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ARCHITECTURAL DESIGN

FEBRUARY 1930
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GENUINE ANTIQUE FURNITURE
A REVIEW BY
CLIFFORD WAYNE SPENCER

It is an obvious fact that the greater the demand for objects of art, the greater the temptation for the unscrupulous to provide clever counterfeits to foist upon the unsuspecting or inexpert collector. It is likewise true that as the demand for such objects grows greater and greater, the care and skill devoted to the making of dishonest reproductions are increased in an equal proportion, making the counterfeit even harder to detect. The great and increasing desire on the part of great numbers of people to acquire pieces of furniture which they believe to have great worth because of their antiquity has led to a vast traffic in spurious pieces, which are either out-and-out modern reproductions with signs of age faked so cleverly as to require considerable expert knowledge to enable the collector to distinguish between the genuine and the imitation, or else they may be genuine old pieces of little or no original value from an artistic point of view, which have been worked over by skilled workmen in such a way as to greatly increase their value in the eyes of the inexperienced purchaser.

The authentic pieces of furniture which form the basis of all this traffic are surprisingly few in number. They were originally owned only by the very rich and were made by master craftsmen who had prepared themselves by long years of experience as apprentices and who were subject to rigid restrictions by their various guilds as to the quality of the work which they were allowed to sell. It is to be expected, therefore, that the pieces which are really the product of these old masters have lasted and have enough intrinsic artistic worth to make it very profitable to manufacture plausible imitations in such numbers that the great mass of furniture purporting to have come down from our ancestors is positively astounding. Many people who have made a life study of genuine antique furniture have become very proficient in detecting counterfeit, and have even developed an instinct which seems to warn them if a piece represented as antique is not all that it should be. From time to time these experts have published information intended to provide the inexperienced collector with tests whereby he may judge the real authenticity of which is beyond question, and then by subjecting all prospective purchases to a most careful scrutiny. If the various features of the genuine are well in mind, it will not usually be difficult to discover flaws in the cheaper imitations. The best method of conducting a scrutiny is to search for blemishes or evidences of age that by their location or nature will seem illogical in imitations. The matter of becoming a connoisseur of furniture is not one that should be undertaken lightly, since it involves a fairly accurate knowledge of the history of many nations; their arts and the origins and significance thereof, including that of interior decoration; of the history of ornament and of heraldry; a knowledge of the history of the craftsmen's guilds and of their laws, privileges and responsibilities; a sound knowledge of wood grains, inlay and veneering, all this in addition to a finely attuned sense of proportion and of what constitutes good workmanship, not to mention instinct, and well developed powers of intuition and deduction.

For the study of the various historic styles in furniture design, with special regard to the detection of imitations, Major Arthur De Bles has prepared a volume which may well be used as a guide. The work is the product of a lifetime of study of furniture and kindred subjects, Major De Bles being an Englishman who has spent large portions of his life in America and France. He has lectured in every great museum, and for the past ten years has delivered lectures throughout the season at the Metropolitan Museum of Art in New York. The book comprises a very complete guide to a study of the historical types of furniture treated as styles and not as periods, as the author points out that it is an error to speak of different groups of furniture as periods when many of them such as Sheraton, Louis XVI, Hepplewhite, Adam, Directoire and Empire styles were more or less contemporary. As there is very little evidence, in concrete form, as to what was the furniture of the earlier civilizations, the author starts his discussion of the styles of furniture with the Gothic of the thirteenth century, pointing out how this type followed the prevailing architectural style not only in ornamental detail but in form as well. The furniture was in reality a miniature reproduction of the architecture, and practically all that is still extant belonged to the fifteenth century, the decadent period of Gothic art. Although this was the decadent period for architecture, the same was not true of furniture, and the few genuine pieces that have come down to the present time constitute some of the finest carved furniture in existence. As was true of the architecture, the furniture is characterized by the five-point arch and elaborately carved tracery. In this as well as other portions of the work the author displays a considerable knowledge of architecture, and the way in which he links the furniture styles with the prevailing architectural motifs of the various periods is both in-

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2 volumes. 257 Pages of Text. Cloth Binding, 210 Plates, 12 x 15 ins.

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THE ARCHITECTURAL FORUM

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Interesting and enlightening. The various types of Gothic furniture that might conceivably be offered for sale are examined carefully and studied in connection with their historic background in order to give an idea as to just what were the conditions under which this type of art was produced.

In reading the account of the Renaissance here given one realizes that this is not merely a description of pieces of antique furniture alone but that it may serve very well as a handbook for a study of the history of art in general, and that it is written in a most readable manner. In this style, as was the case with the Gothic, the furniture was almost purely architectural in form as well as in detail. To such an extent is this true that cabinet work produced in this period not infrequently resemble the facades of palaces of the day, having miniature columns, pilasters, arches and balconies, crowned by complete entablatures combining cornices, friezes and architraves in the classical manner. As in the Gothic style, chests were perhaps the most important articles of furniture of the Renaissance, having been used as traveling trunks, seats, tables, and even as beds. The manner in which the exact dates of such pieces can often be deduced from the coats of arms enblazoned on them is very interesting, pieces being so marked being more desirable for that reason and therefore quite frequently utilized as models by the makers of faked pieces, although, as the author points out, it is usually possible for one thoroughly familiar with the arts of heraldry and blazonry to detect flaws in the execution of the coats of arms.

In any discussion of Renaissance art or architecture, it is but natural that most importance should be placed on the Italian Renaissance, since it was in Italy that the style had its inception and highest development, due probably to the great wealth and commercial importance of the Italian cities during that period of history. In the present volume two chapters are devoted to Italian Renaissance furniture and the corresponding art and architecture, with detailed descriptions of the variations likely to occur, depending on the province or city in which they were made. The French variation of Renaissance furniture was, like French architecture, adapted largely from the Italian and differed from it only in minor details. With the English Tudor and Elizabethan styles, furniture tended to become less and less architectural in character and came into much more popular use. Before that time furniture had been a rare luxury, to be used only by the nobles and kings, with the result that most of the furniture of the earlier periods is rather monumental and impressive in its richness of carving and general proportions. Later, however, more general popular use led to the making of furniture which was characterized by a simple, sturdy dignity that makes it fit well into almost any setting. These pieces as well as the more elaborately carved draw tables, court chests, etc., are frequently the models for reproductions, honest or dishonest, and should be carefully scrutinized before being purchased. Major De Bles goes into great detail in regard to the construction and characteristic features of this type of furniture in order to point out little tell-tale discrepancies that may serve to put the stamp of disapproval on pieces dishonestly represented as being genuine antiques. The style of transition in France corresponding to the Tudor is known as Louis XIII. This the author of the present work characterizes as being uninteresting. The Jacobean style, which
"Well, George,"  

—how do you like the new floors?

*THE architect sees the floor as part of the decorative scheme. Building owners and managers look on floors as an investment factor. But the one who takes care of the floor—be he janitor, porter or domestic servant—is usually concerned with just one thing—will the floor make his work easy, or difficult?

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ture, is treated fully and understandingly, one of the
developments of the Jacobean period, the wainscot chair,
being deemed sufficiently important to be treated in a
chapter by itself. Other styles as classified by the author
include the Louis XIV type, the William and Mary style,
the Queen Anne, the Regency, and the Louis XV styles.
All are thoroughly examined and described in such a
manner as to give the novice an understanding of the
subject which, when supplemented by careful study of
the illustrations contained in this and other works on the
subject as well as of actual specimens of the various
styles, will enable him to form intelligent opinions con-
cerning the value of pieces purporting to belong to any of
these periods. The same thoroughgoing methods are fol-
lowed in the treatment of the later styles of English fur-
niture including the Georgian, Chippendale, Adam, He-
plewhite, and Sheraton styles. American furniture up to
1840 is treated in the last five chapters under these chap-
ter headings: Early American Furniture up to 1725; The
Windsor Chair; American Furniture 1725 to 1776;
American Furniture 1776 to 1840; Genuine Versus Fake.

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JOSEPH URBAN

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ters by Joseph Urban." The text and illustrations are
less a contribution to the mechanism of the stage
than they are a clear statement of a philosophy of the
theater. Mr. Urban is not particularly concerned with
actor and audience a single body of interchanging emo-
tion. By thrusting his action into the auditorium, by par-
tially surrounding his audience with side stages and by
elimination of the proscenium arch he aims to recreate
the spacial unity of the antique theater where the action
was surrounded by the spectators. A theater in which
every member of the audience can see and hear well is
his ideal of a mechanically perfect theater. It matters less
what manner of staging is selected when the proper sup-
port for actor and spectator has been attained. All of his
buildings and schemes for theaters are equipped ade-
quately and simply for the handling of the customary
stage properties. The most recent schemes, however, go
beyond the "painted drop" conception of staging and
open possibilities of mass movement beneath a scheme of
lighting which, not confined to the stage, envelops the
audience directly in the mood of the production, while
the action, ceasing to present a tableau effect beyond a
frame, acquires plastic reality within the auditorium.
"Theaters" is distinguished by a real belief in the thea-
ter. It harks back continually to those theaters which

COLONIAL INTERIORS
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In this valuable work on
the early American periods
there are given illustrations
from new photographs of in-
teriors of the time, many of
which are little known. These
illustrations are of rooms of
different kinds and of widely
different types,—the early,
somewhat severe type as well
as that which was later and
more refined and luxurious.
Valuable illustrations are sup-
plemented in many instances
by invaluable working draw-
ings,—details of wall panel-
ing, mantels, over-mantels
and window trim; china
closets; newels, balusters
and other details of stair-
ways, and designs for the
stenciling of floors, together with notes on the colors
originally used. It is a volume which in its practical use-
fulness will be of great value to architects whose work
involves much use of early American interior design.

THE ARCHITECTURAL FORUM. - - - - 521 Fifth Avenue, New York

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Like all installations, this Tudor Stone Roof was especially designed— one of the main ideas being to effect the appearance of age. Rough, irregular cuttings, with many broken edges, plus a blending of dull color tones, produced the result desired.

Rising and Nelson State Company
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Chicago  Detroit  Philadelphia  Boston
were a real part of the life of their communities,—to periods of dramatic art when the theater was a real emotional experience capable of lifting the spectator from the round of daily life to the realm of a stronger beauty, life, and brilliance than is found in daily existence. It is illustrated by buildings expressive of the kinds of theatrical production now prevalent. The "revue" type is shown in the Ziegfeld Theater; the motion picture house by the Paramount Theater in Palm Beach; the actors' theater built for a sense of intimacy for the actor and concentration for the spectator is illustrated in the Reinhardt Theater. The Jewish Art Theater treats the community theater and stock company problem as a real entry different from the commercial type of building, which Mr. Urban would prefer to see pass out of existence. The designs for the Metropolitan Opera House, prepared at a time when a site on West 57th Street was being considered, show close analysis of the demands which a New York opera house would be called to meet. The plans for the auditorium contain features which result from Mr. Urban's desire to establish spacial unity between stage and audience and are the fruit of long experience in designing opera settings and pageantry. The Music Center is developed as a festival hall for orchestra, the opera and the dance. It is an ideal scheme which he prepared, of a type which scarcely exists in America,—the free-standing building. It is marked in plan by great amplitude of access and circulation to accommodate the crowds of the democratic theater and by an absence of the features of royal theaters in Europe,—the grand approach, the tiers of boxes and the overwhelming spaces devoted to social display. Promenades there are, and ample buffets and lounging spaces, but throughout there prevails a sense of variability of function, an elasticity of use novel to the present-day theater. While it does not depart from the traditional theater forms as widely as Geddes' plan for an "Inferno" to be given in Madison Square Garden or Strinad's scheme for a stage almost surrounding the audience, the auditorium and the amphitheater of the Music Center are full of possibilities for the development of a more powerful theater than has yet been realized. It is Urban's theory that the needed inspiration for the development of the theater must come today from the architect and not the dramatist; that here exist dramas such as the operas of Wagner which, given opportunities for more ample production, will reach heights of splendor never attained in the theater; that the development of these possibilities is the function of the architect, and that the dramatists will be inspired to new attainment when they are given the possibilities of new expressions by the building itself.

If the theater, and particularly the theater with music, is to again achieve reality, some change must take place in its form. The average theater building is an impersonal solution of bare current needs. It is seldom that one finds an effort to meet more than these needs, and rarer still is it that the quality of imagination enters into the problem. It is from such love of the thing itself as Mr. Urban shows for the theater, from vision founded on long experience, that the new arises in art and that an age goes forward to realize its greatest capabilities.


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THE sun once more rises upon a sightly vista for art. Dust and debris are settling. In retrospect we may look back toward a horizon, that of four centuries ago, and realize that the art of that great day and that of our own are rooted in the same earth. That obscurity which has until recently intervened is being gently dissipated. Its enigmas and its incongruities will become matters of anecdote.

In using the term "modernism" to designate the current trend of art, the application is as dubious as the art it usually qualifies. Modernism, as a name, will not do. It is stationary only as is that spoke of a wagon wheel which for one instant remains vertical, supporting the load. Equally evanescent is the art of the modernist period, the fantastic, amusing vogue of the couturier's moment, the department store window. Modernism, as a term, is, however, being used to qualify something of vastly more consequential significance. It is being applied to the skyscraper. If modernism means a return to a veritable creative orientation of art, then the skyscraper is modernist. But there is nothing modern about that. Few have known it, since the Renaissance with its alluring graces charmed the artist's compass chart and left him adrift. But it is as ancient as the pyramids.

