create at only slight additional expense.

Today the six firms listed below, in the interest of creating a wider appreciation of plaster ornament, are acquainting the most discriminating section of the public with the real possibilities of this art material. Pre-eminent in the field stand these six firms, through whose catalogues correct plaster ornament is quickly available at moderate cost in all parts of the country.

Models for thousands of designs, ranging in period from Classic to Modern, are always on hand—a wealth of ornamental material from which to choose. Each of the firms, too, employs draftsmen trained in the use of ornamental plaster, and always ready to cooperate in developing new designs and adaptations, and indicate costs.

Architects and Decorators are invited to write to each of the six firms listed below for their individual catalogues.



PLASTER ORNAMENT *for* PERIOD DESIGN

Chicago—THE DECORATORS SUPPLY CO. Archer Avenue and Leo Street	New York—JACOBSON & COMPANY 239-241 East 44th Street
Cleveland—THE FISCHER & JIROUCH CO. 4821 Superior Avenue	Philadelphia—VOIGT COMPANY 1743-49 N. Twelfth Street
Detroit—DETROIT DECORATIVE SUPPLY COMPANY 4240 14th Ave.	Chicago—ARCHITECTURAL DECORATING COMPANY 1600-12 South Jefferson Street

P. W. FRENCH & COMPANY, INC., *Decorators*

← DUPLEX-A-LITED →



D-521 1/2

*John Hancock Mutual Life Insurance Building
Boston*
"The Best Lighted Building in America"
3500 Duplex-a-lites
Parker, Thomas & Rice, Architects.

2200 Duplex-a-lites were installed originally, and 1300 more in a later addition after the first installation had made good



Duplex-a-lite Shadows are Luminous *Just Enough for Definition*

DUPLEX-A-LITE illumination is a balanced blend of 20 per cent direct and 80 per cent indirect light. The psychological necessity for an apparent source of light is satisfied, but the entire ceiling becomes the distributing agent for the majority of the light. Hence there are no *undesirable* shadows. There is, however, a luminous shadow—just enough to give definition to objects.

It is also the most versatile lighting system. Duplex-a-lites can be dressed to harmonize with any surroundings—from a dainty bedroom to the great banking room or auditorium. Duplex-a-lites of several sizes are available, and in a variety of design—both as to form, detail and finish. Special designs can be furnished whenever the quantity justifies.

Every Duplex-a-lite is a source of lasting economy. For each Duplex-a-lite is designed for a single lamp of desired size. This single lamp costs less and develops more light than any group of small lamps of equal total wattage.

We shall be glad to send you a booklet showing the flexibility of this standard lighting system.

DUPLEX-A-LITE DIVISION
OF THE MILLER COMPANY, MERIDEN, CONN.

"Pioneers in good lighting since 1844"

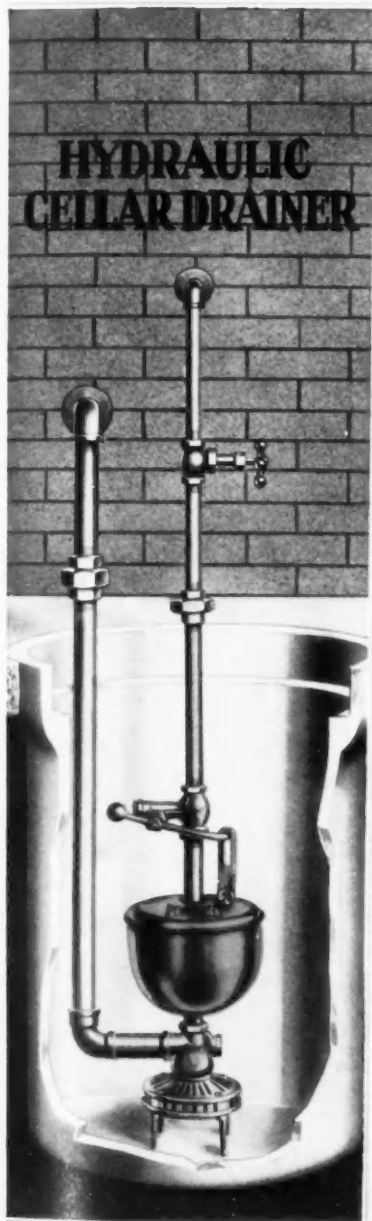
SOME DUPLEX-A-LITED BUILDINGS

Cleveland Terminal Building, Cleveland
Automobile Club of Southern California,
Los Angeles
Massachusetts Mutual Life Insurance Company,
Springfield, Mass.
Cunard Building, New York
Buffalo General Electric Co., Buffalo, N. Y.
John Hancock Mutual Life Insurance Building,
Boston
Hershey High School, Hershey, Pa.
Independence Indemnity Building, Philadelphia
Seville Biltmore Hotel, Havana, Cuba
City Savings Bank Building, Albany, N. Y.
International Mercantile Marine Building,
New York
Los Angeles Biltmore Hotel, Los Angeles
Strauss Building, Chicago
Alhambra High School, Alhambra, Calif.
Masonic Memorial Hospital, Utica, N. Y.
The Macmillan Company, New York
General Motors Building, Detroit
Matson Navigation Building, San Francisco
Mayflower Hotel, Washington, D. C.
La Salle Institute, Chicago
Union Trust Company, Cleveland
Connecticut General Life Insurance Company,
Hartford, Conn.

DUPLEX-A-LITE DIVISION
of The Miller Company
99 Center St., Meriden, Conn.
Send me your booklet on the Duplex Lighting System.

NAME.....
ADDRESS.....
CITY, STATE.....

Wherever Water Accumulates



A
PENBERTHY
PRODUCTS
automatic

*Y*OUR seepage problem may be the deep basement for a building where the sewer is not low enough for drainage—or the basement of a residence without adequate sewerage facilities. Perhaps it is the drainage of a boiler room, settling basin, fly wheel or elevator sump, a tunnel or scale pit.

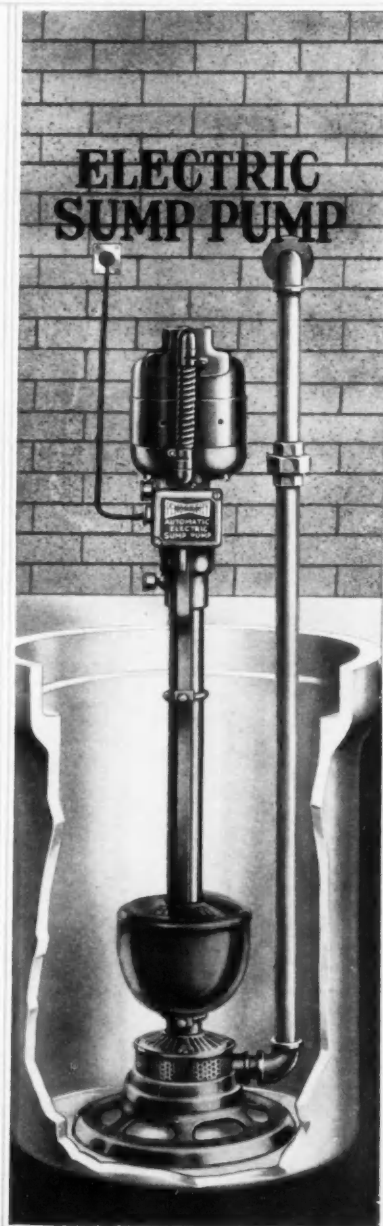
The amount of seepage may be considerable or it may be only a small trickle.

Whatever the conditions, there is a Penberthy Sump Pump or Cellar Drainer which will dispose of that seepage in the most economical manner. Either electrical power or hydraulic power can be used, and there is a size to fit every condition.

Write for details on the Penberthy Automatic Electric Sump Pump and the Penberthy Automatic Cellar Drainer.



*Quality is particularly stressed
by the use of copper and bronze
throughout.*



PENBERTHY INJECTOR COMPANY

ESTABLISHED
IN 1886

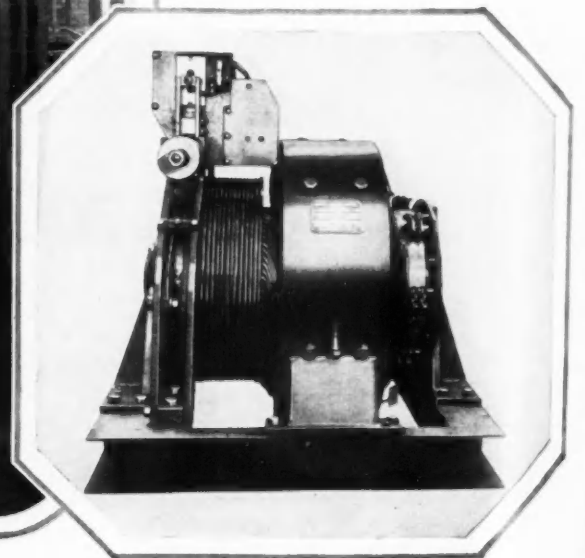
DETROIT

CANADIAN PLANT
WINDSOR, ONT.



4

*Lake-Michigan Building, Chicago.
Elevator equipment supplied by
Pitt Engineering Company. Archi-
tects—Alfred S. Alschuler, Inc.*



G-E gearless elevator motor

GENERAL

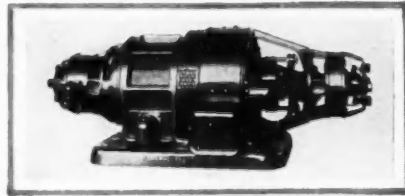
GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y.

Outstanding Contributions by General Electric to Elevator Control

- 1 A system of *automatic speed regulation*, maintaining through a simple device high schedule speed during rush hours, while facilitating accurate landing
- 2 A system of *automatic control of acceleration and retardation*, resulting in minimum time consumed, combined with maximum comfort
- 3 Development of motor and control design for *utmost simplicity and lowest maintenance*
- 4 A simplified and accurately responsive system of *automatic leveling* for building owners who require the highest grade of elevator service

Automatic Speed Regulation

An original contribution to elevator operation is the G-E system of automatic speed regulation. A simple, sturdy, rotating device is secured to the generator of the variable-voltage set, without added relays. This system, applied to high-speed gearless traction elevators, obtains both the maintenance of high



Variable-voltage set

uniform speed under full load—insuring the handling of maximum traffic during rush periods—and at the same time automatically compensates for gravity and momentum at landing speeds, so as to produce constant drift and make accurate landings possible with simple car-switch control.

The following manufacturers of gearless traction elevators use G-E gearless elevator motors with G-E elevator control exclusively:

American Elevator and Machine Co., Inc., Louisville

Baker Iron Works, Los Angeles

Gurney Elevator Co., New York

Montgomery Elevator Co., Moline



Pacific Elevator Co., San Francisco

Pitt Engineering Co., Chicago

Warner Elevator Manufacturing Co., Cincinnati

E L E C T R I C²³⁷⁻²⁹
SALES OFFICES IN PRINCIPAL CITIES

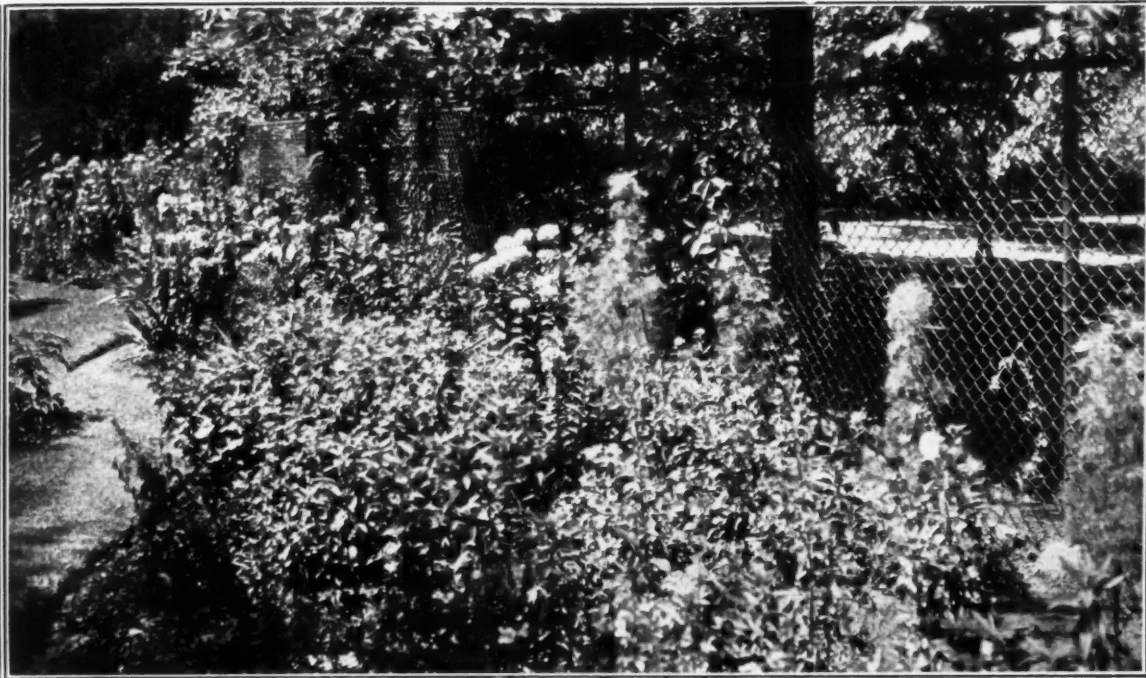


The New Von Duprin Catalog Is Ready

The largest and finest catalog we have ever issued—containing a wealth of helpful matter—has just been mailed. While we have tried to put it in the hands of every architect doing work which utilizes panic devices, omissions are almost inevitable and if, by any chance, you have failed to receive your copy, a word to us will bring it by return mail.

VONNEGUT HARDWARE CO.
Indianapolis, Indiana





ROOT & HOLLISTER, Lds. Archts.

HOW AN OLD PREJUDICE GAVE WAY ~ ~ ~ *to a new idea in garden planning*

Architects and amateur garden lovers rarely have been so rash as to plan a garden without some thought of fence protection. But many times their choice of fencing has been based on personal preference for one type or another, rather than the ultimate purpose of invisible protection for a matured landscape planting.

Today a new conception influences landscape architects and is finding expression everywhere, in gardens large and small. Fence is selected for maximum protection during the tender youth of gardens, and minimum visibility later.

Cyclone Chain Link Fence closely meets these requirements. It is impregnably strong to give adequate protection. Plants and shrubs grow up around it undisturbed by outside influences — then it merges with the background thus created and becomes an integral part of a beautiful garden.

Cyclone representatives are ready to give you the benefit of their broad experience in working with architects and owners, developing fencing recommendations from this new viewpoint as the basis of garden planning. The Cyclone Fence Company maintains a



nation-wide chain of warehouses, with factory-trained erection crews, to insure prompt service on installations of any size.

Address nearest offices.



Send 25 cents for "Beauty in Gardens," a beautiful collection of typical gardens by noted designers, with text by well-known authorities on garden planning.

CYCLONE FENCE COMPANY
Waukegan, Illinois

Enclosed is 25 cents for my copy of "Beauty in Gardens."

Name.....

Address.....

The Mark of Dependable

Property Protection



Cyclone Fence

© C. F. Co. 1928

CYCLONE FENCE COMPANY ↔ Main Offices: Waukegan, Illinois

Works and Offices: North Chicago, Ill., Cleveland, Ohio, Newark, N. J., Fort Worth, Texas

Pacific Coast Division: Standard Fence Co., Oakland, San Francisco, Los Angeles, Calif., Northwest Fence & Wire Works, Portland, Oregon, Seattle, Wash. Direct Factory Branches: Atlanta, Boston, Buffalo, Baltimore, Charlotte, Cincinnati, Des Moines, Detroit, Grand Rapids, Mich., Hartford, Conn., Houston, Indianapolis, Jacksonville, Fla., Kansas City, Minneapolis, Mineola, N. Y., Milwaukee, Mt. Vernon, N. Y., New Orleans, Philadelphia, Pittsburgh, St. Louis, Syracuse, Toledo, Tulsa.



THE GRANT BUILDING, PITTSBURGH, ARCHITECT—H. HORNOSTEL, GENERAL CONTRACTORS—THOMPSON-STARRETT COMPANY

1931 Lupton Windows installed in Pittsburgh's largest building

THE Grant Building, forty floors high, will be Pittsburgh's largest building and one of the fifteen largest in the country.

In this immense tower of offices, all window openings will be filled with Lupton Steel Windows, all but nine of them being Combination Projected Heavy Casements. These casements are one of the types of high-grade steel windows resulting from Lupton's pioneer standardization of several styles of windows to fit, interchange-

ably, fifty standard openings. The ventilating portion of these windows is exceptionally efficient in inducing desired air movements and their simplified construction is such as to give permanently satisfactory service with economy.

Lupton is equipped with the experience and the material resources to handle your window requirements for any type of building, for any size of project. When you need windows or window counsel, always consult Lupton.

DAVID LUPTON'S SONS COMPANY

2209 E. Allegheny Ave., Philadelphia, Pa.

Lupton  **Windows**

Permanency of beauty on the wood trim in the new Engineers Building is assured with

“38”

**PRESERVATIVE
VARNISH**



D. H. Burnham & Co., Architects

Sidell Woodworking Co., Cabinet Contrs.

ENGINEERS BUILDING, CHICAGO

IT is significant that “38” Preservative Varnish and other Pratt & Lambert Varnish Products were used on the wood trim in the new twenty-one-story Engineers Building, Chicago.

This imposing structure is another substantial addition to the many in Chicago and elsewhere on which “38” Preservative Varnish was selected as the premier interior finish.

“38” Preservative Varnish imparts to wood trim a full-bodied film of velvety smoothness which enhances the wood grain and permanently beautifies and preserves.

Architects, painters and owners know “38” as a varnish made expressly for

the very highest type of interior work, where durability must be combined with depth of luster and waterproofness. “38” Preservative Varnish has a high gloss which may be rubbed to a satiny dull finish.

It is enduring — many private and public buildings still bear the original coats of “38” which were applied 15 to 25 years ago!

Any inquiry concerning P&L Varnish Products sent to the P&L Architectural Service Department will have prompt attention.

Write Pratt & Lambert, Inc., 108 Tonawanda St., Buffalo, N. Y. Canadian Address: 28 Courtwright St., Bridgeburg, Ontario.

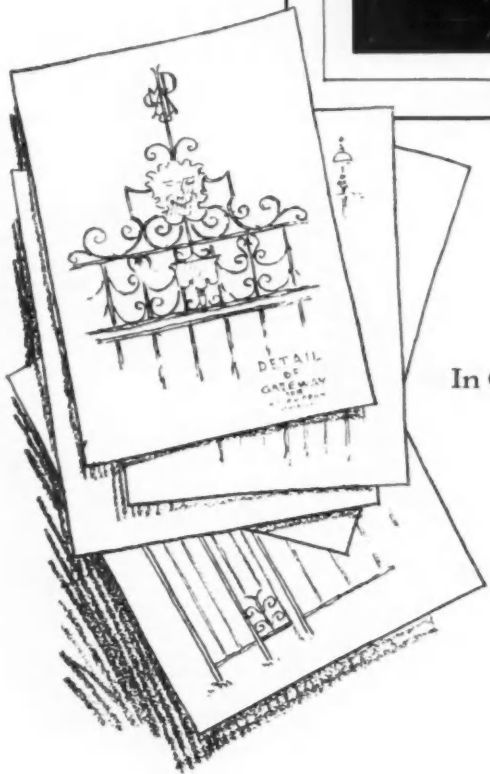
Save the surface and you save all!

PRATT & LAMBERT VARNISH PRODUCTS

Vitalite *The Long-Life Enamel*

Available in gloss and eggshell finish, in white and six attractive tints. It produces a porcelain-like finish of rare beauty and is so durable that it is guaranteed for three years inside or outside. It is specified by architects on modest homes and large city buildings.

DECORATIVE GATE
 DESIGNED BY
 CARRERE & HASTINGS
 EXECUTED BY
 J. W. FISKE IRON WORKS
 FOR
 A. I. DU PONT
 ROSLYN, LONG ISLAND



Architect's 'Rough' to the Finished Product

In Ornamental Metal Work — IRON · BRASS · BRONZE

THE J. W. FISKE IRON WORKS co-operates closely with Architects and Builders in the designing and production of all kinds of ornamental metal work:—Entrance Gates; Decorative Railings; Fencing for every purpose, country estate or industrial usage; Garden and Terrace Furniture; Fountains; Sun-dials; Weather-vanes; Lamp Brackets; Lanterns; Spiral Stairs; Stable Fittings; Tablets; Architectural Bronze; etc. FISKE Service covers designing, producing and erecting. Our artists and craftsmen are highly specialized; our plants, modern and complete. 70 years' experience has brought FISKE genuine appreciation from leading architects, from our Government, from states, cities, large industrial concerns and many owners of private estates.

We are always glad to estimate on individual designs. Booklets covering each of our various specialties on request. Kindly mention ARCHITECTURAL RECORD

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

SPECIALISTS IN ORNAMENTAL METAL WORK

For that new Bank

Enduring beauty and permanency are assured by the use of Sheldon's Slates for its roof.

Also for counter-tops, wainscoting, base, border, flooring, treads, risers and in other places.

How beautiful, for instance, would our Arabian Red appear there.

In such finish or natural color as may prove most appropriate.

A rare slate, that. Exclusive to our quarries in Washington County, New York, where alone is found a slate genuinely red in color.

F. C. SHELDON SLATE Co. **General Offices, Granville, N.Y.**

Chicago, Ill.
228 N. La Salle St.
Detroit, Mich.
1115 Francis Palms Bldg.

New York City
101 Park Ave., Room 514
Atlanta, Ga.
311 Bona Allen Bldg.

Cincinnati, Ohio
35 Poinciana Apt.
Seattle, Wash.
1107 West Idaho St.

These features make Sisalkraft "more than a building paper"

Strength

Sisal fibre re-enforced both ways and covered with a double layer of tough kraft outside, Sisalkraft is so strong you can hardly tear a small sample across.

Waterproofing

The double layer of finest asphaltum provides effective waterproofing under the severest conditions of use. Sisalkraft holds water for three or four months by actual test.

Pliable

The inner layers of asphaltum are

protected by tough kraft on each side. The asphaltum is always in perfect condition. It never dries out, never cracks. Even in winter, Sisalkraft stands handling without damage.

Clean

Both sides of a sheet of Sisalkraft are clean, tough kraft paper, easy to handle, safe to use even as a protection to finished floors and furniture when decorating.

Permanent

Sisalkraft retains its protective features indefinitely; there is nothing to deteriorate.

SISALKRAFT has a score of different uses where its combination of desirable features give outstanding advantages in construction. It provides superior waterproof, windproof protection in wall and roof construction. It is especially valuable as a floor lining. It is being used for membrane waterproofing in many places, especially over insulating materials in cold storage construction.

Contractors find that Sisalkraft's strength means



Sisalkraft used to cover materials. This same Sisalkraft was used over the sheathing in place of building paper

easier, faster application. Sisalkraft can be used for temporary protective purposes, and re-used under floors, over sheathing, or in other permanent construction, cutting costs. Better construction with Sisalkraft does not add to the cost.

Samples of Sisalkraft and descriptive bulletins will be sent on request. Try backing up blueprints with a sheet of

Sisalkraft for protection against moisture and rough handling.

THE SISALKRAFT COMPANY

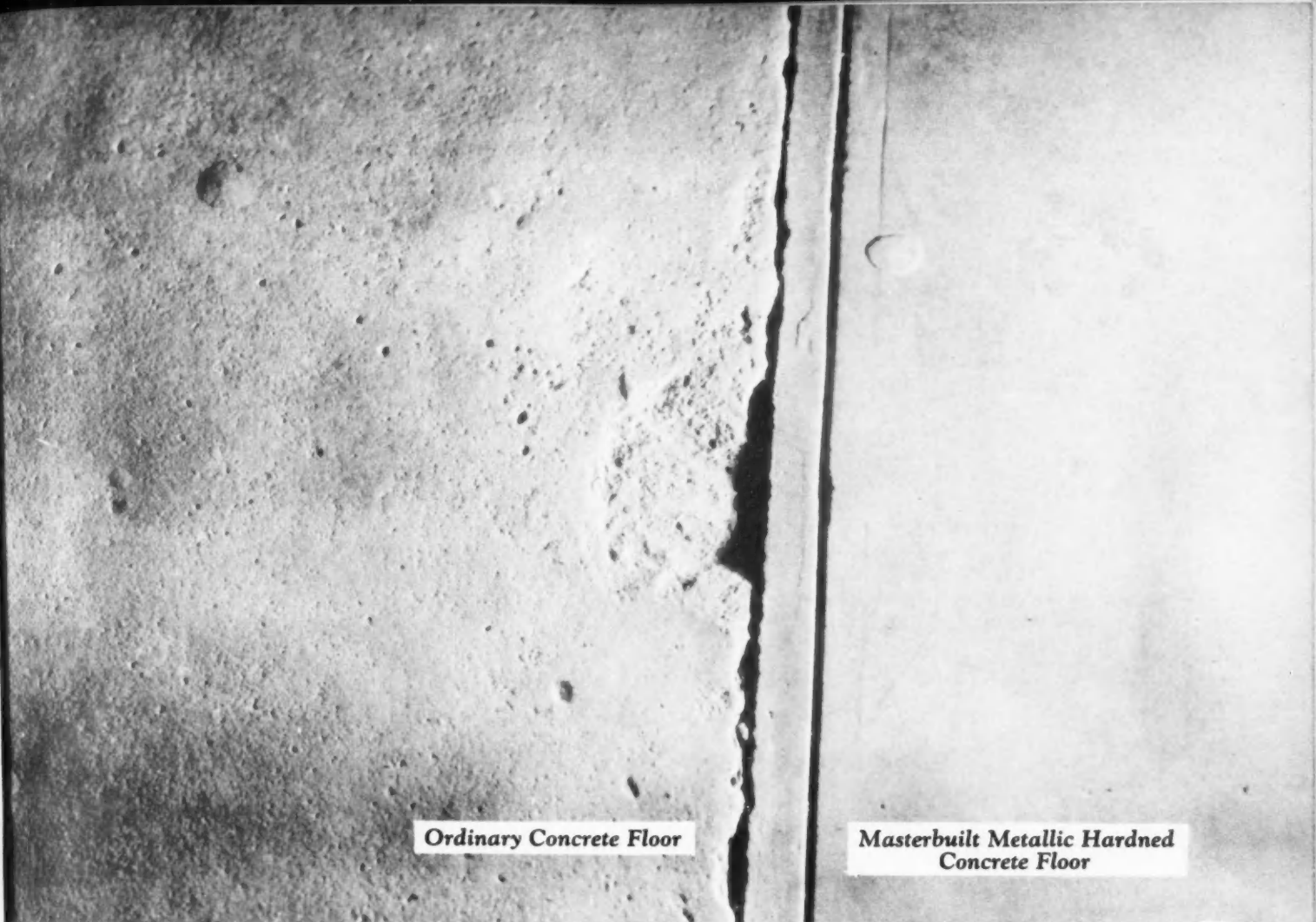
228 N. LaSalle Street

Chicago, Ill.

See Sweet's Architectural Catalog, pages 190-191

SISALKRAFT

"more than a building paper"



Ordinary Concrete Floor

Masterbuilt Metallic Hardned
Concrete Floor

From unretouched photograph of floor in station of Penna. R. R., Cleveland, Ohio

Before You Specify Another Floor—

“The Pennsylvania started this practical test in 1912 when they laid a plain cement floor and a Metallic Hardned floor side by side in their Cleveland station. The hardned portion gets twice the traffic the plain does, yet see the difference.” . . . Extract from page six of the new book “PLAIN TALK ABOUT CONCRETE FLOORS,” just off the press.

Experiences of 412 plant engineers and owners with different types of cement floor finish are reported in this survey of floor laying methods. Concise, thought-provoking, the book presents startling new evidence on a question that has baffled builders and owners for years, “How to lay concrete floors that will last under modern industrial traffic.”

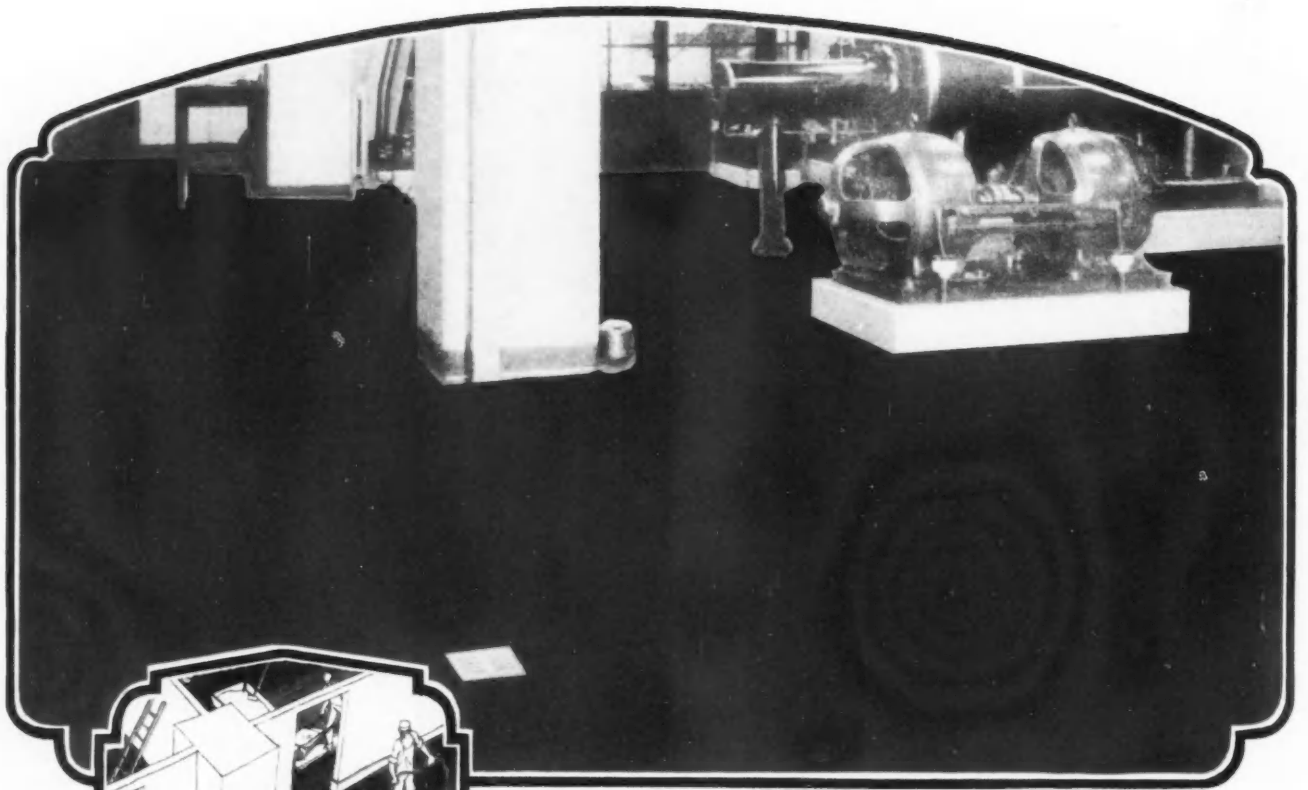
Before specifying another floor send for a copy of this book, sent upon request to architects, engineers, contractors and building owners and managers.

THE MASTER BUILDERS COMPANY
Euclid Avenue at 71st Street

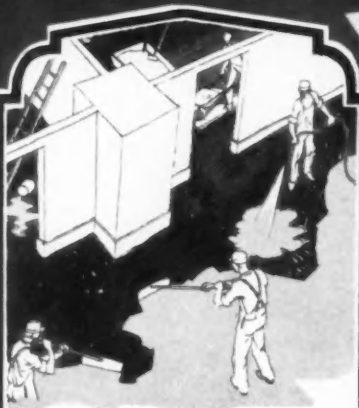
Cleveland, Ohio



BETTER CONCRETE FLOORS



Red Colormix Floors were selected for the engine room of the Federal Reserve Bank, Cleveland, because of Colormix wearing quality and fine appearance.



STAINPROOF

The Modern Curing and Protecting Film

Applied over the surface 36 hours after troweling Stainproof dries to a tough, air-proof film that prevents staining and marring and insures perfect curing of the concrete.

Easily removed after all danger of staining is passed.

All new Colormix Floors are protected with Colormix Stainproof.



Power Plants are Show Places Today!

TODAY there is an ever-increasing demand for finer appearance in Power plants. Color? Yes, if it can still retain the necessary hardness. Colormix, hardened and colored all the way through, has successfully combined color and strength in a permanent, dust-free, trouble-free colored and hardened floor that meets every requirement. Thousands of beautiful lasting Colormix Floors are evidence of this fact.

THE MASTER BUILDERS COMPANY
Cleveland, Ohio

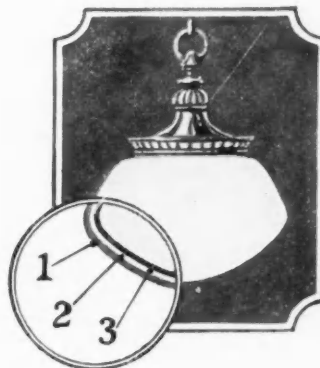
Factories in Cleveland, Ohio,
Buffalo, N.Y., and Irvington, N. J.

Sales Offices
in 110 Cities

COLORMIX FLOORS

COLORED HARDNED CONCRETE FLOORS

STRIVING FOR PERFECTION



Celestialite's Three Layers:

- 1—An inner layer of blue whitens and perfects the light.
- 2—A middle layer of white filters out all the glare.
- 3—An outer layer of crystal glass, provides body and strength.

A marvelous soft white light results that safeguards the eyesight

Ideal Lighting Globes for:

- Offices Schools
- Factories Hospitals
- Stores Banks
- Hotels

NATURALLY, it costs more to manufacture a three-layer lighting globe than a single-layer lighting globe.

But the advantages of the three layers of CELESTIALITE (the only three-layer lighting globe of its kind obtainable) greatly overshadow the slight additional expense.

Only three layers of glass can produce illumination that rivals the beauty of nature's daylight. And CELESTIALITE's "next to daylight" illumination results in

- ↑ *Glorified beauty and animation in an interior*
- ↑ *Freedom from eyestrain and brain fatigue*
- ↑ *Greater activity—larger production*
- ↑ *Greater efficiency due to less tiredness*
- ↑ *Less breakage because of three-ply strength*

If you are striving for perfection you should not overlook the advantages of the pure illumination that radiates from CELESTIALITE.

Send for fragment showing unusual three-layer construction; also explanatory catalogue and A.I.A. file.

CELESTIALITE
(PATENTED)

NEXT TO DAYLIGHT

GLEASON-TIEBOUT GLASS CO., (*Celestialite Division*)
200 Fifth Avenue, New York City A-R-6

Kindly send me free Catalog, A.I.A. file, and fragment of CELESTIALITE showing its three-layer construction

Name

Position

Address

City

This TEXTURED WALL
can't be
 MARRED, CHIPPED
or permanently
 DISCOLORED



Music room, apartment of Howard L. Willett, Chicago. Oman & Lillienthal, Architects; T. C. Gleich Co., Decorators.

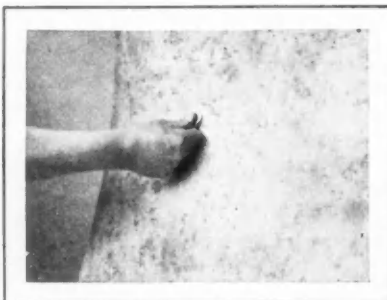


Marb-L-Cote mixes in cold water, applies easily and covers well. Immediately after application it may be textured. See photo at left. It is remarkably workable, does not stick to hands or tools during texturing.

To test hardness, gouge at Marb-L-Cote surface with the edge of a coin, as illustrated below. Note that it does not powder or scratch.



Flex a sample of Marb-L-Cote applied over thin wall-board as shown above. Note the amount of distortion before cracking begins. Because remarkably elastic, Marb-L-Cote is safe to use over wall-boards, plaster-boards and insulating boards.



*Why, on finest buildings
 Architects are Specifying
 Marb-L-Cote by name*

SIMPLE tests will demonstrate that with the charm of hand textured walls can come today extraordinary wall permanence and economy.

Make tests, illustrated on this page, using a sample of Marb-L-Cote applied over wall-board. They have convinced many of the remarkable hardness and flexibility of this plastic finish.

Warmly colored and beautiful reliefs of the great decorative periods are easily produced in Marb-L-Cote. Completed, they are proof against chipping, crazing or powdering. Stains can be washed readily from them.

Today not only for homes but for corridors and offices in large buildings, theatres, auditoriums and apartments Marb-L-Cote is specified by name.

Because chemically neutral it sets up no fumes damaging to the throats and hands of workmen. It cannot "burn" the color glaze, hence retains permanently the most delicate or richest shading.

For these reasons Marb-L-Cote has won favor among decorators. They give it the time and skill good craftsmanship requires. Upon architect's request craftsmen-supervisors are placed in charge of work.

Complete specification data, with samples for testing or for color and texture, will be mailed free. Address Marb-L-Cote, Inc., The Engineering Building, Chicago.



MARB-L-COTE
 MARBLE APPLIED WITH A BRUSH

YOUR HEATING REQUIREMENTS



THE MOST HEATING FOR EVERY DOLLAR INVESTED. UTMOST QUALITY & SERVICE



Fidelity-Mutual Life Insurance Co., Philadelphia, Pa.
 Architect: Dantzinger, Borie and Medary
 Heating Contractor: William M. Anderson
 Engineer: Isaac H. Francis
 Aero Radiation

THE first and final test of a heating installation used to be merely, "Will it warm the building?" Today, economics as well as thermodynamics, must be consulted. The question has become, "Will it warm the building *economically?*"

The answer, when National Products are used, is always, "yes." You can depend on National Boilers, and Aero the National Radiator, to convert a maximum of the heat in the fuel into healthful, even warmth in the building. Thousands of installations verify this.