We are not being modern; that is an awkward, self-conscious caper. We are learning by taking thought to pick up the lost thread of a development,—that of the great art of the world. A skyscraper is a spontaneous expression arising out of necessity. It differs from the art of the past four centuries as does science from alchemy. It is an eternal principle,—nothing of the moment.

The modern art of Europe will not do for us. It is their heritage, the expression of their psychology,—not ours. It is sophisticated. We are not. They have a deep nationalism where we have a melting pot; they have at the same time a milieu of individualities which are typical of their nationalism, while we have merely hope and energy. Our task is to mould and direct this hope, this energy, on this side of the Atlantic. It will mould and direct itself as it shakes off self-consciousness and prejudice. Our attitude toward our art must become one of attempting to understand it, not to like or dislike it. The statement "I do not like that" is a confession of prejudice and impotence. Our contemporary art will find itself in a comprehension of its own entourage, of the daily life and needs from whence it proceeds. The cathedrals came so into the world. We need no help, but we do need time.

The significant modernism, the creative movement of this country, is coming from within. The mutations of our national life are so rapid that art pants after them to catch up. It was not so in classic days, when a hundred years saw the change which is had in five today. The automobile and the skyscraper have evolved in 20 years; the Greek temple of the latest period was not different, save in details, from that of the earliest.

We have already well defined changes in everyday life. These form our basic program. They lead to the apartment house, the office building, the quick lunch, etc. Old forms fail to house these new needs. Built-in furniture is not a fad; it is an evolution. Where and when new materials may be used in conjunction with this new program of needs, we find a new art. That does not mean to cast out wood and brick and build with concrete, or to make all furniture from bent metal tubing. There is still nothing wrong with brick and wood, and we have plenty of them. They are cheaper, sounder still economically. But we may plan differently, and we may use machines more intelligently. We may use to advantage many of the new metals, new tools and compositions, and we may get rid of excessive machine-made ornament, replacing it by color and good proportion. And there is our tradition. I do not mean that of the American Indian, but our heritage of taste developed at a time when, for a few decades, we laid the foundations of a national style, only to have them subsequently swept aside by our budding genius for machine play.

If the conservatives among us would make the effort to understand what thinkers in the new field are doing, and if they could persuade themselves above all that the new movement is nothing more than an attempt to reclaim a lost principle necessary to creative work,—freedom from prejudice,—a principle which is responsible for the very existence of the older styles so greatly venerated, then they would be more appreciative and understand the new expression in all the arts.
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VOLUME LII

CONTENTS

PART ONE—ARCHITECTURAL DESIGN

Cover Design: “The Battery Curve”
From a Water Color by Roland A. Wank
After a Drawing by R. E. Curtis

The Editor’s Forum
Page 35

Interior, The Temple Emanu-El, New York
Frontispiece
From a Color Sketch by Harold Gross

PLATE ILLUSTRATIONS

ARCHITECT Plate

The Temple Emanu-El, New York
Kohn, Butler & Stein
17-37

Goodhue Associates, Consultants

Women’s Physical Education Building, Morgantown, W. Va.,
David, Dunlap & Barney
38-41

Early American Farm House, Eastchester, N. Y.
James Jennings Brown
42-46

Building for Stewart & Company, New York
Warren & Wetmore
47, 48

LETTERPRESS Author Page

The Temple Emanu-El, New York
Charles Butler
151

The Problem of the Temple and Its Solution
Clarence S. Stein
155

Grisaille Glass of Paris & Wiley
Charles de Key
237

Hotel Governor Clinton, New York
249

Eighteen Gramercy Park, New York
259

PART TWO—ARCHITECTURAL ENGINEERING AND BUSINESS

Spanning the Hudson
From an Etching by Margaret Lowengrund

LETTERPRESS Author Page

Heating and Lighting Temple Emanu-El
Kenneth Kingsley Stowell
265

Fire Insurance and the Architect
Harry B. Kusch
275

Tall Building Egress
A. T. North
277

Financing the Large Building Project
Alton L. Wells
281

Policy and Opinion
287

Building Situation
288

Uniting Two Buildings and Two Banks
Charles Francis Keefe
289

Battledock Floor
A. T. North
295

Decorative Color Lighting
A. T. North
298

Supervision of Construction Operations
Wilfred W. Beach
299

PARKER MORSE HOOPER, A.I.A., Editor
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FIRST it was light oak. Then it was mahogany. Then came a debacle of imitation woods and imitation materials that tried hard with stains and paint to approximate the glorious grain, the warmth of color of expensive woods.

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INTERIOR OF TEMPLE EMANU-EL, NEW YORK
FROM A COLOR SKETCH BY HAROLD GROSS
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS

The Architectural Forum
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
BY
CHARLES BUTLER

THE new Temple Emanu-El, New York, is situated at the northeast corner of Fifth Avenue and 65th Street, on an L-shaped plot fronting 150 feet on Fifth Avenue and 253 feet on 65th Street. The northerly 50-foot section is occupied by Beth-El Chapel, set back about 20 feet from the Fifth Avenue line, to disengage the facade from that of the Temple itself and to permit of a small grass plot in front. The Temple proper, 100 feet in width, has a depth, including the sanctuary, of about 200 feet. The easterly 50 feet on the street is occupied by the 8-story Community House, with its tower which forms the link between the two buildings. The congregation also owns the low apartment building to the east of the Community House, thus protecting its light on that side, and providing the possibility of future extension of this portion of the group.

The Temple in plan follows the basilica type common in Italy, while the Chapel is a two-domed structure reminiscent of the Byzantine churches of the Near East. The general character of the group is an adaptation of very early Romanesque as it was used in Syria and the East, and occasionally in Sicily and southern Italy, where it was influenced by the Eastern and Arab invasions. In the design of both Temple and Chapel, almost as frankly as in the Community House, it is recognized that any historic style, if used as a source of inspiration today, can furnish us as it were only the characters of an architectural alphabet, but not its phrases. American religious life must express itself anew to meet the changed forms of its service, just as our secular life, though using some of the old characters, has invented architectural forms that tend toward a new and distinctly American expression. As a matter of fact, from a structural point of view the forms adopted in this design have a functional purpose, aside from their aesthetic value.

The walls are actually self-supporting, while the buttresses of the exterior and the trusses of the interior are respectively the stone- and plaster-covered structural steel members necessary to bridge the span of the great nave. This span is far greater than would have been possible for a vaulted edifice. The exterior walls of all the buildings of the group are of variegated limestone, selected for warmth of tone and tooled in such a manner as to accentuate the variety of color in the stone. The dominating feature of the exterior is the great recessed arch on Fifth Avenue, enclosing three entrance doors and the rose window with its supporting lancets. The gabled entrance portico with its flanking staircase towers backs up against the main west wall, the front wall of the great area which forms the main body of the Temple. This large arch of the front expresses on the exterior the main feature of the interior of the Temple. It is duplicated over the west gallery by a similar arch, while an arch and vault of about the same dimensions spans the sanctuary and repeats the architectural note at the east end. On either side of the nave, five smaller arches connect the main piers, covering the side aisles and galleries which are connected by passageways through these piers. There is thus established in the Temple a unity of expression, whereby the interior and exterior of the structure indicate clearly both the general form of the main mass and the definite features which mark each portion of it. We may see in this
unity a distinctive and appropriate piece of religious symbolism, aside from its artistic values.

On the exterior the motifs of the carved decorations have been drawn in general from Hebrew symbolism; thus, the symbols of the Twelve Tribes of Israel appear in the carved band of ornament of the recessed arch, while other religious symbols are incorporated in the carving around the entrance doors, and sacred texts in Hebrew characters appear on the front of the Chapel and Community House. The entrance vestibule extending across the Fifth Avenue front is entered by the three main doors and from the south and north stair towers, and is about 18 by 66 feet. The walls and floors are of Siena travertine, warm yellow in tone and with the strong marking and interstices characteristic of all travertine. The square wainscot slabs have been cut so that the veining forms a pattern on the walls. The ceiling is of walnut with exposed beams resting on carved corbels, and the vertical surfaces of the ceiling beams and the carving of the corbels have been picked out with silver and gold leaf. The vestibule is illuminated by standing lamps of wrought iron, which throw the light upward to the ceiling, while daylight is introduced through two windows which appear on the facade as carved stone grilles and on the interior as richly colored stained glass. At either end of the vestibule are the towers containing the stone stairways leading to the west gallery. The stone walls of these stairways have been selected as the appropriate places for the many carved memorial inscriptions required in a building of this type. Over the vestibule is the west gallery, seating over 200. The adjoining south stair tower contains in its upper portion the echo stair tower, containing the permanent clerestory windows. The height of the permanent windows will also tend to accentuate the impression of mystery produced by the darker treatment of the upper portion of the building. These windows are the work of Owen Bonawitz, Montague Castle, Powell of London, Guthrie, and Oliver Smith, the latter being responsible for the rose window as well as for two of the side windows.

The artificial lighting of the Temple and sanctuary is entirely by recessed lights in the ceiling soffits, no exposed fixtures being used. The sanctuary is about 30 feet in depth and just over 40 feet wide, with marble floor and marble wainscot on side and back walls carried up to the level of the choir gallery, about 25 feet above the sanctuary floor. This gallery is cut off from the sanctuary by a pierced railing, surmounted by marble columns of varied colors carrying arches. These in turn support the pierced plaster grilles and conceal the organ, part of which is placed over the choir gallery and part above the sanctuary vault. All of this work is rich in color through the use of varied marbles and the decoration of plaster surfaces. On the Ark itself there is focused the main decorative treatment of the interior. The columns of the Ark are of French Benou Jaume marble, which varies from deep purple to orange, while the frame of the opening is of Siena marble with mosaic inserts. The Ark

from light to dark buff, the darker shades appearing near the tops of the walls. The application of these tiles, which are required to reduce reverberation, is in no way in imitation of stone. The individual tiles are about 19 by 20 inches, and there are inserts of gold tile in vertical strips about 4 feet on centers, to accentuate the height of the interior. Special tiles are utilized to form patterns in the reveals of the side arches and on the north and south walls, while the openings of the arches are outlined in marble. The side galleries are supported by marble columns,—red, green and yellow,—two columns of the same color being used in each arch to support the carved stone capitals and gallery fronts.

French Vaurion stone is used for the flooring of the aisles and for the interior finish of the stair towers. The ceiling of the Temple consists of a series of steel trusses covered with plaster, with the tie beams and rafters exposed. The plaster protection over these steel members is painted in rich reds, blues, yellows and greens, with gold used freely on the chamfered edges of the pierced ceiling panels. These panels are backed up with acoustic felt, to absorb the sound rising from below and to prevent reverberation and echoes. The richness of color in the ceiling is planned to contrast with the russet brown of the walls and with the darker colors to be used in the permanent clerestory windows. The depth of color of the permanent windows will also tend to accentuate the impression of mystery produced by the darker treatment of the upper portion of the building. These windows are the work of Owen Bonawitz, Montague Castle, Powell of London, Guthrie, and Oliver Smith, the latter being responsible for the rose window as well as for two of the side windows.

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THE MAIN SANCTUARY AND ARK  
THE TEMPLE EMANU-EL, NEW YORK  
KOHN, BUTLER & STEIN, ARCHITECTS  
GOODHUE ASSOCIATES, CONSULTANTS
doors are of bronze, pierced to afford a glimpse of the red velvet coverings of the Scrolls of the Law, while the columns are enriched with bronze bands and crowned with small bronze tabernacles designed to harmonize with the bronze lamp for the perpetual light suspended before the Ark.

The Chapel, to the north of the Temple, has been purposely kept low. The entrance through a single pair of bronze doors is at the south corner, adjoining the Temple. The west end of the Chapel is lighted by a group of three stained glass windows, above which pierced stone grilles are utilized to light the choir and organ lofts. All of the Chapel windows were executed by the d'Ascenzo Studios of Philadelphia. The two domes in the interior are supported by columns of pink Westerly granite, while the side walls rest on columns of Breche Oriental marble, separating the nave from the aisles at the north and south. The walls supported by these columns extend above the roofs of the side aisles up to the penetration line of the domes and are pierced with quatrefoils filled with stained glass. At the east end of the Chapel there is a shallow sanctuary covered by an arch of mosaic in which blue is the dominant color, while against the back wall, on which the Ten Commandments appear in Hebrew lettering, is set the Ark, executed in wrought steel with enameled ornament. The stained glass window in the east wall of the Chapel is a relic of the old Temple Emanuel at 43rd Street, where it occupied the east end of the sanctuary. The lighting of the Chapel is by means of two great chandeliers hung from the centers of the domes and finished in steel and enamel to harmonize with the Ark. The Chapel is 50 feet wide and 84 feet deep, 45 feet high, and seats about 350 people.

The basement beneath the Temple proper contains the banquet hall, with its accessories, kitchen, coat rooms, rest rooms, and lavatories. The banquet hall extends the full width of the Temple, is 110 feet in length, and is planned to seat 650 persons at small tables and up to 1,000 at other functions. At the west end is a speakers' platform. The side aisles, nearly 20 feet in width, are raised three steps above the general floor level. To the east of the Temple there rises the eight-story Community House, containing on the ground floor an assembly room. With its gallery it seats 750, and is provided with a speakers' platform. This auditorium serves especially the Sunday School for opening and closing exercises. Above the assembly room are the Temple offices, choir rooms, and music library, a general library of 25,000 volumes, and 28 classrooms for the use of the religious school, together with minor assembly rooms seating 100 and 175, respectively. On one of the upper floors are the offices and library of the Hebrew Union College, while the eighth floor contains a study and secretary's room for each of the rabbis and a meeting room for the trustees.