You can expect the utmost in service from National Products, and all that is fine in cooperation from the National Organization. We'll be glad to demonstrate this to your complete satisfaction.

NATIONAL RADIATOR CORPORATION

Ten Plants devoted to National Service through these Branch Offices and Warehouses:

- | | |
|--|---|
| Baltimore, Md.—2622 Frisby Street | Boston, Mass.—93-97 Oliver Street |
| Buffalo, N. Y.—259-265 Delaware Avenue | Cleveland, Ohio—935 E. 63rd Street |
| Chicago, Ill.—2445 N. Keeler Avenue | Cincinnati, Ohio—Spring Grove and Elmira Avenue |
| Indianapolis, Ind.—431 W. Georgia Street | Johnstown, Pa.—221 Central Ave. |
| Louisville, Ky.—1126 W. Breckenridge St. | Milwaukee, Wis.—124-130 Jefferson St. |
| Omaha, Neb.—108-112 S. Tenth St. | New York, N. Y.—55 W. 42nd St. |
| Pittsburgh, Pa.—1509 Arrott Building | Philadelphia, Pa.—121 N. Broad St. |
| Richmond, Va.—3032 Norfolk St. | St. Louis, Mo.—1042 Central Industrial St. |
| Washington, D. C.—2205 Fifth Street, N. E. | |





INTERIORS IN MOSAIC TILES

THIS INTERESTING study in Mosaic Faience Tiles has been done in varying tones of green against a background of rich antique buff.

The arched ceiling reflects the soft harmony of the tiled floor, and with wainscot and stairway to match, presents an ensemble as charming as it is distinctive.

Our own Art and Design Department is always ready to co-operate with architects by either preparing and submitting original designs and color combinations or by working up detailed layouts from rough sketches.

Often, however, the architect working in Mosaic Faience Tiles prefers to initiate his own designs—for the almost exhaustless variety of colors, sizes, shades, patterns and textures of Mosaic Faience Tiles gives him a material of singular plasticity and allows the fullest freedom to his decorative skill.

Room displays of Mosaic Faience Tiles and other Mosaic Tiles are maintained in all branch offices of the Mosaic Tile Company. These offices are always anxious to assist the architect by providing him with samples and by arranging estimates through established and responsible contractors.

MOSAIC

"Mosaic" is the Trade Name of tile made exclusively by the Mosaic Tile Company and is stamped on back of all Mosaic Tiles. The word "Mosaic" should be used in writing tile specifications.

**MOSAIC
TILES**

**THE
MOSAIC TILE COMPANY**

Member, Associated Tile Manufacturers

ZANESVILLE, OHIO

Dept. A R. 6

**NEW YORK - CHICAGO - ST. LOUIS
SAN FRANCISCO - LOS ANGELES**





New York Life Building, New York City, containing 125,000 square yards of Berloy Metal Lath made of Toncan Iron by the Berger Manufacturing Co., Canton, Ohio.

Another Massive Structure Built with Metal Lath of Toncan Iron

AMERICA'S modern skyscrapers are being built to last for generations. All materials are selected for their lasting quality. The outstanding ability of Toncan Copper Mo-lyb-den-um Iron to resist the attacks of rust and corrosion is the main reason why it was specified for the metal lath of the New York Life Building. In this massive structure 125,000 square yards of Metal Lath made of Toncan Iron will be used.

Architects everywhere are specifying Toncan Iron not only for metal lath in buildings and homes but for cornices, ventilating ducts, ventilators, gutters, downspouting, flashing, roofing, or wherever sheet metal is exposed to the attacks of rust and corrosion.

Send for your copy of the Toncan Book, "The Path to Permanence."

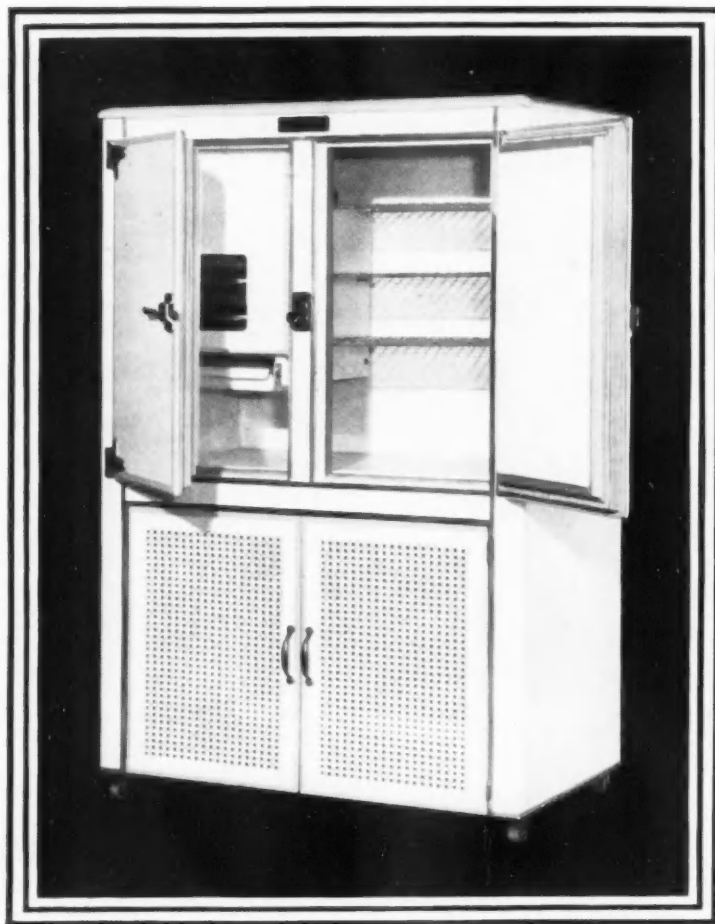


CENTRAL ALLOY STEEL CORPORATION, MASSILLON, OHIO

Cleveland Detroit Chicago *Makers of Agathon Alloy Steels* New York St. Louis San Francisco
Syracuse Philadelphia Los Angeles Tulsa Cincinnati Seattle

WORLD'S LARGEST AND MOST HIGHLY SPECIALIZED ALLOY STEEL PRODUCERS

The Architectural Record, June, 1928



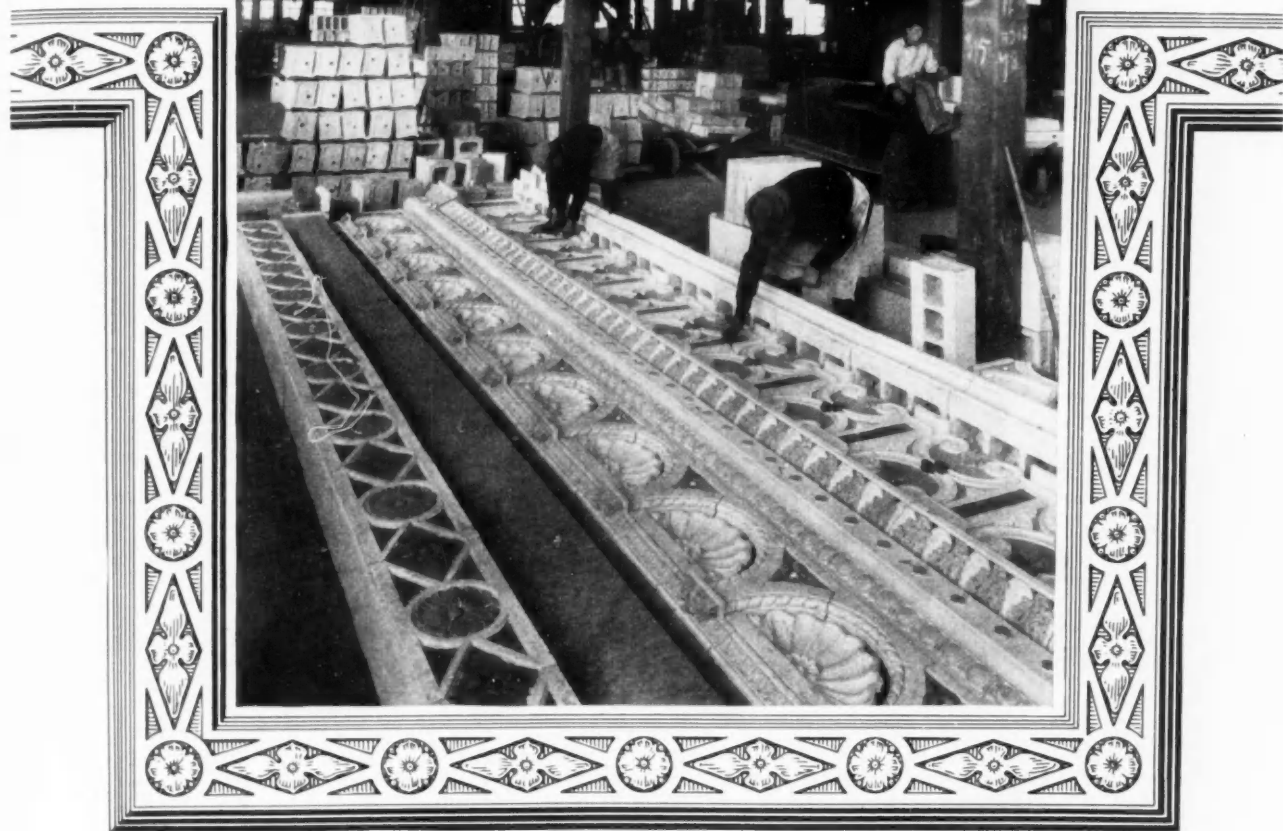
Recommend the reliable
Kelvinator Electric Refrigerator . . . it's a real service
to both clients and tenants

THERE is a reliable Kelvinator model to meet every building requirement . . . from the neat little "New Yorker" to the large porcelain and French gray models admirably fitted to the needs of the most pretentious home.

In each of these cabinets is the simple, sturdy Kelvinator cooling unit that has been successful . . . and constantly improved . . . since 1915.

The Kelvinator-equipped apartment or home will rent quickly and *stay* rented. Recommend Kelvinator electric refrigeration . . . you'll be doing a real service to both clients and tenants. Write for our builders' book.

KELVINATOR CORPORATION
Detroit



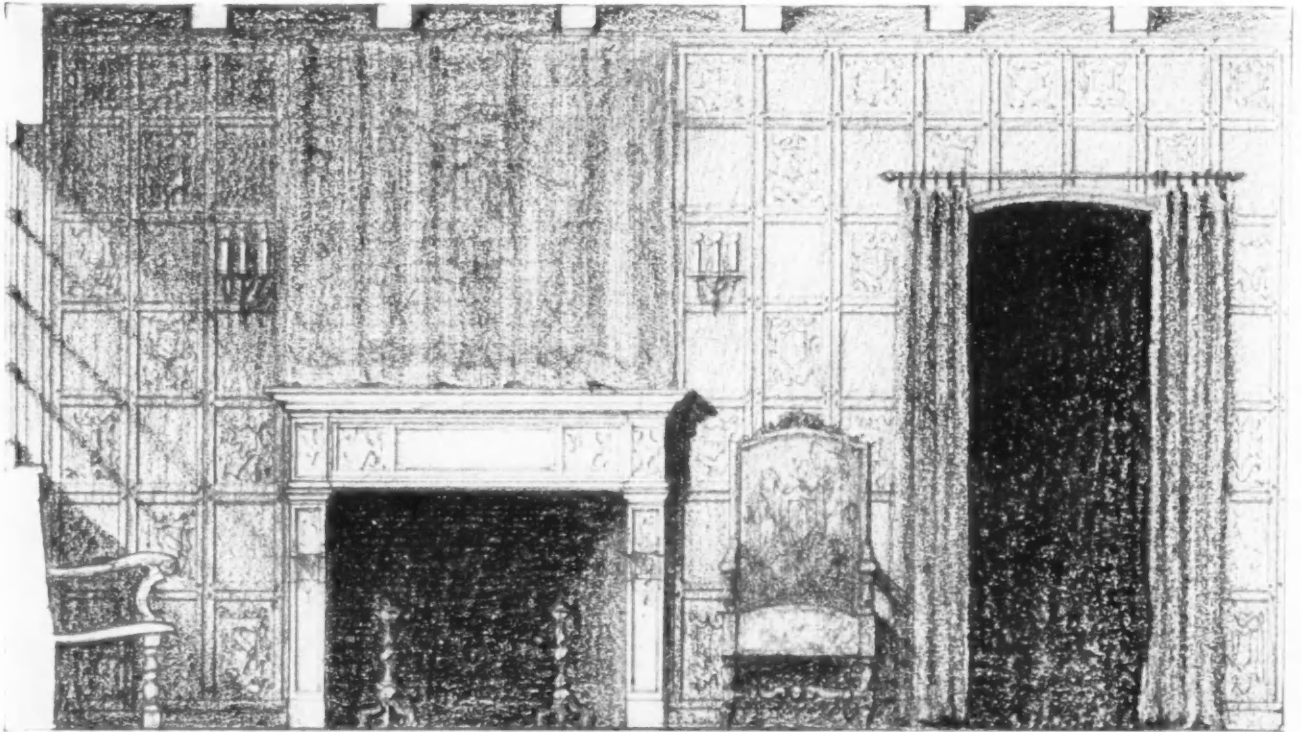
PRECISION *the* KEYNOTE

PICTURED here is a section of The Northwestern Terra Cotta Company's fitting department. With the accuracy of a master mosaic, separate units of terra cotta are fitted to form the pattern designed by the architect. When the numbered pieces of terra cotta leave the factory they carry the assurance of precision in fit.

Prior to shipment, every piece is carefully matched and irregularities in shape corrected. Great care is used to effect desired color harmony and to follow faithfully the design of the architect. This unremitting attention to detail has been and is an important factor in establishing and maintaining Northwestern leadership.

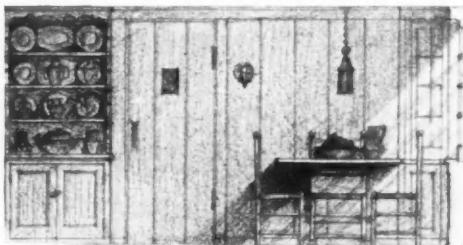
THE NORTHWESTERN TERRA COTTA COMPANY
DENVER CHICAGO ST. LOUIS

NORTHWESTERN TERRA COTTA

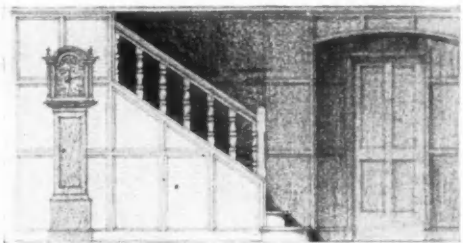


H. Roy Kelley, Architect, Pasadena, California

Baronial splendor at moderate cost



All woodwork in this pantry is of Sitka Spruce. Sitka Spruce is odorless and tasteless so it is used wherever foods are kept.



This hallway is paneled in West Coast Hemlock. One coat ground, three coats rub-varnish, hand rubbed to a dull finish.

It is really remarkable what beauty the West Coast Woods Architectural Competition uncovered in the treatment of the four giant softwoods of the Douglas Fir region:

*Douglas Fir • West Coast Hemlock
Western Red Cedar • Sitka Spruce*

Here we show examples of interiors that are triumphs of artistic wood effects . . . Douglas Fir and West Coast Hemlock paneling of rare beauty . . . adzed ceiling beams of Douglas Fir . . . decorative panels of sand etched Douglas Fir.

Permanency combined with artistic charm are happily combined with economy of construction . . . the moderate priced home can be as baronial as its more pretentious neighbor.

In Douglas Fir and West Coast Hemlock home designers are re-discovering not only the practicability of wood, but its warmth, its life and its decorative charm.

We will be glad to send you, without charge, a brochure of the designers' sketches and construction suggestions for this and many other of the designs submitted in the West Coast Woods Architectural Competition, together with a book describing the four outstanding woods of the Douglas Fir region. Address West Coast Lumber Bureau, 216 Mt. Hood Building, Longview, Washington.

Durable
Douglas Fir
*America's Permanent
Lumber Supply*

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

Mail the Coupon for FREE Handbooks of
MODERN ELECTRIC COOKING

Let Us Prove the Greater Savings

and many other advantages to your clients when you specify electric ranges for apartment kitchens and electric cooking and baking equipment for hotels and institutions



Hundreds of architects, eager for concise, convenient information on modern all-electric kitchens, have said these new handbooks are the most informative and helpful they have ever received

EDISON ELECTRIC APPLIANCE CO., Inc.

A GENERAL ELECTRIC



ORGANIZATION

Factories: Chicago, Ill., and Ontario, Calif. Branches and Service Stations in Principal Cities

<p>MAIL TO — Architects Service Bureau EDISON ELECTRIC APPLIANCE CO., Inc. 5670 West Taylor Street Chicago, Illinois</p>	<p>Please send me the free handbooks on Electric Cooking Name..... Address.....</p>
--	---

\$1000



PITTSBURGH PLATE

for a name

WE are offering \$1000 as a prize for the best name and design to apply to our 1/8" Plate Glass. This, in a few words, is a true polished plate glass 1/8" thick. It fits standard sash and takes standard window weights. It brings the cost of complete plate glass installation down to a point where every one can afford it.

This 1/8" plate glass has all the transparency, true vision, beauty and polish of the heavier plate glass which, up to now, has been enjoyed only by wealthy home owners.

The name should be one that is easy to pronounce, easy to remember, one that suggests the article and one that would appeal to the public. It must be dignified and appropriate for a high grade, polished, plate glass.

The design need be only a rough suggestion of a type of lettering or some distinctive way of using the name in a trade mark form. The crudest pencil sketch will be good enough to show the idea. No importance will be placed on the finished appearance of the sketch.

Only architects and those employed in their offices are eligible but each may send in as many suggestions as he wishes.

\$1000 in cash will be paid to the one sending in the name and design selected. If the winning name-sketch is sent in by more than one contestant duplicate prizes will be awarded to each.

Contest Closes July 1st, 1928

Judging and selection will be made as soon as possible after July 1st.

The winning name-sketch will be selected from twenty which appeal to the judges as being the best after submission to the Carnegie Institute of Technology for a psychological test.

This psychological test will be based on association, memory value, descriptive value, distinctiveness and pronunciation.

Announcement of the selection will be made in an early issue of this publication.

Sketch your ideas on your firm's letterhead. Put down everything you think of. The simplest suggestion may win the money.

FEATURES TO BE CONSIDERED

This glass is a true plate glass—highly polished.

Clear vision—no distortion.

Light in weight—fits standard sash—uses standard weights.

Costs very little more than ordinary window glass.

Beautifies the home.

Replacements now possible.

Increases the saleability of the house.

PITTSBURGH PLATE GLASS CO.

1618 FRICK BUILDING
PITTSBURGH, PENNA.

Send in your suggestions—with the coupon or not, as you may prefer

Name _____

Architect's Office _____

Address _____

A.R.

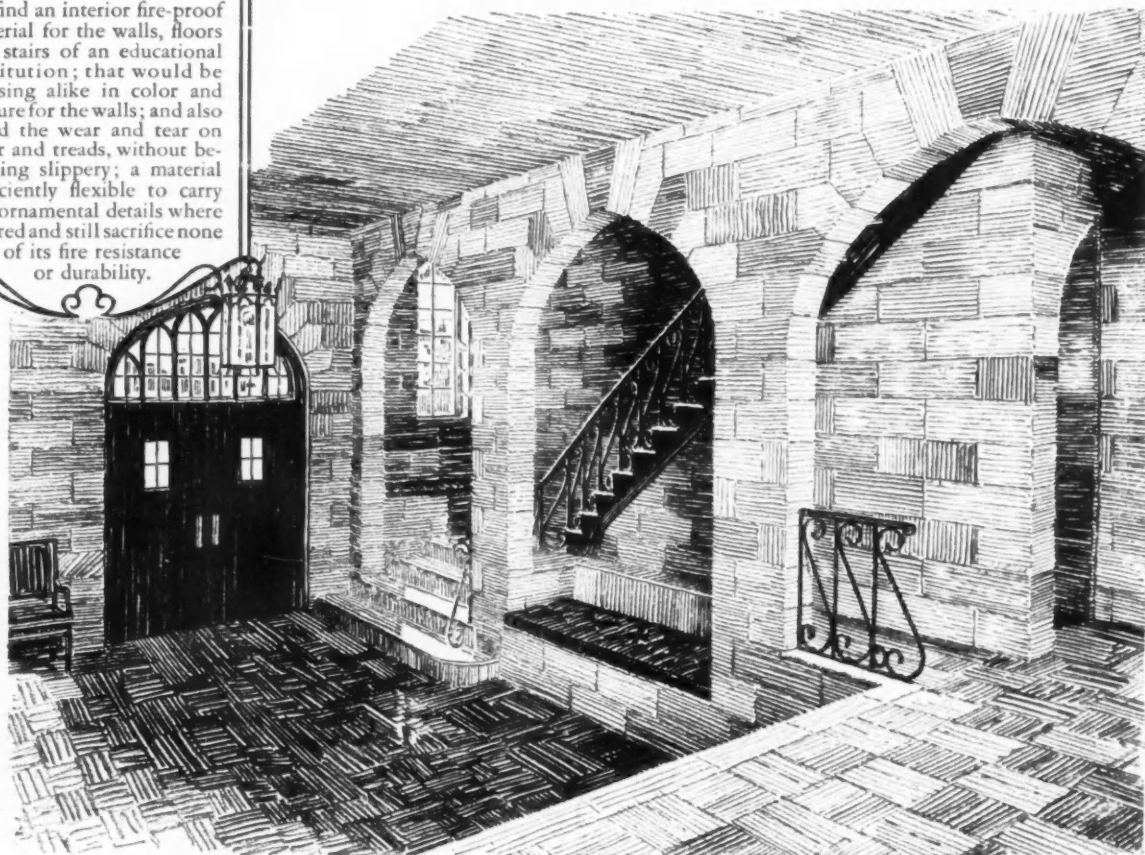
GLASS COMPANY

We have a booklet which describes 1/8" Plate Glass which may help you hit upon a good idea and win the prize. It will be sent upon request.

ZENITHERM

Stating PROBLEM No. V

To find an interior fire-proof material for the walls, floors and stairs of an educational institution; that would be pleasing alike in color and texture for the walls; and also stand the wear and tear on floor and treads, without becoming slippery; a material sufficiently flexible to carry out ornamental details where desired and still sacrifice none of its fire resistance or durability.



New Jersey Law
School
Newark, N. J.

Henry G. Morse
Architect

The PROBLEM Solved

You may have forgotten that the first use of Zenitherm was for the fire-proof lining of safes. It's rather a far cry from that strictly utilitarian state of years ago to the present Zenitherm. But in that evolution it has lost none of its fire-proof qualities. Evidence of this was demonstrated in the New Jersey Law School fire. Below is a letter from Richard D. Currier, president of the Board of Trustees.

GENTLEMEN: You probably know of the recent fire in our Faculty Room. I was at home when the fire was discovered, but reached the building before the firemen left. At that time and since have been greatly impressed with the fire-proof qualities of Zenitherm.

Examination showed that the fire had started around a defective flue and evidently had been burning for several hours before it finally came through. Had it not been for the Zenitherm floor in the Faculty Room, I do not see any-

thing to have prevented the fire from going directly through to the roof of that building before the firemen reached us. As it was, the damage was confined wholly to that room, with the exception of damage done by chemicals which leaked down to the room beneath. We have always felt that in using Zenitherm we were safeguarding ourselves as much as possible, and the recent fire amply confirmed our opinion as to its fire-proof, as well as its artistic qualities. Yours truly,

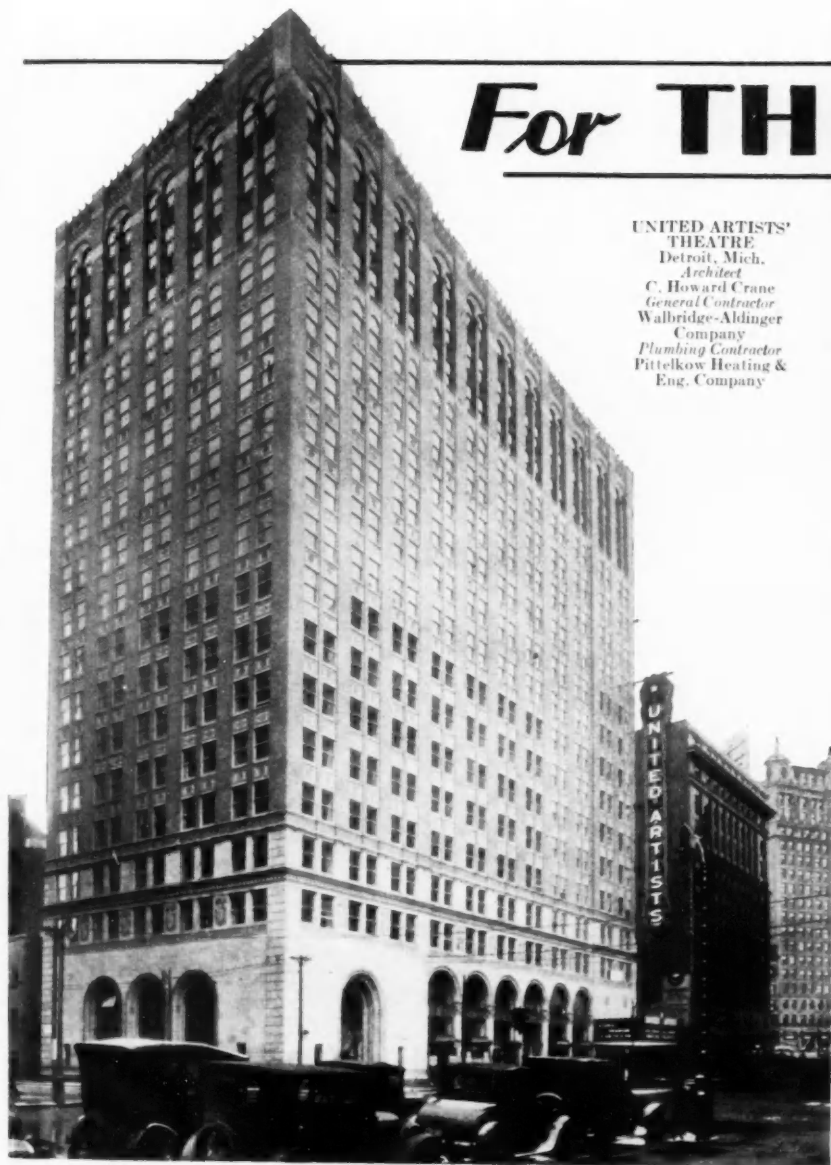
RICHARD D. CURRIER.

A. G. H. Reynolds Pres

ZENITHERM COMPANY, INC. *General Offices* **NEWARK, N.J.**

110 East 42nd St., New York City • 612 North Michigan Ave., Chicago, Ill. • Zenitherm Sales Co. (Cal.) San Francisco

For THEATRES



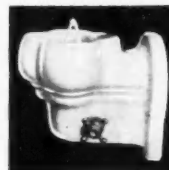
UNITED ARTISTS'
THEATRE
Detroit, Mich.
Architect
C. Howard Crane
General Contractor
Walbridge-Aldinger
Company
Plumbing Contractor
Pittelkow Heating &
Eng. Company



The Halsey Taylor "Safety Stream"

At last a *practical side-stream*—
a stream that remains at uni-
form height regardless of pres-
sure variation, due to *automatic*
stream control—a stream that
makes it impractical for lips to
touch, because of the distinctive
sanitary two-stream projector!

THE MODERN construction of motion picture
houses that seeks to bring necessary additional
revenue from the floors above has resulted in
splendid combination theatre-office buildings, in
many of which Halsey Taylor Drinking Fountains
are the preferred installation. *The Halsey W.*
Taylor Company, Warren, Ohio.



No. 605

The fixture illustrated
at left is one of many
attractive vitreous
china wall
types in
the Taylor
lines.

The pedes-
tal shown is
one of many
in vitreous
china and
cast iron, for
use in office
or industrial
buildings.



No.
616

Write for new Architects' Manual con-
taining description and illustrations
of our complete line.

HALSEY TAYLOR

DRINKING FOUNTAINS

THE YEARS MARCH BY --- BUT NATCO HALTS DEPRECIATION

EACH year depreciation takes its toll, in beauty and in value, from buildings not built for permanence. What was some architect's pride becomes an eye-sore. What was a paying investment becomes a liability.

But structures built of Natco Hollow Building Tile are left untouched by time. Natco is made of special clay, mined, molded, and burned in great kilns to the density of flint, the durability of granite. Blood brother to the ever-lasting rocks, it partakes of their permanence.

Natco, the complete line of Hollow Building Tile, provides a tile for every building need. Natco Header Backer, Unibacker, Interlocker and Backup for brick faced walls. Natco Double Shell Load Bearing and Triple X for stucco walls. Natco Textile and Vitritile for attractive finished face walls. Natco Partition Tile for plastered interior dividing walls. Natcofloor, Combination and Flat Arch Systems for floors. Natco Girder and Column Covering for protecting steel work from fire and corrosion.

No matter which of these Natco products you use, rest assured you are building for permanence. The years march by—but Natco halts depreciation.

NATIONAL FIRE PROOFING COMPANY

General Offices: Fulton Building, Pittsburgh, Pa.

Branch Offices: New York, Flatiron Bldg., Chicago, Builders' Bldg., Philadelphia, Land Title Bldg., Boston, Textile Bldg.

In Canada: National Fire Proofing Co. of Canada, Ltd., Toronto, Ontario.



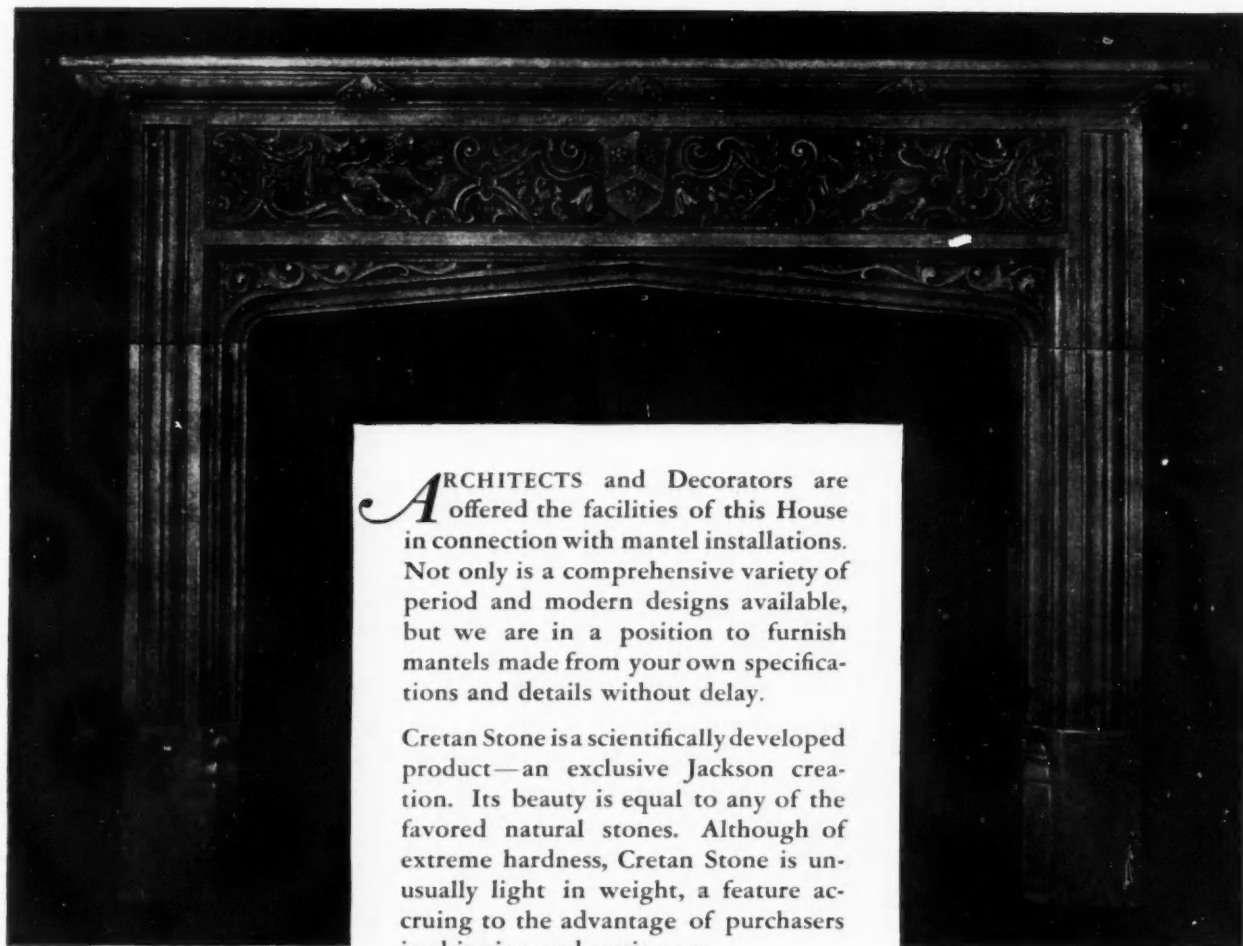
Natco Column Covering in conjunction with a wall of Natco Header Backer (brick faced). Experience has demonstrated that Natco Hollow Tile is the ideal material to stand between steel and destruction, protect it from fire and corrosion. Natco Header Backer is used for backing up brick in load-bearing walls, and in buildings of skeleton construction. It effects large savings in dead load, labor, and mortar.

NATCO

NATCO
THE COMPLETE LINE of
HOLLOW BUILDING TILE

HOLLOW BUILDING TILE

Cretan Stone Mantels for Distinctive Homes



ARCHITECTS and Decorators are offered the facilities of this House in connection with mantel installations. Not only is a comprehensive variety of period and modern designs available, but we are in a position to furnish mantels made from your own specifications and details without delay.

Cretan Stone is a scientifically developed product—an exclusive Jackson creation. Its beauty is equal to any of the favored natural stones. Although of extreme hardness, Cretan Stone is unusually light in weight, a feature accruing to the advantage of purchasers in shipping and setting up.

Let us send you photographs and descriptions of our regular designs, or quote on Cretan Mantels produced directly from your own details.

CRETAN STONE *Mantels*



Cretan Stone Mantels are reproduced in our shops by artisans, seasoned in their work by long years of experience in stone artistry. Each mantel is the product of meticulous care and individual effort.

WM. H. JACKSON COMPANY

2 WEST 47TH STREET 318 N. MICHIGAN AVE.
NEW YORK CHICAGO

ESTABLISHED IN THE
YEAR 1827

THE OLDEST HOUSE OF
ITS KIND IN AMERICA



In the Path of the Glacier

On this exposed Vermont Marble deposit are marks which, according to the geologists, were made ten thousand years ago when New England was a land of glaciers. As the huge rivers of ice ground their way southward, advancing barely two feet a day, the rocks embedded in them cut grooves, scratches and flutings on everything within their path. Most of the scars have long since been smoothed away, but here they remain—unconquered by one hundred centuries of exposure—a guaranty of durability for the Vermont Marble buildings of today.

The outcrop of marble which appears in this photograph might easily be mistaken for a river of ice. It ranges in width from ten to twenty feet. The glacier marks run diagonally across the vein of the stone.

VERMONT MARBLE COMPANY - PROCTOR, VERMONT

Branches in the Larger Cities

See Sweet's Catalog for Specifications and other Data

VERMONT MARBLE

Our Contribution to the art of Heating & Ventilation



FIVE YEARS AGO when the Herman Nelson light weight, compact, indestructible radiator was placed on the market, it was immediately accepted as the greatest advance in the art of Heating and Ventilation in a generation. It has made possible heating and ventilation dependability and performance hitherto unattainable.

The Herman Nelson Wedge Core Radiator is an exclusive feature of all Herman Nelson Heating and Ventilating Products and accounts for their unequalled performance.

HEATING * VENTILATING * COOLING * DRYING * CONDENSING

THE HERMAN NELSON CORPORATION * Moline, Illinois
Builders of Successful Heating and Ventilating Equipment for over 20 Years

Sales and Service

BRISTOL, ME.
BOSTON
NEW HAVEN
NEW YORK CITY

UTICA
BUFFALO
PHILADELPHIA
WASHINGTON, D.C.

SCRANTON
PITTSBURGH
CHARLOTTE, N. C.
GRAND RAPIDS

SAGINAW
DETROIT
CLEVELAND
COLUMBUS

CINCINNATI
TOLEDO
INDIANAPOLIS
CHICAGO

DES MOINES
MILWAUKEE
GREEN BAY
MINNEAPOLIS

ST. LOUIS
BIRMINGHAM
ATLANTA
MEMPHIS

DALLAS
EMPORIA
KANSAS CITY
DENVER

SALT LAKE CITY
SPOKANE
PORTLAND
SEATTLE

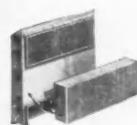
SAN FRANCISCO
VANCOUVER
TORONTO
WINNIPEG, MAN.

UNIVENT

for the ventilation of schools, hospitals, offices and other buildings presenting an acute ventilating problem.



HERMAN NELSON
Invisible
RADIATOR



... supersedes all previous radiators, radiator cabinets or enclosures. Occupies no room space and makes possible any desired decorative scheme or furniture arrangement. Indestructible in service.