The mosaic work in the Temple sanctuary was studied in detail and designed by Miss Hildreth Meiere and executed by the Ravenna Mosaic Company of Berlin, while in the Chapel is the work of Heimigke & Smith. The Chapel Ark is the work of Oscar Bach, the remainder of the decorative wrought iron having been executed by Samuel Yellin of Philadelphia, and Frank & Company of New York. The chandeliers in the Chapel and the seven-branched candelabra in the Temple are by the Edward F. Caldwell Company, the remainder of the electric fixtures by Black & Boyd, and the Segar Studios. The interior molder work was done by the Traitel Marble Company.

The models for all interior and exterior carving and for the bronze entrance doors were prepared by Ricci & Zari. In the development of the color scheme of the interior the architects were assisted by Messrs. Harold Gross and James Monroe Hewlett. The painted decorations of the ceiling and walls were executed by the W. K. Hase Decorators, Inc. The great organ and the echo organ in the Temple were designed and constructed by Casavant Freres, of St. Hyacinthe, Quebec, while the Chapel organ, removed from the old Temple, was rebuilt by Laws, of Beverly, Mass. The pews in the Temple and Chapel were furnished by the American Seating Company, and the sanctuary furniture by the Nahan Cabinet Corporation. The bronze doors on the front and the bronze work on the Temple Ark were produced by the General Bronze Corporation. Eli Herman & Company furnished the pulpit canopies and the entrance vestibule woodwork. The special hardware was furnished by Ostrander-Eschelman. The Guastavino Company furnished the acoustic tile with which the interior is lined, and the Johns-Manville Corporation the acoustic felt back of the pierced ceiling panels, which, like all the plastering, was executed by the Owen Evans Company. The exterior planting was done by Mrs. Marjorie Sewell Cautley. The Cauldwell-Wingate Company were the general contractors and among the principal sub-contractors were: Goodwin Construction Co., foundations; A. E. Norton, structural steel; James McCullough, plumbing; Peet & Powers, electrical work; Alvord & Swift, heating and ventilating; Edward Shuttleworth and George Brown & Co., cut stone work; W. W. Morrow, roofing.

The consulting engineers for heating and ventilating were Messrs. Jaros & Baum, and for the electrical work Messrs. Edie, Freund & Campbell. Dayton C. Miller of Cleveland was the consultant on acoustics. The structural steel was designed by Eugene W. Stern, consulting engineer.
THE PURPOSE OF THIS ARTICLE IS NOT TO DESCRIBE
THE TEMPLE EMANU-EL. MR. BUTLER HAS DONE
THAT. IT IS RATHER TO EXPLAIN HOW THE ARCHITECTS
ARRIVED AT THE PARTICULAR SOLUTION OF THE PROBLEM.
LIKE ALL FINISHED DESIGNS, IT LOOKS VERY SIMPLE
NOW. IT SEEMS QUITE APPARENT TO US THAT THE WAY
WE PLANNED AND DESIGNED THE TEMPLE EMANU-EL
WAS THE WAY TO DO IT. YET AS I LOOK THROUGH THE
PILES AND PILES OF PRELIMINARY STUDIES IT IS QUITE
APPARENT THAT THERE ARE MANY WAYS IN WHICH THE
BUILDING MIGHT HAVE BEEN ARRANGED. IN FACT WE
HAVE ENOUGH DESIGNS OF TEMPLES TO SUPPLY ALL THE
UNITED STATES FOR YEARS TO COME. THE PROBLEM
WAS TO ARRANGE ON A PLOT WHICH HAD BEEN PURCHASED
ON THE CORNER OF FIFTH AVENUE AND 65TH
STREET A GROUP OF THREE BUILDINGS,—TEMPLE,
CHAPEL AND COMMUNITY HOUSE. THE TEMPLE WAS
TO HAVE A SEATING CAPACITY OF 2,500, ALL SEATS HAVING
A CLEAR VIEW OF THE ARK AND THE PULPITS; 2,000
OF THESE SEATS WERE TO BE ON THE GROUND FLOOR,
WHICH HAD TO BE CLEAR OF ALL COLUMNS AND SUPPORTS
THAT MIGHT OBSTRUCT THE VIEW OF THE SANCTUARY.
THE PLOT MEASURES 150 FEET ON FIFTH AVENUE AND
253 ON 65TH STREET. IT FORMS AN ELL, OF WHICH THE
NORTH 50 FEET ON FIFTH AVENUE IS 200 FEET DEEP.
FOUR YEARS AGO, IN DECEMBER, 1925, WHEN THE
TRUSTEES OF THE TEMPLE ASKED OUR FIRM,—ROBERT
D. KOHN, CHARLES BUTLER AND CLARENCE S. STEIN,—
TO UNDERTAKE THE DESIGNING OF THE BUILDING, EACH
OF US STARTED IMMEDIATELY TO MAKE A SKETCH OF A
PARTI. WE WORKED FOR SOME TIME INDEPENDENTLY
OF ONE ANOTHER. AT THE SAME TIME, OUR CONSULTANTS,
WHO WERE THE GOODHUE ASSOCIATES, MADE VARIOUS
SKETCHES. IT WAS APPARENT TO ALL OF US FROM THE
BEGINNING THAT THE TEMPLE SHOULD BE PLACED AT
THE CORNER. WE FELT IT WOULD BE MORE IMPRESSIVE
THERE FROM THE POINT OF VIEW OF MASS, BUT THE
GOVERNING FACTOR WAS THE NECESSITY OF SECURING
THE BEST SPACE FOR THE REQUIRED SEATING CAPACITY.
THE REQUIREMENTS OF THE COMMUNITY HOUSE WERE
SUCH THAT IT WAS EVIDENT IT WOULD TOWER OVER THE
TEMPLE ITSELF. TO THIS HEIGHT WE ADDED TANKS AND
ELEVATOR MACHINERY, WHICH MADE IT POSSIBLE TO
DEVELOP PART OF ITS BULK AS A TOWER. THERE WAS
SUGGESTED THE POSSIBILITY OF PLACING THIS TOWER ON
THE AVENUE, BETWEEN THE TEMPLE AND THE APARTMENT BUILDING TO THE NORTH. IT TOOK ONLY ONE
SKETCH TO MAKE IT QUITE APPARENT THAT A TOWER OF

EARLY PLAN, BUILDING WITH DOME
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
PRELIMINARY STUDIES, SECTION AND PLAN, DOMICAL TYPE OF BUILDING
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
PRELIMINARY STUDIES, SECTION AND PLAN, BASILICAN TYPE OF BUILDING

THE TEMPLE EMANU-EL, NEW YORK

KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
PRELIMINARY PLANS SHOWING TWO DIFFERENT TYPES OF ARRANGEMENT THE TEMPLE EMANU-EL, NEW YORK Kohn, Butler & Stein, Architects Goodhue Associates, Consultants
ONE BAY OF CHAPEL, TEMPLE EMANU-EL
FROM A COLOR STUDY BY HAROLD GROSS
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS

The Architectural Forum
Lower plan provides for dome
The Temple Emanu-El, New York
Kohn, Butler & Stein, Architects
Goodhue Associates, Consultants
SKETCH SHOWING DOME, ARCHED WINDOW, CORNER TOWERS AND TRIPLE ENTRANCE. BELOW, ANOTHER STUDY FOR DOMICAL BUILDING. SIDE ELEVATION OPPOSITE

STUDY IN BYZANTINE STYLE FOR THE TEMPLE EMANU-EL, NEW YORK. KOHN, BUTLER & STEIN, ARCHITECTS. GOODHUE ASSOCIATES, CONSULTANTS
SIDE ELEVATION STUDY IN BYZANTINE STYLE. FIFTH AVENUE FRONT SHOWN ON OPPOSITE PAGE AT THE BOTTOM

THE TEMPLE EMANU-EL, NEW YORK
Kohn, Butler & Stein, Architects
Goodhue Associates, Consultants
TWO STUDIES IN THE FREE MODERN ADAPTAION OF THE ROMANESQUE STYLE

THE TEMPLE EMANUEL, NEW YORK. KOHN, BUTLER & STEIN, ARCHITECTS. GOODHUE ASSOCIATES, CONSULTING ARCHITECTS
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS

THREE PERSPECTIVE STUDIES FOR
THE NEW TEMPLE IN A FREE, BOLD
AND MODERN ROMANESQUE MANNER
a height more or less corresponding to that of the
apartment house alongside it would not afford
the best means of separation. A building of the
mass and dignity of Temple Emanu-El, of course,
should have been placed in the midst of a certain
amount of open space. In fact, we would have
been willing, in order to secure such a space, to
have placed it in a less prominent location, but
with a full block front. We did our best to get a
small amount of green adjoining the neighboring
apartment by setting the Chapel back from the
street and arranging the planting in front of it,
so that as one approaches from the north there
would be a feeling of separation between the
apartment house and the Temple. To show their
appreciation of the manner in which we protected
their light by placing the low building next to the
apartment house, the owners of the structure
agreed to follow, at their own expense, whatever
design was suggested by us to harmonize the south
wall of their structure with the Temple.

In looking over the preliminary sketches we
worked on for the first six months, it is interesting
to find that practically all of them are devoted to
a study of floor plan and general mass of the
interior, without consideration of the exterior
appearance of the building. We explained to the
chairman of the building committee that the ex­
terior “would find itself” once we had solved the
more important practical problems of interior ar­
rangement of seating and had worked out a gen­
eral scheme of the interior to serve the require­
ments of the services of the Temple and to ex­
press the spirit of the religious services to be con­
ducted in the building. The chairman of the building
committee, I am sure, did not altogether com­
hend our point of view, but he was broad minded
enough to let his architects go their own way in
spite of their seeming eccentricities.

In spite of great variety as to detailed arrange­
ments, the plans considered divided themselves
into two definite types,—one a domed structure,
the other the basilica type. There has been a
growing tendency in this country and abroad to
use domes as coverings for synagogue buildings.
There are examples in Philadelphia, San Fran­
cisco and Boston, as well as in Paris and Flor­
ence. It is a splendid structural form for cover­
ing large areas, but it has probably been used
quite as much because of its suggestion of the
Oriental. We felt there was no more reason why
a Jewish temple should look like a Mohammedan
mosque than like a Christian church, and as we
were undecided between the two types of plan,
we made studies in drawing and models of both.
Ultimately we all agreed it was best to give up the
domed structure because it was not the best form
to fit our plot. Even though a dome in these
days can be built without the amount of buttress­
ing that is used in the old structures, such as
Hagia Sophia, the external appearance of a domed
structure in which the dome itself must come to
the very edge of the property seemed unsatisfac­
tory. There remained two possibilities,—one was
the cross, which in spite of the fact that it was
used in the old Temple Emanu-El has the ob­
jection of being too closely related to the Chris­
tian Church, and the other a simple basilica.

The basilica appeared to fit our problem of a
maximum number of seats with clear view of the
Ark and pulpits. We made various attempts to
use more than the 100 feet of width for the Tem­
ple proper, but finally decided that all schemes of
plan trickery were of little help, and that it
was much better to be satisfied with 100 feet of
width in one arm of the ell. After taking off
space for external walls, piers and two aisles,
there was left a distance of 77 feet clear span.
This is one of the largest church spans in New
York. This great width was the source of our
difficulty in dealing with the next problem, which
was to give pleasing proportions to the great
area. Of our total depth of 253 feet we were
forced to give up enough for a Community
House, the sanctuary, and the entrance vestibule
on Fifth Avenue. This left only 150 feet, but
this was increased somewhat by including the
space above the entrance vestibule and balcony as
a portion of the whole. We feel that the length
could not have been very much increased, even
if we had had the ground, without making some
of the seats too distant from the sanctuary for
either sight or hearing. The cost factor also
entered to limit us to approximately 150 feet. We
accentuated the height by the use of vertical lines,
both in carrying the piers up as high as possible
without breaking the line and by the use of verti­
cal lines of gold tile as decoration. The great
interior was covered with a ceiling rather than
with a vault for a number of reasons. In the
first place, there was structural difficulty in vault­
ing an area of this width with the thrust taken
by narrow buttresses. Besides this, we felt we
could get a greater appearance of length by cov­
ering it with a ceiling, accentuating the length
rather than the width. This was done by bracket­
ing out the ceiling in a horizontal plane and then
breaking into a line following the roof, in a man­
er somewhat similar to that found in certain
Mohammedan roofs in Egypt. The ceiling also
gave us an opportunity for a suggestion of the
Oriental in pattern and color.

As will be seen, the shape and proportions of
the interior were governed by the practical re­
quirements of the plan. The decorative treatment
was to a great extent suggested by the materials
necessary for acoustic purposes. We were ad­
vised by Professor Dayton C. Miller of Cleveland
that the acoustic tiles made by Guastavino were of the greatest value for this purpose. These were used purely as a wall covering, without any attempt to imitate stone. We graduated brown from light to dark as we went upward, so as to accentuate the height. For the same purpose the light was thrown downward, leaving the upper portion of the walls and ceilings in shadow. There is only a small amount of decorative pattern on the walls. Most of the rhythm of design came from the use of vertical lines of gold. As we continued our studies we gradually eliminated more and more of the decoration we at first thought necessary. The detailed design of the ceiling was also considerably affected by the need of killing echo. The panels were perforated in such a way as to form a pattern, and felt was placed a short distance behind to help absorb the sound waves. The color pattern of the ceiling was studied in the office only at small scale. It was worked out in detail in place and studied from the floor of the Temple. Although the interior was kept as simple as possible, in contrast the sanctuary walls were richly covered with marble and mosaic. Here it was not only possible but better to have a hard surface to help throw the speaker's voice toward the congregation. There is a single center to the Jewish service, that is the Ark, in which the Scroll of the Law is kept. Naturally, this was made the center of decorative interest. So that this might be in clear view of the congregation, we induced the building committee to permit us to change the usual arrangement of Jewish temples by placing two pulpits, one on each side of the sanctuary, instead of a single reading desk directly in front of the Ark. The choir is placed in a gallery above and back of the Ark, and above the choir is the great organ, the pipes of which are concealed by a pierced plaster screen.