THE HERMAN NELSON

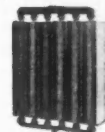
hiJet
UNIT HEATER

It operates at steam pressures from 1 to 150 lbs., and offers the better and more economical way of diffusing heat in Factories, Railroad Shops, Roundhouses, Mills, Warehouses, Garages, Gymnasiums and Industrial Buildings.



Herman Nelson Radiator Sections

for Blast Heating and Cooling



Indestructible, operating at any steam pressure from 1 to 150 lbs., non-corrosive and leak-proof.

May be arranged in banks to solve any special problem of heating or cooling.

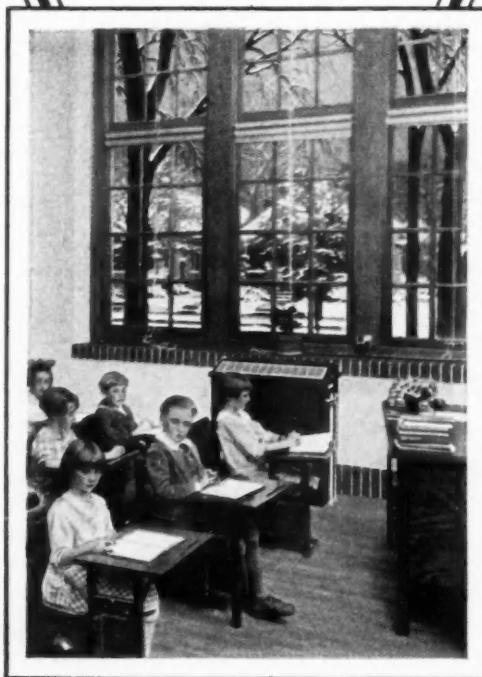
“— or equal” can't give you **UNIVENT** **VENTILATION**

because Univent results are due to exclusive features that cannot be duplicated

SUCCESSFUL results of the Univent have brought national recognition to the basic idea of unit ventilation. With success has come imitation; but—imitation is not duplication.

Thanks to the architect, this fact is becoming known to the public: the results of Univent Ventilation *cannot* be duplicated by any other unit ventilator. The Univent's important features *are* exclusive to the Univent.

The Univent is a complete individual ventilation machine which draws fresh air



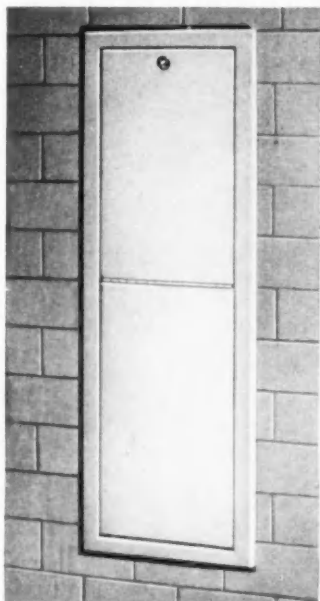
Univent and Glass make the difference

UNIVENT
(TRADE MARK)

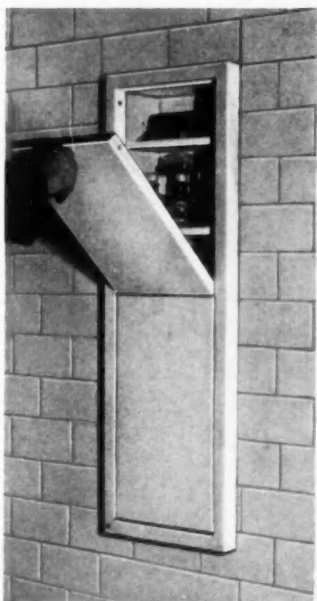
directly from out of doors, cleans it, warms it to a comfortable temperature, distributes it gently, silently yet thoroughly throughout the room. Windows may remain shut. Dangerous drafts are eliminated.

For schools, hospitals, telephone companies, office and public buildings, the Univent has created a new standard of helpful, economical ventilation. The Architects' and Engineers' edition of "Univent Ventilation" will be gladly sent to you upon request. The Herman Nelson Corporation, Moline, Illinois.

Consider . . . the final details, the finishing touches . . . that sell the house . . . rent the apartment . . . add convenience to Hotel or Club . . .



Recessed or attached to wall they require no extra space or special construction



The Griffinet Cabinet opens out into a firm, comfortable stand with patented foot-rest

A NECESSITY IN CONVENIENT, COMPACT EQUIPMENT

THE bathrooms, kitchens and cloakrooms of today bespeak the importance of final equipment, in articles with "eye and convenience value" far beyond their initial cost. The modern manner of living looks to daily comfort and efficiency in the home . . . and elsewhere. For example, eliminating the petty annoyances of daily shoe care. Griffinet Cabinets have taken shoe grooming out of the messy, nuisance class. They have answered the question of where to store brushes, cloths, bottles and containers—but above all, settled the problem of *where* to place your feet when cleaning your shoes. Homes, apartments, college dormitories, institutions, etc., are logical places for the installation of Griffinet Steel Cabinets. Recessed in the wall or attached to the wall, they require no special construction or extra space. They are attractive and practical equipment.

Further specifications and data furnished on request whether your requirements are one or one hundred. Write for catalog leaflet 29-1

GRIFFIN MANUFACTURING CO., INC., 67-69 MURRAY ST., N. Y. C.

GRIFFINET Steel Cabinets
for Shoe Cleaning

Can advertising make the architect's job easier..?

PEOPLE who do not know the relative merits of products buy on price alone. Is there an architect who has not exhausted his vocabulary in convincing a client that the better product would prove less costly in the long run?

Maddock, through continued, forceful advertising featuring the Improved Madera, is making people conscious of the wisdom of installing this fine, scientifically constructed toilet. The architect who specifies it can now be increasingly sure that it will be welcomed by his client.

THOMAS MADDOCK'S SONS CO.

TRENTON, N. J.

MADDOCK'S *Improved* **MADERA**



When it is 95° F. during the day and 75° F. during the night, the day-time temperature inside of a correctly insulated home need never rise above 75°.



2 air spaces

...with Flax-li-num give added *Comfort* and *Economy*

EVERYONE wants the comfort of an insulated home — the coolness it affords in summer, its coziness in winter. And all appreciate the saving in fuel that correct insulation assures.

Remember though, that insulation should be installed to create *two air spaces* within the wall. This method alone assures the greatest benefit with the least material.

Tests by the U. S. Bureau of Standards prove that 1/2-inch insulation, installed to form two air spaces in the wall, has the insulation value of 3/4-inch insulation applied in contact with the

sheathing or pressed into place. The economical thickness is 1/2-inch; the economical method is that which makes two air spaces.

FLAX-LI-NUM comes in 1/2-in. sheets (actually 3/16 in. thick) cut and shaped to fit between the studs. They go in quickly, without waste. The 1-inch sheets (actually 1 1/8-inch thick) come in one piece, ready to install in your roof. Again, FLAX-LI-NUM gives you comfort with economy.

Send for facts about the two-air-space method of insulating homes. Mail the coupon now.



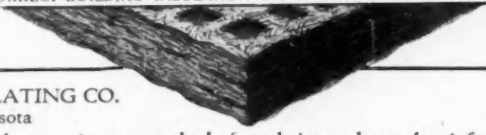
The Modern Scientific Insulation

FLAX-LI-NUM is made from purified flax, compressed into semi-rigid sheets. It does not tear, break or puncture. Nor does it ever rot. One inch of it is equal in heat-stopping qualities to 16 inches of brick, or 27 inches of solid concrete.

FLAX-LI-NUM INSULATING CO., St. Paul, Minn.

Flax-li-num

A CORRECT BUILDING INSULATION AND SOUND CONTROL MATERIAL



FLAX-LI-NUM INSULATING CO.
St. Paul, Minnesota

A. R.-6

Send me details of the two-air-space method of insulation and complete information about FLAX-LI-NUM.

Name _____ Address _____
City _____ State _____

SMALL MANOR HOUSES AND FARMSTEADS IN FRANCE

*Opens up a rich field
of fascinating, fresh
and original material
for the architect*



By
Harold Donaldson Eberlein
and
Roger Wearne Ramsdell
Introduction by
Leigh French, Jr.

WITH COLORED FRONTISPIECE

and 254 illustrations, from photographs, drawn details and perspective plot plans, of picturesque French houses in Normandy, Brittany, Picardy, and Burgundy, including many architectural finds off the beaten track of travel.

ADAPTABLE

for American residences. Providing a welcome relief from the thousands of Colonial and English houses. The style is peculiarly suited to our climate. An unusual selection of examples to act as a guide to the architect and his clients.

FLAT QUARTO BOUND IN HANDSOME
LIBRARY BLUE BUCKRAM, STAMPED IN
GOLD, UNCUT EDGES WITH GILT TOPS

Price \$15.00
Postpaid

The Architectural Record

119 West 40th Street, New York

357

Enclosed you will find \$15.00 for which please send me one copy of SMALL MANOR HOUSES AND FARMSTEADS IN FRANCE. It is understood that I may return this book within ten days in good condition, if it is not satisfactory to me, and you will refund my money. (This privilege in U. S. only.)

Name Address.....

City and State..... Date.....



*acknowledged
advancement
in sheet metal*

*a heavy lead coated sheet
obtainable in flat sheets and
various formed products
for sheet metal work on
all types of buildings*

DIVISION OF CONTINENTAL STEEL CORPORATION

Pamphlet Data on the Construction Industry

published from time to time by the Statistical Division of F. W. Dodge Corporation in connection with its business service, *The Graphic Review*. Written in non-technical language and dealing with various phases of the economics of construction, they have been found extremely useful by architects, bankers and leaders in the various businesses connected with construction.

Sent Free Upon Request

1. **Construction Estimates for 1928.**—A set of estimates in table form, of anticipated construction expenditures, by districts and by general classes of work.

2. **Business Cycles: A Non-Technical Explanation.**—(Published in 1924.) The basic principles of business cycle theory stated in business language.

3. **Looking Ahead in Business.**—(Published in 1925.) A discussion in brief outline of the relation of statistics to business planning.

4. **Building Contracts and Business Movements.**—(Published in January, 1927.) A paper presented before the American Statistical Association, accompanied by charts showing that construction contracts anticipate movements of the stock market, of automobile production and of general business activity, and also by charts showing that investment market curves are the only ones that anticipate construction trends.

5. **Trends of Construction and Construction Costs.**—(Published in December, 1927.) Reprinted from *Real Estate Finance*, the year book of the Mortgage and Finance Division of the National Association of Real Estate Boards. A brief discussion of the factors influencing expansion of construction activities; contains a table of index numbers giving comparative construction costs as between 44 large cities.

6. **Trends of Investment, Construction and Business.**—(Published in December, 1927.) A brief, simple exposition of the flow of money through these three channels. It shows that investment curves forecast construction activity and that contract curves forecast general business activity. These curves are the basis of the analysis presented in the new (1928) *Graphic Review*.

7. **A Continuous Census and Market Survey.**—(Published February, 1928.) A description of the daily building census taken by F. W. Dodge Corporation, and the way these census facts are compiled, interpreted and presented to business men.

To

THE GRAPHIC REVIEW

Division of

F. W. Dodge Corporation
119 West Fortieth Street
New York City

Please send me without cost the following booklets—(specify by number)

Name

Address

Business

Building History with Quality Building Products

Kalman's Line of Products for Building

3/8" Rib Kalmanlath
 Diamond Mesh Kalmanlath
 Cup Kalmanlath
 Troff Sheet Kalmanlath
 Flatrib Kalmanlath
 3/4" Stayrib Kalmanlath
 Cold Rolled Channels
 Hot Rolled Channels
 Pencil Channels
 Box Channels
 Expanded Corner Bead
 Perfection Corner Bead
 Wing Bead
 Rail Bead (With Clips)
 One Wing Bead
 Bull Nose Bead
 Curved Point Base Screed
 Base Bead
 Concealed Picture Mould
 Kornerite
 Kalmanlath Strips
 Corner Bead Clips
 Stucco Reinforcement
 Stucco Reinforcement Nails
 Expanded Metal
 Dome Dampers
 Wall Ties and Plugs
 Chimney Thimbles
 Coal Chute Doors
 Ash Dumps
 Ash Pit and Flue Cleanout
 Doors
 Basement Windows
 Structural Steel Angles for
 Lintels
 Crimpt Metal Furring
 Hanger Rods
 Tie Wire
 Staples
 Nails
 Hot Rolled Flats
 Hot Rolled Angles
 Metal Trim
 Kalmantrim
 Fabric
 Hanger Inserts
 Adjustable Inserts
 Sleeper Anchor
 Screed Chair
 Forms for Concrete
 Reinforcing Bars and Spirals
 Bar Supports and Spacers
 Road Reinforcement
 Wire Shapes

BUILDING products today play an important role in the speed and economy of erection. But quite as important is the permanency they make possible in preserving architectural beauty. They are the sole dependents upon which the contractor must rely in carrying out the architect's rendering. Kalman offers a wide range of quality products—products that are so designed and produced that they may best depict the cognition of both architect and contractor.

KALMAN STEEL COMPANY

Plants or Offices at

Chicago
New York
Buffalo

Detroit
Boston
Baltimore

Pittsburgh
Syracuse
Milwaukee

Philadelphia
St. Paul
Atlanta
Houston

Kansas City
Dayton
Minneapolis
Columbus

Youngstown
Charlotte
Niles
St. Louis

KALMANLATH

For This Plastic Stone Age In Decoration—

RUFKOTE

The Practical Plastic Stone
Ideal For Interior Walls

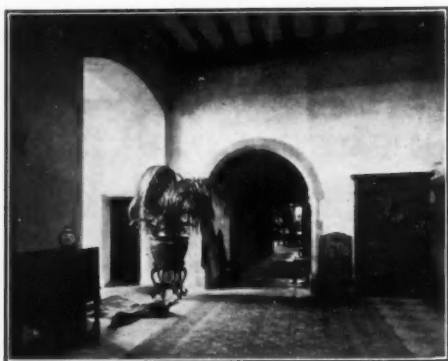


This OLD ENGLISH TEXTURE reflects the sturdy, colorful qualities of the country in which it originated



The
Ring
Test!

Send Coupon Below For Information



One of the many charming effects achieved with RUFKOTE

With RUFKOTE, the Architect Can Safely Specify Any Desired Texture — and Obtain Perfect Results

RUFKOTE TEXTURES, including both modern types and historic periods, are in perfect harmony with the present day trend of interior decoration.

RUFKOTE Plastic Stone is enduringly hard but not brittle—elastic but does not crack—and contains no chemical ingredients which are harmful to furniture or woodwork. RUFKOTE is easily and quickly mixed with cold water. It sets firmly without shrinking and is not easily marred.

RUFKOTE is the perfect plastic stone. Developed by one of America's oldest and most experienced manufacturers of wall coverings, RUFKOTE meets every critical requirement of the Architect, Decorator and Homeowner.

H. B. WIGGIN'S SONS CO.

280 Arch Street

BLOOMFIELD NEW JERSEY

Branch Office & Warehouse, 4860-64 So. Halsted St., Chicago, Ill.

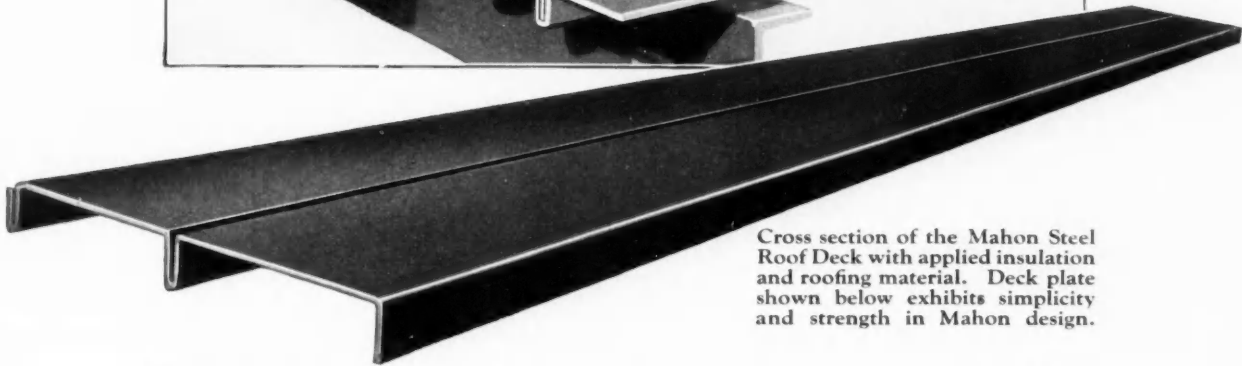
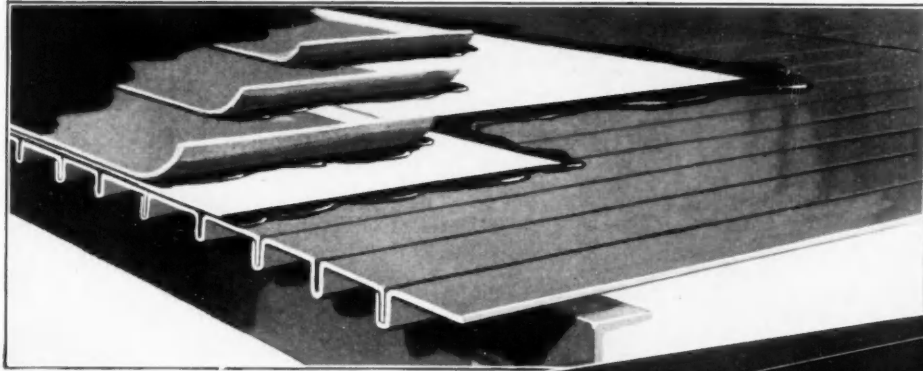
H. B. Wiggin's Sons Co.
Dept. A. R., Bloomfield, N. J.

Kindly send me free sample of RUFKOTE—also details of Ring Test that proves permanence and non-shrinkage of RUFKOTE Textures.

Name.....

Address.....

The Ideal Roof Deck For Every Type of Structure



Cross section of the Mahon Steel Roof Deck with applied insulation and roofing material. Deck plate shown below exhibits simplicity and strength in Mahon design.

THE Mahon Steel Roof Deck, furnished in either copper bearing or galvanized steel, meets every demand in roof construction, including permanence, fire safety, strength, lightness and erection economy. For any roof, flat, pitched, or arched, Mahon Steel Roof Deck meets the situation perfectly. Sound engineering principles underlie Mahon design. There are only four standard units—the deck plate itself and three simple clips for assembly. No special experience is needed for application and no tools other than an ordinary hammer are necessary. All lap joints

occur directly over purlins. Interlocking clips midway between purlins prevent sagging of individual plates. The Mahon Deck when completed functions as a single steel plate, the separate units becoming an integral part of one interlocking whole when assembled. There are no bolts, screws, rivets or other parts to work up or in any way rupture the insulation or roofing material. Due to its light weight the Mahon Steel Roof Deck permits considerable economies in construction, since the rest of the building must be designed to carry whatever load the roof represents.

Estimates or recommendations gladly furnished on request

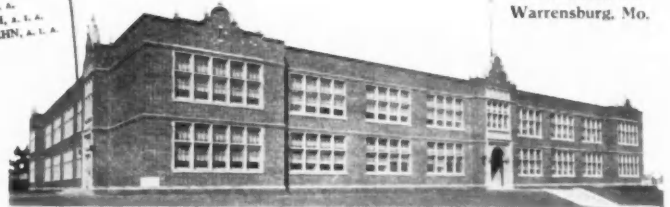
The R. C. Mahon Company

Home Office and Plant - Detroit, Mich.

Branches in New York and Chicago

MAHON STEEL ROOF DECK

Manufactured in Copper Bearing or Galvanized Steel in either 18 or 20 Gauge



Tel. Westport 1646

J. H. FELT, A. I. A.
H. H. DUNHAM, A. I. A.
ARTHUR KRIEHN, A. I. A.

FELT, DUNHAM & KRIEHN
ARCHITECTS
300 West Forty-seventh St.
FORMERLY J. H. Felt & Co.

K - M Supply Company,
123 West 8th Street,
Kansas City, Mo.

Gentlemen:

In reply to your recent inquiry as to the desirability and practicability of the various installations of Miller wardrobes which have been installed in our buildings, we say that we have yet to receive a single objection or complaint from anyone regarding the satisfactory operation of these wardrobes, and in this connection we will say that we have installed them in some eighteen buildings, and the universal verdict has been that they are practical in every particular. We receive a great deal of favorable comments from the fact that these wardrobes are always kept closed, owing to the multiple operation of the doors.

The apparent space saving, and hence a corresponding saving in the building is apparent and in view of the fact that we constantly work under a fixed appropriation, we have found the use of your wardrobes a very great help in being able to supply sufficient school space to properly house the pupils.

Another feature that we are very much pleased with, and find that our clients appreciate as well, is the ventilation, not only of the wardrobe, but of the adjacent room as well.

Permit us to say in conclusion that we have found the use of your wardrobe so universally satisfactory that we could not, at this time, offer a single suggestion looking to the improvement of it in any particular.

Very truly yours,
Felt, Dunham and Kriehn,
By *J. H. Felt*

JHP:M

"Miller Wardrobes are Practical In Every Particular" Says Mr. Felt

AFTER installing Miller School Wardrobes in eighteen school buildings, Mr. J. H. Felt, architect, reports that not a single objection or complaint has ever been received regarding them—but that, on the contrary, the wardrobes are praised as being practical in every particular.

Miller School Wardrobes enable school boards to build "more building for less money" than when cloak rooms are used. They reduce heating expense; permit perfect ventilation of class rooms and corridors; insure security from petty pilfering; and afford maximum discipline in assembling and dismissing classes.

Write for a copy of our Catalog W-6.

K-M SUPPLY CO.

Manufacturers of Miller School Wardrobes
123 West Eighth Street
KANSAS CITY, MISSOURI

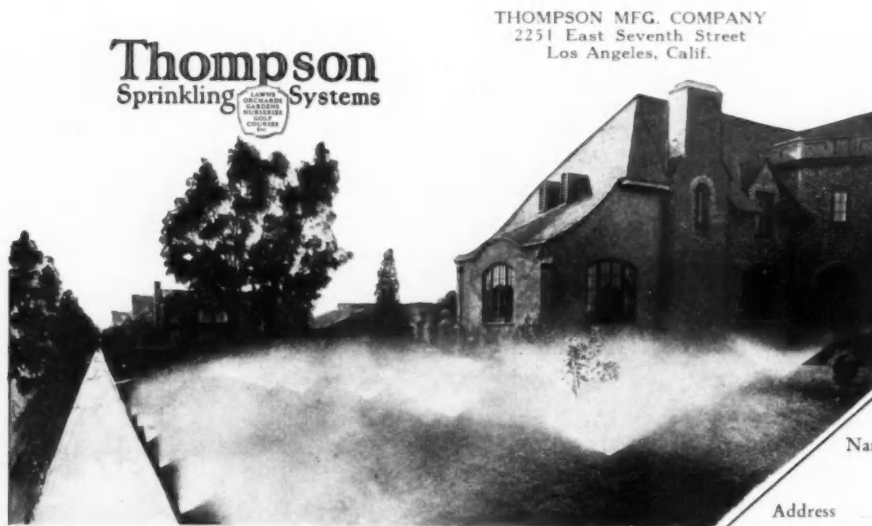
That the Landscaping, too, may Endure

CORRECT sprinkling at all times is as essential for beautiful landscaping as are seed and soil. Ordinary methods of watering are apt to be spotty, hit-and-miss, drenching the lawn here, skipping it there.

Thompson Concealed Lawn Sprinkling Systems are permanently installed, out of sight, but ready at all times to operate at a turn of the hand.

Scientifically made, Thompson Systems sprinkle every square inch of lawn in April-shower fashion... Healthful, rain-like drops... Uniform sprinkling that brings out all the hidden beauties.

That your landscaping may endure as long as the buildings themselves, specify Thompson Sprinkling Systems.



Thompson
Sprinkling Systems

THOMPSON MFG. COMPANY
2251 East Seventh Street
Los Angeles, Calif.



This illustrated book sent free upon request

A.R. 6

THOMPSON MFG. CO.
2251 E. Seventh St.
Los Angeles, California.

Send me a copy of your booklet,
A. I. A. File No. 38-h, please

Name _____

Address _____

We Rate Urinals In This Order



THE Trenton Potteries Company manufactures all three of the standardized types of urinals. It is fair to assume therefore that our opinion as to the sanitary value of the respective types is less likely to be colored by prejudice than that of a manufacturer whose plant facilities enable him to make less than the entire line.

Our unqualified recommendation is that the Stall type stands head and shoulders over the Pedestal and Wall types. Our Sanitary Engineers have made exhaustive studies of the question. They have examined installations under every conceivable condition. For cleanliness of the product itself, absence of danger of clogging, limit of floor space, cleanliness of floor surrounding and ease of maintaining the toilet room in perfect condition, these sanitary engineers vote the Urinal Stall the best.

Yet, if your customer insists that he wants the Pedestal Urinal, we can supply you. They are made just as good as we can make them—from our famous Te-pe-co double-fired Vitreous China.

A folder showing all three types of urinals and their relative merits will be gladly sent on request

THE TRENTON POTTERIES COMPANY

Trenton, New Jersey, U. S. A.

World's Largest Manufacturer of All-Clay Plumbing Fixtures

TE-PE-CO

An OPEN LETTER to

SWEET'S CATALOGUE SERVICE

SWEET'S
ARCHITECTURAL
CATALOGUE

DIVISION OF F. W. DODGE CORPORATION
119 WEST 40TH STREET
NEW YORK

SWEET'S
ENGINEERING
CATALOGUE

To All Architects:

We want to thank you for your generous cooperation with the Dodge reporters in our national survey of architects offices - a survey which has produced definite and conclusive results of interest and importance. Complete findings of the survey (covering over 7,000 offices) will be forwarded later to those who have requested them.

Returns, as tabulated to date, on one portion of the investigation are so interesting from the architect's point of view that we want to tell you about them NOW!

Out of the first 5,241 architects asked, 4,779 or over 91% stated definitely that when they wanted information on building products, it was their practice to turn to Sweet's Architectural Catalogue FIRST.

While we have always known this to be a fact, we now have conclusive statistical proof from the architects themselves.

Our obligation to architects, of which we have always been conscious, is brought out more strikingly than ever by this demonstration of the extent of their reliance on Sweet's. It makes us say to ourselves: "If this is the way architects look upon Sweet's, we should surely more than ever bend every effort toward making Sweet's as useful, complete and comprehensive a working tool as is humanly possible."

Founded in 1905 by the editor and publisher of the Architectural Record, Sweet's has always been edited for architects by architects. Its remarkable growth is due in a large measure to this consistent policy. Many architects have cooperated in making each edition better for the entire profession. With the continued cooperation of all architects we can, of course, accomplish much more for you and do this in much less time than without your help.

First let us outline what we are doing toward making Sweet's more serviceable to you. Further on we shall suggest one or two simple ways in which you can materially help the situation. Here is our program:

- By publishing Sweet's in sectionalized form, compactly bound for ready reference, fully indexed and cross-indexed, we save you time, office space, cost of filing equipment and the trouble of indexing, filing, maintaining and keeping up-to-date an individual catalogue file.
- (1)

- We are working towards the day when a Sweet's "five foot shelf" of convenient sized volumes for draughting table use will provide complete up-to-date information annually on the entire field of building products. At the present rate of growth the next edition of Sweet's will require four volumes. Regardless of the number of volumes, Sweet's will continue to be delivered without charge to architects in active practice.
- (2)

SWEET'S ARCHITEC

The Practical Solution to

the Architects of America

-2-

- We place the editing of Sweet's in the hands of a Board of well known, experienced Consulting Architects, so that
- (3) the information given shall be exactly what you want in your daily practice, presented in its most convenient form for catalogue reference use.

- We are demonstrating to manufacturers, partly as a result of our national survey, that, on the basis of cost per copy filed by architects, a manufacturer's catalogue of from one to one hundred pages in Sweet's costs LESS THAN ONE-FIFTH as much as an individually bound catalogue of the same number of pages; that giving you in Sweet's only
- (4) a percentage of the necessary data about their products delays your work, puts you to the unnecessary bother of writing and waiting or of searching elsewhere when you want facts immediately; and that, while a great many manufacturers now include complete, essential information in Sweet's and over 1,300 have fairly well approximated this ideal condition, there are still a good many who give you only partial information.

Now, what is there that you can do to cooperate in making Sweet's a more perfect working tool for your daily use? We suggest the following:

- When you find incomplete information in Sweet's - when details, specifications and other essential data are
- (1) not shown - advise the manufacturer at his home office by letter or postal card, stating simply what you looked for and couldn't find.

- When a salesman calls, tell him that it would be more convenient for you before and after his call, and also
- (2) save money for his company, if his COMPLETE catalogue of essential information were "filed" in Sweet's, where it can always be found when wanted.

A work the size of Sweet's takes many months of careful preparation. We aim to have everything for the 23rd annual edition ready for printing in July. Any action you take now along the lines suggested will show marked effects in making the forthcoming SWEET'S a more thoroughly complete work of reference than it has been in the past.

In the meantime be assured we will welcome constructive criticism and any suggestions for the improvement of Sweet's that may occur to you.

Yours very truly,

Chauncey L. Williams
Vice-President in Charge
SWEET'S CATALOGUE SERVICE
Division of F. W. Dodge Corporation

CLW/HK

TURAL CATALOGUE

Your Catalogue Filing Problem

Maid-En-White Porcelain Bath Room Fixtures



No Delay Because of Breakage!

Bath Room Fixtures — set in with the tile — can cause a lot of delay if easily broken before or after being set, with resulting loss of time and income to you and the owner.

Maid-En-White Porcelain Enamel Semi-Inset Fixtures are unbreakable. They are made of a special iron base that has great strength on which is fused several coatings of genuine porcelain.

In design they are in keeping with modern bath rooms. They are of the highest quality, yet their price is most reasonable.

Specify Maid-En-White Porcelain Enamel Fixtures for Hotels, Public Buildings or Homes, with the assurance that this company stands back of them with an honest guarantee.

Write for our new 8-page Architectural Bulletin on Bath Room Fixtures.

The Autoyre Company
(AUTO-WIRE)

OAKVILLE

CONN

THE SEATS OF THE MIGHTY ARE MILWAUKEE CHAIRS

A Way to Add to Your Prestige

Architects who have a voice in the furnishing of offices which they plan can add considerably to their prestige by specifying the installation of Milwaukee Chairs.

For these chairs enhance the dignity and comfort of an office to such a degree that they will win for you the praises of every executive.

Milwaukee Chairs combine old-fashioned honesty of craftsmanship with all that is new and smart in design. They are today the outstanding choice of leading business men. Write for catalog which pictures and describes the complete line of 180 models.



THE MILWAUKEE CHAIR COMPANY

Executive Offices: 624 South Michigan Ave.
Chicago, Ill. Factory: Milwaukee, Wis.



MILWAUKEE CHAIRS



The **AMBASSADOR** Bath and Shower Fixture No. 1242
in a Model Bathroom suggested by Republic

We are represented
 in Sweet's Archi-
 tectural Catalogue,
 22nd edition, pages
 C 2522-2523

AT first glance this bathroom suggests the quality of elegance. The design of the room, the rich mingling of colors convey that impression. The beautiful appointments enhance it. And the simple lines of the bath, shower and lavatory fixtures crystallize the effect of charm and beauty.

The Republic Ambassador Bath, Shower and Lavatory Fixtures illustrated are chromium-plated with a platinum-like sheen. A deft touch of color is introduced by a colored band on the control plate of the lavatory fixture and on the control plate, shower head and spout of the bath and shower fixture. An illustrated brochure on Republic Ambassador Fixtures will be sent on request.

THE REPUBLIC BRASS COMPANY
and its subsidiary GRABLER-REPUBLIC, Incorporated
C L E V E L A N D , O H I O
Good Plumbing • Good Business • Republic Brass Goods

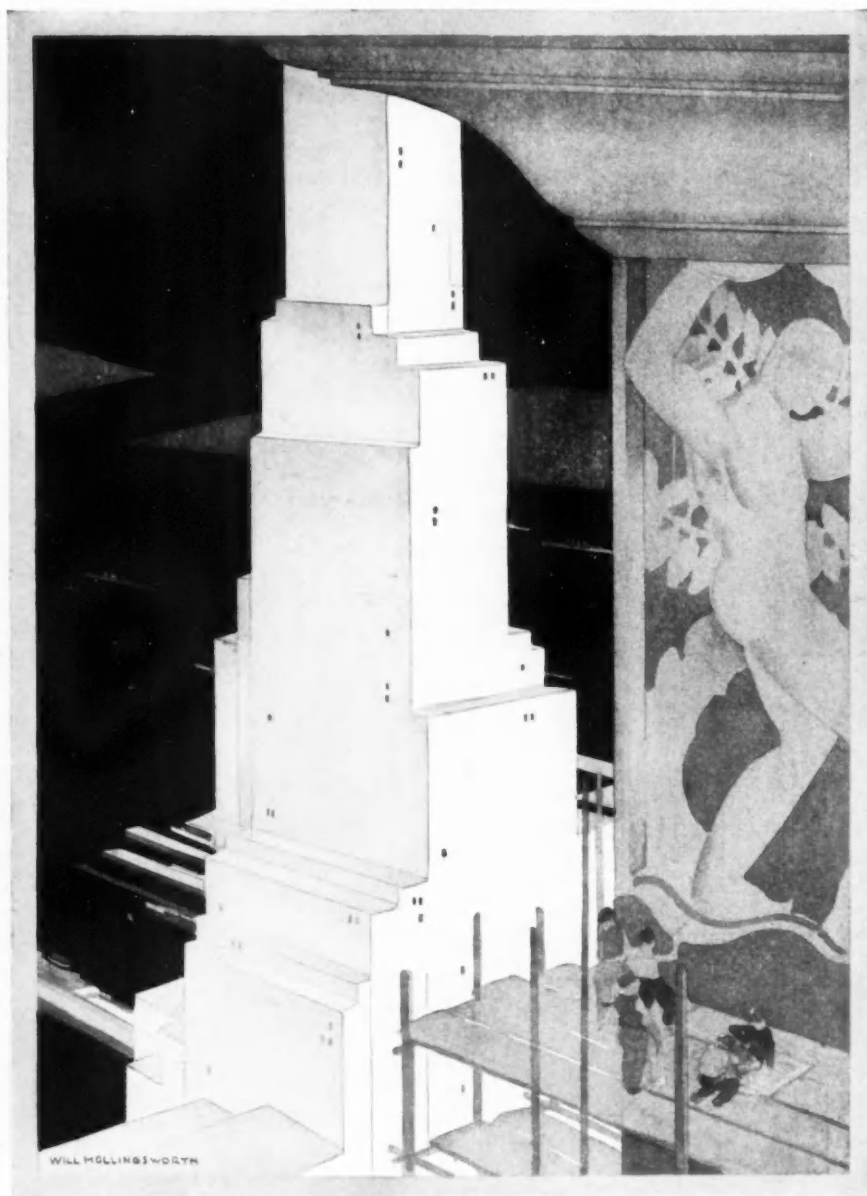
REPUBLIC
Bath, Shower and Lavatory Fixtures

*The Republic Modern
 Plumber's Tag identifies
 the plumbing contractor
 in the minds of home
 buyers as a quality
 craftsman and as a pro-
 gressive business man.*



© R. B. Co. 1928

The Architectural Record, June, 1928



THE architect who chooses his raw materials from the vast modern storehouse of American materials and techniques also presses into his service, however unconscious he may be that he is doing so, a vast hidden army of scientists and technicians whose lives are devoted to the constant perfecting of the raw materials of the architect's art and craft. Thus, in using du Pont paint products, for example, the architect is drawing on the cumulative experience in chemical control and research of one of the most extensive scientific backgrounds in modern industrial history.

Inquiries regarding du Pont paints, varnishes, enamels and other pigment products are invited. The Architectural Division is equipped to deal intelligently with special problems of application, decorative effects, and technique.



E. I. du Pont de Nemours & Co., Inc., Independence Square, Philadelphia; 2100 Elston Ave., Chicago; Everett Station No. 49, Boston; 569 Mission St., San Francisco. Exhibit at Architects Samples Corporation, 101 Park Ave., New York City.

P A I N T S . . . V A R N I S H E S . . . E N A M E L S



FRICTION

MAN'S first contact with friction was fire . . . he utilized it. Science's first conquest of friction . . . its elimination. In every age, markedly in this industrial era, friction has been a mighty drag on the wheels of engineering progress. The law of wear and tear, surface versus surface, has shortened the life of machinery, and limited the scope of mechanical energy. The ease of operation, the longevity of PEELLE Freight Elevator Doors is due to almost "defrictionized" principles of construction. ☉ If the PEELLE catalog is not in your files, request a copy.



THE PEELLE COMPANY, Brooklyn, New York
 Boston • Chicago • Cleveland • Philadelphia and 30 other cities
 In Canada: Toronto and Hamilton, Ontario

PEELLE Freight Elevator DOORS

—[“The doorway of America's freight elevator traffic”]—

CABOT'S

Cool Nights in Hot Weather



Residence of Harry W. Rubloff, Glencoe, Illinois
W. D. Mann, Architect. Cabot's Quilt and Stained Shingles Used.

When you plan summer homes, the clients' comfort certainly has the right of way.

A roof, red hot after a long day under the sun, will destroy most of the comfort of otherwise perfectly appointed sleeping quarters.