The problem of the Chapel was practically that of designing a second synagogue in which smaller services could be held. This Chapel we felt should open into the Temple but should be arranged so that it could be used separately. In our earlier sketches, when we had considered a dome covering for the Temple, we designed a Chapel with a beamed roof. When the basilica type was chosen for the Temple, we tried first one dome and then two domes. We at first thought of covering these domes with rich decoration of mosaic. In fact, two of the architects took trips to Sicily, giving as the excuse the need of study of the mosaics at Palermo. In spite of this, it was finally decided to leave the vaults simple, on the theory that they should not compete in richness with the ceiling of the Temple.

The exterior of the building is purely a covering of the structural mass. The general design marks the location of the vestibule with balcony above and two flanking stairs, five bays of the auditorium, the Chapel and the Community House. The illustration of the section shows how the buttresses cover the supports of the roof and how in the interior the lines of the framework of the ceiling are related to the steel construction.

The style of ornament to be used in the detail was the last thing we considered. Really, there is no precedent for style in Jewish architecture, or rather I should say there is precedent of every kind. In each country where the Jews have been permitted to give outward expression to their places of worship, they have followed the style of the country and time in which the building was erected. One can find temples of Moorish style in Spain; of Gothic in Prague; of Colonial in Newport; and neo-Classic and neo-everything else in New York and elsewhere throughout the United States. So we felt ourselves free in choice of detail with which to ornament the structural form. We finally decided to develop it from the Romanesque as used in the south of Italy under the influence of the Moorish, because it was an expression of the intermingling of Oriental and Oriental thought. We might just as well have started with some other style, as the detail gradually developed into new forms and certainly new scale in the drafting room and in the sculptor's studio. Above all, it was scale that governed our form. We felt that a building which must be small as compared with the skyscrapers of New York must secure its dignity through simplicity of form and largeness of scale.

In connection with the study of details and the execution of the work, we feel that credit should be given to various members of the office staff who were most closely associated with the work,—the Messrs. Harold Gross and Leon H. Hoag, designers, and Albert Lueders, draftsman. The work drawings were prepared under the supervision of Edward L. Kear, and the work on the site was directed from start to finish by William Timmermann. Mention should also be made of the very interesting structural steel design of the great trusses in the Community House and the Temple proper with their supporting members, as worked out by Eugene W. Stern, consulting engineer. In connection with the study of the building, Mr. Kohn says: "It would be impossible today for any one of the three architects to say who is mainly responsible for the designing of this group. Each had a hand in it, each fought and bled and almost died in opposition to, or in favor of, each step in the procedure. But they tell us now that the building has a feeling of unity throughout. We three are still fast friends and are friendly with the various consultants. That is surely an unusual and enviable record breaker in modern architectural practice!"
COLOR STUDY FOR THE BRONZE, MARBLE, AND MOSAICS ARK AND SANCTUARY, TEMPLE EMANU-EL, BY H. GROSS KOHN, BUTLER & STEIN, ARCHITECTS ASSOCIATED BERTRAM GROSVENOR GOODHUE ASSOCIATES, CONSULTANTS
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
VIEW OF FIFTH AVENUE FACADE
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
DETAILS. ENTRANCE DOOR AND SIDE WINDOW IN THE TEMPLE EMANU-EL
KOHN, BUTLER & STEIN, ARCHITECTS; GOODHUE ASSOCIATES, CONSULTANTS

174
DOOR IN FIFTH AVENUE ENTRANCE
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
ROSE WINDOW BY OLIVER SMITH  
THE TEMPLE EMANU-EL, NEW YORK  
KOHN, BUTLER & STEIN, ARCHITECTS  
GOODHUE ASSOCIATES, CONSULTANTS
WINDOW OVER THE MAIN ENTRANCE
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
VIEW OF CHAPEL FROM FIFTH AVENUE
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
ENTRANCE DOOR TO THE CHAPEL
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
CARVED DECORATIONS ON THE FIFTH AVENUE FACADE. BELOW, DETAIL OF ARCHITRAVE AROUND SIDE ENTRANCE

THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
ENTRANCE TO COMMUNITY HOUSE
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
INTERIOR, SHOWING SANCTUARY
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
THE ARK IN THE MAIN SANCTUARY
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
DETAIL, ARK AND SANCTUARY
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS

192
ONE OF THE TWO MARBLE PULPITS
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
DETAILS, THE TEMPLE EMANU-EL
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
A CORNER OF THE SANCTUARY
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS

Richard S. Grant
TILE COVERED WALL ARCHES
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
DETAIL, SIDE WALLS AND GALLERY, THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS; GOODHUE ASSOCIATES, CONSULTANTS

198
GALLERY OVER MAIN ENTRANCE
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
DETAIL OF ROOF DECORATIONS
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
DETAILS, THE TEMPLE EMANU-EL
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
THE WEST END OF THE CHAPEL
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
SANCTUARY AT EAST END OF CHAPEL
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
WROUGHT STEEL ARK IN CHAPEL
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
DETAIL OF ARK IN CHAPEL
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS

208
DETAIL OF ARCADE IN THE CHAPEL
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
WROUGHT STEEL CHANDELIER IN CHAPEL
THE TEMPLE EMANU-EL, NEW YORK
KOHN, BUTLER & STEIN, ARCHITECTS
GOODHUE ASSOCIATES, CONSULTANTS
WOMEN'S PHYSICAL EDUCATION BUILDING
WEST VIRGINIA UNIVERSITY, MORGANTOWN
DAVIS, DUNLAP & BARNEY, ARCHITECTS
WOMEN'S PHYSICAL EDUCATION BUILDING
WEST VIRGINIA UNIVERSITY, MORGANTOWN
DAVIS, DUNLAP & BARNEY, ARCHITECTS

SUB-BASEMENT

BASEMENT

MAIN FLOOR
MAIN ENTRANCE DOOR AND PORCH
WOMEN'S PHYSICAL EDUCATION BUILDING
WEST VIRGINIA UNIVERSITY, MORGANTOWN
DAVIS, DUNLAP & BARNEY, ARCHITECTS
A WINDOW IN THE LEFT HAND WING
WOMEN'S PHYSICAL EDUCATION BUILDING
WEST VIRGINIA UNIVERSITY, MORGANTOWN
DAVIS, DUNLAP & BARNEY, ARCHITECTS
DETAIL OF THE ENTRANCE COURT
WOMEN'S PHYSICAL EDUCATION BUILDING
WEST VIRGINIA UNIVERSITY, MORGANTOWN
DAVIS, DUNLAP & BARNEY, ARCHITECTS
AN EARLY AMERICAN FARM HOUSE, EASTCHESTER, N. Y.
JAMES JENNINGS BEVAN
ARCHITECT AND OWNER

DINING ROOM

ENTRANCE HALL
AN EARLY AMERICAN FARM HOUSE, EASTCHESTER, N. Y.
JAMES JENNINGS BEVAN
ARCHITECT AND OWNER

222
AN EARLY AMERICAN FARM HOUSE, EASTCHESTER, N. Y.
JAMES JENNINGS BEVAN
ARCHITECT AND OWNER
STAIR HALL, EARLY AMERICAN FARM HOUSE, EASTCHESTER, N. Y.
JAMES JENNINGS BEVAN ARCHITECT AND OWNER
AN EARLY AMERICAN FARM HOUSE, EASTCHESTER, N. Y.
JAMES JENNINGS BEVAN, ARCHITECT AND OWNER

SOUTHEAST CORNER OF THE LIVING ROOM

SOUTHWEST CORNER OF LARGE BEDROOM
MANTELPIECE IN THE LIVING ROOM, AN EARLY AMERICAN FARMHOUSE, EASTCHESTER, N. Y. JAMES JENNINGS BEVAN, ARCHITECT AND OWNER.
GENERAL VIEW, STORE BUILDING
FOR STEWART & CO., NEW YORK
WARREN & WETMORE, ARCHITECTS
MAIN ENTRANCE, STORE BUILDING FOR STEWART & CO., NEW YORK WARREN & WETMORE, ARCHITECTS
WATER COLOR STUDY FOR CENTRAL WINDOW
DELIVERY ROOM, DETROIT PUBLIC LIBRARY
PARIS & WILEY, DECORATORS
THE GRISAILLE GLASS OF PARIS & WILEY

BY

CHARLES DE KAY

SUNLIGHT and moonlight are miracles of the commonplace that meet us and abide by us through life. They lie at the root of several of the religions of which we have records. Did one ever notice that their beams are most enchanting, most beautiful, when they speed along the horizon and have to make their way through strata of dense air? In centuries comparatively recent, men have reacted to that suggestion; after calling light into their abodes through windows of clear glass, they have mixed that glass with color. Thus, half consciously it may well be, they emulated the charm, the awe of the sun and moonrise, of sunset and moonset. Tired of life's practical side, they strive by these and other ways to rise to planes where imagination reigns.

Glass in colors was used in ancient days along the Mediterranean shore and up the Nile. What marvellous small objects did not the Egyptians fuse in furnaces! To what cobalt and lapis lazuli blues, what carmine and ruby reds the inventory of Tutankhamen's tomb bears witness! But use of rich glass for windows was the invention of Europe, and the time was the so-called Dark Age, when architects of the cloud-hung north took sunlight in hand and filled church and minster, palace and town hall with gleams and bursts of color. It was as if they had pondered rainbow and moonbow and clouds at sunrise and sunset in order to flood the gloom of great covered spaces with tracts of color from translucent glass, trapping sunlight in glorious shafts and holding it there for the decoration of generations to come.

Dark interiors during the early Christian centuries set imagination to work. Windows of Romanesque and Romantic styles for church buildings, built up to the time of the Renaissance and beyond, glowed with hues borrowed from the outer world. Today under a different climate American architects and glass workers have a wider field and encounter problems more varied, for the solving of which new points must be met. Stained or enameled glass is still wanted for cathedrals and chapels, but always for even greater supply there comes the call for residences in town and country, for libraries, hotels, theaters, town halls, and state capitols. Into these buildings much light must enter, but colors also are imperative; a heroic instead of a dreamy or reverent mood is sought. Such windows are rivals of the mosaics and paintings on ceiling and wall; they adapt themselves to schemes which are monumental, historical, emblematic, descriptive. Without competing with painting to tell a story literally, they can fill a place of their own where their function is akin to that of music. Owing to our clear skies and abundant sunlight, a new arrangement is demanded,—a fresh combination of colors, if the interior is to be well lighted by day; yet as the shadows grow outside and dusk approaches and the illumination springs up from within, the beauty of the window must not fail, though it may change to some degree. In other words, the windows of such secular buildings must be so treated that under all conditions, by night as well as by day, the mood they echo, the tale they tell shall be intelligible, legible, effective.

Of course, at bottom this demand is the same that windows of churches of the early Christian era and the middle ages answered after their fashion, the difference being that in those times the men and women to be impressed were partly pagan and wholly unlettered. Colored windows were pages of a great picture book that related in new terms the story of Christian love. In our day and generation it has come about that stories by painters,—except when told by the old masters,—are scoffed at. Pictures of history and sentiment, genre paintings and those literal to life are scorned as infantile. But that is all to no purpose; stories are in demand; even in glass work there is room; the rage for the cinema shows how powerfully the current sets. The demand for colored glass in windows and as mosaic on walls has scarcely begun. Quand meme, it will be asked to serve, even to teach history, reflect political movements, recall the departed great,—and at the same time add beauty of color and form to interiors. Without donning the mantle of the prophet, one can foretell that in America at least its future holds a mighty promise.

It was not mere chance that a master of stained glass in modern times was born an American. Without copying the architects and artists of France who raised colored windows to the peak in the thirteenth, fourteenth and fifteenth centuries, ere the art weakened and lost its path, John La Farge reached their level by methods all his own, impelled by his inborn feeling for color. He set an example which Europe as well might follow. Without losing sight of the lessons taught by La Farge, glass workers of today are bound to enlarge their borders through new inventions and in answer to more complicated demands. One of his admirers,—if not a pupil of John La Farge,—is William Franchelyn Paris of the firm of Paris & Wiley, New York. He is a writer on the fine arts and architecture, author of "Decorative Elements
ROOF DECORATIONS AND WINDOWS
BAPTIST CHURCH, GRAND RAPIDS
PARIS & WILEY, DECORATORS
COOLIDGE & HODGDON, ARCHITECTS
WINDOWS IN MAIN HALL, ELKS' NATIONAL MEMORIAL, CHICAGO
PARIS & WILEY, DECORATORS
EGERTON SWARTWOUT, ARCHITECT

LIBRARY WINDOW, UNIVERSITY OF WASHINGTON, SEATTLE
PARIS & WILEY, DECORATORS
CARL GOULD, ARCHITECT
ONE OF THE SERIES OF WINDOWS, DELIVERY ROOM, DETROIT PUBLIC LIBRARY, PARIS & WILEY, DECORATORS, CASS GILBERT, ARCHITECT

SIDE WINDOW OF WEST WALL OF THE DELIVERY ROOM, DETROIT PUBLIC LIBRARY, PARIS & WILEY, DECORATORS, CASS GILBERT, ARCHITECT
THE STAIR WELL WINDOW OF CARVED AND MOULDED LEADS DETROIT PUBLIC LIBRARY PARIS & WILEY, DECORATORS CASS GILBERT, ARCHITECT

WINDOW DESIGNED IN AN ALL OVER ELIZABETHAN PATTERN AND HERALDIC EMBLEMS FOR THE APARTMENT OF MRS. CLINTON OGILVIE, NEW YORK PARIS & WILEY, DECORATORS
Frederick J. Wiley is an artist remarkable for skill in suiting the composition of a window to the kind of interior it should aid in embellishing. He has had a long career as an artist in glass, but he has done much also in mosaic, decorative painting, tapestries, and plaster relief. The firm has contributed a great variety of decorative work to a number of capitols, churches, libraries, club houses, colleges, and private residences too numerous to name here. It is with the stained glass of Paris & Wiley that the present article has to do.

Unlike mosaics which, when composed of cubes of the proper quality, continue to exert a part at least of their appeal under artificial lighting, stained glass windows are likely to lose when dusk descends, and they presently offer confused tracts, grilles of iron, bars of support, stone mullions and traceries of lead. Remedy for this has been sought by treating the supports in a way to compensate for the loss of colors eclipsed by the darkness outside through enrichment of the frame work and grilles. Of course, even after dark, translucent glass can be made to tell by artificial light applied outside, but this clumsy trick is seldom advisable, and for a series of great openings it is out of the question. The firm of Paris & Wiley has made special study of methods to overcome the gaunt, wan look in windows lighted after dark from within. One method is a special treatment just mentioned, of forming the leading that binds the pieces together so as to form an agreeable pattern. The leads are broadened and formed. Surface treatment of bars and leads may include modeling in low relief, gilding and enamel, and this color, along with bold and interesting design, compensates not a little for the vanished glass, so that inner illumination brings out beauties not suspected before. Designs for the fenestration of late Gothic and Renaissance structures are varied to comply with the period chosen by the architect in order to obtain harmony between the inner and outer building. The result in certain cases gives a suggestion of fine reliefs. Carved and moulded leads may be left as they are and
show like pewter, or they may be emphasized here and there with gilding at the discretion of the artist, or else colors may be added, enamel on metal, to suggest the tints of flowers, butterflies, birds. The music room in the home of Frederick J. Fisher, a residence designed by the firm of George D. Mason & Co., of Detroit, architects, has been embellished by Paris & Wiley with a polychrome panel in which the scheme of leads modeled in low relief, discreetly lightened by color, has made a notable success; it is beautiful by night as well as by day,—a combination of lights and darks, rich glass and metals.

In Chicago, Messrs. Coolidge & Hodgdon built the great library for the University. For this building Paris & Wiley designed and set in place the first of 14 windows 30 feet high, each showing four or five figures the size of life, part of a group of no less than 64 scholars, philosophers, and educators from the time of Confucius to recent days,—a Hall of Fame in color schemes. Along with these there runs a series of shields or coats-of-arms of the American colleges. In Chicago also are the headquarters of the Elks, a national memorial of that order designed by the architect Egerton Swartwout of New York. For this imposing structure, limestone without, marble within, containing a hall like a Pantheon rising 96 feet from floor to dome, Paris & Wiley wrought a number of the windows. The building is of the Italian Renaissance order. The main reception rooms are paneled in English oak, above which there range 12 large openings, while for the first floor, equivalent to the beaux étages, they designed several windows almost twice as large, choosing soft hues,—red, blue, orange,—against a silvery background which admits abundant light.

For a church at Evanston, by the architects Tallmadge & Watson of Chicago, they designed several windows for a chapel to be fitted with glass of deeper tones. Likewise for another church in Chicago, built by the architect H. J. Schlack, they planned a series of windows called "The Apostles" inspired in the spirit of Chartres, where they have maintained a studio and ateliers for several years. Another group by Paris & Wiley in which mosaic has been applied in harmony with color windows is shown in a church which was built by the architects, Coolidge & Hodgdon, of Chicago in Grand Rapids. Here the ceiling, a closed window and a baldachino have a mosaic investment, all coordinated and harmonized with the style of building. A simpler scheme is the decoration of the First Methodist Church, Jamaica, N. Y., built by Joseph Hudnut. It is carried out in grisaille for greater light.

One of the stumbling blocks met by architects is the lack of one-man control over the decoration of a building, not merely the material and tonality of the structure outside and inside, but the fenestration with its design, glass, mosaic or painted walls and ceilings, the paneling and furniture. Some of these may be assigned to artists who are unwilling to submit their taste or their ideas of color and form to a dictator. Ceilings, walls, floors too often turn out badly because they are not in key with the windows. One man should have the final say, and that man is not the rector, or the president of the club or bank,—not even the chairman of the art committee, but the architect! Cass Gilbert when he built the Detroit Public Library had control even down to minutiae. Working under him, Mr. Paris felt inspired to write an attractive as well as informative book about this great building. He knows his subject well, for did not Paris & Wiley supply the grand array of glorious windows? The latter, some of which are illustrated here, exemplify the care taken by these "fenestrators,"—if to coin a word be forgivable,—to look at a window as one great section of a wall and yet give it distinction and vary it for close inspection. Observe what care they have taken to keep their function subordinate to the genius of the building itself.

Unlike the mood of mystery and awe sought for by the Romantic or "Gothic" churches, so called, attained through narrow apertures, heavy mouldings and millions, deep rich effects from bits of glass of slender size which were fused with colors in the pot, a library needs windows of wider span, more receptive of sunlight; for libraries are not places in which to pray but rather to read and write. The less artificial light, the better. In early Christian centuries naive converts came to church in the kermess mood, a spirit of excitement and frolic so pronounced (and this we have from early letters) that beadles, proctors and priests found it hard to control the noise made by the happy crowds. Difficult enough it was to prevent eating and especially drinking in the sanctuary. It is possible that this is one of the reasons for the lines of separation drawn between the clerics and the laymen, out of which there grew the raised choir and the rood loft. Those semipagan barbarians would play! Solemn music and solemn shades helped subdue the "holy day" spirits of the mob, while the figures in the windows captured the eyes and reiterated the pious tales of the scriptures, old and new.

Very different is the case with a secular edifice, whether library or capitol, residence or club house. In Mr. Gilbert's public library the size of the windows necessitated a powerful armature to withstand the wind, and the need for light demanded large areas where daylight enters freely. The problem has been met by arrangements monumental in plan suited to the style of the interior,—noble, concentrated designs appealing to
A DESIGN FOR A WINDOW IN PROPOSED ROMANESQUE CHURCH. PARIS & WILEY, DECORATORS. COOLIDGE & HODGDON, ARCHITECTS.
ALTERNATE WINDOW FOR PROPOSED ROMANESQUE CHURCH. PARIS & WILEY, DECORATORS. COOLIDGE & HODGDON, ARCHITECTS
SCHEME FOR ONE OF FOURTEEN WINDOWS, UNIVERSITY OF CHICAGO
PARIS & WILEY, DECORATORS
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GLASS WINDOW IN THE LIBRARY
OF THE UNIVERSITY OF CHICAGO
PARIS & WILEY, DECORATORS
COOLIDGE & HODGDON, ARCHITECTS
the eye, yet offering the least possible interference with daylight. Details in this library are carried out in a rich and yet formal fashion, the main masses making for architectural symmetry, but the minor features on examination proving ever varied. Thus notes of a different kind melt into a harmony with the surroundings. Observe in the illustrations how the central panels of these superb windows are rich with elements belonging to sculpture and suggestive of the Italian Renaissance. The mid-zone gives a chance for pictorial effects, figures or groups magnificently enframed, along with architectural fantasies such as we find in book plates and badges used by the old printers. In the field below there are shown the signs of the zodiac, two in each window, while the midmost figure of all is one of the muses. A quotation from a poet runs in bold, clear letters under the arch of the border above. The key window in the center of the west wall of the delivery room is richer than the others, and the center pieces repeat the colophon used by an Italian printer of the sixteenth century. There are nine of the windows for the muses; each is different in details of design; all are planned to admit considerable light. Already in the fourteenth century portions of minster windows were often given over to lighter glass known as grisaille. In this library, where they could be introduced with advantage, there are richer and darker windows. Thus on the stair well colors are more lavishly employed for two tall narrow windows, with rich borders set with figured panels, to indicate Study, Art, Music and Painting for the one, and Meditation, Sculpture, Music and Geography for the other. The scheme for these is taken from a building in Florence, the cartoons for the windows having been made by Giovanni da Udine. In the Detroit Library the mosaics in the ceiling of the loggia, the Seven Ages of Man, deserve special study. They were designed by Frederick J. Wiley.

The greatest foe of stained or enameled glass is bad glass, garish, flat, cold; next come ill-placed, glass-like jewels, stupidly set. The best material will not utter truth so hampered! These prejudice people against the art. Another foe is glass of colors overdone, where quantity tries to make up for lack of quality. The old masters of potmetal with their small but exquisite pieces escaped the danger of the over-much; their “purple patches” are due in some degree to the lack of technical perfection attained in later centuries. Thanks to modern appliances, it is comparatively easy to fill great wall openings with glass; also, there is no lack of glass men; but the difficulty is to find the artist among them. Those born and bred to the craft are few now; it is hard for a commander to pick the generals to carry out his campaigns. The great desideratum is the rare man who has for a natural gift a delicate yet passionate sense for color, and who has learned his art from the bottom up.

In this sketch of the multiple output of the Paris & Wiley ateliers one should not forget a historical scheme in glass, heroic in theme and proportions,—it is 25 feet wide,—which decorates the senate chamber in the capitol of Missouri, a building by Mr. Swartwout of New York. Here is shown, prancing on a great white horse, Don Hernando de Soto, the conquistador who, after a picturesque career in Peru, Cuba and the Caribbean, as the reader may recall, entered Florida and discovered the Mississippi, only to find therein his watery grave. This is an illustration from early American history treated in the romantic mood. The spirit that animates these decorators is to adapt their glass, mosaic, or tapestries to the architectural facts of the interiors they will decorate, striving for unity of color scheme and a close bond with the style set by the architect. Note that in his book on the Detroit Library, the senior member of the firm makes a statement which no one will deny,—that “stained glass window is a poor, clumsy, misleading term for a work of art that displays a translucent material in varied forms, which is beautiful when manipulated by artists, whether the color be fused into the mass or applied in layers under the magic hand of the glass blower.” He suggests the word “vitral,” adapted from the word in use by the French. They were the first to raise colored glass windows into the high dignity of realm of art.
which rises the shaft of brick trimmed with terra cotta. The broad, flat piers of this shaft are accentuated by having the walls between studded with projecting brick headers. Arched windows in pavilions with angular corners cap these piers, between which, required by zoning ordinance, are setbacks used for roof gardens which make an interesting composition with a finial in the form of a low tower. The horizontal bands with their small arches and other decorative features are all executed in brick with a terra cotta coping. The exterior walls are faced with 4 inches of face brick backed up with hollow terra cotta block, which makes a good weatherproof and inexpensive wall.

Entering the hotel from either the Seventh Avenue or the 31st Street front, the main lobby is reached by short flights of stairs. This main lobby, two stories in height, has French limestone pillars supporting a gold and colored decorative paneled plaster ceiling, these panels being recalled in the terrazzo floor. Between these pillars on the north one views the arcade and on the south the shopping spaces, which are finished with dark wood walls which emphasize the strong stone piers of the lobby. Beyond this to the east we enter the elevator and office lobby, where the main desk in bronze and marble and elevator doors also in bronze make an interesting business center of the hotel. The floors of these rooms are of terrazzo over which are rugs. The lighting fixtures are specially designed in character with the architecture.

To the west of the main lobby, up a short flight of stairs, is the main dining room, executed in early Colonial style of the period when George Clinton was the first governor of the state of New York and after whom this room and hotel were named. The walls are painted in two-tone light gray with curtains of wine color in the arched openings, and the three beautiful crystal chandeliers and the carpeted floor make this room a formal and comfortable dining place. At the extreme east end of the building on the main lobby floor is the Florentine dining room, so called because of its design and decoration. The vaulted ceiling, and plain two-tone gray walls, the same color being carried out in lighter shades on the ceiling, make this room likewise comfortable and homelike.

The mechanical equipment is of the most modern type. Part of it is a vacuum vapor heating system fed by oil-burning boilers. A refrigerator system serves not only for refrigeration but for cooling the air supplying the main and Florentine dining rooms, the grill room, and the coffee shop. The building is served by six high-speed passenger elevators having floor leveling devices, and four freight service elevators. A completely equipped laundry in the sub-basement serves the building as well as the guests. At the top of the building are the carpentry, paint and upholstery shops.
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HIS women's club residence, located on Gramercy Park South and Irving Place, is designed in the Greek Revival manner to harmonize with and retain the atmosphere of the old residences still surrounding Gramercy Park. Its 16 stories of brick, rising above the park, were completed, after one year of construction, in the fall of 1927. A two-story base of brick laid all in header courses is trimmed with limestone, and the projecting entrance porch forms a decorative feature of this base. The porch with its columns and cornice executed in cast iron projects beyond the building proper, being one of the few cases in downtown New York, where this has been done recently. A stone feature of pilasters and cornice at the top of the building finishes the plain shaft of brick, making an interesting composition with a pent house capping the mass of the structure.