A roof, quickly, easily and economically insulated with Cabot's Quilt, will become instead a protector against the heat, and insure to the client

Cool Nights in Hot Weather

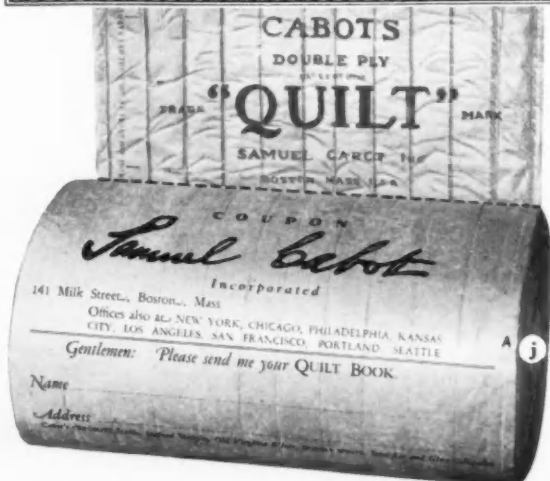
Simply apply Cabot's Quilt between the rafters.

Cut out the coupon below (Roll of Quilt) and send it in today for full engineering information on Quilt.

Specify

Cabot's Quilt

IN SUCCESSFUL USE FOR OVER THIRTY YEARS



WHAT ROOM IS THIS?

IT is a room that has earned many a commission for architects who have sensed its immense appeal to the occupant of the house or apartment.

It is space that has always been in the plans of apartments and houses but that never could be used for the purpose illustrated (a den) until the Fain Fold-Away Dining Set came along.

With this set, an ordinary dining alcove has been converted into an interesting den for "Dad" to enjoy after the day's work.

Or by day it serves as a playroom for Junior, where his toys are prevented from cluttering the living room floor. He cannot fall out of windows or pull furniture over on himself, and he is constantly within sight of Mother as she goes about her housework.

Thus does the ordinary dining alcove become a multi-purpose room, when the dining set folds out of the way.

The Fain Fold-Away Dining Set in this picture is behind the attractive French doors. It consists of a table and seats that will accommodate four adults. All are of good design and their mechanical operation is so simple and fool-proof that once installed they require no further attention.

No doubt you have on your boards right now, plans for an apartment, hotel-apartment, or individual houses where more floor space simply must be provided, yet building costs cannot be increased. There is where Fain units help!

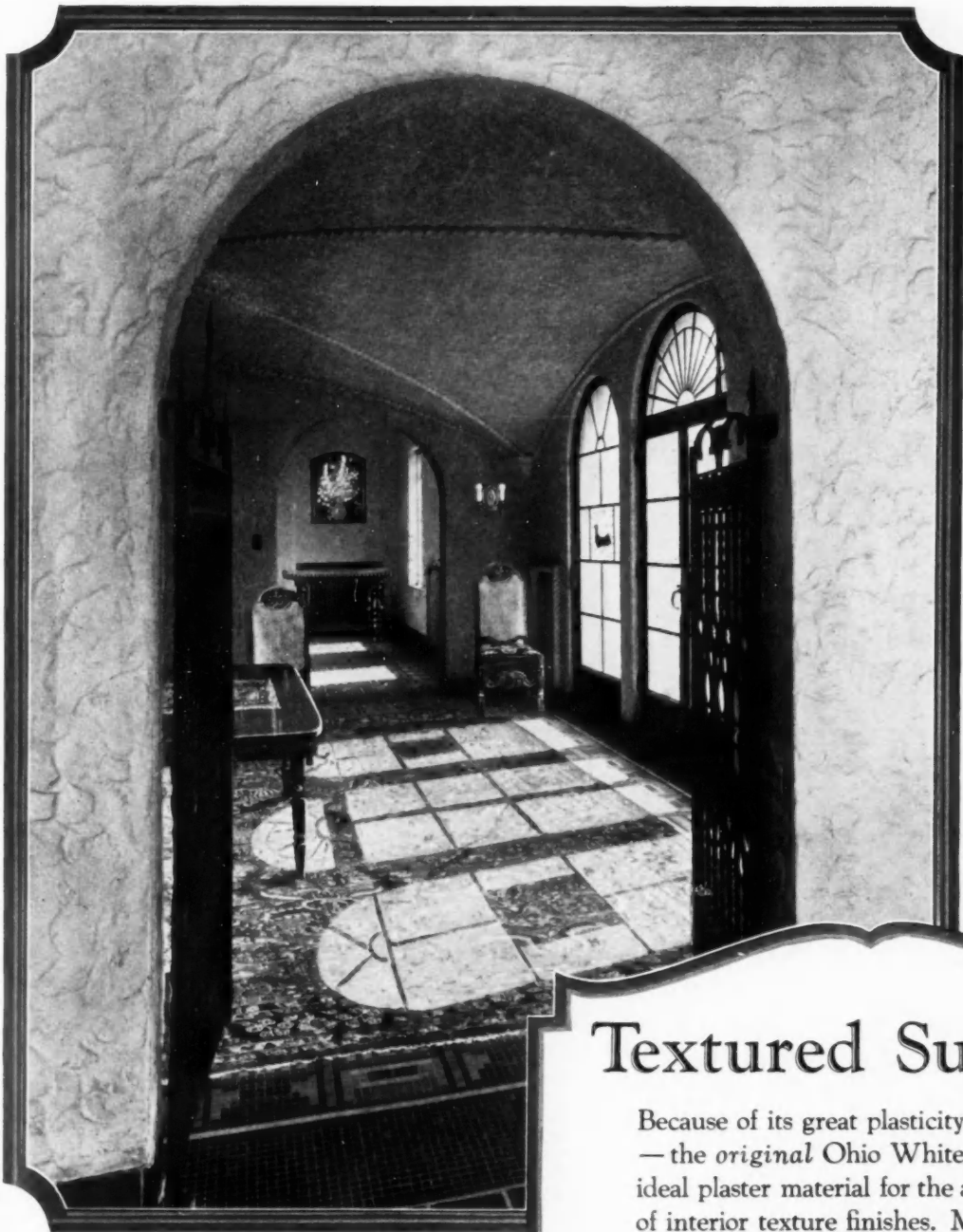
This dining alcove installation is only one of the space-saving applications of this amazing furniture. New bulletins have just been issued describing others. They also give complete information as to sizes, uses, installation details and specifications. These bulletins are FREE. Write on your letterhead for them.

FAIN MANUFACTURING COMPANY
623 West 23rd Street
Norfolk, Virginia

New York Sales and Show Room: 19 W. 44th St., Room 601.
Chicago Sales and Show Room: Booths E14-16, Builders Bldg.
Agents and Show Rooms in all Principal Cities.

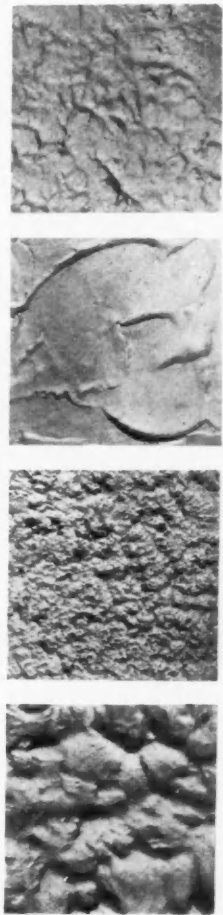
FAIN FOLD-AWAY DINING SETS

The Architectural Record, June 1928



Residence, Thomas E. Currie, Detroit
Dalton J. V. Snyder, Architect
Albert Fritch, Contractor

Four different texture surfaces used
by Mr. Snyder are shown above.



Textured Surfaces

Because of its great plasticity — “fatness” — the *original* Ohio White Finish is an ideal plaster material for the achievement of interior texture finishes. Many careful architects see to it that this finishing lime is used on their important work — painstaking plasterers know and are willing to use it.

OHIO HYDRATE & SUPPLY CO.
WOODVILLE, OHIO

Charter Member of the
Finishing Lime Association of Ohio



OHIO WHITE FINISH

Send for our booklet on “Finishing Lime” or refer
to page B1336 of Sweet’s Architectural Catalog

Our lime is always packed in
Red Zig Zag Bags. It is marketed
under four brands of equal quality
— “Ohio,” “Hawk Spread,”
“Woodville,” “Buckeye.”



Unrivaled in Beauty

KAWNEER windows of nickel-silver fully express the architect's ideal of beauty. In them is embodied every worth while feature demanded of windows for homes and buildings of the better class. Rust, draft and rattle proof—as permanent as the building itself. Fully described in our new catalog M, copy of which has been mailed to you. If not in your files, write for another.

THE **Kawneer** COMPANY

2723 Front St., NILES, MICH.

SEND CATALOG M TO

Name.....

Address.....



OAK FLOORS

beautify these homes



THE texture and pattern of "Perfection" Brand Oak flooring make possible a finish that is seldom found on any other flooring.

You can depend upon "Perfection". In two modern plants operated by skilled lumbermen, only the finest oak is selected. After proper seasoning and kiln-drying, it is perfectly milled and matched so that it lays smooth and stays smooth. It is graded and handled so carefully that upon arrival anywhere, it is always in perfect condition. Leading lumber dealers gladly feature this nationally advertised brand.

ARKANSAS OAK FLOORING CO., PINE BLUFF, ARK.

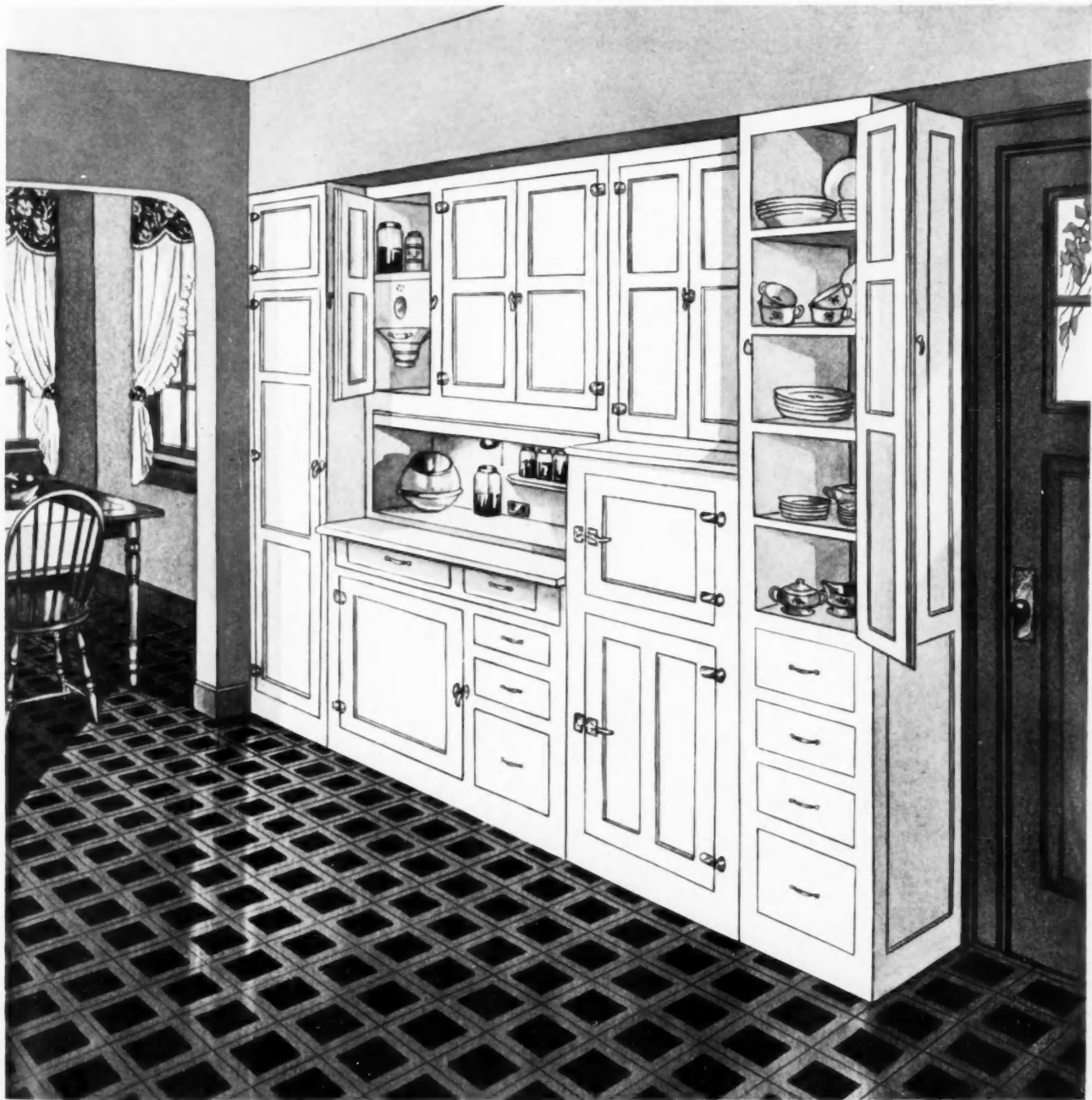
'PERFECTION'

Brand Oak Flooring



There's a size and grade for every structure, new or old. Write today for full particulars.





YOURS for the ASKING

Miller

IT is not within our province to plan a home. But we have studied kitchens and kitchen procedure for many years. We've developed workable and advanced ideas on kitchen design which greatly increase sales and rental value of homes and apartments. Feel free to ask for them. There's no obligation. Coupon brings facts on our architectural service.

COPPEBROS. & ZOOK, Nappanee, Ind.
 New York Office: 415 Lexington Ave.
 Detroit Office: General Motors Building
 Chicago Office: 308 N. Michigan Ave., Keehn Bldg.
 Agents in all Principal Cities

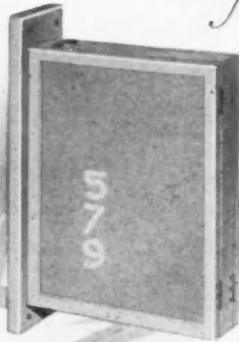
NAPANEE
DUTCH KITCHENET
Built Like Fine Furniture

MAIL THIS COUPON

COPPEBROS. & ZOOK, Nappanee, Ind.
 Gentlemen: Please send me full details on your free architectural service.
 I am, Architect, Contractor, Owner.
 [Please check square]. AR-6

Name _____
 Address _____
 City _____
 State _____

Holtzer-Cabot Signaling Systems Apparatus



Corridor
Annunciator



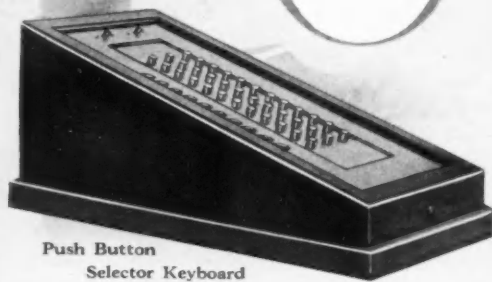
Control Unit

Doctor's Calling System

120 Doctors can be called by this three circuit Flashing Call System. Three different doctors can be paged at the same time.

A simply constructed system that is within the means of every hospital. Holtzer-Cabot Signaling and Protective Systems are now operating in over 1200 of the country's leading hospitals.

A descriptive Brochure will be sent on request.



Push Button
Selector Keyboard

Manufacturers of Signaling Systems for over 50 years

**THE HOLTZER-CABOT
ELECTRIC COMPANY**

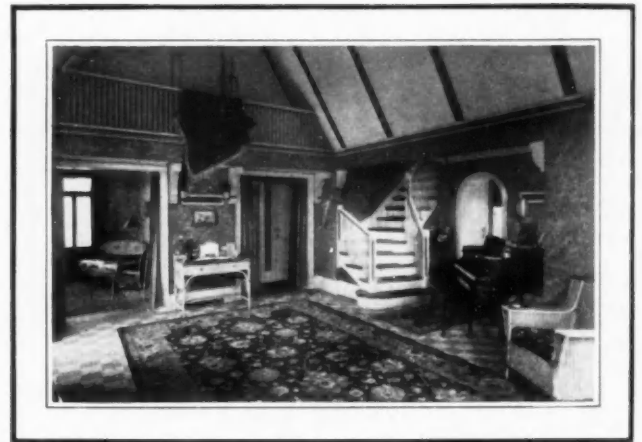
125 Amory Street
Boston, Mass.

6161-65 So. State Street
Chicago, Ill.



Ashbury Gables Ideal Home,
Wm. F. B. Koelle, Architect
Philadelphia, Pa.

Everywhere
Radiators are Giving Way
to Trane Concealed Heaters



The modern demands for spaciousness—beauty—comfort, have established this trend in room heating....

There is something strikingly different about the appearance of a room equipped with Trane Concealed Heaters, that appeals instantly to every person entering it. No radiators to waste space and interfere with interior arrangement. Only an inconspicuous damper grille in sight.

But the present popularity of Trane Concealed Heaters could not have been attained without an equal improvement in heating results. With thousands of units in successful service, it is universal experience that these modern heating units heat rooms more quickly and provide more flexible control. Regulation, in fact, is instantaneous.

Trane Concealed Heaters are not hidden or recessed radiators, radiator shields or screens. You need Bulletin 24 to explain the difference and acquaint you fully with the many advantages of the Trane all-copper heating element. Write for a copy.

THE TRANE CO., 222 Cameron Ave., La Crosse, Wis.

HEAT CABINETS **TRANE** CONCEALED HEATERS
... PUMPS AND HEATING SPECIALTIES ...

INTERNATIONAL CASEMENTS



Residence
Glen Cove, Long Island, N. Y.

H. T. Lindeberg
Architect

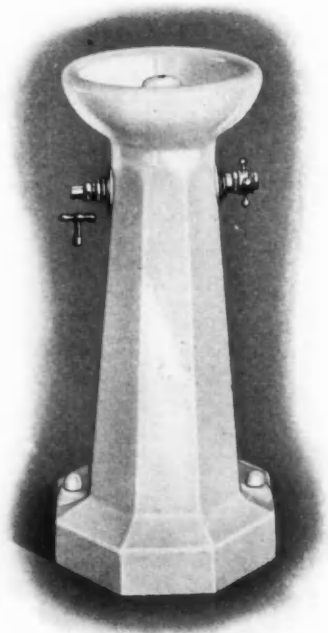
INTERNATIONAL Metal Casements and Doors, with
leaded glass, harmonize perfectly with the English
type of Architecture.

Also Manufacturers of International Austral Windows

INTERNATIONAL CASEMENT CO. INC.
JAMESTOWN, NEW YORK

AGENTS IN PRINCIPAL CITIES

IN CANADA: ARCHITECTURAL BRONZE & IRON WORKS, TORONTO, ONT.



For The Protection of Health ~

—every public building should be equipped with a sufficient number of Rundle-Spence Vertico-Slant Fountains. Nothing is more essential than clean, fresh water as supplied by this sanitary “health bubbler”.

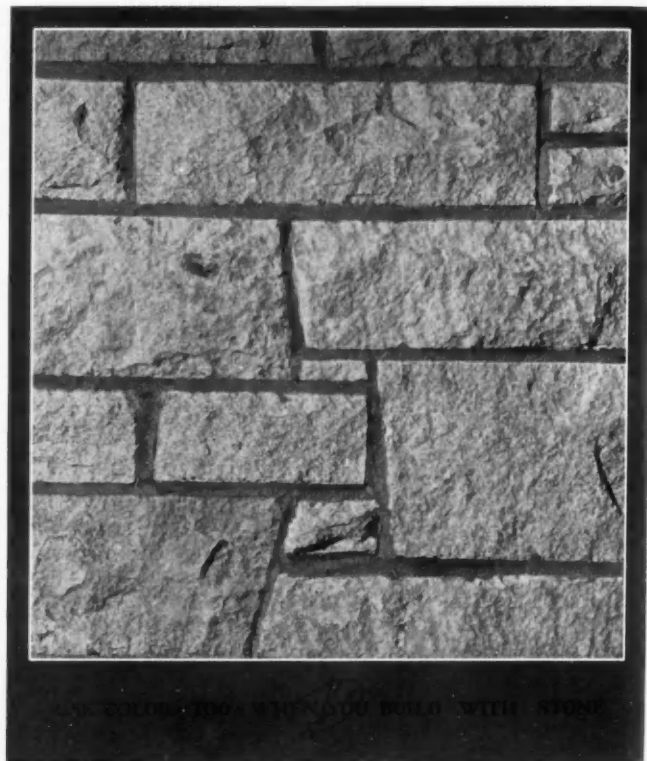
Lips can't touch the R-S nozzle. The slight slant stream prevents water from falling back upon the jet. At all times thirst is satisfied sanitarily—no matter how many may drink or how often. It delivers water that is clear and fresh—its original cleanliness “untouched”.

In schools, industrial plants, hospitals, hotels, theaters and all public buildings—R-S Fountains meet the requirements of sanitation and beauty.

The R-S line includes Sanitary Drinking Fountains, Bath and Plumbing Fixtures and Supplies. Write for catalog with complete information.

RUNDLE-SPENCE MFG. CO.
70 Fourth St., Milwaukee, Wis.

RUNDLE-SPENCE



Split-faced Ashlar. It is obtainable also with sand- or shot-sawed face.

Briar Hill Ashlar! at surprisingly low cost!

Wall facing of Briar Hill Sandstone is now available at surprisingly low cost.

Increased production supplemented by improved machinery and methods enable us to supply this beautiful stone, ready-cut, at a price that is little more than the cost of good brick.

It is furnished in standard heights and random lengths suitable for a number of different patterns in broken coursed ashlar, or straight coursed ashlar of varying heights.

Obtainable promptly—in marvelous colors, all richly tinged with the famous golden tone that makes Briar Hill Stone so popular.

Write for a beautiful color reproduction, details and prices of this Golden Tone Ashlar.

THE BRIAR HILL STONE COMPANY
Glenmont, Ohio

See our Catalog in Sweet's



FOUND BY ARCHITECTS EVERYWHERE

THAT King's are not only better built—but that the King Construction Company has the ability to adapt that better construction to architectural ideas.

The result—

1. Architects, well satisfied that a King conservatory was included in the plans—the added beauty certainly justified it.
2. Owners, happy with the many pleasures their King affords, and enthusiastic about the architect who recommended it.

Our special architect's service department is at your command. Save your time and increase your income by using this service freely. Complete information on request.

Write Dept. H

ALSO PHOTOS FOR YOUR FILES
ASK FOR THEM



King
GREENHOUSES

KING CONSTRUCTION COMPANY

GENERAL OFFICES: NORTH TONAWANDA, N. Y.

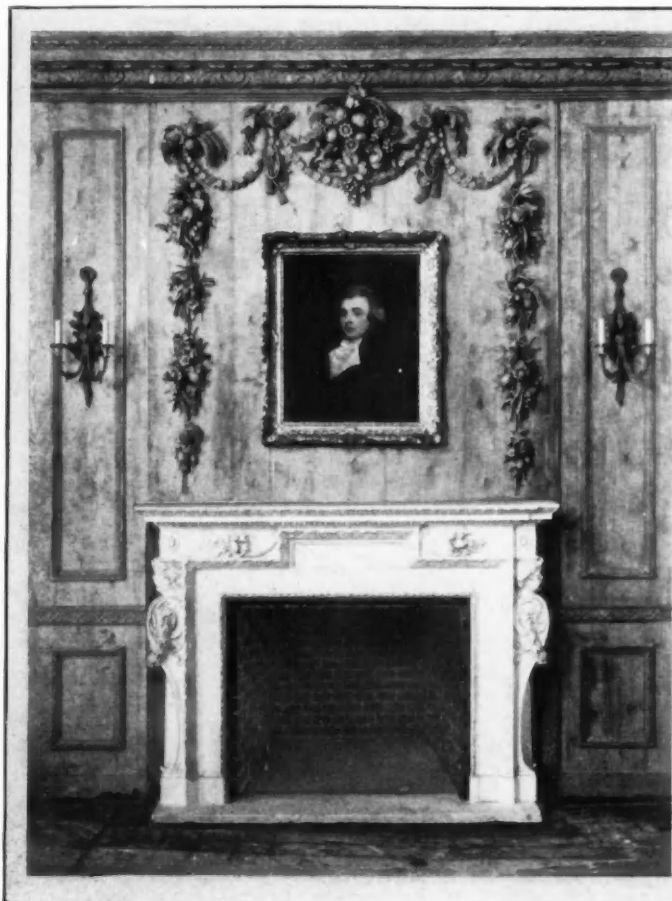
NEW YORK CITY
45 W. 34th St.

BOSTON, MASS.
25 Huntington Ave.

PHILADELPHIA, PA.
14 N. 60th St.

SCRANTON, PA.
307 N. Irving Ave.

TOLEDO, OHIO
4111 No. Lockwood Ave.



Distinctive
Compo Ornaments

For Application to Woodwork

The delicacy of design and perfection of execution that made the work of the master wood carvers of the 17th and 18th centuries truly great are scrupulously reproduced in our Compo Ornaments.

Also

Art Stone Mantels In All Periods

Illustration shows Mantel of Art Stone and Grinling Gibbons ornament and moulding of Compo.

**Jacobson Mantel &
 Ornament Company**

322 EAST 44th STREET, NEW YORK

LOUIS GEIB

ARTHUR P. WINDOLPH

AMERICAN BRIDGE COMPANY

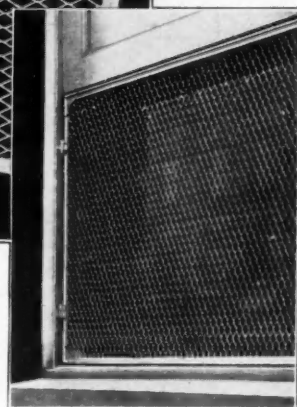
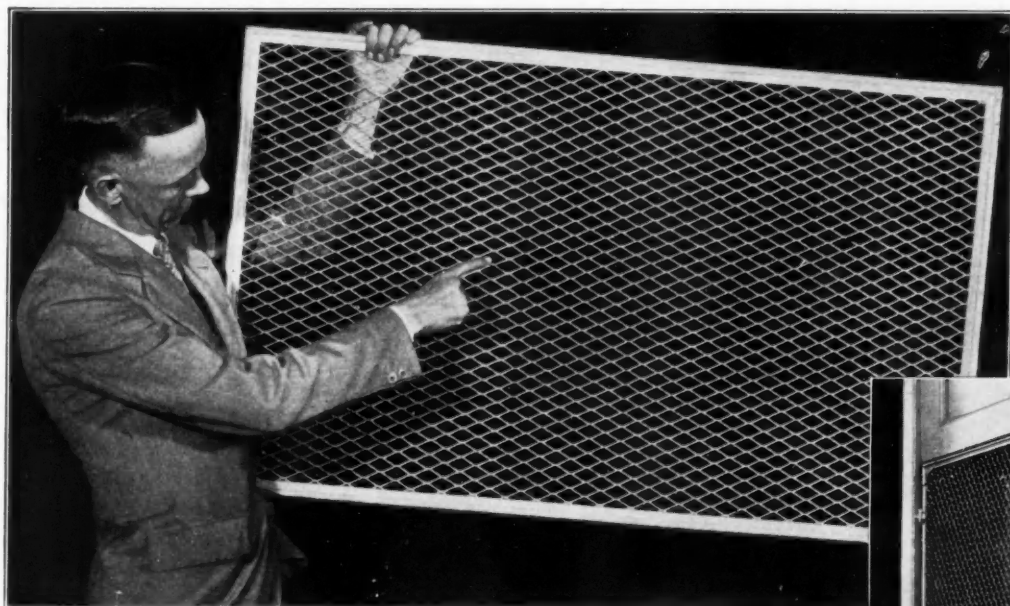
71 Broadway
 New York



*Manufacturers of Steel Structures of all classes
 particularly BRIDGES AND BUILDINGS*



OFFICES IN THE PRINCIPAL CITIES



Strong, Attractive Panel Guards that will not ravel!

Safety in the Shop!

For guarding dangerous machinery, belts, gears, and for building shop partitions, storage lockers, etc., there is nothing quite so desirable as Steelcrete Mesh. Underwriters label attached to each bundle.

This material is easily worked without special machinery. It can be welded or riveted to angle iron, flat iron or round-rod frame.

Write for Steelcrete Mesh Hand Book showing the many practical uses for this material.



STEELCRETE Frame Bar and Accessories have reduced the building of panel guards to almost an assembly operation.

In one day, one man can build more panel guards than it is possible for him to build in two or more days by any other method. And the Steelcrete fabricated panel guards will be stronger, more attractive and give longer service! They will not ravel! They will give *full* protection.

Steelcrete Diamond Mesh is supplied in large flat sheets. Any size is adaptable to framing with Steelcrete Frame Bar and Accessories. This insures one high quality in the finished product, whether it be window or transom guard, door guard, railing filler, skylight protector, drying tray or truck panel.

Let us direct a sample of Steelcrete Mesh and Frame Bar to your desk for inspection. Ask for Sample Combination SFBA which includes prices and specifications.

CONSOLIDATED EXPANDED METAL COMPANIES

Steelcrete Building, Wheeling, W. Va.

Atlanta Boston Cleveland Philadelphia Pittsburgh Chicago New York Buffalo

STEELCRETE FRAME BAR AND ACCESSORIES

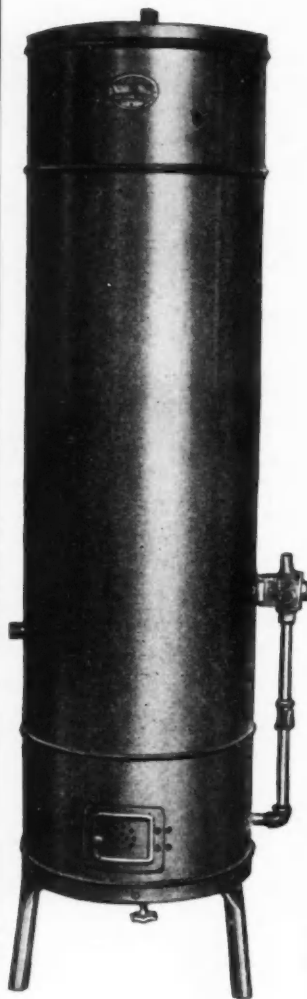
PATENTS PENDING

For Framing Steelcrete Diamond Mesh

New The Super-Aquatherm

(Patented Nov. 8, 1927)

This latest development of the Dahlquist Mfg. Company is of vital interest to architects who desire to specify for their clients the last word in hot water conveniences. The new Dahlquist Super-Aquatherm solves all of the hot water supply problems of the household. Consider these important points:



100% Automatic—

Gas burner automatically controlled by thermostat which keeps the temperature of the storage water constant at all times.

Saves Fuel—

The storage water boiler is completely insulated, has no outside coils. All of the heat is used for heating the water in the boiler.

Long Life—

The storage boiler is made of pure copper, rust-proof regardless of water conditions. The Super-Aquatherm is constructed to outlive the building in which it is placed.

Saves Space—

The Super-Aquatherm is compact, self-contained, unobtrusive and can be placed in the basement or any other convenient place and forgotten.

Attractive—

The Super-Aquatherm is attractively finished to harmonize with its surroundings. It may be placed anywhere without a discordant note.

Low Price—

The Super-Aquatherm although complete in every detail, is actually lower in price than the ordinary type of copper hot water heater.

Easily Installed—

The Super-Aquatherm requires the simple connection of three pipes, a simple job for any plumber.

Three Sizes

The new Super-Aquatherm is made in three sizes to suit all types of modern apartments or residences.

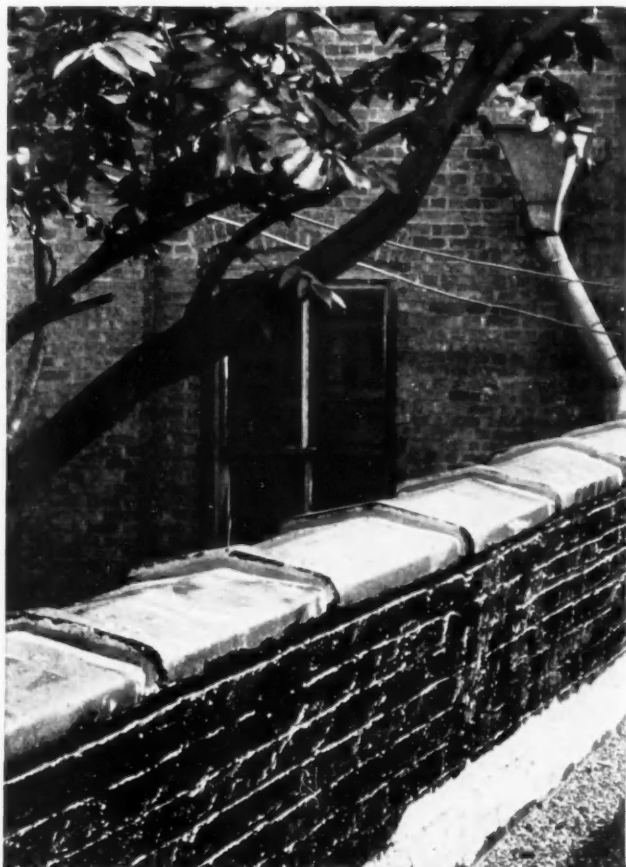
The No. 20 (capacity 20 gallons) is large enough for the small home or apartment with one bathroom, kitchen, and laundry. Price, complete ready to install, \$100.00. The No. 30 (capacity 30 gallons) will efficiently supply the medium sized home containing two bathrooms, laundry and kitchen. Price, complete ready to install, \$150.00. The No. 40 (capacity 40 gallons) is designed for the larger home with additional outlets. Price, complete ready to install, \$200.00.

Write for descriptive literature

DAHLQUIST MFG. COMPANY

*America's Largest Copper
Boiler Makers*

A, 2nd and West 3rd Sts., South Boston, Mass.



The most economical overhead for brick walls

CLAY PRODUCTS ASSOCIATION

CONWAY BUILDING

Chicago

VITRIFIED *Salt Glazed* **CLAY**

Wall Coping AR6-Gray



UP under the rafters where cobwebs used to embroider grandfather's trunk and the old horse-hair sofa, there now is this beautiful bathroom. As the children were growing up it was only a dream. Today this extra bath is giving the family the comfort and convenience such a room always adds. Only a cottage bath, it is modest in cost; but mellow, tranquil, and lovely with its pre-

vailing hue of soft green, its floor of russet cork tile, its varicolored rag rugs, its painted linen closet, and figured curtains of Aqua-Silk. . . . Write for the Architect's Edition of *New Ideas for Bathrooms*, an inspiring book of suggestions, illustrated with miniature blue prints, floor plans, and color schemes. It is gladly sent for the asking. Address nearest Crane branch or General Offices below.

CRANE

EVERYTHING FOR ANY PLUMBING INSTALLATION ANYWHERE

Crane Co., General Offices, 836 S. Michigan Ave., Chicago. ♦ Branches and sales offices in one hundred and sixty-six cities



Ritz Carlton Hotel—Boston, Mass.—
Chase & Gilbert, Architects

United Elevator Enclosures in the new Ritz—

Not only do United hollow metal enclosures provide smooth operation and artistic design, they eliminate forever the danger of fire being communicated from floor to floor by the shafts. So complete is this protection that United Enclosures bear the Underwriters' Label.

Safety in similar degree applies to metal doors, frames, conduo-base and partitions of United construction. The United handbook gives complete details of hollow metal interior trim. Send for it.

THE UNITED METAL PRODUCTS CO., CANTON, O.

UNITED METAL DOORS

HAZARD

What Are the Various Grades of Electric Wire?

WHEN you specify "Code", "Intermediate" or "30%" wire, what exactly do you mean? You mean, of course, that you are calling for a certain *quality* wire, knowing that this quality is fixed by the quantity of rubber in the insulation. For example:

"Code" Wire contains 20% rubber.

"Intermediate" Wire contains 25% rubber.

"30%" Wire contains 30% rubber.

"Code" Wire, containing the least rubber, is the least satisfactory of these three grades. It meets only the *minimum* requirements of the National Electric Code from which it derives its name. "Intermediate" Wire contains 25% more rubber than "Code" and "30%" Wire, in turn, contains 50% more rubber than "Code". It pays to specify the highest grades because *the life of insulation as well as its insulating value* depends upon the quantity of rubber used. "30%" Wire, in other words, is certain to give the *longest service as well as the most dependable service at the lowest ultimate cost.*

Write for our Electrical Building Wire Book

HAZARD INSULATED WIRE WORKS

Division of the Okonite Company
WILKES-BARRE, PA.

SALES OFFICES

NEW YORK
ATLANTA

CHICAGO
BIRMINGHAM

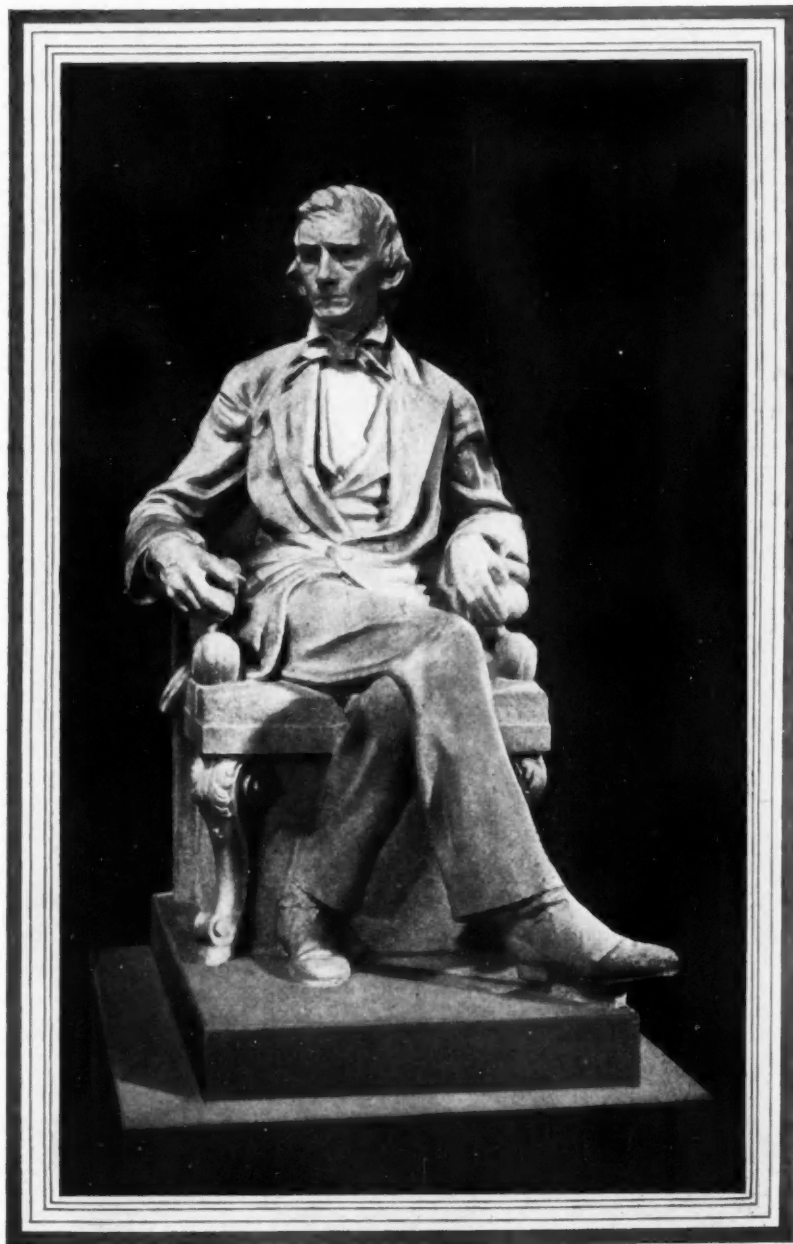
PHILADELPHIA
SEATTLE

PITTSBURGH
SAN FRANCISCO

ST. LOUIS
LOS ANGELES

HAZARD

GEORGIA MARBLE



STATUE OF ALEXANDER H. STEPHENS, GUTZON BORGLUM, SCULPTOR
An outstanding figure in the nation's history, Alexander Stephens was Representative, Congressman, Governor of Georgia, and Vice-President of the Confederacy. This statue, now in Statuary Hall in the National Capitol, is of White Georgia Marble.

W O R K A B I L I T Y

Carved details on monumental building exteriors call for a marble that is workable as well as durable . . . The superior working quality of Georgia Marble is attested by its continued use by many of the most prominent sculptors.

THE GEORGIA MARBLE COMPANY · TATE · GEORGIA
New York, 1328 Broadway Atlanta, 511 Bona Allen Bldg. Chicago, 456 Monadnock Bldg.

RICHMOND
Fyrgard

**COMBINATION
ROLLED STEEL
BUCK and TRIM**

*Characteristic of the
same thoroughness
of construction that
has established, so
favorably, the name
"FYRGARD"*

The pleasure of working with you on your immediate or prospective jobs will be keenly appreciated . . . Richmond representatives are located in all principal cities.

*Complete specifications and detail
file folder gladly sent on request*

The **RICHMOND
FIREPROOF DOOR CO.**

RICHMOND, INDIANA, U. S. A.

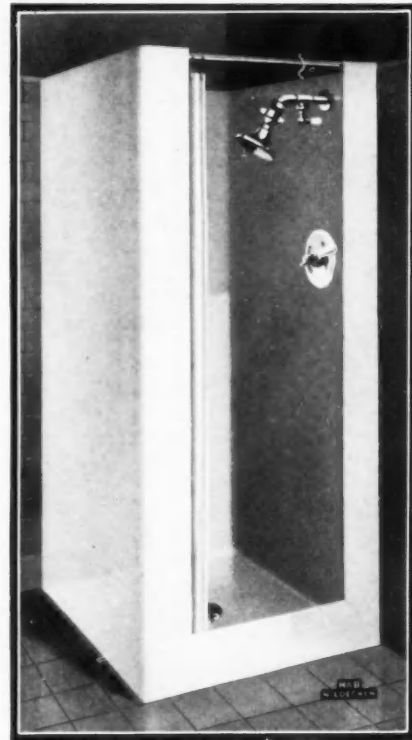
NIEDECKEN SHOWER STALLS

PATENTED

Integral - Leak Proof

ARE COMPLETE WITH

NIEDECKEN SHOWER



The walls are made of a continuous sheet of $\frac{1}{8}$ -inch copper bearing steel which with the riser are welded to the bottom. After installation the stall must be finished with water-proof enamel paint.

The possibilities for installation of the Niedecken Shower Stalls when remodeling or in new work are unlimited; they can be installed even in a residence Bed Room.



The Greatest
Shower
Improvement
Made in Years
Is The
EASY CLEAN
Feature of The
**NIEDECKEN
SHOWER
HEAD**

Write for Bulletin R. 120

HOFFMANN & BILLINGS MFG. CO.
MANUFACTURERS SINCE 1885.
MILWAUKEE, U. S. A.

BATCHELDER TILES

MADE IN U.S.A.

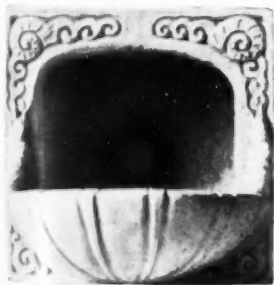
PATINA GLAZES



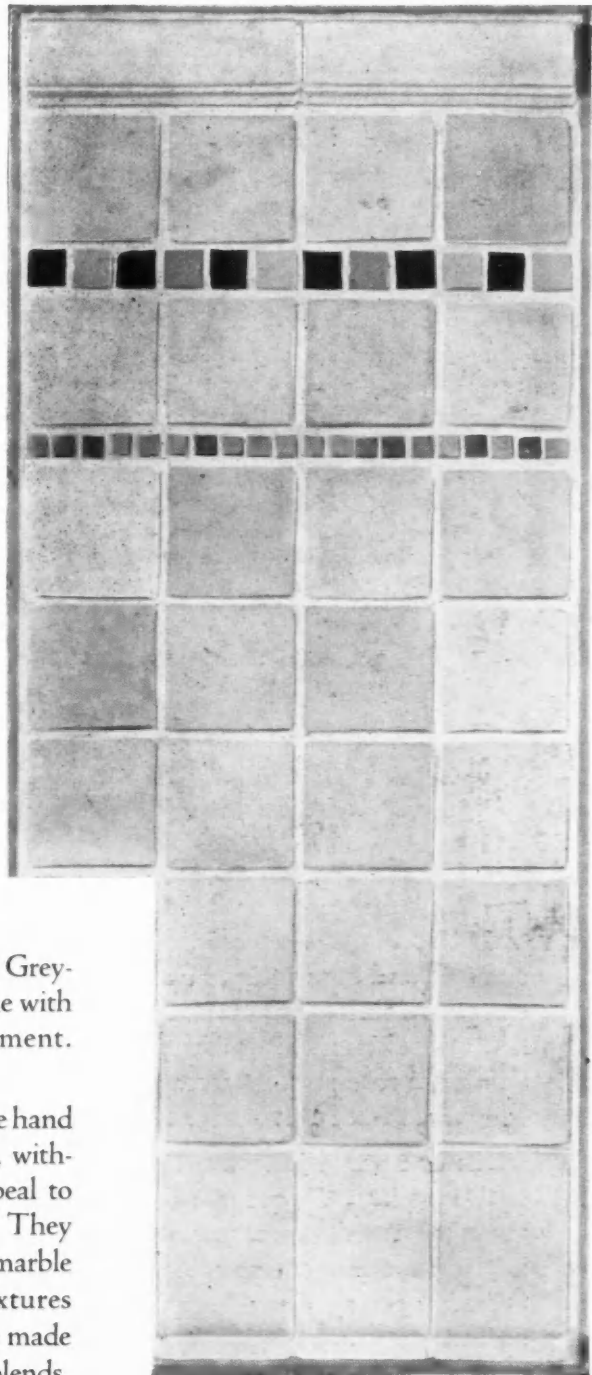
THE BATHROOM is no longer an event in the American home. It is an institution. Its functions are beyond argument. We have ceased to talk about it. It is our concern to make it beautiful, refined in design, appealing in color. With this purpose in mind it should be considered as one element in a decorative scheme. It must always be thought of as relative to adjoining rooms. It should be in tune with its environment.

BATCHELDER PATINA GLAZES are built upon a theory of harmonious color blends. There are eight of these blends with Ivory and Black. Each blend has a distinctive tonal quality of its own. But more than this, it has color notes in common with adjacent blends. These adjacent blends may be intermingled if desired. The effect offers many possibilities for harmony or for related contrasts.

THE YELLOW BLEND may be mingled with Tan and Grey-blue. The advantages are obvious--a dominant color scheme with variations to catch the minor notes of a decorative treatment.



PATINA GLAZE TILES are hand pressed, full glazed, high fired, without excessive gloss. They appeal to the touch as well as to the eye. They have the patina surface of old marble or bronze. Cap, base and fixtures with figure tiles and borders are made to harmonize with the various blends.



YELLOW BLEND

OUR PATINA GLAZE CATALOG IN COLORS WITH MANY USEFUL SUGGESTIONS WILL BE SENT TO REGISTERED ARCHITECTS

BATCHELDER-WILSON COMPANY

LOS ANGELES
2633 ARTESIAN ST.

CHICAGO
38 SO. DEARBORN ST.

NEW YORK
101 PARK AVE.

16



No. 988 ARCO
Packless Valve

*Architects are
protecting their clients
against damage and
expense by always
specifying* **ARCO**

PACKLESS VALVES

THE architect—ever mindful of the comfort and convenience of his client—can conscientiously and profitably specify ARCO Packless Valves for every installation from cottage to skyscraper.

Radiator valves seem only a small item when compared with the design of the entire project. Yet every architect knows that they are a very important part of the heating system. Poor valves may result in leaks causing heavy damage to radiator surroundings.

This risk is eliminated with ARCO Packless Valves for they will not leak—neither

do they need annual repacking. Their first cost is their only cost—in short, they are actually less expensive in the long run.

Architects especially appreciate the smart appearance of ARCO Packless Valves. They measure up to the most attractive decorative scheme.

ARCO Packless Valves No. 988 are made in angle, corner and globe patterns, with wheel or lever handles, for steam, water, vapor or vacuum installations. Fractional control type for vapor heating.

AMERICAN RADIATOR COMPANY

40 West 40th Street

ACCESSORIES DIVISION

New York, N. Y.

Makers of IDEAL Boilers, AMERICAN Radiators, ARCO Tank Heaters, VENTO Ventilating Heaters, AIRID Air Valves, MERCROID Controls and devices for drying, humidifying, cooling and refrigeration.



no loss

Cement Bags that empty out clean

TODAY, the saving way to use cement or plaster is to get it in Bates Multi-Wall Paper Bags. These modern containers empty out clean. The mixer receives every pound of material just as it left the mill, 100% usable and in perfect condition.

With their 5 separate walls of tough, impervious paper, Bates Bags give reliable protection from rain,

atmospheric moisture and rough handling. They eliminate dusting and reduce bag breakage to a minimum. And when they've done their work, they need not be returned for credit.

On your jobs, Bates Multi-Wall Paper Bags will help to save the dealer and contractor from loss and will guarantee full-strength material to you and your client.

BATES VALVE BAG CORPORATION
35 East Wacker Drive, Chicago, Illinois

BATES *Multi-Wall* PAPER BAGS

Bates Multi-Wall Paper Bags are made by the Bates Valve Bag Corporation in 8 modern plants throughout the country.

The Architectural Record, June, 1928

121



The Holmes Two-Door Pivot Bed requires less closet space and less wall space than any other type of pivot construction. The opening back of the head of the bed is completely closed, eliminating drafts.

HOLMES



The Superlative Bed

A Message to Architects,
Builders and Contractors

Comfort . . .

Holmes Concealed Beds were built with the idea foremost in mind, that beds must be comfortable. The result is a full width coil spring of special construction that makes the "Holmes" the most restful of beds.

Beauty . . .

The fact that Holmes' models were to be portable or concealed did not restrain the men who design Holmes Concealed Beds from making them beautiful pieces. In both wood and metal construction "Holmes" beds take their place with the finest furniture.

Convenience . . .

To fit in with any plans, "Holmes" offers seven distinct types of installation. For either a new building or a remodeling job there is a type of Holmes Concealed Bed that is ideal.

Efficiency . . .

The concealed bed is a twentieth century method of saving space, time and money. With all of its other recognized advantages, the Holmes Concealed Bed is the selection of the man who knows, because it is more easily placed in position and removed, and because it occupies a minimum of space when not in use.

CONCEALED BED CORPORATION
Distributors for Holmes and Marshall & Stearns Company
58 East Washington Street :: Chicago, Illinois



FREE

That you may have such information on Holmes Beds as is a necessity in your work, the Concealed Bed Corporation offers you a new book for your reference library. Mail the coupon attached below and this buying guide will be sent at once.

Dept. 64 **CONCEALED BED CORPORATION,**
58 E. Washington St., Chicago, Illinois
Gentlemen:— Please send me a copy of "Behind the Doors" and learn how Holmes Concealed Beds solves the Extra Room problem.

Name _____
Address _____
City _____ State _____
Occupation _____
Home Owner Home Builder Architect Contractor

Jewett Refrigerators are Famous for the Company they Keep

A few among
many notable Jewett
Installations

- | | |
|---------------------------|-------------------|
| The Stevens | Chicago |
| Hotel Pennsylvania | New York |
| All Statler Hotels | In Statler Cities |
| Presbyterian Hosp. | New York |
| Jewish Hosp. | St. Louis |
| Edsel Ford Residence | Detroit |
| E. F. Hutton Residence | Palm Beach |
| James W. Gerard Residence | New York |
| S. M. Halle Residence | Cleveland |
| Ohio Bell Telephone Co. | Cleveland |
| Equitable Trust Co. | New York |
| R. T. Crane Residence | Ipswich |
| Avon School | Avon |
| Angelica Gerry Residence | Lake Delaware |
| Brooklyn Y. W. C. A. | Brooklyn |
| Detroit Athletic Club | Detroit |
| The Standard Club | Chicago |
| National Club | Toronto |
| Newark Athletic Club | Newark |
| Toronto Union Station | Toronto |

Quality
Leadership That
No One Questions

ALL who have installed Jewetts, possess the quiet satisfaction of knowing that their refrigerators are excelled by none. You need only to solicit the opinion of those who know refrigerators to establish in your own mind the fact that Jewett has established a quality leadership that no one questions.

THE JEWETT REFRIGERATOR CO.
Buffalo New York

JEWETT

REFRIGERATORS

*Tested—
and found Structurally
Dependable!*

MAFTEX

*The "Thermal-Insulating" Board
that has Structural Strength*

MAFTEX was developed primarily to stop heat—and does, winter and summer. Then came the question of structural dependability—was it there as the architect wished it to be, with strength and sturdiness and endurance of wood sheathing for outside studs and rafters . . . would it withstand strain, moisture, climatic changes . . . would it effectively take the place of wood lath for interior walls and ceilings?

MAFTEX has been thoroughly tried and tested with these requirements in mind—and fulfills them all.

The millions of tough, wiry, densely compacted licorice root fibers that make MAFTEX an effective barrier to the passage of heat also give to each MAFTEX board its construction value—strength greater than sheathing; plaster base grip that 1,000 pounds pull to the square foot cannot budge; sound deadening that hushes the transmission of room-to-room noises; endurance that resists the various influences affecting structural ability.

The MAFTEX series of Architectural Bulletins may be consulted with confidence as authoritative specification aids.

Prepared for architectural use under architectural supervision.

- Bulletin No. 1—Announcement and a Brief Description of MAFTEX.
- Bulletin No. 2—General Uses and Application of MAFTEX.
- Bulletin No. 3—Roof and Wall Sheathing.
- Bulletin No. 4—Flat Roof Insulation.
- Bulletin No. 5—MAFTEX as Plaster Base.
- Bulletin No. 6—MAFTEX as Sound Deadening.
- Bulletin No. 7—MAFTEX for Decorative Effects.

Sent Upon Request

MACANDREWS & FORBES COMPANY

Business established in U. S. A., 1870
200 FIFTH AVENUE, NEW YORK, N. Y.



Evans Vanishing Door Wardrobe Class S

HERE IS THE IDEAL class-room wardrobe, opening at a touch and with a clean sweep—no jostling of pupils. The extra strong hinges have double pivoted arms that work easily and silently, and the smallest child in the class can open and close the doors without effort. This type of wardrobe is made for plaster back, ends and ceiling, and is 8' 2" wide by 3' deep. It accommodates 45 coat hangers and 10 rod brackets for hats. We have other types, too—our architect's filing size illustrated catalogue tells the whole story. May we send you a copy?

W. L. EVANS - WASHINGTON, INDIANA, U. S. A.

Patented in U. S., Canada and Foreign Countries. Trademark "Vanishing Door" registered in U. S. and Canada

Steel Sheets



Sheet metal serves increasingly the engineering, railway, industrial, and general construction fields. This Company is the largest and oldest manufacturer of Black and Galvanized

Sheets, Special Sheets, Tin and Terne Plates for every known purpose—and with highest quality standards rigidly maintained. Sold by leading metal merchants. Send for booklets.

AMERICAN SHEET STEEL Products

Black Sheets
Blue Annealed Sheets
Full Finished Sheets
Automobile Sheets
Special Sheets
KEYSTONE
Rust-resisting
Copper Steel Sheets
Galvanized Sheets
Corrugated Sheets
Formed Products
Tin and Terne Plates
Black Plate, Etc.

AMERICAN SHEET AND TIN PLATE COMPANY

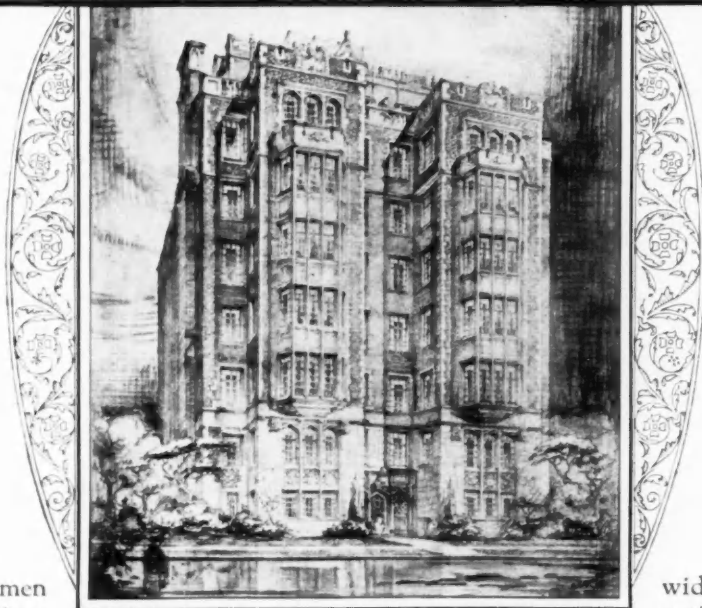
General Offices: Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES:—CHICAGO, CINCINNATI
DENVER, DETROIT, NEW ORLEANS, NEW YORK
PHILADELPHIA, PITTSBURGH, ST. LOUIS

Export Representatives—U. S. STEEL PRODUCTS CO., New York City
Pacific Coast Representatives—U. S. STEEL PRODUCTS CO.,
San Francisco, Los Angeles, Portland, Seattle, Honolulu

CONTRIBUTOR TO
SHEET STEEL
TRADE EXTENSION COMMITTEE

A Woman's Specifications of "the Ideal Kitchen"



Apartment House at 6022 Jeffery Avenue, Chicago, Ill. Builder, Harold C. Costello; Arch't, Paul Frederick Olsen. Fully equipped with Quick Meal Gas Ranges with Red Wheels. (Below) Representative Kitchen showing Quick Meal Gas Range as installed.

ASK ANY group of women their general specifications of "the ideal kitchen" and you will find that practically all will stress these five points: 1. Efficiency; 2. Attractiveness; 3. Ease of cleaning; 4. Lighting; 5. Ample size.

For Efficiency women insist that the kitchen have the most modern equipment. And since cooking is the most important of all household tasks women want the most efficient cooking appliance available.

No cook stove made is more efficient, economical and saving of time and labor than a Red Wheel Gas Range.

These famous gas ranges are the nationally preferred type of cooking appliances; first, because the Red Wheel provides automatic control of the oven heat and any desired temperature—thereby making perfect baking—results possible every time; second, because Red Wheel Gas Ranges have been



Unless the Gas Range has a RED WHEEL it is NOT a LORAIN

widely advertised in leading national magazines for the past nine years.

Red Wheel Gas Ranges are used in more than 2400 schools and colleges to teach the art of cookery.

Red Wheel Gas Ranges will bring added beauty to your kitchens. Will make your houses more salable—your apartments more rentable. And—tenants will be apt to remain longer.

The following brands of gas ranges made by American Stove Company are alone privileged to use the Red Wheel: Clark Jewel, Direct Action, Dangler, New Process, Quick Meal and Reliable. Each of the six lines offers the widest possible selection of sizes, styles and finishes for kitchens ranging in size from the smallest to the largest. For specific data, see Sweet's Catalog, 22nd Edition, pages C3245-C3254, inclusive.

AMERICAN STOVE COMPANY, 555 Chouteau Avenue, St. Louis, Mo.
LARGEST MAKERS OF GAS RANGES IN THE WORLD

1928

L O R A I N

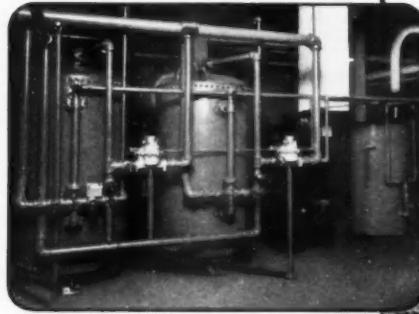
WATER— Should it be Softened?

WATER—like weather and wear—is a factor that should be considered when planning buildings.

For, water can cause considerable trouble.

Water, if at all hard, should be softened. Boilers will steam better, pipes will not clog.

But water softening is not just a case of regularly dumping in a "grab sample" of chemicals. It is distinctly an engineering problem.



A Typical Paige-Jones Upflow Zeolite Softener in a prominent office building—Subway Terminal Building, Los Angeles.

... an engineering problem because as a rule there is only one way by which water may be properly softened. Which way depends upon specific conditions.

Let Paige-Jones engineers help in this important matter. They know water softening. They have the proven methods. A Paige-Jones engineer will call at your convenience.

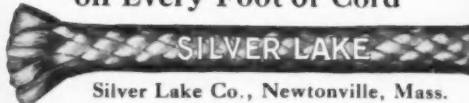
PAIGE & JONES CHEMICAL CO., Inc.

Licensee Under Gans (Permutit) Patent No. 1,195,923

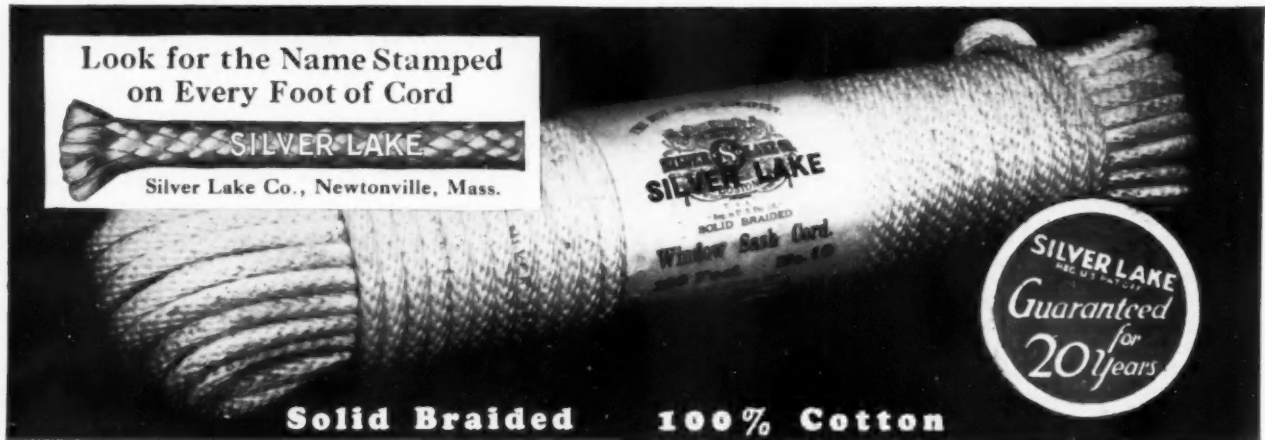
General Sales Office, Technical Dept. and Works, HAMMOND, IND.

Executive Offices: 461 Fourth Ave., New York
Offices in Principal Cities

Look for the Name Stamped
on Every Foot of Cord



Silver Lake Co., Newtonville, Mass.



Solid Braided 100% Cotton

Statement of the Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912, of The Architectural Record, published monthly at New York, N. Y., for April 1, 1928.

State of New York, County of New York, before me, a notary public in and for the State and county aforesaid, personally appeared J. A. Oakley, who, having been duly sworn according to law, deposes and says that he is the Business Manager of THE ARCHITECTURAL RECORD, published by F. W. Dodge Corporation, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are: Publisher, F. W. Dodge Corporation, 119 West 40th St., New York, N. Y.; Editor, Michael A. Mikkelsen, 119 West 40th St., New York, N. Y.; Managing Editor, Michael A. Mikkelsen, 119 West 40th St., New York, N. Y.; Business Manager, J. A. Oakley, 119 West 40th St., New York, N. Y.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) F. W. Dodge Corporation, 119 West 40th St., New York, N. Y., whose stockholders, owning 1 per cent or more of the total amount of its stock are: Florence Call Abbott, 32 Liberty St., New York, N. Y.; Henry H. Abbott, 32 Liberty St., New York, N. Y.; Dana T. Ackerly, 32 Liberty St., New York, N. Y.; William C. Breed, 32 Liberty St., New York, N. Y.; Wesley D. Broadwell, 423 W. 120th St., New York, N. Y.; May Gibson Baker, 295 Wadsworth Ave., New York, N. Y.; Jane Curtiss Breed, 850 Park Ave., New York, N. Y.; Samuel A. Elkington, 676 Riverside Drive, New York, N. Y.; Sumner Ford, 32 Liberty St., New York, N. Y.; John W. Frank, 119 West 40th St., New York, N. Y.; Helen D. Morgan, 32 Liberty St., New York, N. Y.; Michael A. Mikkelsen, 119 W. 40th St., New York, N. Y.; Truman S. Morgan, 1111 Park Ave., New York, N. Y.; Minnie C. Ort, 189 Elm Ave., Teaneck, N. J.; John A. Oakley, 61 So. Fullerton Ave., Montclair, N. J.; George H. Partridge, Hotel Gramatan, Bronxville, N. Y.; William J. Quinn, 32 Liberty St., New York, N. Y.; Sanford D. Stockton, Jr., 32 Liberty St., New York, N. Y.; Marcus Wayne, 1681 Glenmont Road, Cleveland, O.; Charlotte D. Williams, 2845 Scarborough Road, Cleveland Heights, O.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than so stated by him.

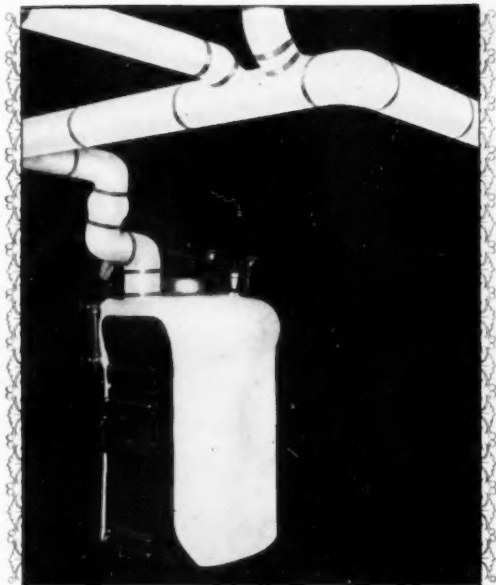
Sworn to and subscribed before me this 31st day of March, 1928.

RAYMOND N. KELLOGG, JR.

J. A. OAKLEY, (Signature of business manager)

ASBESTOCEL

A NATIONALLY STANDARDIZED
INSULATION FOR HEATER PIPES



The choice of insulation for heater pipes is exceedingly important, yet the decision is easily made. Improved Asbestocel is the low-pressure pipe insulation which is nationally sold and which is standard in quality and performance everywhere. When you specify 3-ply Asbestocel you know that the performance and the appearance of the insulation will be the same wherever the building is located, whatever its size is, and whoever makes the application. There is no other heater pipe insulation which offers you such standardization.

National advertising in general magazines, building papers and other trade papers, keeps Asbestocel before the public. Building committees and individual house owners know the name and will gladly accept your specification of Asbestocel.

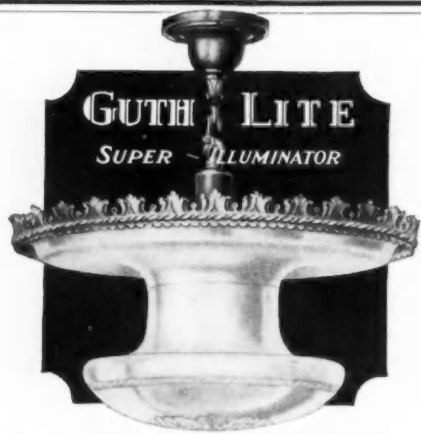
Asbestocel is a product of Johns-Manville, pioneer workers in Asbestos. It is guaranteed by Johns-Manville to be stronger and more efficient than any of the ordinary air cell insulations.

Another Asbestos product of especial interest to architects is the Johns-Manville Asbestos Shingle. By using these Shingles you can obtain any textures and colors you want, besides which the roof will be fireproof and literally permanent.

Johns-Manville maintains a large department for the purpose of cooperating with architects on many problems connected with designing buildings of all types. We invite your inquiries, which entail no obligation. Address: Johns-Manville Corporation, Architectural Department, 292 Madison Avenue, New York City.



MASTER *of* ASBESTOS
Johns-Manville
IMPROVED ASBESTOCEL



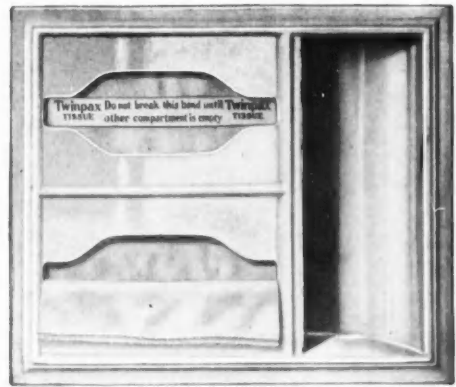
Architectural Harmony

plus supreme lighting efficiency at low cost is available in the New *GuthLite* for commercial, industrial and institutional installations. . . Graceful designs, either simple or ornate; glareless and shadowless illumination with minimum light-loss are definite advantages of which you can be assured in specifying *GuthLite*.

Its low cost makes it extremely practical for office, factory, schoolroom, etc.

The EDWIN F. GUTH CO.

2615 Washington Ave. St. Louis, Mo.



A Double Advantage

Twinpax Toilet Fixtures have the advantage of beauty and the advantage of convenience. Beauty: tile in any color. Convenience: two packs of tissue so that if one is exhausted the other pack is ready. Ask us for blue prints, prices and other details.

NATIONAL PAPER PRODUCTS CO.
Architectural Service Division, CARTHAGE, N. Y.
 New York Chicago San Francisco Los Angeles Seattle

Ask for A. I. A. filing catalog

Mineral Wool

supplies a most economical and indestructible fire-proof and vermin-proof guard

For Your New Building
 Mineral Wool is a perfect insulator, keeps out the winter cold and the summer heat. Being fibrous and inelastic, it is also one of the best sound-proof materials obtainable.

For better construction we urge your investigation of Mineral Wool.

Write us today for convincing proof of what Mineral Wool has accomplished or—see Sweet's page A 193

United States Mineral Wool Co.
 280 Madison Avenue New York

Western Connection
INSULATING PRODUCTS COMPANY
 1553 West Madison Street Chicago, Illinois

A "PERSONAL" ROOF

A Knickerbocker Slate roof comprises so great a variety of delightful colors and textures, that it is as simple to express individuality in the roof as in the other parts of the building.

Roof suggestion on request.

See Sweet's, page A 450.

KNICKERBOCKER SLATE CORP.

E. J. Johnson, President
 355 W. 26th St., New York

There's a **MORTON** Steel Cabinet for every type of Bathroom



"Out of the carton into the wall." Installed in a few minutes. No upkeep. Made to last as long as the building.

The "Venetian," "Vanity Venetian" and "Georgian" Models, illustrated above, are especially recommended to those who wish to add a touch of unusual distinction to the bathroom. They have all-mirror doors, artistically etched, which completely conceal the cabinet. Many exclusive features of construction.

THE Morton Line of Steel Bathroom Cabinets is *complete!* Regardless of the type of bathroom, be it in a modest residence or a pretentious mansion, a hotel, apartment or club, there is a *Morton* Cabinet to satisfy every requirement.

There are 11 models from which the architect, builder, realtor and owner may choose the exact cabinet to fit any decorative scheme. While usually finished in a pure white enamel, permanently baked on, Morton Cabinets may be obtained in any selected color to harmonize with whatever artistic effect is desired in the bathroom.

Special finishes are made to order for a nominal extra charge.
Write for catalog and prices.

MORTON MANUFACTURING COMPANY
5100 WEST LAKE STREET-CHICAGO, ILL. U.S.A.

Send the
Coupon for a
MORTON
Catalog.

MORTON MANUFACTURING CO., 5100 West Lake St., Chicago, Ill.

Without obligation, please send me a catalog of the MORTON Line of Steel Bathroom Cabinets.

Name

Address

City State

Please check business or profession:
Architect Builder Contractor Realtor Home Builder

MORTON MANUFACTURING COMPANY
CHICAGO, ILL. U.S.A.
MORTON MADE
TRADE MARK

ANDORRA

Ornamentals exclusively distinctive in quality and variety, for street, park and all civic planting.

We cater to the most discriminating trade.



ANDORRA
NURSERIES
Inc.
Chestnut Hill, Pa.

Have you seen ANDORRA?

American Steel & Wire
Company's
American
**Wire
Rope**
and
**AERIAL
WIRE ROPE
TRAMWAYS**

Sales Offices: Chicago, New York, Boston, Atlanta, Birmingham, Cleveland, Worcester, Philadelphia, Pittsburgh, Buffalo, Detroit, Cincinnati, Baltimore, Wilkes-Barre, St. Louis, Kansas City, Minneapolis-St. Paul, Oklahoma City, Memphis, Dallas, Denver, Salt Lake City, *San Francisco, *Los Angeles, *Portland, *Seattle.
*United States Steel Products Co.

T

HE LASTING QUALITIES of roofing tin depend on three things: First, the rust resistant quality of the base plate; second, the amount of coating; the third, and most important, the method of applying the coating.

Not only is the base plate of TARGET and ARROW the most rust resistant sheet obtainable, and not only is the coating heavier than standard practice, but this extra heavy coating is applied by the same Welsh process of hand-dipping introduced into our plant when we started the manufacture of tin plate in this country; which has been strictly adhered to ever since.

Let us send you our set of four "SERVICE SHEETS" giving complete details, tables, specifications and color suggestions for the application of TARGET and ARROW Roofing Tin. See Sweet's, page A443.

N. & G. TAYLOR
COMPANY
Philadelphia



Spanish Tiles and Ceramic Decorations



After Goya. Reproduced in tile, 22" square

Reproductions of all Spanish Masters and other subjects. Wainscotings, inserts, plaques, Moorish plaster work grilles, floor tile. In colors, metal lustre, relief, and incised (cuerda seca). Benches, fountains and all other tilework.

Architects will find every facility for studying and acquiring any article made in Spain suitable for decorating and furnishing. Lighting fixtures, furniture, wall hangings, etc.

Industrias de Arte Espanol Reunidas, Madrid, Spain

American Associates

MANUEL CARAGOL & SON, Inc.

Established 1903

7 WATER STREET

NEW YORK CITY

Ask for our general booklet or catalogue on any particular line



Left—High School, Baldwin, L. I.; 50,000 sq. ft. of TMB; H. T. Blanchard, Architect



Right—Presbyterian Hospital, Denver, Col.; 8,000 sq. ft. TMB; W. E. and A. A. Fisher, Architects

The Modern Institutional Floor

All over the country architects are finding TMB an economical and entirely satisfactory floor for institutional use.

At very moderate cost, TMB offers unusual walking comfort, quiet, cleanliness, extreme durability, low maintenance, and resistance to dampness and acids.

The smooth, seamless, velvety surface of TMB will never wear rough or gritty. Any damaged area can be *locally* and *invisibly* resurfaced. No complete reflooring is ever necessary with TMB.

Detailed information and specification data will be gladly furnished upon request.

THOS. MOULDING FLOOR CO.

(Flooring Division—Thos. Moulding Brick Co.)