The main entrance on Gramercy Park and an entrance on Irving Place lead to the main lobby on the street level. Here also are parlors, writing, and reception rooms, and the main dining room. Here the architecture and decoration are carried out in the Colonial style. These rooms were executed with simple and inexpensive materials, having plaster painted walls with wood trim and terrazzo floors. The color scheme is harmonious throughout, being cream, gray and white with floors in black and white. To complete the effect, lighting fixtures were specially designed, and the draperies are in character with the rooms. A feature in the dining room is the radiator enclosure in the form of balconies coming under windows. The top floor of the building is also for the convenience of the guest, having a solarium.

The bedroom floors are so arranged that every room is an outside room facing the street, and they are all arranged as single rooms, some having private and others semi-private baths. Light buff colored walls and Colonial maple furniture together with appropriate draperies and rugs complete homelike rooms. Two electric elevators supply the building, which contains about 320 guest rooms. The structure is heated by vacuum vapor steam.
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antique gold.

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Dubois is the true French Provincial Fence, assused for centuries in that land of quaint beauty.

Here is an instance where an architect had three conditions to meet and found a single solution to them all with Dubois.

First, he needed privacy. Dubois supplied it harmoniously, effectively, quickly.

Second, beauty. Dubois has a quaint, rustic charm born of its Old-World origin.

Third, economy. Dubois gives a lifetime of service without need of paint or upkeep expense.

In addition, Dubois has the advantage of being refreshingly different, yet it blends easily and naturally with any setting. No other fence is quite like it.

Be sure to specify Dubois by name. The genuine is made in France and imported solely by this company. Made of live, French chestnut and Copperweld wire. Comes in sections 5 ft. wide and in five heights: 3 10′, 4′11″, 6′6″, 8′ and 10′.

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A beautiful Album showing the wide variety of Dubois uses, with full descriptions and prices, sent on request.
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Flush, French, Panel and Custom Built Doors
Each block is a complete unit of three or more flooring strips, in oak, walnut, maple, beech, red gum, light and dark "Oriental"—either bevel or square edged. 6'/8", 9'/8" or 11'/8" squares, 13/16" thickness, all grades. CELLized by a chemical treat, to reduce the tendency to change in size. Insect and decay resistant. See our catalog in Sweet's—21th edition.

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The HOTEL Sir FRANCIS DRAKE
the window shades are of
HARTSHORN JOANNA CLOTH
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the window shades are of
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Wright Rubber Products Co.
Racine, Wisconsin
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Further information on the results of the Lehigh Airports Competition

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That serious engineering thought was expended is seen in the suggestion of underground passages, long-span roof structures over loading and unloading docks and the implication of proper guidance in draining and lighting systems. And city planning has shown that the modern airport must be definitely related to the highways and traffic arteries of the community it serves.

A. C. Zimmerman and Wm. H. Harrison won the first prize. Mr. Zimmerman, Los Angeles architect, is a graduate of the University of California, a member of the American Institute of Architects and of the Beaux Arts Institute of Design. He is, at present, architect in charge of development of the Western Air Express terminal at Los Angeles. Mr. Harrison, also of Los Angeles, is a graduate architect of Cornell University and a member of the American Institute of Architects. Cornell awarded him the graduate fellowship in architecture in 1921.

C. Gifford Rich, winner of the second prize award of $2500.00, submitted the design reproduced upon the opposite page. This modern airport design shows the influence of Mr. Rich’s varied experiences in architecture and aeronautics. During the war he was a flying officer in the Royal Flying Corps, and his extensive studies into the requirements of the modern airport began with his experience as scout pilot on the more or less primitive landing fields in England and France.

We should be interested in having you write us for detailed information concerning the results of this great competition, and upon request we will send you our brochure—"Highlights of the Lehigh Airports Competition."

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Francis Keally, A. I. A.
Colonel Willard Chevalier, C. E., Publishing Director, Engineering News-Record.
George B. Ford, A. I. A., Technical Advisory Corporation, Planning Consultants; Airfield Planner to the War Department.
E. P. Goodrich, Consulting Engineer, City Planning Consultant.
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The publications listed in these columns are the most important of those issued by leading manufacturers identified with the building industry. They may be had without charge unless otherwise noted, by applying on your business stationery to The Architectural Forum, 521 Fifth Ave., New York, or the manufacturer direct, in which case kindly mention this publication.

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R. Guastavino Co., 40 Court St., Boston. A Remarkable Combination of Quality and Economy. Booklet, 18 pp., 8 x 11 ins. Illustrated.

ASH HOISTS—TELESCOPIC
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ASH HOISTS

CONCRETE BUILDING MATERIALS
Akoustolith Plaster. Brochure, 6 pp., 8 1/2 x 11 ins. Important data on a valuable material.

CONCRETE COLORINGS
Dychrome. Concrete Surface Hardener in Colors. Folder, 4 pp., 8 x 11 ins. Illustrated. Data on coloring for floors.

CONCRETE MORTAR
Kosmotar, the Mortar for Cold Weather. Folder, 4 pp., 3 1/2 x 6 1/4 ins. Illustrated. Tells why Kosmortar should be used in cold weather.

CONCRETE TOOLS AND MACHINERY
Concrete in Architecture. Bound Volume, 60 pp., 8 x 11 ins. Illustrated. An excellent work, giving views of exteriors and interiors.

CHURCH EQUIPMENT

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CONCRETE MODELING
The Master Builders Co., 706 Euclid Ave., Cleveland. Coloring, mixed with Portland cement, and used on exterior walls of churches and religious institutions. Brochure, 8 pp., 8 x 11 ins. Illustrated.

CONSTRUCTION, STONE AND TERRA COTTA
The Key to Firesafe Homes. Booklet, 20 pp., 8 x 11 ins. Illustrated.

DOORS

DOORS AND TRIM, METAL
The American Brass Company, Waterbury, Conn. Aremium Bronze Extruded Shapes. Brochure, 16 pp., 8 x 11 ins., illustrating and describing more than 200 standard bronze shapes of cornices, jambs, casings, moldings, etc.

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To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to The Architectural Forum, 521 Fifth Avenue, New York.
SELECTED LIST OF MANUFACTURERS’ PUBLICATIONS—Continued from page 67

ELEVATORS
Otis Elevator Company, 260 Eleventh Ave., New York, N. Y.
Otis Push Button Controlled Elevators. Descriptive leaflets, 8½ x 11 ins. Illustrated. Full details of machines, motors and controllers for these types.
Otis Geared and Gearless Traction. Elevators of All Types. Descriptive leaflets, 8½ x 11 ins. Illustrated. Full details of machine, motors and controllers for these types.
Otis Escalators. Booklet, 8½ x 11 ins., 22 pp. Illustrated. Describes use of escalators in subways, department stores, theaters and industrial buildings. Also includes elevators and dock elevators.
Escalators. Booklet, 8½ x 11 ins., 24 pp. Illustrated. Describes complete line of "ideal" elevator door hardware and checking devices, also automatic safety devices.
Sedgwick Machine Works, 151 West 15th St., New York, N. Y.
Catalog and descriptive pamphlets, 8¼ x 8½ ins., 78 pp. Illustrated. Descriptive pamphlets on hand power freight elevators, sidewalk elevators, automobile elevators, etc. Catalog and pamphlets, 8½ x 11 ins. Illustrated. Important data on different types of elevators.

ESCALATORS
Otis Elevator Company, 260 Eleventh Ave., New York, N. Y.
Escalators. Booklet, 8½ x 11 ins. Illustrated. A valuable work on an important item of equipment.

FIREPLACE CONSTRUCTION
H. W. Convert Co., 245 East 4th Street, New York, N. Y.
Convert Fireplace Construction. Booklet, 12 pp., 8½ x 11 ins. Illustrated. A valuable work on an important topic.

FIREPROOFING
Concrete Engineering Co., Omaha, Neb.

Concrete Steel Co., 42 Broadway, New York.
Economical Fireproof Floors for Suburban Buildings. Folder. 4 pp., 8½ x 11 ins. Illustrated. Describes details of machines, motors and controllers for these types.


North Western Expanded Metal Co., 409 South Dearborn St., Chicago, Ill.
A. A. Smalley Book. Bound volume, 8½ x 11 ins. Contains actual samples of several materials and complete data regarding their use.

FLOOR HARDENERS (CHEMICAL)
Master Builders Co., Cleveland, Ohio.
Concrete Floor Treatment. File, 50 pp. Data on securing hard-cured dustproof concrete.


Minwax Company, 11 West 42nd Street, New York, N. Y.
Concrete Floor Treatments. Folder, 4 pp., 8½ x 11 ins. Illustrated.

Toch Brothers, New York, Chicago, Los Angeles.
Handbook of R. I. W. Protective Products. Booklet, 40 pp., 4½ x 7½ ins.

FLOORS—STRUCTURAL
Concrete Steel Co., 42 Broadway, New York.

Truscon Steel Co., Youngstown, Ohio.

Structural Gypsum Co., Linden, N. J.

FLOORING
Armstrong Cork Co. (Linoleum Division), Lancaster, Pa.


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SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 68

FLOORING—Continued
2
Collins Oak Flooring, Memphis, Tenn.
Conegoule-Neir1, Inc., 195 Belgrave Drive, Kennen, N. J.
Facot You should examine Resilient Floors. A series of booklets on floors for (1) schools, (2) hospitals, (3) offices, (4) stores, (5) libraries, (6) churches, (7) Clubs and Lodges, (8) apartments and hotels. Illustrated.


U. S. Gypsum Co., Chicago. Illustrations showing installations of Kewanee boilers, water heaters, radiators, etc. A New Kind of Floor Service. Brochure, 8 pp., 8% x 11 ins. Illustrated. Data on flooring.


FURNITURE


A Catalog of Kittinger Furniture. Booklet, 78 pp., 11 x 14 ins. Illustrated. General Catalog.

GLASS CONSTRUCTION
Adamson Flat Glass Co., Clarkesville, Va. Quality and Dependability. Folder, 2 pp., 8% x 11 ins. Illustrated. Glass in the company's process.


GREENHOUSES
King Construction Company, North Tonawanda, N. Y. King, A New Kind of Greenhouse. Brochure, 56 pp., 8% x 11 ins. Illustrated.


Deals with Johnson Rotary Burner with Full Automatic Control.

Ideal Boilers for Oil Burning. Catalog, 154 x 8% ins., 36 pp. Illustrated in color. Describing a line of Heating Boilers especially adapted to use with Oil Burners.

Corto-The Radiator Classic. Brochure, 58 x 8% ins., 16 pp. Illustrated. A brochure of the Corto Radiator, the world's most efficient and efficient.

Ideal Arcola Radiator Warmth. Brochure, 64 x 8% ins. Illustrated. Describes a central all-on-one-floor heating plant with radiators for small residences, stores, etc. How Shall I Heat My Home? Brochure, 16 pp., 58 x 8% ins. Illustrated. Full data on heating and hot water supply.

New American Radiator Products. Catalog, 56 pp., 8% x 11 ins. Illustrated. Complete line of heating products.


In-Aird, the Invisible Air Valve. Folder, 8 pp., 58 x 8% ins. Illustrated. Data on a valuable detail of heating.


Dunham Return Heating System. Bulletin 102, 8 x 11 ins. Illustrated. Covers the use of heating apparatus of this kind.


The Fulton Syphon Company, Knoxville, Tenn. Syphon Temperature Regulator. Illustrated brochures, 8% x 11 ins., dealing with Johnson Rotary Burner with Full Automatic Control.

Deals with Johnson Rotary Burner with Full Automatic Control.

Hoffman Specialty Company, 60 West 65th St., New York, N. Y. Heat Controlled With The Touch of a Finger. Booklet, 48 pp., 58 x 8% ins. Illustrated.

How to Lock Out Air, the Heat Thief. Brochure, 48 pp., 58 x 8% ins. Illustrated.

Jannote Manufacturing Company, 156 West Monroe Street, Chicago. More Heat from Any Hot Water System on Less Fuel. 4 pp., 8% x 11 ins. Illustrated. Deals with use of the "Hydrolator."

S. T. Johnson Co., Oakland, Cali.


Kewanee Boiler Corporation, Kewanee, Ill. Kewanee on the Job. Catalog, 8% x 11 ins., 80 pp. Illustrated. Showing installations of Kewanee boilers, water heaters, radiators, etc.

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HOSPITAL EQUIPMENT

The Frink Co., Inc., 309 Lexington Ave., New York City.

Catalog 426, 10 pp. Describes principles and design of Kernerator Chimney-fed incinerators for apartments and gives list of buildings where it has been installed.

Sanitary Disposal of Waste in Hospitals. Booklet, 4 x 9 ins., 12 pp. Illustrated. Shows how this necessary part of hospital service is taken care of with the Kernerator. Gives list of hospitals where installed.


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The Insulation of Roofs to Prevent Condensation. Illustrated booklet, 7½ x 10½ ins., 36 pp. Discusses means of insulating roofs of manufacturing or commercial structures.

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National Lumber Manufacturers' Association, Transportation Building, Washington, D.C.


Structural Gypsum Corporation, Linden, N. J.

THIS attractive kitchen is fitted with Formica window stools and with a kitchen table that has a Formica top. This material will not spot with liquids; burn with cigars or cigarettes or check or craze from the weather.

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**Milwaukee Corrugating Co., Milwaukee.**


Metal Lath Catalog. Booklet, 288 pp., 8 1/2 x 11 in. Illustrated. Data on metal and similar materials.