165 W. Wacker Drive
Chicago, Ill.

TMB
FLOORING

279 E. Broad St.
Columbus, Ohio

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

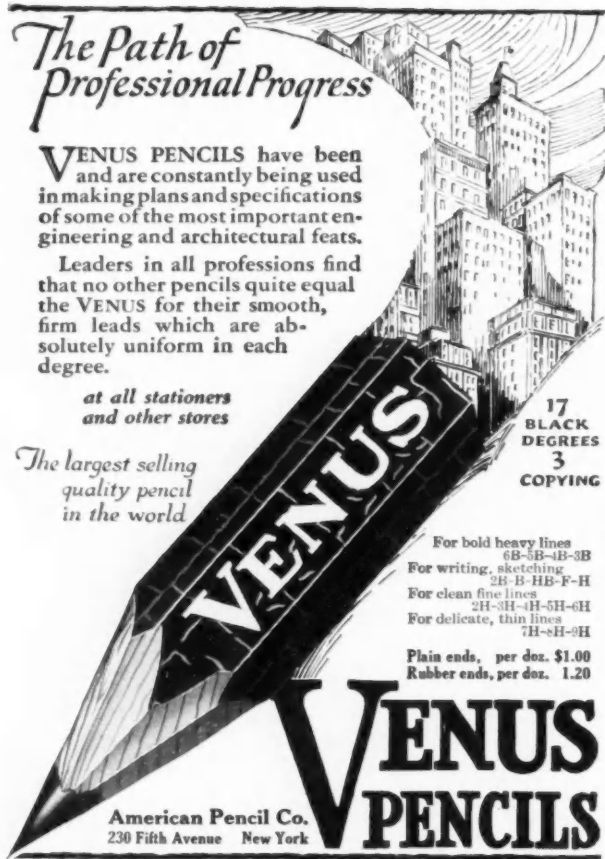
The Path of Professional Progress

VENUS PENCILS have been and are constantly being used in making plans and specifications of some of the most important engineering and architectural feats.

Leaders in all professions find that no other pencils quite equal the VENUS for their smooth, firm leads which are absolutely uniform in each degree.

at all stationers
and other stores

The largest selling
quality pencil
in the world



17
BLACK
DEGREES
3
COPYING

For bold heavy lines
6B-5B-4B-3B
For writing, sketching
2B-B-HB-F-H
For clean fine lines
2H-3H-4H-5H-6H
For delicate, thin lines
7H-8H-9H

Plain ends, per doz. \$1.00
Rubber ends, per doz. 1.20

VENUS PENCILS

American Pencil Co.
230 Fifth Avenue New York

SEDGWICK DUMB WAITERS and ELEVATORS

For All Purposes



SEDGWICK
TRUNK LIFT

Thirty-six years of specialization in the design, manufacture and installation of Hand Power Dumb Waiter and Elevator Outfits have given us a wealth of information which may be of value to you when preparing plans.

Recommendations gladly
furnished on request.

SEDGWICK MACHINEWORKS

148 WEST 15TH STREET

NEW YORK

Manufacturers of "The Invalid Elevator"



SOUND-PROOF PARTITIONS between AUDITORIUM and GYMNASIUM

Architects have proven that the sound-proofing efficiency of Hamlin's Sound-Proof Doors and Folding Partitions makes possible economy of space and simplification of plans that reduce building costs and greatly improve the utility of adjoining rooms.

As illustrated at the left, the auditorium receives the benefit of the gymnasium to use as a very large stage, thereby making the gymnasium more valuable because of greatly increased seating facilities. While each may be used separately if desired. This folding partition in the Bexley High School, Columbus, Ohio, is 19 feet high by 60 feet wide.

Send for Catalog

IRVING HAMLIN

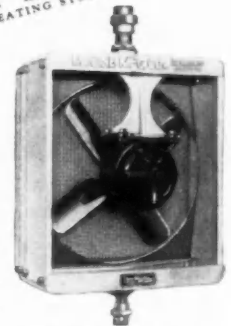
Manufacturers
Sound-Proof Doors and
Folding Partitions

1514 Lincoln Street
Evanston, Ill.

TherModine Unit HEATER

FOR STEAM OR HOT WATER HEATING SYSTEMS

A
MODINE
Product



Thermodine Unit Heater
No. 701—replaces ap-
proximately two tons
of cast iron radiation.

Architects May Safely Specify Thermodine Unit Heaters

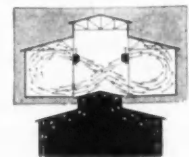
When you come to the question of heating, specify "Thermodine" and be assured the maximum of heating satisfaction. The remarkable success of Thermodine Unit Heaters on thousands of heating and drying installations recommend their consideration for your next heating problem.

Let us tell you of some of the installations
we have in your territory.

MODINE MANUFACTURING CO.
(Heating Division)

1702 RACINE ST. RACINE, WISCONSIN

Branch offices in all large cities



Above—Circulation
of heated air down
to working zone with
Thermodine Unit
Heaters. Below—
Circulation with cast
iron radiation or
pipe coils.



STROWGER
P-A-X
PRIVATE AUTOMATIC EXCHANGE

Not merely an automatic telephone, but a perfect system of interior communication designed and built to the finest engineering standards and of the same type of equipment that has been adopted for public exchange service the world over.

B E A U T Y

IN THE TREND of progress, physical beauty should accompany mechanical perfection. Forty years of development made Strowger P-A-X the world's standard of interior telephony; and with mechanical improvement came refinement in design. There is a fineness about the instruments in keeping with richest appointments—yet their chaste simplicity is in equally good taste in modest surroundings. These qualities extend even to the switchboard—a quiet suggestion of the ultimate in efficiency. Detailed information from Strowger engineers will show clearly how P-A-X can serve your business.

STROWGER AUTOMATIC
Communication, Control
and Signalling Systems

Strowger Automatic Equipment includes Public Automatic Telephone Systems P-A-X (Private Automatic Exchange) Watchman Supervisory Systems Tele-Chec Systems (for Theaters) Industrial Fire Alarm Systems Supervisory Control Systems for Power Stations and Railway Signalling and Communication Systems.

Engineered, Designed and Manufactured by

Automatic Electric Inc.

Factory and General Offices: 1033 West Van Buren St., Chicago, U. S. A.

Sales and Service Offices in the Following Cities:

Atlanta, Ga.
Los Angeles, Calif.
Dallas, Tex.

Detroit, Mich.
Cleveland, Ohio
New York, N. Y.

Philadelphia, Pa.
Minneapolis, Minn.
Pittsburgh, Pa.

Boston, Mass.
St. Louis, Mo.
Seattle, Wash.

THE CUTLER MAIL CHUTE

In order to meet the requirements of the Regulations of the Post Office Department as to location and arrangement, the matter should be taken up early, thus avoiding changes which might otherwise become necessary. Full details and information on request.

THE CUTLER MAIL CHUTE CO.
GENERAL OFFICES AND FACTORY
ROCHESTER, N. Y.



CAN YOU DO THIS With A Wooden Rule?

Both Rigid and Flexible

THE FARRAND RAPID RULE

You Can Measure
Circumferences
with the
FARRAND RAPID RULE

Is a six-foot measuring stick of nickeled steel—not a limp tape. Coiled in a neat, nickel-plated cup about the size of a watch. Instantly available for any purpose where TAPE or RULE can be used. Figures large and dark, imposed on slightly concave, light-reflecting surface, and are easily read in dim corners.

A MODERN TOOL FOR MODERN CRAFTSMEN

RULES NOW MADE IN FOLLOWING SCALES

72 inch with 1/16 in. graduations
6 feet with 1/100 in. graduations
2 meters with millimeter graduations

Price \$5.00

Ask Your Dealer or Write
HIRAM A. FARRAND, Mfr.
Room 639, 149 Broadway
New York City

Or You Can Measure
Straight-Away
With One Hand



HESS CABINETS and MIRRORS *Snow-White Steel*



Still Another De Luxe Cabinet THE PARISIAN

THE door frame is of drawn steel moulding (not sheet steel) welded and finished at the corners. The mirror conceals the spacious cabinet, which is fitted with adjustable polished plate glass shelves. Suitable for the finest bath room, at a moderate price.

Write for description of this and of six other styles, in five sizes.

HESS WARMING & VENTILATING CO.
Makers of Hess Welded Steel Furnaces,
1212 S. Western Avenue, Chicago



The Peacock Hotel, Kansas City, Missouri
C. O. Jones, Owner and Builder

The Saving Is
HERE



Put the BULL-DOG
on your Pay-roll

AS a rule, a man builds most carefully when he builds for himself. Thus it is significant that C. O. Jones, owner and builder of the Peacock Hotel, Kansas City, anchored the wood floors over concrete with thirty-five thousand Bull Dog Clips.

Write for samples, installation charts and cost data to complete your files.

Bull Dog Floor Clip Co.
108 North First Ave.,
Winterset, Iowa, U. S. A.
Distributors in principal cities

BULL DOG Floor Clips

ANCHOR WOOD FLOORS TO CONCRETE

This list speaks for itself . . .

Installation	Architects	Plumbing Contractors
JOHNS HOPKINS UNIVERSITY Chemistry Laboratory Baltimore, Maryland	<i>Carrere & Hastings</i> New York City	James McCrea & Sons Baltimore, Md.
JOHNS HOPKINS UNIVERSITY Hygiene Building Baltimore, Maryland		Lloyd E. Mitchell, Inc. Baltimore, Md.
WEST VIRGINIA UNIVERSITY Hall of Chemistry Morgantown, W. Va.	<i>Davis, Dunlap & Barney</i> Philadelphia	James McCrea & Sons Baltimore, Md.
COLUMBIA UNIVERSITY Chemistry Building New York City	<i>McKim, Meade & White</i> New York City	Thomas O'Reilly & Son New York City
COLUMBIA PRESBYTERIAN Hospital Centre New York City		<i>James Gamble Rogers</i> New York City
NEW YORK UNIVERSITY Chemistry Building New York City	<i>Augustus N. Allen</i> New York City	Milton Schnaier Con- tracting Corp. New York City
DETROIT UNIVERSITY Chemistry Building Detroit, Michigan	<i>McColl, Snyder & McLean</i> Detroit, Mich.	James W. Partlan Detroit, Mich.
*OHIO STATE UNIVERSITY Chemistry Building Columbus, Ohio	<i>Jos. N. Bradford</i> Columbus, Ohio	E. Elford & Sons and Sam'l A. Esswein Heat- ing and Plumbing Co. Columbus, Ohio
DUKE UNIVERSITY Chemistry Building Durham, N. C.	<i>Horace Trumbauer</i> Philadelphia, Pa.	Charles B. Grant and V. N. Welamb Co. Philadelphia, Pa.
McGILL UNIVERSITY Pulp & Paper Research Bldg. Montreal, Quebec, Canada	<i>Nobbs & Hyde</i> Montreal, Quebec	John Colford, Ltd. Montreal, Quebec
*PRINCETON UNIVERSITY Chemistry Building Princeton, N. J.	<i>C. Z. Klauder</i> Philadelphia, Pa.	C. H. Cronin, Inc. Boston, Mass. John Black & Sons Princeton, N. J.

* Buildings under construction at this time and KNIGHT-WARE being supplied.

THE above is only a partial list. Besides we have supplied many plant and commercial laboratories such as The Carnegie Steel Company, Brad-dock, Pa.; The General Electric Co., Schenectady, N. Y.; The B. F. Good-rich Co., Akron, Ohio. Among the more important High School labora-tory installations are San Rafael High School, San Rafael, California; Oak Park High School, Oak Park, Illi-nois; Northern High School, Flint, Michigan, and Cass Technical High School, Detroit, Michigan.

In most of these installations KNIGHT-WARE has been used for complete equipment, i.e., LABORATORY SINKS, WASTE and DRAIN LINES, VENTILATING LINES and DUCTS, ACID SUMPS or CATCH BASINS, VENTILATING FLUE CAPS, FAN HOUSINGS, etc.

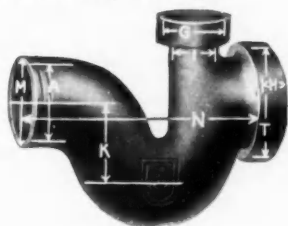


Figure 267
ACID PROOF BELL & SPIGOT RUNNING TRAP WITH VENT CLEANOUT

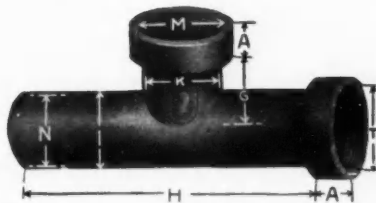


Figure 273
ACID PROOF BELL & SPIGOT TEE

Maurice A. Knight
Akron, Ohio

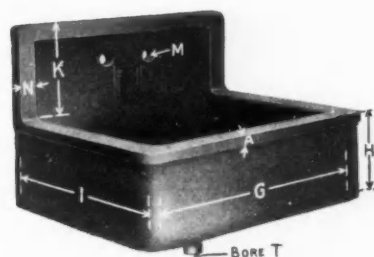


Figure 237
ACID PROOF LABORATORY SINK WITH BACK

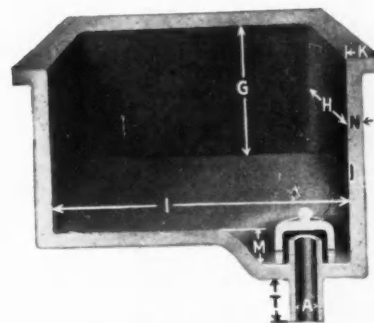


Figure 235
ACID PROOF LABORATORY SINK WITH-OUT BACK, SHOWING LUTE TRAP

OUR Sinks are made in one piece. They are not slabs cemented or bolted together. The faces are very smooth so that no growths or slime can adhere to them. Corners are all well rounded and permit thorough cleaning. Strainers can be made integral or removable as wanted.

OUR Pipe and Fittings are ideal for Waste and Drain and Ventilating line equipment. They are entirely seamless, thoroughly vitrified and tough and strong. KNIGHT-WARE Pipe is not expensive.

Further, all KNIGHT-WARE is GUARANTEED acid and corrosion proof throughout the entire body of the ware—(regardless of whether the cor-rosive being handled is weak or strong, hot or cold)—free from defects and satisfactory in EVERY respect.



Figure 271
ACID PROOF BELL & SPIGOT PIPE

GUARANTEED SATISFACTORY
MAURICE A. KNIGHT
ACID-PROOF CHEMICAL STONWARE
KNIGHT-WARE
"IT IS THE BODY ITSELF"

BY THE MAKERS OF HIGGINS' AMERICAN DRAWING INKS

HIGGINS' Eternal Black Ink

For Specification Writing, Details, Charts, etc.

HIGGINS' Eternal Black Writing Ink is as indispensable to the architect as Higgins' American Drawing Inks. It writes jet black from fountain or plain pen and forever remains so. You will find its sharp, black writing invaluable for specifications, details, etc., which must be blueprinted or photostated.

Impervious to the action of sunlight, heat, moisture or chemical eradicators, Eternal imparts a safety and permanence to your memoranda and records which no other writing ink can offer.

Fifteen cents the bottle, at your regular supply dealers, or any good stationery or drug store.



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

SEND FOR THE FACTS
about

GAS HOUSE HEATING

Boiler Sizes and Ratings
Comparative Fuel Costs
Typical Installations
Saving in Space
Specifications

IDEAL GAS BOILERS

Product of
AMERICAN RADIATOR COMPANY

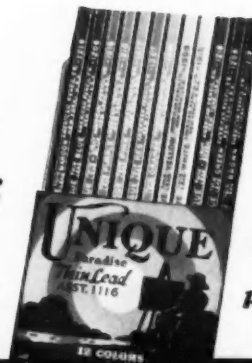
Address:
American Gas Products Corp.
376 Lafayette Street
New York City

CORNELL ROLLING DOORS

THEY KEEP OUT BURGLARS, FIRE AND WATER

No matter what the type of building—garages, warehouses, piers, public buildings, store fronts—Cornell Rolling Doors give absolute protection against burglary, water and fire. Built of a series of steel interlocking cold rolled slats they are stiff against pressure, but flexible to roll. When not in use they are rolled up out of the way overhead. They operate easily and simply even in the largest sizes. Consult our Engineering Department, or write for Catalog. Cornell Iron Works, 3622-3642 13th St., Long Island City, New York. *Established 1846.*

for fine lines in color



12 colors
\$1.00 per dozen

UNIQUE THIN LEAD COLORED PENCIL

JUST the pencil you need for checking, figuring, marking blueprints, sketching, etc.

At all dealers, or send for any color or assorted colors (or the assortment illustrated above) at \$1.00 per doz. pencils.

American Lead Pencil Co.
230 Fifth Ave., N.Y.
Makers of the famous VENUS Pencils

Blue
Red
Green
White
Purple
Brown
Orange
Yellow
Pink
Lt. Blue
Lt. Green
Maroon

DUNHAM

The Prestige of a Name

The prestige of a good name, in any field of endeavor, is a priceless boon. It is not easy to achieve, it is quick to depart if not justly deserved, and once lost is difficult to recover.

THROUGHOUT the quarter century from the invention of the Dunham Thermostatic Radiator Trap to the introduction of the Dunham Differential Vacuum Heating System the name Dunham has stood for a courageous, forward-looking progress that envisioned a greater task than mere manufacturing, and sought to serve by reason of its outstanding contributions to the *science of heating*.

For a quarter century those products and inventions bearing the name Dunham have won, and held, through their universally recognized service to the heating industry, the high esteem of architects, consulting engineers and heating contractors throughout the world.

To this world-wide prestige has come a new honor in the invention and development of the Dunham Differential Vacuum Heating System. This system of heating is even more revolutionary in its operation and in the advantages it assures than was the Dunham Thermostatic Radiator Trap which 25 years ago revolutionized an industry and made possible the use of low pressure steam which has been accepted as standard until now.

The Dunham Differential Vacuum Heating System

won immediate and well nigh universal acceptance by architects, engineers and contractors, undoubtedly due in a large part to the good name borne by the products of this company. This acceptance has been more than justified in the phenomenal fuel economies secured by those whose faith in Dunham engineering led them to install the Dunham Differential Vacuum Heating System.

To those interested in actual operating costs during the past heating season in various types of buildings, we will gladly send such data upon request.

C. A. DUNHAM CO.

DUNHAM BUILDING, 450 East Ohio Street, Chicago

Over eighty branch and local sales offices in the United States, Canada and the United Kingdom bring Dunham Heating Service as close to you



as your telephone. Consult your telephone directory for the address of our office in your city. An engineer will counsel with you on any project.

U. S. Patent
No. 1644114

Additional patents in the United States, Canada and Foreign Countries now pending.

HEATING


ROTARY AUTOMATIC DISHWASHING
An Exclusive Autosan Method

Important Advantages

Valuable Data

An indispensable portfolio of descriptions — specifications — drawings — photographs — installations — ideal layouts, etc.—on the complete family of Colt Autosan dishwashers for china, glassware and silver.—Six models — including rack, rotary and conveyor types. — For hotels, clubs, colleges, hospitals, restaurants, ships, etc. Get — and keep this "first aid" data handy at your finger tips.

Colt's Patent Fire Arms Mfg. Co.
Autosan Division
Hartford, Conn.

COLT AUTOSAN 

"The Machine That Washes All Tableware **CLEAN!**"

Give Your Building enduring LIFE

The materials of modern construction — carefully chosen for beauty, strength and durability — must have those qualities protected against the attacks of weather. Waterproofing, both above and below grade, is a positive necessity, a necessity met most fully by the complete line of Genfire Waterproofings and maintenance products—a product for every purpose, exterior and interior.

GENFIRE STEEL COMPANY
YOUNGSTOWN, OHIO

Manufacturers of a Complete Line of Firesafe Building Products, also Waterproofings, and Concrete Preservatives
Branches in all Principal Cities - Dealers Everywhere


Waterproofings
And Preservative Products

Include
GF10 Integral Waterproofing Paste GF200 Dampproof Coating
GF Membrane Materials GF250 Mastic Cement
GF100 Transparent Waterproofing GF145 Crystalox
GF102 Cement Paint GF12 Cement Accelerator

Ask for Waterproofing Handbook A. I. A. File Number 7

SOSS

Invisible Hinges
(Good Taste + Strength)

Completely invisible when the door is closed. Flush doors—clean lines—no projections. Admittedly the ideal hinge for discriminating work.

A style for every use

See our catalog in Sweet's (pages 1578-9), or write direct to us for samples and complete catalog.

Soss Mfg. Co., Inc.
Grand Ave. and Bergen St.
BROOKLYN, N. Y.
Detroit Office
1051 Book Bldg.,
Washington Blvd.

A SPECIAL PILE for EVERY CONDITION
Not one Pile for all conditions



Typical All-Steel Pile Driving Equipment

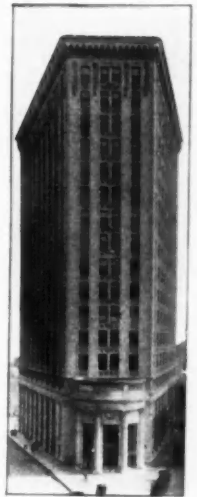
MacARTHUR Method COMPRESSED CONCRETE PILES

We drive straight shaft type up to 40 feet long

Pedestal type for heavy loadings on short piles

Composite type for excessive depths

Safe loadings 30 to 35 tons. Depths to 100 feet.



Hurt Building Atlanta, Ga. on MacArthur Piles

The flexibility of this improved method makes pile driving a speedy process. Compression and proper water ratio makes certain of perfect piles that will safely support your structure.

MacARTHUR CONCRETE PILE CORPORATION
19 West 44th Street, New York, N. Y.

Branch Offices:—Chicago, San Francisco, New Orleans, Boston, Pittsburgh, Buffalo, Detroit, Philadelphia, Montreal, Canada.

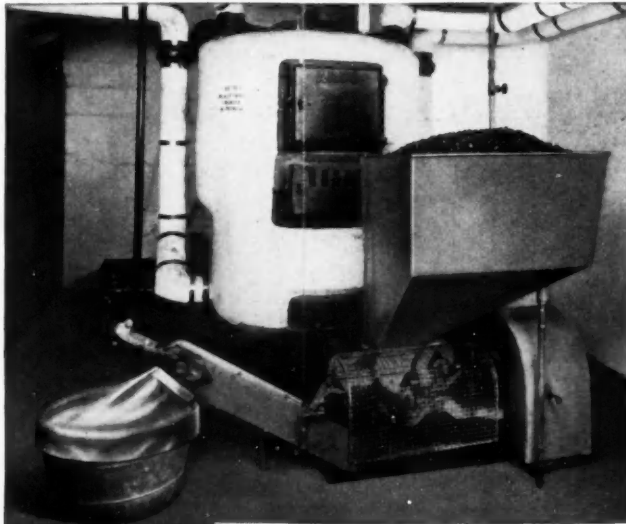
Pages A24-25



For Those Who Dwell Far From The Smoke Of Towns

Where the winter nights are cold and long; where on such nights a man-to-tend-the-furnace is as hard to find as a bluebird.

Then will your client appreciate, most, automatic heat that will keep his house always at the *Preferred Temperature*.



W

ITH an Electric Furnace-Man in his furnace or boiler, no matter what kind it is, he will have safe, clean, hard-coal, automatic heat. The Electric Furnace-Man automatically feeds the coal.

It deposits the ashes in a dust-proof can *outside* the furnace. It burns Buckwheat or Rice anthracite which is from five to eight dollars a ton cheaper than the large sizes. It can be controlled by thermostat or by hand from the main part of the house. It gives him quietly and economically the *Preferred Temperature* throughout his house.

The Electric Furnace-Man

Manufactured by

DOMESTIC STOKER COMPANY
7 Dey Street - - - - - New York, N. Y.



Interior of Poinsett Hotel, Greenville, S. C. Architect, W. L. Stoddart, N. Y. C.

Southern Woods in a Southern Hotel

IT is seldom that a building radiates atmosphere as the new Poinsett Hotel does. The hardwood used throughout, the trim of Southern Gum and the doors of Red Gum with figured panels are singularly appropriate. The finished building is a model of the finest products used to advantage, and we have every reason to believe that both architect and owner are more than satisfied with our part of it.

Let us send you full particulars about HYDE-MURPHY Doors, Mill Work, Cabinet Work and Trim, as well as the Keystone Lock Joint Clamp—(obtainable only on Hyde-Murphy products.) Or look us up in Sweet's, page B1144. Office Partitions? "TAKAPART" has patented advantages. Write for information.

HYDE-MURPHY CO., RIDGWAY, PA.
NEW YORK: 114 EAST 32nd STREET

Washington, D. C. Philadelphia, Pa. Pittsburgh, Pa. Boston, Mass.
Dist. Nat. Bank Bldg. 602 Fox Bldg. 6101 Penn Ave. 925 Little Bldg.



Matot

Full Diameter Lift
Wheel — Hobbed Gear
Automatic Brake

DUMB WAITER

Matot machines are roller-bearing through-out, easy of operation, noiseless, and guaranteed for five years.

LARGE STOCK
PROMPT SHIPMENTS

Catalog
On Request

D. A. MATOT CO.

Manufacturers of Hand Power
Dumb Waiters and Elevators

1542 Montana St., Chicago



FITZGIBBONS STEEL BOILERS "The Boiler you can afford to own"

Steel-assured dependability and durability

Advanced scientific design

Extraordinary economy

Compact, brickless construction

Practically no maintenance expense

Proved by forty years of faithful service

Heating Sizes from 300 to 36,000 sq. ft. Steam Rating

Power Sizes from 40 to 350 H. P.

Complete information, ratings and dimensions upon request

FITZGIBBONS BOILER CO.
INCORPORATED

570 Seventh Ave., New York, N. Y.



The John E. Andrus mausoleum, Kensico Cemetery, New York, built entirely of Extra Fine Grained Blue-White Westerly Granite, from the quarries of the Sullivan Granite Company, Westerly, Rhode Island. Farrington, Gould & Hoagland, New York, architects.

EXTRA FINE GRAINED BLUE WHITE WESTERLY GRANITE

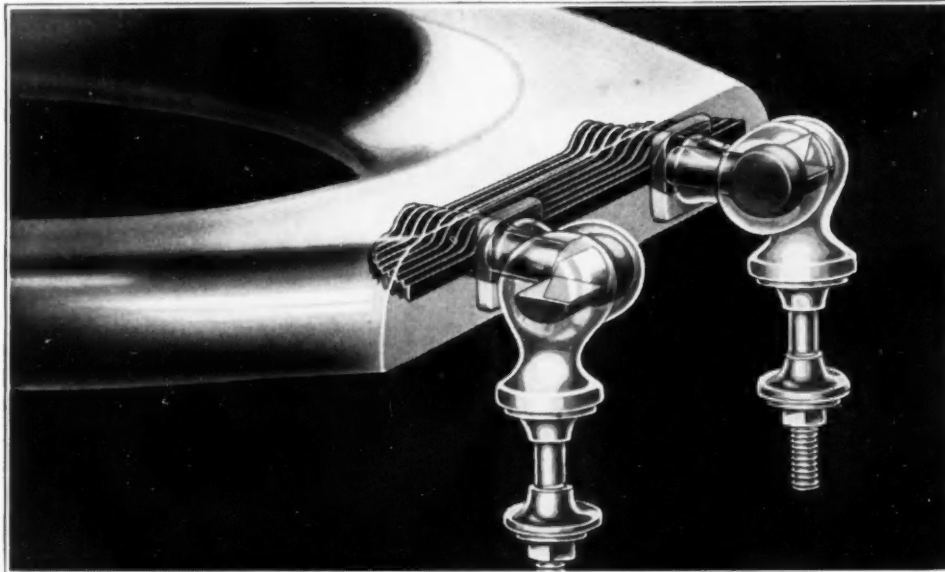
has no equal for mausoleums or other memorials. Quarried solely by us. Prompt delivery of any size required.

SULLIVAN GRANITE COMPANY
WESTERLY, RHODE ISLAND

Send for our handsomely illustrated booklet R giving complete information

This New Hinge is *molded* into the seat itself

Whale-bone-ite's supremacy clearly maintained by this new feature



Seat shown is Model 21-968.
Phantom view gives details of
construction.

ON the union between hinge and seat depends the permanence of your seat installation. Realizing that the unsanitary metal hinge with its cleaning problem and loosely connected parts was a weakness in closet seats, the makers of the Whale-bone-ite Seat have perfected a new-type hinge which is actually part of the seat itself.

This new hinge is molded in one operation as an integral part of the Whale-bone-ite Seat. Re-inforced by a metal die-cast, one-piece insert, it is covered with highly-polished Whale-bone-ite. Thus it has the same strength and finish as the Whale-bone-ite Seat itself.

The makers of the Whale-bone-ite Seat offer this newest feature on all models of both closed and open-back seats. Whale-bone-ite is the only seat having the hinge you see pictured here. It is one more reason why you should specify this finest of seats for your building.

WHALE-BONE-ITE TOILET SEAT

THE BRUNSWICK-BALKE-COLLENDER CO., CHICAGO

Albany	Boston	Chicago	Dallas	Detroit	Kansas City	Minneapolis	Philadelphia	San Francisco	Tampa	Ottawa
Atlanta	Buffalo	Cincinnati	Denver	Harrisburg	Los Angeles	New Orleans	Pittsburgh	Seattle	Washington	Toronto
Birmingham	Charlotte	Cleveland	Des Moines	Houston	El Paso	New York	Richmond	St. Louis	Montreal	Havana

For free cross-section of a Whale-bone-ite Seat, address Dept. 204 Seat Division,
The Brunswick-Balke-Collender Co., 623 South Wabash Avenue, Chicago



Tudor City Apartments

East 42nd St., New York

— designed, constructed, financed by and managed by the Fred F. French Companies. Overlook East River! View! Distinction! Rentals!

THE MID-WEST INCINERATOR

(Chute-Fed) was chosen for the Second Unit to relieve the discriminating residents of garbage and refuse—without producing bad odors or noxious gases.

Step-Grate Construction

Complete Combustion

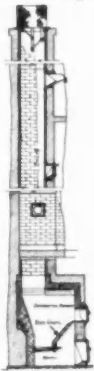
Mid-West Grates — Step - Grate Type — receive material at top— either through a firing door or top opening in furnace. As materials on lower parts of inclined grate surface are consumed, fresh material on the upper sections gravitates into the combustion zone — automatic self-stoking — great saving of labor.

Mid-West Incinerator Corp.

General Offices: 154 E. Erie St., Chicago
New York Offices: 2 W. 45th St., N. Y.

REPRESENTATIVES:

Boston, Mass., Fiske & Co., Inc., 115 Federal St.; Milwaukee, Wis., Goodwin Bldg. Specialty Co., 424 Jefferson St.; Minneapolis, Minn., H. O. Johnson, 648 Builders Exchange; New York, Stanton-Thomson Corp., 2 W. 45th St.; Philadelphia, Pa., W. A. Laub Co., 1700 Walnut St.; Washington, D. C., Arthur B. Gilbert, Insurance Exchange; Buffalo, N. Y., Edwin G. Day & Co., Erie County Bank Bldg.; St. Louis, Mo., A. D. Foster, 3727 Olive St.; Fort Wayne, Ind., C. J. Clark, 809 Spring St.; Ballantyne-Neill Co., 339-341 Elizabeth St., Atlanta, Ga., for North and South Carolina, Georgia, Florida and Alabama; Preston Daniels, Hubbell Bldg., Des Moines, Ia. for the state of Ia.; Kelly-Duluth Co., 6 E. Superior St., Duluth, Minn.; F. C. Sanders, 1701 Race St., Denver, Colo., for the states of Colorado and Wyoming; Kemp and Jackson, Baltimore, Md.



"Chute-Fed"

WOODBIDGE

PRESTEEL
Tested for Strength
Stairways

WOODBRIDGE ORNAMENTAL IRON CO.
1515 ALTGELD STREET, CHICAGO, ILLINOIS

PRESTEEL Stairways
Tested for Strength

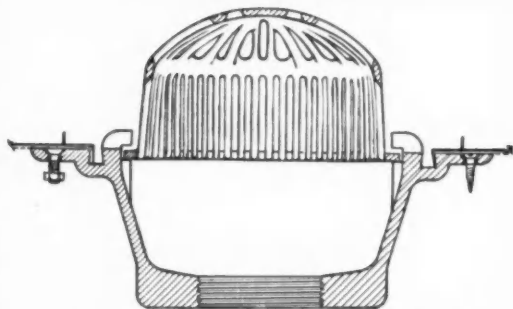
by Engineers on
Engineering Standards

Stairways for all types of Buildings

Contracts Taken Anywhere
Representatives in all Principal Cities

Guaranteed Without Reservation
*We will be glad to forward Catalog
prepaid on request*

WOODBRIDGE ORNAMENTAL IRON COMPANY
1515 ALTGELD STREET - CHICAGO, ILLINOIS
Incorporated 1913



Mahon's Cast Iron Roof Sump

Designed for You
by Experienced Roofers

Durable cast iron construction—no springs, no bolts, no loose rings. Doubly protected drain, dome locks in place, weathertight connections. Furnished in four sizes tapped for 3, 4, 5 and 6 inch standard wrought iron pipe thread.

Write for complete data

THE R. C. MAHON COMPANY
Detroit, Michigan

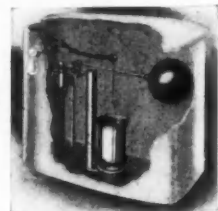
MAHON
ROOF SUMPS

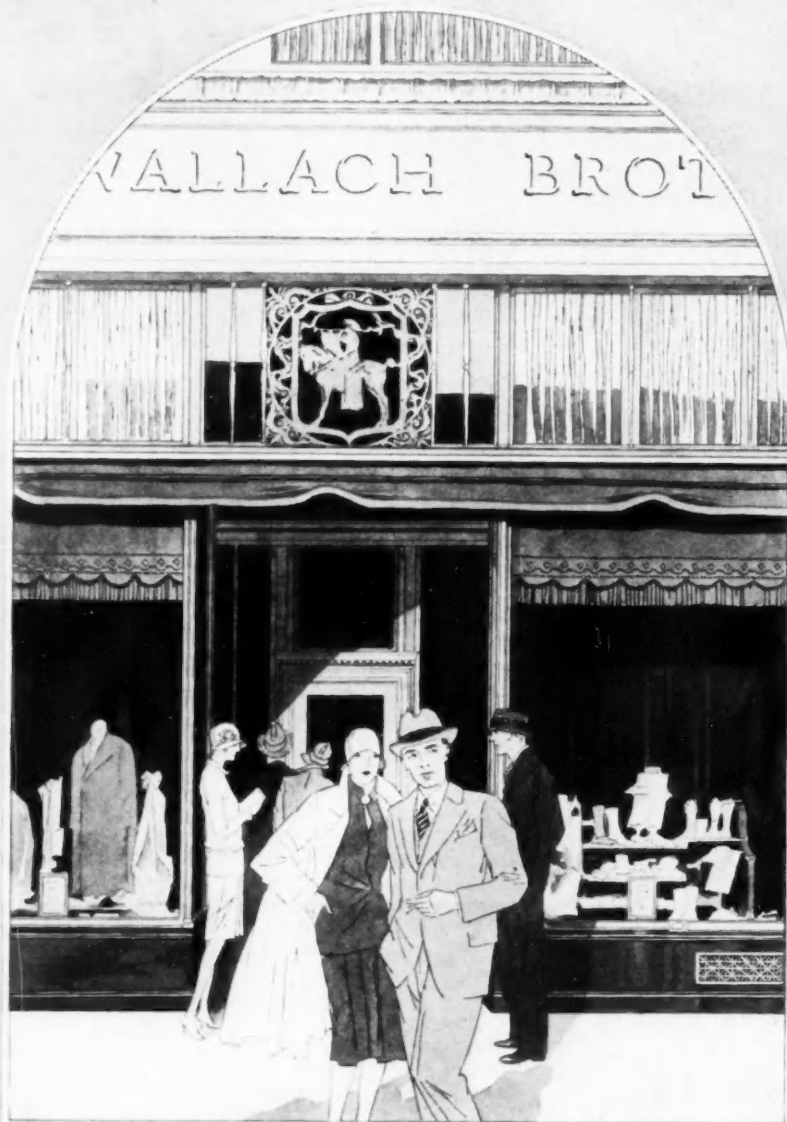
CURTIN

TANK NOISELESS FITTINGS

THE finest installation for homes and apartments where quiet bathrooms are desired.

A. F. CURTIN VALVE CO.
MEDFORD, MASS.



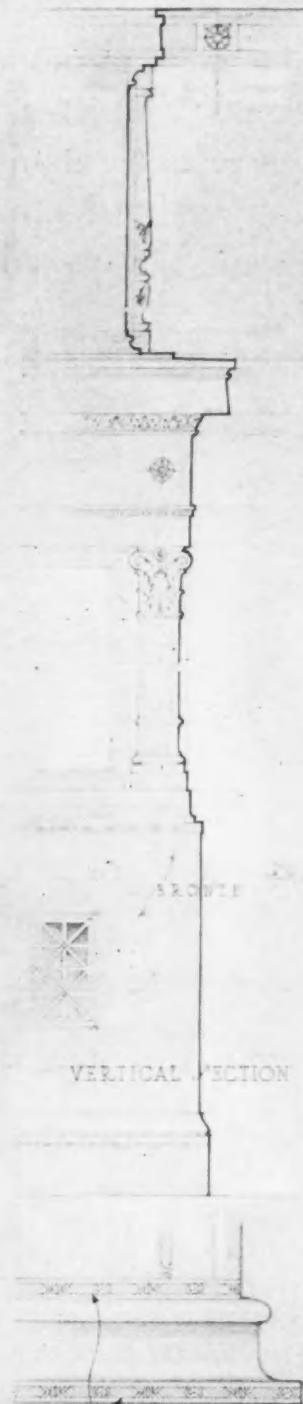


HOLMES & WINSLOW, Architects

Distinctive Store Fronts

With the many new Kawneer creations at his command the architect is permitted greater freedom for the expression of his ideals of beauty. Store fronts—practical from the standpoint of merchandise display—and distinctly original in design are now a reality.

The new Kawneer features are fully described in our new catalog M A1 A-26-b-1, copy of which should be in your files. If not, write for another.



VERTICAL SECTION

THIS ENCASEMENT ON KAWNEER STORE FRONT CONSTRUCTION IS ONE OF THE 1928 IMPROVEMENTS



THE
Kawneer
COMPANY

2723 Front St., NILES, MICHIGAN

SEND CATALOG "M"

Name.....