Better Walls for Better Homes. Booklet, 16 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

LATEX METAL AND REINFORCING

**National Steel Fabric Co., Pittsburgh, Pa.**

Better Beds for Better Sleep. Booklet, 24 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

Lighting for Your Building. Booklet, 24 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

**North Western Expanded Metal Co., Chicago, Ill.**

North Western Expanded Metal Catalog. Booklet, 130 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

Lighting Fixtures and Fixtures. Booklet, 24 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

**Truscon Steel Company, Youngstown, Ohio.**

Truscon 44-Inch Hy-Rib for Floors, Roofs and Walls. Booklet, 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

Lighting Fixtures and Fixtures. Booklet, 24 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

**Truscon Steel Company, Youngstown, Ohio.**

Truscon 64-Inch Hy-Rib for Floors, Roofs and Walls. Booklet, 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

Lighting Fixtures and Fixtures. Booklet, 24 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

**TRUSCON H-LATH COMPANY, East Chicago, Ind.**

Truscon 44-Inch Hy-Rib for Floors, Roofs and Walls. Booklet, 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

Lighting Fixtures and Fixtures. Booklet, 24 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

**Troy Laundry Machinery Co., Inc., Park Place, New York City.**

Laundry Machinery for Large Institutions. Loose-leaf booklet, 30 pp., 8 1/2 x 11 in. Illustrated.

Laundry Machinery for Small Institutions. Loose-leaf brochure, 30 pp., 8 1/2 x 11 in. Illustrated. Data on metal lath and similar materials.

Accessory Equipment for Institutional Laundries. Leather bound booklet, 50 pp., 8 1/2 x 11 in. Illustrated.

Dry Cleaning Equipment for Institutional Purposes. Booklet, 50 pp., 8 1/2 x 11 in. Illustrated.

**LIGHTING EQUIPMENT**


Gleason Tieback Glass Company, 60 West 46th St., New York, N. Y. Catalog 514, 18 pp., 8 1/2 x 11 in. Illustrated. Data on lighting for offices, schools, hospitals, etc.

Bryceian Catalog 752, Booklet, 18 pp., 8 1/2 x 11 in. Illustrated. Value brochure on lighting.


Lighting Specifications for Hospitals. Brochure, 30 pp., 8 1/2 x 11 in. Illustrated.


Holophane Catalog. Booklet, 48 pp., 8 1/2 x 11 in. Combination Catalog and engineering data book.


Commercial Lighting. Booklet, 24 pp., 8 1/2 x 11 in. Illustrated. Data on lighting for offices, schools, hospitals, etc.

**LUMBER**

National Lumber Mfrs. Ass'n, Washington, D. C.

Use of Lumber on the Farm. Booklet, 26 pp., 8 1/2 x 11 in. Illustrated.

MAIL CHUTES

Cutler Mail Chute Company, Rochester, N. Y. Cutler Mail Chute Model F. Booklet, 6 x 9 1/4 in., 8 pp. Illustrated.

**MANTELS**


Driwood Mantels. Booklet, 12 pp., 8 1/2 x 11 in. Illustrated.

Georgian Mantels. Booklet, 12 pp., 8 1/2 x 11 in. Illustrated.

**MARBLE**

The Georgia Marble Company, Tate, Ga.; New York Office, 1328 Broadway.

Why Georgia Marble is Better. Booklet, 16 pp., 8 1/2 x 6 in. Gives analysis, physical qualities, comparison of absorption with granite, opinions of authorities, etc.

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PAINTS, STAINS, VARNISHES, WOOD FINISHES—Continued


PARCEL DELIVERY DEVICES


PARTITIONS


Hausman Concrete Co., E. F., Cleveland, Ohio. Hallow Steel Standard Partitions. Various folders, 8½ x 11 ins. Illustrated. Full data on different types of steel partitions, together with details, elevations and specifications.


Hartmann-Sanders Company, 2155 Elston Ave., Chicago, Ill. Detailed Instructions for Erecting Teleco Partitions. Booklet, 24 pp., 8½ x 11 ins. Illustrated. Complete instructions, with cuts and drawings, showing how easily Teleco Partition can be erected.

Improved Office Partition Co., 25 Grand St., Emhurst, L. L. N. Y. (See Henry Klein & Co.)


Teleco Office Partition, 25 Grand St., Emhurst, L. L. N. Y. (See Henry Klein & Co.)


PIPE


National Tube Co., Frick Building, Pittsburgh, Pa. "National" Bulletin No. 2. Corrosion of Hot Water Pipe, 8½ x 11 ins., 24 pp. Illustrated. In this bulletin is summed up the most important research dealing with hot water systems. The text matter consists of seven investigations by authorities on this subject.

"National" Bulletin No. 3. The Protection of Pipe Against Internal Corrosion, 8½ x 11 ins., 20 pp. Illustrated. Discusses various causes of corrosion, and details are given of the deactivating and deactivating systems for eliminating or retarding corrosion in hot water supply lines.

"National" Bulletin No. 4. "National" Pipe in Large Buildings. 8½ x 11 ins., 80 pp. This bulletin contains 24 illustrations of the prominent buildings of all types, containing "National" Pipe, and considerable engineering data of value to architects.

Modern Welded Pipe. Book of 88 pp., 8½ x 11 ins., profusely illustrated with half-tone and line engravings of the important operations in the manufacture of the pipe.

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Best Bros., Keene's Cement Co., Medicine Lodge, Kans.

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Interior Walls Wallis Lastrofing. Brochure, 21 pp., 8½ x 11½ ins. Illustrated. Describes origin of Keene's Cement and views of buildings in which it is used.

PLUMBING EQUIPMENT

Cowg & Sons, James B., 534 S. Franklin St., Chicago, Ill.

Catalog, 6 x 12 ins. Illustrated. Shows complete line of plumbing fixtures for Schools, Railroads and Industrial Plants.

Crane Company, 835 S. Michigan Ave., Chicago, Ill.


John Douglas Co., Cincinnati, Ohio


Another Douglas Achievement. Folder, 4 pp., 8½ x 11 ins. Illustrated. Data on new type of stack.

Hospital. Brochure, 60 pp., 8½ x 11 ins. Illustrated. Deals with fixtures for hospitals.


Imperial Stone Mfg. Co., 120 W. Harrison St., Chicago, Ill.

Wastous Patent Flush Valves, Dujoet Water Closets, Liquid Soap Fixtures, etc. 8½ x 11 ins., 126 pp. Illustrated. Catalog, shows all types of sanitary ware for all sanitary purposes.

Maddock's Sons Company, Thomas, Trenton, N. J.

Complete data on vitrified china plumbing fixtures with brief history of Sanitary Pottery.

Speakman Company, Wilmington, Del.


Trenton Potteries Company, Trenton, N. J.


PNEUMATIC TUBE SYSTEMS

G & G Atlas Systems, Inc., 544 West Broadway, New York, N. Y.

Catalog K. 8½ x 11 ins., 242 pp. Illustrated. Complete data on vitreous china plumbing fixtures with brief history of Sanitary Pottery.

PUMPS

Kewanee Private Utilities Co., 442 Franklin St., Kewanee, III.


NATIONAL BAKING COMPANY, South Norwalk, Conn.

Bulletin 52. Brochure, 6 pp., 10x4 x 7½ ins. Illustrated in color. Describes Jenning's Standard Centrifugal Pumps for house service, elevated city service, suction of cooling towers, for circulating warm water, etc.


The Trane Co., La Crosse, Wis.

Trane Small Centrifugal Pumps. Booklet, 3½ x 8 ins., 16 pp. Complete data on an important type of pump.

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Ramp Buildings Corporation, 21 East 60th St., New York, N. Y.

Building Garages for Profitable Operation. Booklet, 8½ x 11 ins. 16 pp. Illustrated. Discusses the need for modern mid-city, parking garages, and describes the "Humy Motoramp" system of design, on the basis of its superior space economy and features of operating convenience. Gives cost analyses of garages of different sizes, and calculates probable earnings.

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The Fulton Syphon Company, Knoxville, Tenn.

Temperature Control of Refrigeration Systems. Booklet, 8 pp., 8½ x 11 ins. Illustrated. Deals with cold storage, chilling of water, etc.

North Western Expanded Metal Company, Chicago, Ill.


REINFORCED CONCRETE—See also Construction, Concrete

Longspan 14-inch Ribs Lath. Folder, 4 pp., 8½ x 11 ins. Illustrated. Deals with a new type of V-Rib expanded metal.

Truscon Steel Company, Youngstown, Ohio.


RESTAURANT EQUIPMENT

John Van Range Company, Cincinnati.


ROOFING

The Barrett Company, 40 Rector St., New York City.

Architects' and Engineers' Built-up Roofing Reference Series; Volume IV Roof Drainage System. Brochure, 54 pp., 8½ x 11½ ins. Illustrated. Gives complete data and specifications for many details of roofing.

Federal Cement Tile Co., 606 S. Dearborn Street, Chicago.

Catalog and Roof Standards. Booklet, 36 pp., 8½ x 11 ins. Illustrated. Describes Featherweight Concrete Insulating Roof Slabs, including complete data, weights and dimensions, specifications and detail drawings. Also includes complete information on Featherweight Sani-Slate Roofing. Complete specifications for use with ornamental slate or copper covering. The catalog is profusely illustrated and contains also a partial list of users.

Examples of Theaters and Theater Roofs. Brochure, 16 pp., 8½ x 11 ins., Illustrated. Contains views of theaters designed by some of the country's leading architects.

Examples of Theaters and Theater Roofs. Brochure, 16 pp., 8½ x 11 ins., Illustrated. Contains views of theaters designed by some of the country's leading architects.

Federal Interlocking Tile and Glass Tile. 4 pp., 8½ x 11 ins. Illustrated. Describes complete roof or precast concrete slabs requiring no composition covering.

Hainz Roofing Tile Co., 1925 West Third Avenue, Denver, Colo.


Mission Tile. Leaflet, 8½ x 11 ins. Illustrated. Tile such as are used in Italy and Southern California.

Georgian Tile. Leaflet, 8½ x 11 ins. Illustrated. Tiling as used in old English and French farmhouses.

Johns-Manville Corporation, New York.


Ludolwic-Calalun Company, 104 So. Michigan Ave., Chicago, Ill.

"Ancient" Tapered Mission Tiles, hand-made with full corners and designed to be applied with irregular exposures.

Milwaukee Corrugating Co., Milwaukee.

Milcor Architectural Sheet Metal Guide. Booklet, 72 pp., 8½ x 11 ins. Illustrated. Describes various types of metal roofing, decorative metal, etc.

Milcor Sheet Metal Handbook. Brochure, 128 pp., 8½ x 11 ins. Illustrated. Describes various types of metal roofing, decorative metal, etc.

Structural Gypsum Corporation, Linden, N. J.

Relative Effectiveness of Various Types of Roofing Construction in Preventing Condensation of the Under Surface. Folder, 4 pp., 8½ x 11 ins. Important data on the subject.

Gypsum Pre-cast Fireproof Roofs, Bulletin, 45 pp., 8½ x 11 ins. Illustrated. Information regarding a valuable type of roofing.

U. S. Gypsum Co., Chicago, Ill.


Schoolrock Pyrofill Roof Construction. Folder, 8½ x 11 ins. Illustrated. Covers use of roof surfacing which is poured in place.

SCHOOL EQUIPMENT

John Van Range Co., Cincinnati.


SEWAGE DISPOSAL

Kewanee Private Utilities Co., 442 Franklin St., Kewanee, III.

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SELECTED LIST OF MANUFACTURERS’ PUBLICATIONS—Continued from page 78

STORE FRONTS—Continued

Detail Sheet and descriptive folder, 8½ x 11 ins., with A.I.A. File No. 24, featuring "B" Store Front Construction, designed along modernistic lines.

Modern Bronze Store Front Co., Chicago Heights, Ill.

Zuori Drawn Metals Company, Chicago Heights, Ill.
Zuori Safety Key-Set Store Front Construction. Catalog, 4½ x 8½ ins., 60 pp. Illustrated. Complete information with detailed sheets and installation instructions convenient for architects’ files.


TELEPHONE SERVICE ARRANGEMENTS

All Bell Telephone Companies. Apply nearest Business Office, or American Telephone and Telegraph Company, 125 Broadway, New York.

Planning for Home Telephone Conveniences. Booklet, 52 pp., 8½ x 11 ins. Illustrated.


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National Terra Cotta Society, 19 West 46th St., New York, N. Y.

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Better Banks. 8½ x 11 ins., 32 pp. Illustrating many banking buildings in terra cotta with an article on its use in bank design by Alfred C. Bossom, Architect.

TILE, HOLLOW


Tiles


Hansley Quarry Tile. Folder. 4 pp., 5 x 8 ins. Illustrated.


Pardee Tiles. Bound volume, 48 pp., 8½ x 11 ins. Illustrated.

VALVES

Cone Co., 836 S. Michigan Ave., Chicago, III.

No. 31. General Catalog. Illustrated. Describes the complete line of the Crane Co.

C. A. Dunham Co., 410 East Ohio St., Chicago, Ill.

The Dunham Packless Radiator Valve. Catalog, 28 pp., 8 x 11 ins. Illustrated.

Jenkins Brothers, 38 White Street, New York.


VENETIAN BLINDS


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The pigment of this paint remains insoluble in water...does not change chemically...does not wash off and leave streaks. Thus, even after long service, it can be safely washed with soap and water time and time again.

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This pure all-lead paint is particularly adaptable because it is mixed to order for every job. It enables the painter to obtain the exact tints necessary to carry out the architect's color specifications. It can be mixed to produce egg-shell as well as flat finishes. It makes possible the use of many interesting treatments, such as the crumpled roll, the sponge mottle, Tiffany and plastic finishes.