Address.....

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

★

The tremendous volume of **CARNEY CEMENT** used is the result of one primary element—quality. Its money-saving features always have been and always will be secondary!

CARNEY CEMENT

for Brick and Tile Mortar

Specifications:

1 part Carney Cement to 3 or 4 parts sand depending upon quality of sand

THE CARNEY COMPANY
Cement Makers Since 1883

District Sales Offices:
CLEVELAND - CHICAGO - DETROIT
ST. LOUIS - MINNEAPOLIS

★

*"There IS a Difference
in Sash Cord"*

SAMSON SPOT Sash Cord

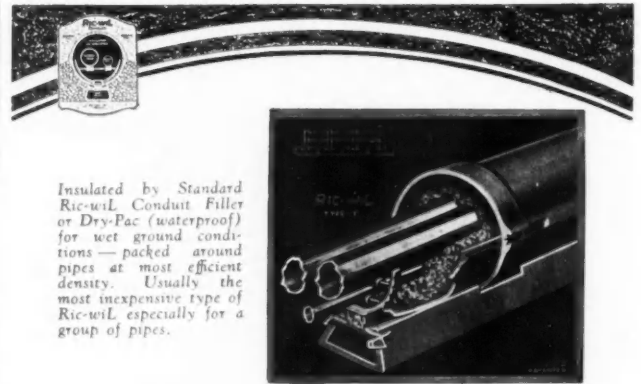
TRADE MARK

REG. U. S.
PAT. OFF.

There is a lot of satisfaction for Architect, Builder and Owner in this durable Sash Cord.

It will carry the sash for years to come, running without noise or jumping. It is solid braided cotton, strong, round, smooth and fully stretched. And it is identified for you by the colored spots, our trade mark.

Made by
SAMSON CORDAGE WORKS
88 BROAD STREET BOSTON, MASS.



Insulated by Standard Ric-wil Conduit Filler or Dry-Pac (waterproof) for wet ground conditions—packed around pipes at most efficient density. Usually the most inexpensive type of Ric-wil, especially for a group of pipes.

Conduit that Fits the Job

Ric-wil Engineers, with years of underground construction experience, have solved conduit problems that meet the *test*. Architects who specify Ric-wil conduit can be assured of rugged and lasting strength, complete dryness, and easy installation. You can be sure of this standard product that is alike from year to year. When you recommend Ric-wil you eliminate heating troubles for all time. Full information and estimates promptly furnished upon request.

The Ric-wil Company
1566 Union Trust Bldg., Cleveland, Ohio



This is one of a series of advertisements showing why Rock of Ages is the perfect material for any large memorial form.

Without knot, stain or other imperfection

ROCK OF AGES GRANITE is singularly pure in texture and color. The sculptor's chisel never meets a knot to ruin a delicate bit of carving—nor does moisture or the passage of time bring out discolorations.

Rock of Ages has many times proved itself perfectly adapted to the large memorial or architectural form which commonly includes both broad plain surfaces, and carved ornament.

✂ *Inquiries regarding specific problems will receive our immediate and complete attention. Address Dept. B.* ✂

ROCK OF AGES

THE *DISTINCTIVE* BARRE GRANITE

ROCK OF AGES
CORPORATION

BARRE
VERMONT



Why Do They Use ROBRAS 20-20 Radiators?

One User Answers



RHINELANDER REAL ESTATE COMPANY.
31 NASSAU STREET

POST OFFICE BOX 258, CITY HALL
TELEPHONE 4371 RECTOR.
FRANCIS M. VALK, MANAGER

WILLIAM R. STEWART, PRESIDENT
PHILIP RHINELANDER, VICE PRESIDENT
T. J. OAKLEY RHINELANDER, TREASURER
PHILIP RHINELANDER 2ND, ASST. TREASURER
WM. RHINELANDER STEWART, JR., SECRETARY

NEW YORK

Donald Hoakes
Rome Brass Radiator Corp.
1 East 42nd St.
New York City

April
Eighteenth
Twenty-Eight.

My dear Mr. Hoakes:

Six months ago, when you assured me that your Robras 20-20 concealed radiator would appreciably decrease renting resistance and offset the fairly high rentals we expected from the Rhinelander apartments, I was rather skeptical.

However, time has proven your statements.

The apartments in this building have rented with surprising ease. No small amount of credit for this should go to your, in the wall, out of the way, radiators. Never in my long experience in renting high class apartments have I had a selling point so understood and appreciated by prospective tenants.

Please accept my thanks for bringing this radiator to my attention. I am,

Very sincerely,

Francis M. Valk
Manager.

In the Rhinelander Apartment mentioned above, twenty-seven thousand feet of Robras 20-20 radiation is used.

It was designed by SUGERMAN & BERGER, architects for the Rhinelander Real Estate Company.

The general contractors were the TAYLOR CONSTRUCTION COMPANY.

The Heating System was laid out by JAROS AND BAUM, Heating and Ventilating Engineers, and installed by GEORGE E. GIBSON CO., Heating Contractor.

ROME BRASS RADIATOR CORPORATION

ONE EAST FORTY-SECOND STREET, NEW YORK, N. Y.

WITH A BRICK HOUSE *DUBOIS* LENDS *a softening touch* ~ ~ ~

FOR the type of residence shown here, Dubois is especially recommended.

Being a product of Nature itself, it adds a soft, rustic touch that relieves the severity of brick.

Made in France, of straight, live, split chestnut saplings, woven closely together, Dubois is gaining an immense vogue in this country because it is not only highly distinctive in appearance but extremely adaptable to American landscaping schemes.

It is easy to erect and lasts a lifetime. No paint is required. It is moderate in cost.

DUBOIS Woven Wood Fence

Made in France

*Residence of
E. A. Hamilton, Esq.
Garden City, L. I.
W. F. McCulloch,
Architect*



Robert C. Reeves Company, 187 Water Street, New York

Please send, without obligation, your new ALBUM illustrating the many interesting ways Dubois is being used.

Firm _____

Name _____

Address _____

City _____ State _____ A.R. 6 _____

Have You This New Album? We have recently prepared a beautiful album containing photographic studies of actual Dubois installations that cover almost every landscaping problem. The album has received enthusiastic praise from architects everywhere. If you have not obtained a copy, write us, and one will be sent you free.

ROBERT C. REEVES CO.

187 Water Street, New York

CLASSIFIED DIRECTORY OF ADVERTISERS

Alphabetical Index to Advertisers, Page 182

After reviewing advertisements in this issue—consult Sweet's Architectural Catalogue 22nd edition for catalogue and specification information on the products of these manufacturers.

Acid Proof Chemical Stoneware
Knight, Maurice

Anchorage—Masonry
Dovetail Anchor Slot Co.

Architectural Faience
Associated Tile Mfrs.

Architectural Supplies
American Lead Pencil Company
Higgins, Chas. M., & Co.

Artstone
Rackle, George, & Sons Co.

Asbestos—Johns-Manville Corporation

Bag Trucks
Bates Valve Bag Corp.

Basement, Windows—Steel
Detroit Steel Products Co.
Kalman Steel Company
Truscon Steel Company
Youngstown Pressed Steel Co.

Bathroom Accessories
Autoyre Company
Crane Company
Eustis, J. P., Mfg. Company
Hess Warming & Ventilating Co.
Morton Manufacturing Co.

Beads—Corner Metal
Kalman Steel Company
Genfire Steel Company
Truscon Steel Company
Wheeling Corrugating Co.
Youngstown Pressed Steel Co.

Beams, Angles, Channels, Etc.
Carnegie Steel Company

Beds—Concealed
Concealed Bed Corp.

Binding Strips
Blasteel Mfg. Co.

Blackboards
Weber Costello Co.

Boiler and Pipe Covering
Carey, Philip, Company
Johns-Manville Corporation
Ric-Wil Company

Boilers
American Gas Products Co.
American Radiator Co.
Dahlquist Mfg. Co.
Fitzgibbons Boiler Co.
Smith, H. B., Company, The, Inc.
United States Radiator Corp.

Boiler Feed Treatment
Paige & Jones Chemical Co.

Bolts—Door
Corbin, P. & F.

Brass and Bronze Workers
See "Ornamental Metal Workers"

Breakfast Room Furniture
Fain Mfg. Co.

Brick
American Face Brick Association
Fiske & Company, Inc.
Hood, B. Mifflin, Brick Co.

Builders
Stone & Webster, Inc.

Building Paper
Bird & Son, Inc.
Sisalkraft Company

Buildings—Steel
American Bridge Co.
Carnegie Steel Company

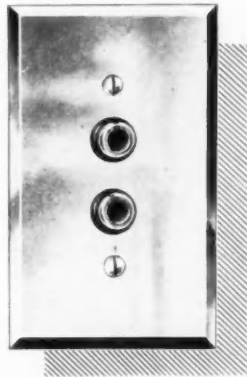
Built-In Units
Fain Mfg. Co.

Butts
Corbin, P. & F.
Stanley Works

Cabinet Work
Hyde-Murphy Co.

Plan the Wiring for
Radio in Every Room
by the installation of

H&H



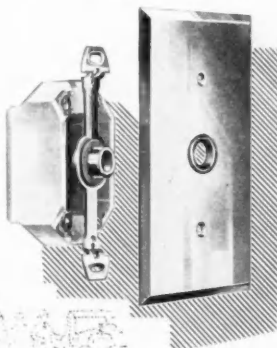
DUPLEX RADIO OUTLETS
in Hotels, Hospitals, Clubs etc.

Radio service to every room—already an advertised feature in big hotels—think of it and provide for it by specifying a “radio circuit” in addition to the lighting circuit.

The radio circuit consists of wiring from main receiving sets in the basement, distributing the radio programs to various rooms through a system of Radio Outlets installed in baseboards. Guests “plug in” with loud-speakers or headsets like plugging into the lighting circuit with electric appliances.

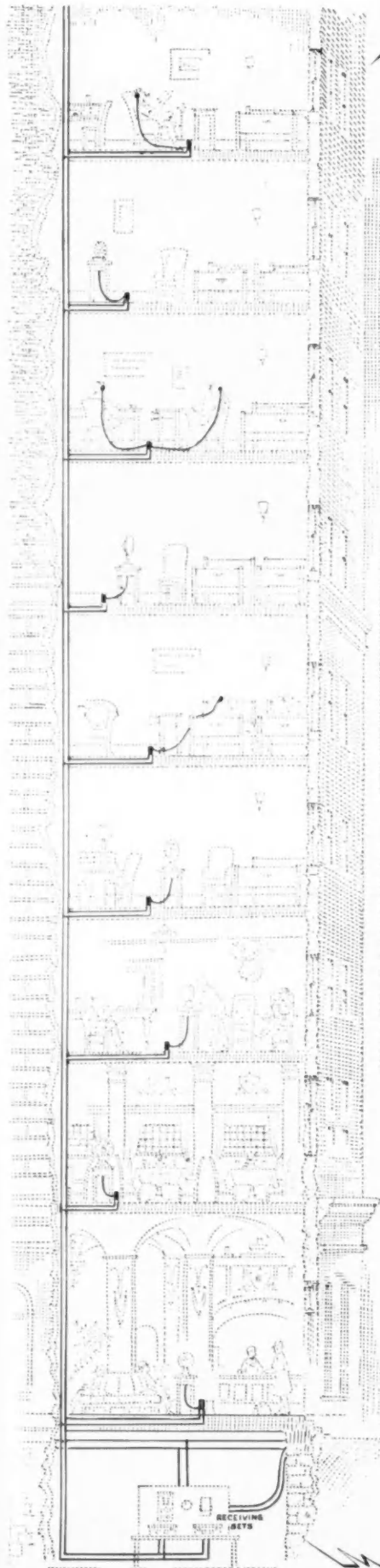
The latest practice, most popular in hotels, is to offer listeners a choice of *two* programs; two main receiving sets in the basement; wires running to *double* receptacles. For this we’ve developed the Duplex Outlet shown above.

The *Single* Radio Outlet at left takes care of installations with but one main receiving set; one program to connect with. It may be used in the home or in apartments for “radio extensions” to different rooms from a central receiving set. Let us send you a handy little folder with suggestions to pass on to clients, for adding “radio circuits” to their electrical conveniences.

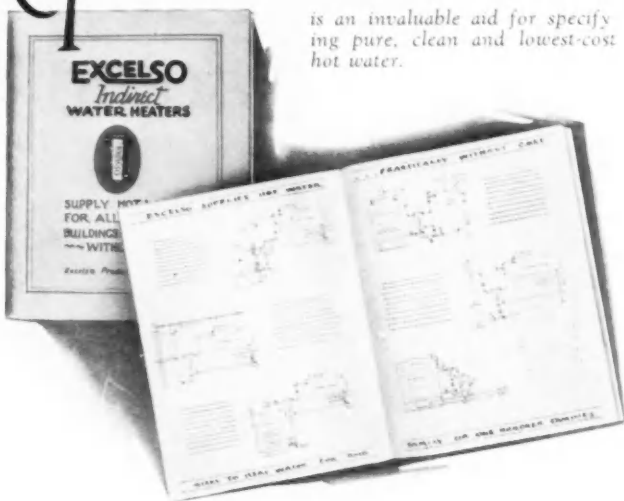


Single
Outlet

THE HART & HEGEMAN MFG. CO.
HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890



This Architect's book



Illustrating the Fourteen Typical Installations of

EXCELSO WATER HEATERS

OF STANDARD A. I. A. file-size and showing the best practices for connecting Excelso Indirect Water Heaters to heating boilers under fourteen different conditions, this book furnishes information every architect will want.

ASK YOUR SECRETARY to write for this informative book—today, lest she forget.

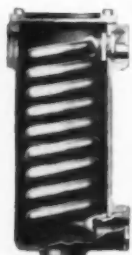
Excelso Products Corporation

DIVISION OF AMERICAN RADIATOR COMPANY

67 Clyde Ave.

Buffalo, N. Y.

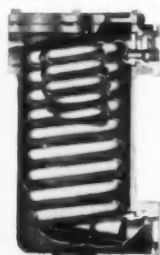
Sold and Installed by All Plumbing and Heating Contractors



Single Coil



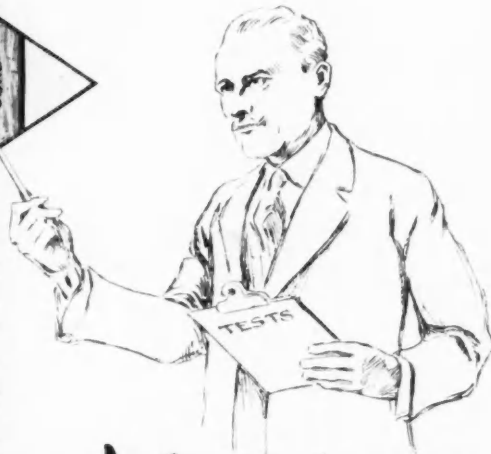
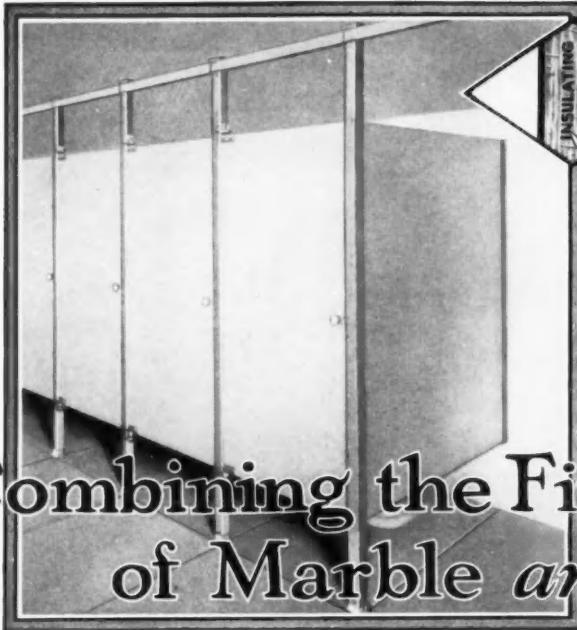
Triple Coil



Double Coil

SIZES FOR ONE FAMILY OR ONE HUNDRED FAMILIES

- Cabinets—Kitchen
 - Coppes Bros. & Zook
 - Janes & Kirtland
 - Wasmuth Endicott Co.
- Cabinets—Medicine
 - Eustis Mfg. Co., J. P.
 - Hess Warming & Ventilating Co.
 - Morton Manufacturing Co.
- Cabinets—Shoe Cleaning
 - Griffin Mfg. Co.
- Cabinets—Radiators
 - Tuttle & Bailey Mfg. Co.
- Caulking & Glazing Compound
 - Arco Company
- Casements
 - Detroit Steel Products Co.
 - International Casement Co.
 - Lupton's, David, Sons Co.
 - Truscon Steel Company
- Cellar Drainer
 - Penberthy Injector Co.
- Cement—Atlas Portland Cement Co.
 - Carney Company, The
 - Kosmos Portland Cement Co.
 - Lawrence Cement Co.
 - Louisville Cement Company
 - Portland Cement Association
 - Sandusky Cement Co.
 - U. S. Gypsum Co.
- Cement White
 - Atlas Portland Cement Co.
 - Sandusky Cement Co.
- Cement Bags—Paper
 - Bates Valve Bag Corp.
- Chain Sash
 - American Chain Co.
 - Detroit Steel Products Co.
 - Smith & Egge Mfg. Company
- Channels
 - Carnegie Steel Co.
 - Genfire Steel Co.
 - Kalman Steel Co.
 - Youngstown Pressed Steel Co.
- Church Memorials
 - American Seating Company
- Clamps—Lock Joint
 - Hyde-Murphy Co.
- Clay Vitrified
 - Clay Products Association
- Coal Doors
 - Kalman Steel Company
 - Youngstown Pressed Steel Co.
- Columns, Porches, Etc.
 - Hartmann-Sanders Co.
 - Union Metal Mfg. Co.
- Concealed Beds
 - Concealed Bed Corp.
- Concrete Accelerator
 - Master Builders Co.
 - Solvay Sales Corp.
- Concrete Construction—Reinforced
 - American Steel & Wire Company
 - Concrete Reinforcing Steel Institute
 - Genfire Steel Company
 - Kalman Steel Company
 - Truscon Steel Company
 - U. S. Gypsum Co.
- Concrete Hardener
 - Master Builders Co.
 - Sonneborn, L., Sons, Incorporated
 - Solvay Sales Corp.
- Concrete Piling
 - See Piling Concrete
- Concrete Surface Treatment
 - Master Builders Co.
 - Solvay Sales Corp.
- Conduit for Underground Heating Pipes
 - Ric-Wil Company
- Cooking Equipment
 - Edison Electric Appliance Co.
- Coping Wall
 - Clay Products Association
- Cork Covering
 - Armstrong Cork & Insulation Co.
- Cork Tile Flooring
 - Armstrong Cork & Insulation Co.
- Corkboard
 - Armstrong Cork & Insulation Co.



Combining the Fine Advantages of Marble and Metal

DURING the past few years, there has been an increasingly pronounced demand for a toilet partition finer than the ordinary type of metal toilet partition, and while we were fully aware of this demand, we resisted the temptation to enter the market with an experimental product.

Numerous designs were developed incorporating a great variety of ideas and improvements until finally, after more than two

years, we were ready to announce Marblmetal, a full expression of the finest in toilet partitions.

The result is that builders can now have not only a modern toilet partition, but one which has been perfected in the laboratory of experience and combines all of the fine advantages of marble and metal.

Descriptive literature will be mailed upon request.

THE MILLS COMPANY

903 Wayside Road
CLEVELAND, OHIO

Representatives in All Principal Cities

MARBLMETAL

Toilet Partitions



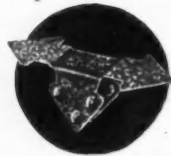
TEMPLE GARDEN
APARTMENTS
BALTIMORE, MD.

A. LOWTHER FORREST
Architect

J. HENRY MILLER, INC.
General Contractor

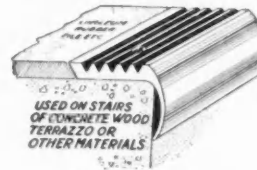
100,000 SPEARPOINT FLOOR CLIPS

permanently anchor the wood floors in this building to the concrete slabs. The Spearpoint method of anchorage reduced the dead weight 18,000 lbs. per thousand square feet of floor area, with a further saving in time, material and labor. Ask for Circular "A."



BEAUTIFUL STAIRWAYS

Sanitary and Easily Kept Clean



Grooved Design

The beauty of a luxuriant lobby is greatly enriched by attractive tread coverings installed with Blasteel Grooved Brass Nosings on the stairway leading to the first floor, while the Plain Design in either brass or white metal renders a similar service on other flights.

Blasteel Nosings meet the tread covering at an angle, binding it in place and protecting the edge from rolling, chipping, wear or deterioration. Complete descriptive matter, samples and prices gladly furnished.



Plain Design

AGENTS IN
PRINCIPAL
CITIES

BLASTEEL MANUFACTURING CO.

Manufacturers also of Ankortite Floor Joiners, Brass Thresholds,
Desk Edgings, Carpet and Linoleum Bindings.

GENERAL OFFICE
KANSAS CITY
MISSOURI

Covering—Pipe and Boiler

Armstrong Cork & Insulation Co.
Carey, Philip, Company
Johns-Manville Corporation
Ric-Wil Company

Dishwashers

Colt's Patent Fire Arms Mfg. Co.

Door Check—Corbin, P. & F.

Sargent & Company

Door Closers

Norton Door Closer Co.

Door and Window Frames

Andersen Lumber Co.

Doors—Cornell Iron Works, Inc.

Detroit Steel Products Co.
Genfire Steel Company
Hamlin, Irving
International Casement Co.
Hyde-Murphy Co.
Pelle Company, The
Sanymetal Products Co.
Richmond Fireproof Door Co.
Security Fire Door Co.
Thorp Fire Proof Door Company
United Metal Products Co.
Wilson, J. G., Corp.

Drawing Inks

Higgins, Chas. M., & Co.

Dumbwaiters—Matot, D. A., Co.

Sedgwick Machine Works

Electric Refrigerators

Kelvinator Corp.

Electric Switches

Hart & Hegeman Mfg. Co.

Electrical Equipment

Adam, Frank, Electric Co.
Edison Electric Appliance Co., Inc.
General Electric Company
Guth, Edwin F., Co.
Hart & Hegeman Mfg. Co.
Hazard Insulated Wire Works
Holtzer-Cabot Electric Co.
Imperial Electric Co.

Elevator Door Hardware—Wagner Mfg. Co.

Elevator Doors

Pelle Company, The
Security Fire Door Co.
United Metal Products Co.

Elevator Inclosures

United Metal Products Co.

Elevator Supplies

Wagner Mfg. Co.

Elevators

Matot, D. A., Co.
Otis Elevator Company
Sedgwick Machine Works

Enamels

Arco Company
Berry Brothers, Inc.
Du Pont, E. I., de Nemours & Co., Inc.
Pratt & Lambert, Inc.

Expanded Metal

Consolidated Expanded Metal Cos.
Genfire Steel Company
Kalman Steel Company
Truscon Steel Company
Youngstown Pressed Steel Co.

Fence Post—Steel

American Steel & Wire Co.

Fence Woven Wood

Reeves, Robert C., Co.

Fences

American Steel & Wire Co.
Cyclone Fence Co.
Fiske, J. W., Iron Works

Fire Exit Devices

Vonnegut Hardware Company

Fireproof Doors, Shutters and Windows

Cornell Iron Works, Inc.
Detroit Steel Products Co.
Pelle Company, The
Richmond Fireproof Door Co.
Thorp Fire Proof Door Company
Truscon Steel Company
United Metal Products Co.

Rot Proof

Crack Proof

Enduring

Composition Capital with sharp lines and fine architectural detail.

Stopped flutes and apophyge at top of shaft.

Union Metal Columns are protected against weather conditions by being galvanized with lead and zinc spelter, both inside and outside.

Corinthian flute with flat top (sharp Doric flute provided on Doric designs).

Vertical joints of all columns are double lock seamed with seam rolled on inside so that all outside surfaces are smooth and clean.

Entasis (modified taper giving an outcurving or bulging effect).

Section of fluting showing beautiful, clean-cut lines due to Union-Metal steel die construction.

Stopped flutes and apophyge-at bottom of shaft.

Double roll Attic base with bottom square member.

Cast-iron top ring.

Galvanized steel cylinder carries weight from top ring to pressed steel shaft.

Cast-iron bottom ring. This construction relieves composition capital of all weight.

All columns are provided with priming coat of best grade reinforced red lead before leaving factory. Any color of finishing coat can be applied after erection.

8 inch, 10 inch, 12 inch, 14 inch, diameter columns made of one-ply 22-gauge galvanized steel. Large columns, 16-inch to 42-inch diameter, made from two-ply 22-gauge laminated steel construction. Special construction from 42 inch to 60 inch diameter.

Details of stopped flute outward curvature or apophyge and lower end of shaft where it fits over cast-iron base flange.

Cast-iron base, smooth and clean.

THE UNION METAL MFG. CO.
GENERAL OFFICES AND FACTORY, CANTON, O.
Branch Offices—New York, Chicago, Philadelphia,
Cleveland, Pittsburgh, St. Louis, Los Angeles, San
Francisco, Jacksonville.

UNION METAL COLUMNS



ARCHITECTS have exhibited much interest in our new hand-brushed finishes, which when applied—on a still plastic surface—to RACKLE ARTSTONE, afford that artistic "craftsman" roughness and irregularity of surface and texture so much desired nowadays in structural materials. We would welcome the opportunity to give you full information on this new development—a postal card will bring it.

Our catalogue is in Sweet's—
pages A327-329

**THE GEO. RACKLE
& SONS COMPANY**

Cleveland, Ohio
Established 1870



RACKLE ARTSTONE



The Hotel Brodhead, Beaver Falls, Pa. Emmett E. Bailey, architect, and Harry Wimer, contractor. Trimmings throughout with RACKLE ARTSTONE, of which some thirty carloads were required. The job illustrates one of our new hand-brushed finishes, applied while the material is still plastic—the result being not only an extremely attractive texture, but enhanced density and weather-proof qualities.

Fireproofing

See "Concrete Construction," "Covering, Pipe and Boiler," "Fireproof Doors, Shutters and Windows," "Lath-Metal." Tile.

Floor Clips

Blasteel Mfg. Co.
Bull Dog Floor Clip Co.
Kalman Steel Company

Floor Covering

Bird & Son, Inc.
Blabon, George W., Company
Bonded Floors Co.
Sloane, W. & J., Mfg. Co.
United States Rubber Co.

Floor Hardeners

Master Builders Co.
Sonneborn, L., Sons, Incorporated
Truscon Laboratories

Floor Plate Steel

Carnegie Steel Co.

Flooring

Arkansas Oak Flooring Co.
Bonded Floors Company
Bruce, E. L., Co.
Maple Flooring Mfrs. Assoc.
Master Builders Co.
Moulding, Thomas, Floor Co.
Norton Company
Oak Flooring Bureau
United States Gypsum Co.
United States Rubber Co.
Zenitherm Company

Flooring—Composition

Armstrong Cork & Insulation Co.
Bonded Floors Co.
Zenitherm Company

Flooring—Engineers and Contractors

Bonded Floors Co.

Floors—Fireproof

U. S. Gypsum Co.

Foldaway Furniture

Fain Mfg. Co.

Fountains—Drinking

Rundle-Spence Mfg. Co.
Taylor, Halsey W.

Frame Bar

Consolidated Expanded Metal Cos.

Furniture

American Seating Co.
Clemetsen Co.
Milwaukee Chair Co.

Garage Engineers

Ramp Buildings Corp.

Garage Hardware

Corbin, P. & F.

Garden Furniture and Ornaments

Hartmann-Sanders Company

Gas Boilers

American Gas Products Co.

Gas Ranges

American Stove Company

Glass, Plate

Pittsburgh Plate Glass Co.

Glass, Stained

See Stained Glass

Granite

National Bldg. Granite Quarries Assn.
Rock of Ages
Sullivan Granite Co.

Greenhouses—King Construction Co.

Lord & Burnham Co.

Gypsum Plaster

See Plaster, Gypsum

Hangers—Elevator Doors

Wagner Mfg. Co.

Hardware—Corbin, P. & F.

McKinney Mfg. Co.
Sargent & Company
Soss Manufacturing Company
Stanley Works
Vonnegut Hardware Company

Heat Insulation

Carey, Philip, Company
Johns-Manville Corporation
Ric-Wil Company



**Delivered—
Complete—
30 Days
Ahead
Of
Schedule**

In Los Angeles, the new Sears, Roebuck & Co. mail order building covers 57,600 square feet of ground. There are 9 stories, basement, and 220 foot tower.

Erection was fast—even for reinforced concrete. The 25,000 cubic yards were poured in 3½ months. Fixtures were installed just four months from time excavation started. Everything was ready in six months—one month ahead of scheduled time.

Construction is reinforced concrete—mushroom flat slab floor construction. All curtain walls are of the same material, placed at the same time as the floor system and columns. The effect is very beautiful.

All of which again bears out:—*reinforced concrete assures speed, permanence, beauty, strength, economy.*

Architects

George C. Nimmons & Co.
Chicago

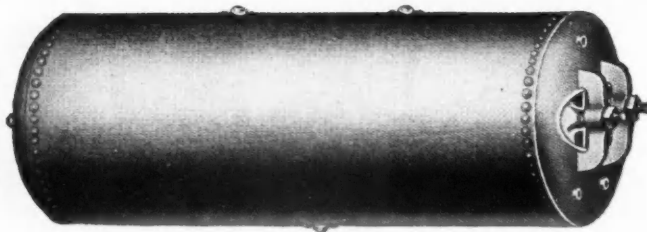
Contractors

Scofield Engineering
Construction Co.
Los Angeles

REINFORCED CONCRETE

Concrete Reinforcing Steel Institute
Tribune Tower
Chicago

Rail Steel Bar Association
Builders Building
Chicago



TRAGESER COPPER HOT WATER STORAGE TANKS

are made of copper three-sixteenths inch thick in the body and one-quarter inch thick in the heads and with double-riveted side seams.

JOHN TRAGESER STEAM COPPER WORKS
Grand Street, Near Garrison Ave., Maspeth, L. I., N. Y.

See Sweet's, pages C2558-2559,
for complete specifications



Specify thickness of shell
and heads

Heat Regulator Oven

American Stove Company

Heating Apparatus

American Gas Products Corp.

American Radiator Company

Domestic Stoker Co.

Dunham, C. A., Company

Excelsior Products Corp.

Fitzgibbons Boiler Co.

Hardinge Brothers, Inc.

Hess Warming & Ventilating Co.

Heatilator Company

Modine Mfg. Co.

Nash Engineering Company

National Radiator Corp.

Nelson, Herman, Corp.

Smith, H. B., Company

Trane Company

United States Radiator Corp.

Hinges

McKinney Mfg. Co.

Hinges—Gravity

Sanymetal Products Co.

Hinges—Invisible

Soss Manufacturing Company

Hoists—Ashes, Etc.

Sedgwick Machine Works

Incinerators

Kerner Incinerator Co.

Mid-West Incinerator Corp.

Insulation

Armstrong Cork & Insulation Co.

Carey, Philip, Company

Flax-li-num Insulating Co.

U. S. Mineral Wool Co.

Interior Communication System

Automatic Electric Service Co.

Holtzer-Cabot Electric Co.

Iron

See Metal, Brass, Bronze, Copper, Iron, Zinc.

Kitchen Cabinets—See Cabinets, Kitchen

Kitchen Equipment—See Cooking Equipment

Lath—Metal

American Steel & Wire Co.

Genfire Steel Co.

Kalman Steel Company

Truscon Steel Company

Youngstown Pressed Steel Co.

Lawn Sprinkling System

Thompson Mfg. Co.

Lighting Control—Theatre

Adam Frank Electric Co.

Lighting Equipment

Cassidy Company

Duplex-A-Lite Division of the Miller Co.

Franklin Pottery

Gleason-Tiebout Glass Co.

Guth, Edwin F., Company

Pearlman, Victor S., & Co.

Smyser-Royer Company

Limestone

Indiana Limestone Company

Linoleum

Blabon, George W., Company

Bonded Floors Co.

Sloane, W. & J.

Locks

Corbin, P. & F.

Sargent & Company

Mail Chutes

Cutler Mail Chute Co.

Mantels—Artificial Stone

Jackson, Wm. H., Co.

Jacobson Mantel & Ornament Co.

Mantels—Wood

Georgian Mantel Co.

Marble

Georgia Marble Company

Vermont Marble Co.

Memorials—Church

American Seating Company

Metal Brass, Bronze, Copper, Iron, Zinc, etc.

American Tube Works

How long can a toilet seat be guaranteed to last?



A Church Sani-Black installation in the Northampton Hotel
Northampton, Mass.

WE WOULD run no practical risk if we guaranteed the Church Sani-Black Seat forever. We *do* guarantee it for the lifetime of any building in which it is installed. The material of which it is made is practically indestructible.

The core of the Sani-Black Seat is formed by cross-grained layers of wood and rubber, vulcanized into a compact, solidly welded unit that will never warp or crack. The outside covering is composed of a hard composition, vulcanized to the core under heat pressure. It completely seals the core. It has no joints—no breaks of any kind in its lustrous, jet-black surface. It cannot scratch, chip or wear off.

The hinges on the all-black seats are shielded by this same hard composition. Because they cannot tarnish, rust or become corroded, they are the most sanitary hinges that have been devised for toilet seats. And they are permanently held in place. The screws that hold them are tapped through solid steel bars, which are molded *into* the seat core.

When you specify toilet seats for hotels, hospitals, schools and public buildings of all kinds, the expense of *keeping* these seats in good condition is a far more important consideration than their original cost. The guarantee that we make on Church Sani-Black Seats eliminates this expense forever.

The coupon below will bring you an actual cross-section of the Sani-Black Seat and our new hundred-page architects' catalog, illustrating a complete line of Sani-White and Sani-Black Seats. Fill out the coupon *now* and mail it in to us! C. F. Church Manufacturing Co., Holyoke, Mass.

Church
sani-black **Seats**
"Toilet Seats for Better Bathrooms"

C. F. CHURCH MANUFACTURING CO.
Dept. 5-6, Holyoke, Mass.

Gentlemen: Kindly send me your architects' catalog, together with a cross-section of your Sani-Black Seat.

Name _____

Address _____

City _____ State _____

IMPERIAL MOTORS

Give Real Service



Squirrel Cage Motor

MANUFACTURERS of Motor driven equipment who buy hundreds of Motors for resale with their own product are perhaps the most discriminating buyers. Isn't it significant therefore, that the biggest percentage of our Motors go to these manufacturers? In other words, we're Specialists for other Specialists. Their customers are scattered all over the country—so real Service is a big item with them. They have found Imperial able and willing to meet their strictest specifications.

¶ You, too, will soon learn that our 36 years' experience will make it profitable and pleasant to do business with us.

THE IMPERIAL ELECTRIC CO.

Factory and General Office, Akron, Ohio

Branches in Principal Cities

- | | |
|--|---|
| Metal Corner Bead
Genfire Steel Co.
Kalman Steel Company
Truscon Steel Company
Youngstown Pressed Steel Co. | Panel Guards
Consolidated Expanded Metal Cos. |
| Metal Extruded
American Tube Works | Paper Bags
Bates Valve Bag Corp. |
| Metal Work—Lead Sealed
Superior Sheet Steel Co. | Partitions
Hamlin, Irving
Hart & Hutchinson Co.
Sanymetal Products Co.
U. S. Gypsum Co.
Wilson, J. G., Corp. |
| Mineral Wool
U. S. Mineral Wool Co. | Partitions—Toilet
Hart & Hutchinson Co.
Mills Company
Sanymetal Products Co. |
| Mirrors—Lavatory
Hess Warming & Ventilating Co. | Pencils—Drawing
American Lead Pencil Company |
| Mortar
Carney Company, The
Kosmos Portland Cement Co.
Louisville Cement Co. | Pergolas
Hartmann Sanders Company |
| Mortar Stain
Pecora Paint Co. | Piling—Concrete
MacArthur Concrete Pile Corp.
Raymond Concrete Pile Co. |
| Mouldings—American Tube Works | Piling—Steel Sheet
Carnegie Steel Co. |
| Mouldings—Extruded Bronze
American Tube Works | Pipe
National Tube Company
Wheeling Corrugating Co. |
| Nurseries
Andorra Nurseries | Pipe—Brass and Copper
American Tube Works |
| Oil Burners
Hardinge Brothers, Inc. | Plate Glass
Pittsburgh Plate Glass Co. |
| Ornamental Metal Workers
Fiske, J. W., Iron Works
Hughes-Keenan Co.
Smyser-Royer Company | Plaster—Gypsum
Atlantic Gypsum Products |
| Paints—Arco Company
Berry Brothers
Du Pont, E. I. de Nemours & Co., Inc.
Pittsburgh Plate Glass Co.
Pratt & Lambert, Inc.
U. S. Gutta Percha Paint Co.
United States Gypsum Co. | Plaster—Lime
Ohio Hydrate & Supply Co. |
| Panelboards
Adam, Frank, Electric Co.
General Electric Co. | Plaster—Ornamental
Architectural Decorating Co.
Decorators Supply Co.
Detroit Decorative Supply Co.
Fischer & Jirouch Co.
Jacobson & Company
Voigt Company |

Blabon Linoleum Floors *associate* *with fine architecture*

The selection of Blabon Linoleum Floors, by leading architects, for important edifices, is a safe guide for all who want floors of enduring quality.

Blabon Floors of Plain or Inlaid Linoleum are not only permanent when modern methods of installation are employed—cemented down over a layer of builders' deadening felt and thoroughly rolled—but their beauty is in keeping with the character of fine buildings.

These floors possess every requisite—beauty of color and finish, dignity, quietness, low maintenance cost. An occasional waxing and polishing will keep the floors in splendid condition.

We invite consultation with our Service Bureau for Architects and Contractors on any

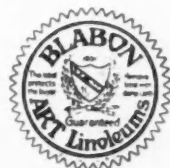
of your floor problems. Our Advisory Bureau of Interior Decoration will also co-operate, without charge.

Upon request, we will send a reprint from Sweet's Architectural Catalog, a 1928 Blabon Pocket Size Pattern Book, and a box of quality samples.

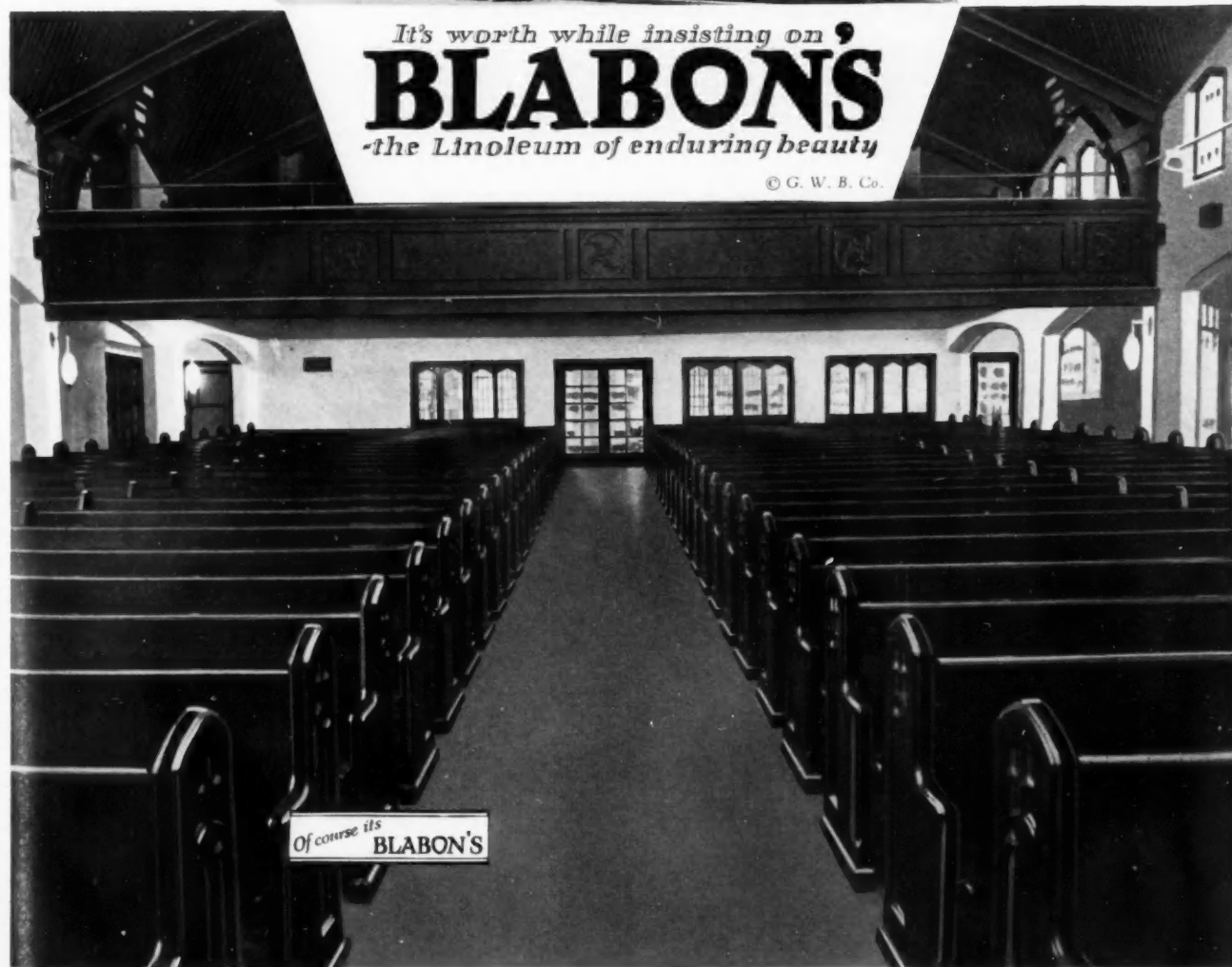
The George W. Blabon Company
Nicetown, Philadelphia

Established 77 years

The Central Presbyterian Church, Amarillo, Texas, in which 4000 square yards of Blabon "Invincible" Battleship Linoleum are installed.



Look for this label on the face of all Blabon's Linoleum



It's worth while insisting on
BLABON'S
—the Linoleum of enduring beauty

© G. W. B. Co.

Of course it's
BLABON'S

PECORA

IF this name is on a product, our 66 years of experience and our established reputation are unqualifiedly behind it.

If you have ever used any PECORA product we will be content to have you judge any other PECORA product by it.

When you have the exposed joints of a building calked, you are putting a lot of responsibility on the calking compound. Not only should it be absolutely weathertight, but it can add to the appearance of the building and it is a factor of safety in the ultimate life of the structure itself. A calking compound must be as good when it has been in the joints twenty years as it is when it leaves the factory. That is why we urge you to consider the importance of the name.

PECORA CALMING COMPOUND

takes a firm and permanent grip on any building material and has the necessary take-up and give to keep any joint closed regardless of expansion and contraction. It is guaranteed to keep out moisture, wind and dust without detracting from the appearance of a building.

PECORA PAINT COMPANY

Established 1862 by Smith Bowen

5th & Sedgley Ave.
Philadelphia, Pa.

**PECORA
PRODUCTS**
are only
used where
QUALITY
is the first
consideration



Sec. B, Page 1749

Plumbing Fixtures

American Pin Co.
Autoyre Company
Brunswick-Balke-Collender Co.
Chemical Toilet Corp.
Church, C. F., Mfg. Co.
Crane Company
Curtin, A. F., Valve Co.
Dahlquist Mfg. Co.
Eustis, J. P., Mfg. Co.
Excelso Products Corp.
Fiat Metal Mfg. Co.
Hoffmann & Billings Mfg. Co.
Kohler Co.
Maddock's, Thomas, Sons Co.
Penberthy Injector Co.
Rundle-Spence Mfg. Co.
Sanymetal Products Company
Taylor, Halsey W.
Trageser, John, Steam Copper Works
Trenton Potteries Co.

Pumps

Nash Engineering Company

Radiator Cabinets

Tuttle & Bailey Mfg. Co.

Radiator Trap

Dunham, C. A., Co.

Radiators

American Radiator Co.
National Radiator Corp.
Nelson, Herman, Corp.
Rome Brass Radiator Corp.
Smith, H. B., Company, The
Thatcher Company
United States Radiator Corp.

Railings

Sanymetal Products Company

Ramps

Ramp Buildings Corp.

Refrigeration

National Assoc. of Ice Industries

Refrigerators

Jewett Refrigerator Co.
Kelvinator Corporation
McCray Refrigerator Sales Corp.

Roof Insulator

Armstrong Cork & Insulation Co.

Roof Sumps

Mahon, R. C., Company

Roofing

American Sheet & Tin Plate Co.
Bird & Son, Inc.
Blaw-Knox Company
Carey, Philip, Mfg. Company
Hood, B. Mifflin, Brick Co.
Wheeling Corrugating Co.

Roofing Slates

Knickerbocker Slate Corp.

Roofing—Tin

American Sheet & Tin Plate Co.
Taylor, N. & G., Company

Roofs—Fireproof

U. S. Gypsum Co.

Safety Tread

Norton Company

Sandstone

Briar Hill Stone Co.

Sash Chain

American Chain Company
Detroit Steel Products Co.
Smith & Egge Mfg. Co.

Sash—Cord

Samson Cordage Works
Silver Lake Company

Sash—Steel

Detroit Steel Products Co.
Truscon Steel Company

Screens—Window

Higgin Mfg. Co.

Seat—Toilet

Brunswick-Balke-Collender Co.
Church, C. F., Mfg. Co.

Seating

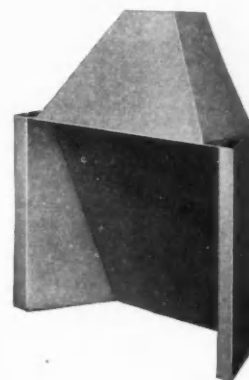
American Seating Co.

FIREPLACE CHARM WITH FURNACE-LIKE HEAT



In this design, cold-air intakes are on both sides of fireplace. Warm-air outlet is concealed in center niche above mantel. The Heatilator affords unlimited opportunity for architectural variation.

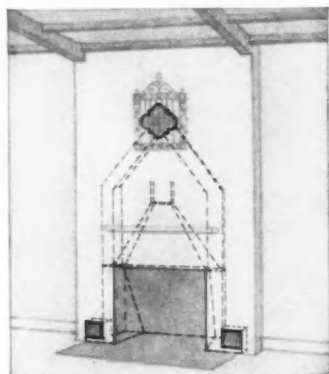
Below: Heatilator as it is received, ready to install. It is a complete unit up to the chimney flue, including damper and smoke chamber, with double-wall air heating chamber surrounding fire on sides and top.



Have you tried this vastly improved method of fireplace construction?

THE use of a Heatilator Unit assures the mason's carrying out of your plans for a beautiful fireplace that will both burn without smoking and deliver real heat. It adds nothing to the total cost of the fireplace because of savings in firebrick, damper, smoke chamber and labor.

The Heatilator is a double-walled copperoid boiler plate form. Its scientifically perfect design assures satisfactory draft and smokeless operation. The double walls act as a warm-air heating chamber on the principle of a furnace, this



Phantom View: In this installation, cold air enters the two intakes at the floor, is heated in double-wall chamber surrounding fire, and sent out into the room through large grille high above the fireplace. Fresh outdoor air may be obtained by closing floor intakes and arranging a cold-air box like that of a furnace.

sends into the room a volume of heat—previously wasted—equal to that of a warm-air register. We fully **guarantee** success and satisfaction.

Cold-air intakes and warm-air outlets become part of any design you wish. Our new *Planbook* shows many beautiful installations, of widely varied types. It is well worth your seeing. Copies will be sent free upon request. We will gladly send you a Heatilator Unit for examination. Your mailing the coupon would be appreciated. Heatilator Company Syracuse, N. Y.

Heatilator Fireplace Unit



HEATILATOR CO., 653 Glen Avenue,
Colvin Sta., Syracuse, N. Y.

- You may send us copies of your new Planbook of Modern Fireplaces.
- Would like to have a Heatilator for free examination.

Name

Address

Wilson

HYGIENIC SCHOOL WARDROBES



High School,
Belmont, Mass.

Grossman School, Detroit, Mich. Malcomson & Higgenbotham,
Architects

Save Space and Lower Costs

ARCHITECTS and school authorities favor Wilson Hygienic Wardrobes because they fill all the purposes of the old-fashioned cloakroom, at the same time permitting a considerable reduction in the size of the building without sacrificing the size of the classrooms.

With the use of Wilson Hygienic Wardrobes the pupils are always under the teacher's eye. Special compartments may be used for teacher's books or records. The Wardrobes may be connected with the ventilating system, permitting a free circulation of air. They are considered standard equipment by leading architects and are in use in hundreds of schools.

Send for 40-page Catalogue No. 1

THE J. G. WILSON CORPORATION

11 East 38th Street, New York City

Offices in all principal cities

OVER FIFTY YEARS IN BUSINESS

Septic Tanks
Chemical Toilet Corp.

Sheet Metal
American Sheet & Tin Plate Co.

Shingles
Bird & Son, Inc.
Carey, Philip, Company
James Lumber Co.
Johns-Manville Corporation
Weatherbest Stained Shingle Co.
Wheeling Corrugating Co.

Shingles—Stained
Weatherbest Stained Shingle, Co., Inc.

Shoe Cleaning Cabinets
Griffin Mfg. Co.

Showers
American Pin Co.
Hoffmann & Billings Mfg. Co.

Slate Blackboards
Knickerbocker Slate Corp.

Slate—Roofing
Knickerbocker Slate Corp.
O'Brien Bros. Slate Co., Inc.
Sheldon, F. C., Slate Co.

Slate—Structural
Knickerbocker Slate Corp.

Smoke Screens
Sanymetal Products Co.

Sound Deadening Materials
U. S. Mineral Wool Co.

Sprinkling System—Lawn
Thompson Mfg. Co.

Stain—Shingle
Cabot, Samuel, Inc.

Stained Glass
Jacoby Art Glass Co.

Stairs—Steel
Hughes-Keenan Company
Woodbridge Ornamental Iron Co.

Steel Construction
American Bridge Company
Bethlehem Steel Co.
Carnegie Steel Company

Stoker—Automatic
Domestic Stoker Co.

Stone—Artificial
Jacobson & Company
Rackle, George, & Sons Co., The

Stone—Granite
National Bldg. Granite Quarries Association

Stone—Limestone
Indiana Limestone Company

Stone—Sandstone
Briar Hill Stone Co.

Stone Ware Chemical
Knight, Maurice A.

Store Front Construction
Kawneer Company, The

Structural Steel
Bethlehem Steel Co.
Carnegie Steel Co.

Sumps Roof
Mahon, R. C., Co.

Tanks—Hot Water Storage
Dahlquist Mfg. Co.
Trageser, John, Steam Copper Works

Tape—Flexible Steel
Farrand, H. A.

Temperature Control
Johnson Service Company

Terra Cotta
National Terra Cotta Society
Northwestern Terra Cotta Co.

Thermostat
Johnson Service Co.

Tile Floor and Wall
Associated Tile Mfrs.
Batchelder-Wilson Co.
Caragol, Manuel, & Son, Inc.
Mosaic Tile Company
Norton Company
United States Rubber Co.

Tile—Hollow Building
National Fireproofing Co.

Tile—Roofing
Hood, B. Mifflin, Brick Co.

New Home of
HUDSON'S
Department Store
at Detroit

Truly one of the most outstanding examples of modern department store architecture. The fact that "SECO" counterbalanced truckable freight elevator doors were chosen speaks for itself.

*Smith, Hinchman & Grylls, Detroit
Architects and Engineers
Bryant & Detwiler Co., Detroit
General Contractors
Otis Elevator Co., Detroit
Elevator Contractors*



Hudson's selects "SECO" Freight Elevator Doors

Because of their rigid construction, their ease of operation and their reputation for absolute safety, "SECO" counterbalanced truckable freight elevator doors were chosen for the elevators of the new J. L. Hudson Department Store Building at Detroit—the installation requiring 140 Kalamein paneled "SECO" Doors.

"SECO" Doors stand guard in many of the country's largest buildings to protect human life and property and to assure lower casualty and fire insurance rates. Owners interested in equipment of this kind should communicate with us direct or with our nearest representative.

Let us send you a copy of our catalog which gives detailed information

SECURITY FIRE DOOR CO., 3044 Lambdin Avenue, St. Louis, Mo.

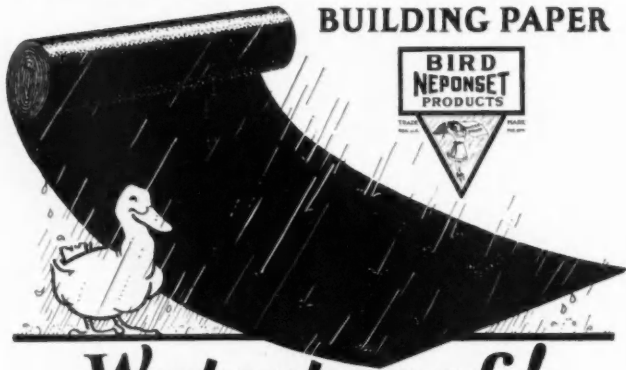
Offices in New York, Boston, Philadelphia, Chicago, San Francisco, Detroit and other principal cities

SECURITY DOORS

TRUCKABLE COUNTERBALANCED
FREIGHT ELEVATOR

Make Good Elevators More Efficient

BIRD'S NEPONSET BLACK BUILDING PAPER



Waterproof!

NEPONSET BLACK is a tough, heavy Waterproof Building Paper that keeps out dampness and drafts. Its glistening, asphalt-coated surface sheds water like a duck's back.

For a permanent barrier against the elements, specify Bird's Neponset Black. Over roof boards and under slate, tile, metal or asphalt shingles it makes a watertight covering. When placed back of stucco and under clapboards or shingles it keeps out drafts and dampness and makes the heating of the house more economical.

Your contractor or builder can get Neponset Black at a moment's notice. It is standard stock with dealers in Bird's Building Products. Refer to Sweet's or write to us for complete specifications.

BIRD & SON, inc.

Established 1795
EAST WALPOLE, MASS.

Chicago Office and Plant:
1472 West 76 Street
New York: 295 Fifth Avenue

Canada:
Building Products, Ltd.
Bird & Son, Division
Hamilton, Ont.

Manufacturers of
NEPONSET TWIN SHINGLES
PAROID ROOFING
Bird's Asphalt Shingles
Bird's Design Roofing
Bird's Neponset Black Building Paper
Bird's Neponset Rugs
and Floor Coverings

- Tiles—Shing
Hood, b. a. Tin, Brick Co.
- Toilet Paper Service
National Paper Products, Inc.
- Toncan Metal
Central Alloy Steel Corp.
- Traps—Steam and Radiator
Dunham, C. A., Co.
- Tree Surgeons
Davey Tree Expert Co.
- Trees, Shrubs, Etc.
Andorra Nurseries
- Tubes—Brass and Copper
American Tube Works
- Underfloor Duct System
Johns-Manville Corporation
- Unit Heaters and Ventilators
Modine Mfg. Co.
- Valves
American Radiator Company
Jenkins Brothers
- Varnish—Arco Company
Berry Brothers, Inc.
Pittsburgh Plate Glass Co.
Pratt & Lambert Co.
U. S. Gutta Percha Paint Co.
- Wall Coating—Washable
Truscon Laboratories
- Wall Covering
Craftex Company
Marb-L-Cote Co.
United States Gypsum Co.
Wiggins, H. B., Sons Company
- Wall Coping
Clay Products Association
- Wardrobes
Evans, W. L.
K. M. Supply Co.
- Water Filters
Paige & Jones Chemical Co.
- Water Heaters
Dahlquist Mfg. Co.
Edison Electric Appliance Co., Inc.
Excelso Products Corp.
- Water Softeners
Paige & Jones Chemical Co.
- Waterproof Materials
Bird & Son, Inc.
Carey, Philip, Company, The
Genfire Steel Company
Master Builders Co.
Sonneborn, L., Sons, Incorporated
Truscon Laboratories
- Weatherstrips—Metal
Athey Company
- Window & Door Frames
Andersen Lumber Co.
- Window Fixtures
Andersen Lumber Co.
Williams Pivot Sash Co.
- Window Shades
Athey Company
- Windows
Detroit Steel Products Co.
Genfire Steel Company
International Casement Co.
Lupton's, David, Sons Co.
Truscon Steel Company
Williams Pivot Sash Company
- Wire and Cable
American Steel & Wire Company
American Tube Works
- Wire—Electric
Hazard Insulated Wire Works
- Wire Glass
Mississippi Glass Company
- Wire Rope
American Steel & Wire Company
- Woods—American Walnut Mfrs. Association
Arkansas Oak Flooring Co.
Birch Manufacturers
Bruce, E. L., Co.
California Redwood Association
Maple Flooring Mfrs. Assoc.
Oak Flooring Bureau
Shevlin, Carpenter & Clarke Co.
Southern Cypress Mfrs. Association
West Coast Lumber Bureau



SPRING VALLEY, N. Y., SCHOOL

ARCHITECT, ERNEST SIBLEY, PALISADES, N. J.

BUILDER, J. B. SCHULTZ, SUFFERN, N. Y.

Read how Lignophol protects wood floors even under abuse!

A. F. THORNTON, Principal of the Spring Valley, N. Y., School, says:

"There was a considerable quantity of plaster, sand and other dirt carried into every room. Now that the floors have been cleaned, they do not show any sign of this abuse."

The wood floors were treated with Lignophol, and had to resist for 12 weeks the wear and tear of traffic during repairs.

Not only does Lignophol protect the surface against grinding wear, but it also prevents warping, cracking, shrinking, splintering, dry or wet-rot.

Lignophol penetrates into the wood cells and fibres, filling them with the essential oils and

gums and replacing those that have been baked out in the kiln.

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

Made in four standard colors: Natural, Light Brown, Medium Brown, and Dark Brown. Easily and quickly applied by any workman at minimum cost. One application means no more material or labor cost for years to come. Be sure to specify Lignophol—a Sonneborn Product.

The Sonneborn Policy is that the architect must always be satisfied. Sonneborn always makes good.

LIGNOPHOL

A Penetrating Preservative For Wood Floors

Some other Sonneborn Products

LAPIDOLITH — a chemical liquid hardener for hardening and dust-proofing concrete floors.

HYDROCIDIC COLORLESS — for waterproofing exposed exterior walls.

CEMCOAT—a paint that stays white after others turn yellow. Can be washed over endlessly. Adheres to brick and cement as easily as to wood.

A few of the many users of Lignophol

J. C. Penney Company, New York

Buick Motor Company, Detroit

J. A. Utley Company, Detroit

Hegeman Harris Company, New York

Indiana Flooring Company, New York

Real Silk Hosiery Mills, Indianapolis

L. SONNEBORN SONS, Inc.
114 FIFTH AVENUE, NEW YORK

The Architectural Record, June, 1928

COUPON
L. SONNEBORN SONS, Inc., 114 Fifth Ave., New York
Please send me, without obligation, demonstration samples and literature on: Lapidolith, Lignophol, Hydrocidic Colorless, Cemoat.
(Check products that interest you.)
Name _____
Address _____
Company _____
Position _____
A.R.-10

INDEX TO ADVERTISEMENTS

Classified Directory of Advertisers, Pages 164-180 Inclusive

Catalogues of concerns marked (S) will be found in the 22nd Edition of Sweet's Architectural Catalogue.

(S) Adam, Frank, Electric Co. 80	(S) Fain Mfg. Co. 104	News of the Field 152
American Bridge Company 112	Farrand, H. A. 134	(S) Northwestern Terra Cotta Co. 43
American Contractor 86	Fischer & Jirouch Co. 55	(S) Norton Company 161
(S) American Gas Products Corp. 136	(S) Fiske, J. W., Iron Works. 32	(S) Norton Door Closer Co. 145
American Lead Pencil Co. 132-136	(S) Fiske & Company, Inc. 153	Notes in Brief 148-150
(S) American Pin Co. 74	(S) Fitzgibbons Boiler Co., Inc. 140	(S) O'Brien Bros. Slate Co., Inc. 147
Division Seovill Mfg. Co.	(S) Flax-li-num Insulating Co. 89	(S) Ohio Hydrate & Supply Co. 105
(S) American Radiator Co. 120	(S) Franklin Pottery 158	(S) Paige & Jones Chemical Co. 126
American Seating Co. 8-9	(S) General Electric Co. 26-27	Pearlman, Victor S., & Co. 156
(S) American Sheet & Tin Plate Co. 124	(S) Genfire Steel Company 138, 184	(S) Peora Paint Co. 176
(S) American Steel & Wire Co. 130	(S) Georgia Marble Co. 117	(S) Peelle Company, The. 103
(S) American Stove Company 125	(S) Gleason-Tiebout Glass Co. 37	(S) Penberthy Injector Co. 25
(S) American Tube Works 17	Graphic Review 92	(S) Pittsburgh Plate Glass Co. 46-47, 79
American Walnut Mfrs. Assoc. 5	Griffin Mfg. Co. 87	(S) Pratt & Lambert, Inc. 31
(S) Andersen Lumber Co. 149	(S) Guth, Edwin F., Co. 128	(S) Rackle, Geo., & Sons Co., The. 170
Andorra Nurseries, Inc. 130	(S) Hamlin, Irving 132	Rail Steel Bar Assoc. 171
Architects' Announcements 69	(S) Hardinge Brothers, Inc. 59	(S) Ramp Buildings Corp. 11
Architectural Decorating Co. 55	(S) Hart & Hegeman Mfg. Co. 165	(S) Raymond Concrete Pile Co. 7
Architectural Record 1-90-126	(S) Hartmann-Sanders 65	(S) Reeves, Robert C., Co. 164
(S) Arco Company, The. 20	Hazard Insulated Wire Works. 116	(S) Republic Brass Company 101
Arkansas Oak Flooring Co. 106	(S) Heatilator Company 177	(S) Richmond Fireproof Door Co. 118
(S) Armstrong Cork & Insulation Co. 23	(S) Hess Warming & Ventilating Co. 134	(S) Ric-wil Co. 144
(S) Associated Tile Manufacturers. 75	(S) Higgin Manufacturing Co. 146	Rock of Ages 144
(S) Athey Co. 146	Higgins, Chas. M., & Co. 136	(S) Rolscreen Company 21
(S) Automatic Electric, Inc. 133	(S) Hoffmann & Billings Mfg. Co. 118	(S) Rome Brass Radiator Corp. 163
Autoyre Company 100	(S) Holtzer-Cabot Electric Co., The. 108	Rundle-Spence Mfg Co. 110
(S) Batchelder-Wilson Co. 119	(S) Hood, B. Mifflin, Brick Co. 159	(S) Samson Cordage Works. 144
Bates Valve Bag Corp. 121	(S) Hughes-Keenan Co. 146	(S) Sandusky Cement Co. 3rd Cover
(S) Berry Bros. 4	(S) Hyde-Murphy Co. 140	(S) Sanymetal Products Co. 12
(S) Bird & Son, Inc. 180	Imperial Electric Company 174	Sargent & Co. 151
(S) Blabon Co., George W. 175	(S) Indiana Limestone Company 3	(S) Security Fire Door Co. 179
(S) Blastel Mfg. Co. 168	(S) International Casement Co., Inc. 109	(S) Sedgwick Machine Works. 132
(S) Blaw-Knox Co. 64	(S) Jackson, Wm. H., Co. 51	(S) Sheldon, F. C., Slate Co. 33
(S) Bonded Floors Co. 83-84	(S) Jacobson & Company 14, 55	Shevlin, Carpenter & Clarke Co. 62-63
(S) Brasscrafters 19	(S) Jacobson Mantel & Ornament Co. 112	(S) Silver Lake Co. 126
(S) Briar Hill Stone Co. 110	James Lumber Co. 146	(S) Sisalkraft Co. 34
(S) Brunswick-Balke-Collender Co. 141	Jewett Refrigerator Co. 122	(S) Sonneborn, L., Sons, Inc. 181
(S) Bull Dog Floor Clip Co. 134	Johns-Manville Corporation. 61, 127	(S) Soss Mfg. Co. 138
(S) Cabot, Samuel, Inc. 104	K. M. Supply Co. 96	Southern Cypress Mfrs. Assoc. 10
Caragol, Manuel, & Son, Inc. 130	(S) Kalman Steel Company 93	(S) Stanley Works, The. 15
(S) Carey, Philip, The. Co. 13	(S) Kawneer Company 106, 143	Stone & Webster, Inc. 24
Carnegie Steel Co. 76	Kelvinator Corp. 42	Sullivan Granite Co. 140
(S) Carney Company 144	(S) Kerner Incinerator Co. 160	(S) Superior Sheet Steel Co. 91
(S) Central Alloy Steel Corp. 41	(S) King Construction Co. 111	Sweet's Architectural Catalogue. 98-99
(S) Church, C. F., Mfg. Co. 173	(S) Knieckerbocker Slate Corp. 128	(S) Taylor, Halsey W., Co. 49
(S) Clay Products Association. 114	(S) Knight, Maurice A. 135	(S) Taylor, N. & G., Company 130
Clemetsen Co. 70	Kohler Co. 81	Thompson Mfg. Co. 96
(S) Colt's Patent Fire Arms Mfg. Co. 138	(S) Lord & Burnham Co. 22	(S) Thorp Fire Proof Door Co. 4th Cover
(S) Concealed Bed Corp. 122	(S) Louisville Cement Co. 157	(S) Trageser, John, Steam Copper Works. 172
Concrete Reinforcing Steel Institute. 171	(S) Lupton's, David, Sons Co. 30	(S) Trane Co., The. 108
(S) Consolidated Expanded Metal Cos. 113	(S) MacAndrews & Forbes Co. 123	Trenton Potteries Company. 97
Construction Statistics 154	(S) MacArthur Concrete Pile Corp. 138	(S) Truseon Laboratories 2
(S) Coppes Bros. & Zook. 107	Maddock's, Thomas, Sons Co. 88	(S) Truseon Steel Co. 2nd Cover
(S) Corbin, P. & F. 73	(S) Mahon, R. C., Company. 95, 142	(S) Tuttle & Bailey Mfg. Co. 57
(S) Cornell Iron Works, Inc. 136	(S) Marb-L-Cote, Inc. 38	(S) Union Metal Mfg. Co. 169
(S) Craftex Company 6	(S) Master Builders Co. 35-36	(S) United Metal Products Co. 116
(S) Crane Company 115	(S) Matot, D. A., Co. 140	(S) U. S. Gutta Pehra Paint Co. 71
(S) Curtin, A. F., Valve Co. 142	(S) Matot, D. A., Co. 140	(S) United States Gypsum Co. 155
(S) Cutler Mail Chute Co. 134	(S) McCray Refrigerator Sales Corp. 18	(S) U. S. Mineral Wool Co. 128
(S) Cyclone Fence Co. 29	(S) McKinney Mfg. Co. 58	(S) Vermont Marble Company. 52
(S) Dahlquist Mfg. Co. 114	(S) Mid-West Incinerator Corp. 142	Voigt Company 55
Decorators Supply Co. 55	(S) Mills Company, The. 167	(S) Vonnegut Hardware Co. 28
Detroit Decorative Supply Co. 55	Milwaukee Chair Co. 100	(S) Weatherbest Stained Shingle Co. 162
(S) Detroit Steel Products Co. 16	(S) Modine Mfg. Co. 132	(S) Weber Costello Co. 60
Domestic Stoker Co. 139	(S) Morton Manufacturing Co. 129	(S) West Coast Lumber Bureau. 44
(S) Dunham, C. A., Co. 137	(S) Mosaic Tile Company. 40	(S) Western Pine Mfrs. Assoc. 85
Duplex-A-Lite Division of the Miller Co. 56	(S) Moulding Floor Co., Thos. 131	(S) Wheeling Corrugating Co. 82
(S) Du Pont, E. I. de Nemours & Co., Inc. 102	(S) Nash Engineering Co. 68	(S) Wiggins, H. B., Sons Co. 94
(S) Edison Electric Appliance Co. 45	National Association of Ice Industries. 183	(S) Williams Pivot Sash Co. 66
(S) Eustis, J. P., Mfg. Co. 19	(S) National Bldg. Granite Quarries Assoc. 67	(S) Wilson, J. G., Corp. 178
(S) Evans, W. L. 124	(S) National Fireproofing Co. 50	(S) Woodbridge Ornamental Iron Co. 142
(S) Excelso Products Corporation. 166	(S) National Paper Products Co. 128	(S) Youngstown Pressed Steel Co. 78
	(S) National Radiator Corp. 39	(S) Zenitherm Company 45
	(S) National Terra Cotta Society. 77	
	National Tube Co. 72	
	(S) Nelson Herman Corp. 51-52	



Hotel Fontenelle

Omaha, Nebraska

“Standardizing on Norton Door Closers”

MODERN hotels, hospitals, schools, and office buildings appreciate the importance of absolutely quiet door-closing—guests, patients, students, or tenants must not be disturbed. The Eppley Hotel Company, operating the Hotel Fontenelle and sixteen others, is only one of many who are standardizing on Norton Door Closers. They know that Norton Positive Control of closing means not only desired quiet, but longer service and minimum wear and tear on doors, hinges, and closers.

Norton rack-and-pinion action permits no uncontrolled swing of the door—no chance to gather head-



way which is later halted with a violent shock to door and hinges. Norton Door Closers afford absolute control *all the way*. The door will close slowly or swiftly as desired—but it is under control until it touches the jamb.

Then, too, there is the exclusive Norton back-check adjustment which prevents damage to walls or fixtures by controlling the opening at any given angle. And the Norton Friction Holder Arm—the only perfect hold-open device. Investigate, and you'll understand why so many architects are writing Norton specifications.

See Sweet's, Pages B-2043-2047
or send for our new catalog

NORTON DOOR CLOSER COMPANY

DIVISION OF THE YALE & TOWNE MANUFACTURING CO.

2900-2918 North Western Avenue

Chicago, Illinois



**Better than
ordinary
SHADES
and AWNINGS
Combined**

ATHEY Shades do not cut off the top light as awnings do and they allow a great deal more shaded light to enter than ordinary shades.

Besides being the handsomest shade for any Office, Hotel, Hospital, School or Public Building, ATHEY Shades are practical as they are instantly adjustable to shade any part of the window.

Athey
Perennial
WINDOW SHADES
and Cloth-Lined Weatherstrips

Special Features

ATHEY Shades are made of high-grade coutil, herringbone weave, 200 threads to the square inch, mercerized and calendered to a smooth finish. Resists dirt. Dyed in seven none-fading colors to harmonize with various office finishes. Always the same distance from the window. No rollers, latches, catches or springs, to slip, stick or break. In any length and in widths up to 16 feet. Sunbursts for circle-head, segmental or Gothic windows. Also operating shades for skylights.

ATHEY COMPANY
606 W. 65th Street, Chicago, Ill.
New York City:
F. H. Keese, 7 E. 42nd St.
Detroit: W. O. LeSage & Co.
410 Donovan Bldg.
Montreal, Que.:
Cresswell-McIntosh, Reg'd
420 Seigneurs St.

*Thirty-five Years
of Leadership in
the Screen Industry!*

No matter what your screening problem may be, our special representative is fully equipped to solve it - he has been placed in your city *precisely* for that purpose! Look him up under "Higgin" in your phone book, or write to the home office.

HIGGIN
ALL METAL
SCREENS

Screens that last longest, cost least
Higgin Screens last!

The Higgin Manufacturing Company
Newport, Kentucky

**Solid
Weight
Doesn't
Always
Mean
Strength!**



OR safety either. That's proved in bridge and skyscraper construction and in thousands of other things, large and small, in everyday use.

Hughes-Keenan have proved it in stair construction, using a special steel construction which, with much lighter weight than old-style cast-iron, carries an equal live load. Light weight, simple design—pressed steel treads and risers of open or closed type, with sleeves that slip over the central column, makes one-man erection possible. That saves time and money.

Write for complete information on Spiral Steel Stairs, Safety Lock Stairs, Safety Nose Insert Stairs and Hughes-Keenan Pre-erection Method.

The Hughes-Keenan Co. Mansfield, Ohio

HUGHES-KEENAN
Pressed Steel Stairs

**Blue Jay
Shingles**
*outlive
the longest
lease~*



For individuality and true beauty of line in roof and side wall treatment, specify Blue Jay Shingles. These hand split and hand shaved Cypress shingles are truly artistic and ultimately economical.

Blue Jay Shingles are made in two sizes—6" x 20" and 7" x 24". Write for further information.



**JAMES
LUMBER
COMPANY**
Blue Jay Shingles
88 Broad St.
BOSTON, MASS.

1796

The Architectural Record, June, 1928



Underground

..... *It's Raining
Nearly All The Time!*

THINK how important it is to thoroughly protect concrete footings, foundations, basement walls and floors, that may have to stand squarely, in a rainstorm in or on a base of quicksand.

You and your contractor *can* have this assurance of thorough protection by using Medusa Waterproofed Portland Cement in all concrete work underground or otherwise exposed to water or dampness.

Medusa Waterproofed Portland Cement contains the correct proportion of Medusa Integral Waterproofing, thoroughly ground in in exactly the right amount. It is applied in exactly the same manner as regular Portland cement would be.

The Architect is cordially invited to write for literature, specifications and local references, and to refer to Sweet's A 78 for immediate details.



The Architects:
Messrs. Hubbell & Bone
The Engineers:
Messrs. Moran, Maurice & Proctor,
New York
The General Contractors:
The Ludloff-Bicknell Co.



MEDUSA

WATERPROOFED GRAY CEMENT

THE SANDUSKY CEMENT COMPANY
The Engineers' Building Cleveland, Ohio

MEDUSA PRODUCTS FOR CONCRETE

Medusa White Portland Cement, Medusa Waterproofed White Portland Cement, Medusa Gray Portland Cement, Medusa Waterproofed Gray Portland Cement, Medusa Integral Waterproofing, Medusa Portland Cement Paint.



Thirty-nine elevator doors, twenty pairs of doors and fifty single doors were supplied by Thorp for the New Sears Roebuck building at Minneapolis.

GEORGE NIMMONS & COMPANY,
Chicago
Architects

WHAT DO YOUR SPECIFICATIONS COVER?

SPECIFICATIONS are intended to cover many things—all usually measurable in terms of material, dimension, finish, mechanical features, delivery date, etc. But there are, obviously, other factors equally important that cannot be as easily defined; intelligent cooperation and a keen sense of responsibility.

By specifying Thorp doors, architects are assured not only of the high quality of workmanship and the mechanical advantages of Thorp construction, but of all those other intangible factors that make or mar an installation.

Throughout a period of over a quarter of a century, and in all parts of the country, architects have habitually specified Thorp Doors.

Thorp doors in bronze or copper make the most durable and economical kind of entrances for all types of public buildings. See our catalogue in Sweet's, pages 822-825.

THORP FIRE PROOF DOOR COMPANY
MINNEAPOLIS, MINNESOTA

Specify  **THORP DOORS**

rs,
nd
p-
ew
at

NY,

?

gs
n-
ut
at
a

ot
cal
ner

nd
ci-

S