Let us send you a booklet, "Decorative Possibilities of Paint", which describes several of these finishes. We shall also be glad to send any architect a complete specification book containing formulas for all coats and finishes. Address branch office nearest you.
### SELECTED LIST OF MANUFACTURERS’ PUBLICATIONS

#### VENETIAN BLINDS—Continued

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
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#### VENTILATION

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
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<tbody>
<tr>
<td>American S. F. Fans</td>
<td></td>
<td>Brochure, 28 pp., 8½ x 11 ins. Data on an important line of blowers.</td>
</tr>
</tbody>
</table>

#### WATERPROOFING

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Builders Company</td>
<td>Cleveland, Ohio</td>
<td>Data on an important line of materials for protection against dampness.</td>
</tr>
</tbody>
</table>

#### WEATHER STRIPS

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Athey Company</td>
<td>Chicago, III</td>
<td>Illustrated. Data on an important type of weather stripping.</td>
</tr>
</tbody>
</table>

#### WINDOWS

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
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<tbody>
<tr>
<td>Detroit Steel Products Co.</td>
<td>2250 Grand Boulevard, Detroit.</td>
<td>Window Shade Data Book, 28 pp., 8½ x 11 ins. Illustrated.</td>
</tr>
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</table>

#### WEATHER STRIPS—Continued

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
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#### WOOD—See also Millwork

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
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#### WOOD FINISH

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
</tr>
</thead>
</table>

### PUBLICATIONS—Continued from page 80

#### WINDOWS, CASEMENT—Continued

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
<th>Details</th>
</tr>
</thead>
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<td>Lupton Casement Copper Steel</td>
<td>Catalog C-227.</td>
<td>24 pp., 8½ x 11 ins. Illustrated. Brochure on casements, particularly for residences.</td>
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<tr>
<td>Lupton Casement Steel</td>
<td>Catalog C-228.</td>
<td>24 pp., 8½ x 11 ins. Illustrated. Brochure on casements, particularly for residences.</td>
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#### WINDOW SCREENS

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<tr>
<th>Manufacturer</th>
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<th>Details</th>
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<tbody>
<tr>
<td>Detroit Screen Casements</td>
<td>Detroit Steel Products Co., 2250 Grand Boulevard, Detroit.</td>
<td>Brochure, 36 pp., 8½ x 11 ins. Illustrated.</td>
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#### WINDOW SHADES AND ROLLERS

<table>
<thead>
<tr>
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<tr>
<td>Minwax Company</td>
<td>New York</td>
<td>Catalog, 16 pp., 8½ x 11 ins. Use of fabrics and draperies.</td>
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#### WINDOWS, STEEL AND BRONZE

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
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#### ARCHITECTURAL DETAILS

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<thead>
<tr>
<th>Manufacturer</th>
<th>Address</th>
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<tr>
<td>Detroit Steel Products Co.</td>
<td>Detroit</td>
<td>Brochure, 24 pp., 8½ x 11 ins. Full lists of parts for different units.</td>
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#### WINDOW SHADES AND ROLLERS

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#### REQUEST FOR CATALOGS

To get any of the catalogs described in this section, put down the title of the catalog desired, the name of the manufacturer and send coupon to THE ARCHITECTURAL FORUM, 521 Fifth Avenue, New York.
INDUSTRY today seeks means of reducing operation and upkeep figures. There is small place in American business for make-shift equipment, for short-lived assets. Architects, building managers, and owners are keenly alive to this fact. Hence the decided preference in many lines for partitions built of steel. In offices, shops, toilets... everywhere the trend is to steel. Why? Because steel LASTS. Even when re-vamping of partitions is necessary, unit sectional steel responds readily, without loss of time or scrapping of material, and with low labor charges.

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The complete line of Sanymetal Products covers office partitions, factory partitions, toilet, shower and dressing compartments, hospital cubicles and metal costumers. We shall be glad to send you details on new and interesting designs of any of these products.

THE SANYMETAL PRODUCTS COMPANY
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New York Office: 536 East 133rd Street
Both the decorative and the practical qualities inherent in Aluminum have been recognized and taken advantage of in an interesting way by Wm. Van Alen, architect for the Chrysler Building—now in process of construction.

One hundred and eighty-five ornamental Aluminum Spandrels of three different patterns are placed between the upper and lower tiers of windows from the 21st to 24th floors.

The set-back floors—the 24th, 27th and 31st—will also be furnished with Aluminum backed copings, Aluminum handrails, and handrail supports.

A large cast Aluminum flagpole holder symbolizing the winged cap on the Chrysler car will be placed above the main entrance on the fifth floor level, and from between its wings will arise a flagpole.

An architectural rendering of the Chrysler Building is shown at the right, and close up pictures of some of the Aluminum fabrications used in its construction will be found on the opposite page.

The Aluminum Alloy was created and fabricated by

Aluminum Company of America
24993 Oliver Bldg., Pittsburgh, Pa.
Offices in 19 Principal American Cities
THE fabrications shown on this page—each of which is specified in the construction of the Chrysler Building—are excellent examples, both of the wide range offered by Aluminum in matters of ornamentation and design and of its usefulness as a building material metal.

A substantial saving in permanent upkeep is one very definite advantage. No painting is required to protect these castings from the action of the elements... for the material is non-corrodible and will last as long as the building on which it is placed. The permanency of the design detail is also assured, since the indented surfaces will not be filled and gradually obscured by coats of paint applied at intervals as a protective measure.

An added advantage is found in the fact that Aluminum will not develop rust, and hence will not streak and stain the adjacent surfaces.

A booklet, “Architectural Aluminum,” describes and visualizes many interesting uses of Aluminum in the architectural field. May we send you a copy?

ALUMINUM COMPANY OF AMERICA
24993 Oliver Bldg., Pittsburgh, Pa.
Offices in 19 Principal American Cities

ARCHITECTURAL ALUMINUM

Design drawings and further details of the flagpole holder and spandrels used on the Chrysler Building will be found on the following page.
THE winged holder, containing a flagpole socket, shown at the upper left in simple outline detail is 7' 9" wide, 7' 9" long, and 4' 10" high from base of wing to tip. It is finished in the natural metal and highly polished.

The two decorative spandrels shown just beneath (with working detail) are approximately 4' 10" square with a wall thickness of ¼". They are sand cast, sand blasted and high lighted.

All of these fabrications (including the cast window sills) are made of No. 43 alloy, having a silicon content of 5%. The weight does not exceed .097 pounds per cubic inch and the average tensile strength is not less than 17,000 lbs. per square inch.

This material is very workable. It is light, durable, strong and non-corrodible, and its silvery gray color blends beautifully with almost every decorative scheme.

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The advantages of Bakelite Molded cover plates for switches and outlets are many. They provide an additional measure of safety as they are made of a material possessing high insulation value. The color and finish are lasting, and polishing or refinishing is never required. They cannot corrode or stain under any conditions or in any climate. Bakelite Molded cover plates are made by all the leading wiring device manufacturers in standard brown, and black and special finishes are also available. Write to us for a list of the makers of these and other articles of building equipment, formed of Bakelite Molded.

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AND
Farmsteads in France
By Harold D. Eberlein and Roger W. Ramsdell

Château de Muissey, Cote d'Or

In all the wide search for architectural types in which to design and plan the American home, there has been found nothing more beautiful and appropriate than what is called "French Provincial," the term applying to the better order of farm houses, manoirs, and even to minor châteaux. It is a type full of graceful informality along with the touch of dignity or sophistication which renders it just a trifle formal; it is expressive of eighteenth century charm, and it suits admirably the needs of the present-day builders of suburban or country homes. In the refined and slightly reticent exteriors of the old French country houses, much emphasis is placed upon excellent architectural lines, while their interiors show carefully arranged and spacious rooms with well placed chimneypieces, doors and windows.

This excellent and authoritative work should be in the library of every architect whose practice includes work of any kind of residence character. It brings to the attention of American architects a type which is fresh and new without being freakish. It includes 254 illustrations from original photographs showing subjects complete as well as in great detail, together with many measured drawings and perspective plot plans. Flat Quarto (11 1/2 x 11 ins.), bound in handsome library blue buckram, stamped in gold, uncut edges with gilt tops.

In a Box—Price $15

THE ARCHITECTURAL FORUM
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THE flexibility of modern floodlighting technique is illustrated by the illuminated dome of the new Williamsburgh Savings Bank building in Brooklyn. This building was designed with a view to obtaining the finest effects of floodlighting. The problem was to light the upper surface of the dome with an intensity equal to that of the lower surface. Exterior projectors could not be so placed as to accomplish this. The problem was solved by constructing the dome of horizontal metal louvers and placing General Electric floodlighting projectors on the floor, within. Viewed from any point below the level of the dome, these gilded louvers overlap, appearing by day as a continuous surface. At night, they reflect the rays from the concealed projectors and still present an apparently unbroken surface—evenly and brilliantly lighted. A cycle of color changes adds spectacular beauty to the effect.
In halls and lobbies, J-M Tile Flooring provides a tough, long-wearing floor — easy to keep in good condition. Clean cut lines and tight joints add to the effectiveness of many designs obtainable with J-M Tile Flooring.
ARCHITECTS have often been confronted with a real problem in the selection of a flooring that will meet all conditions, that will look well, not only at the start, but will continue to do so after years of use.

J-M Tile Flooring is a genuine contribution to better building. Years of use have shown that this type of flooring comes through the severest wear and preserves its appearance as time goes on. With this ability to stand rough service, it has the resilience so essential to comfort and quiet. It is available in a wide range of effective colors, and is most reasonable in cost.

A cement that is water-proof
The cement in which a flooring of this type is laid is a most important accessory. J-M Tile Flooring Cement is a unique product. For a number of years it has been used successfully with J-M Tile Flooring, forming a perfect and permanent bond between tile and underfloor — a bond which is not affected by dampness. For this reason, together with the fact that mineral gums are used in the manufacture of the tiles themselves, J-M Flooring will give good service in damp locations.

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Installations of J-M Tile Flooring are giving successful service in practically all types of buildings. You can specify this flooring without hesitation. It is backed by the showing of actual performance and by our name.

Our Architectural Representatives will be glad to confer with any architect on matters referring to flooring. Our Architectural Representatives are, in fact, ready at all times to confer with you not only about flooring, but also about the widely varied Johns-Manville products which enter into building construction.
A happy element in the attractive plans—greenhouse by King

It is difficult to define precisely that quality or feeling which a private greenhouse gives to the home setting. But it is there none-the-less, and architectural artists have always sensed it.

For a greenhouse, finely designed and located, becomes at once an integral part of the plans—indeed, a beautiful part highly prized by the prospective builder.

Needless to say, King Greenhouses have long been esteemed by the architectural profession. A study of the design and construction of Kings will tell you why. . . . Would you like our Architects' Bureau to make suggestions and furnish rough sketches to help you on any of your present work?

Let us send you our new and helpful portfolio of plates showing attractive greenhouses we have constructed on the advice of other architects. . . . Your letterhead will bring it promptly!

King Construction Company

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Builders: Dutton & Kendall Co.
Hardware: Corbin

The second building below is the Denver National Bank Building
Architects: Fisher & Fisher
Builders: Kirchhof Construction Co.
Hardware: Corbin

At your left is the Mountain States Telephone & Telegraph Building
Architects: Wm. N. Bowman Co.
Builders: C. E. Walker Const. Co.
Hardware: Corbin

Below is the Midland Savings Bank Building, also of Denver
Architects: Fisher & Fisher
Builders: Alex Simpson
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The American Hardware Corporation, Successor
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There was a time when any kind of glass was used for windows—but that day has passed. And architects, perhaps more than any other group of individuals, are responsible for obsoleting that practice.

With the inception of the Libbey-Owens process of manufacture, a totally new kind of glass was produced—a glass that was truly flat and without bow—that possessed a sparkle and lustre never before known in window glass. Architects quickly saw in Libbey-Owens Glass a product that would really enhance their own art—the art of creating beautiful homes and buildings. Hundreds of them immediately made it a standard practice to specify Libbey-Owens Glass for every building they designed.

Because architects recognized the superior quality of the Libbey-Owens product—and in increasing numbers specified Libbey-Owens Glass—Libbey-Owens has become the recognized quality glass for fine buildings of every description.

For your protection and identification, every light of Libbey-Owens "A" quality glass bears the familiar L/O label. Be sure to include it in your specifications. Libbey-Owens Glass Company, Toledo, Ohio.
The Penn-Kenilworth designs shown here are authentic reproductions of Old English hardware from historical manor houses... Besides this group, Penn presents several other charming patterns from this period to make possible the selection of hardware fully appropriate to the architectural and decorative plan. To their wide line of classic pieces Penn has added a comprehensive group of brilliant modern designs. All Penn designs are equipped with Penn-made locks suitable for any requirement.
MORE GLASS FOR WINDOWS

MORE and larger windows glazed with better glass reduces eye strain for those who read indoors.

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Uniformly high quality has made "A. W. G. CO." the preference of architects for more than a quarter of a century . . . Write for our new literature.

AMERICAN WINDOW GLASS CO.

Farmers Bank Building, PITTSBURGH, PENNA.
Grecian design is the parent of the classic mode. The Renaissance, the charming Louis XIV, XV and XVI periods together with our own colonial owe their inspiration to this ancient source. RUSSWIN offers its exclusive Grecian designs with the dual character of style-timeliness and service. Every piece of RUSSWIN hardware is built to weather years of use; to give faultless, trouble-free and lasting service. It will faithfully stand to its task in the small house, palatial residence, or public structure. Whether it be a sturdy, handsome door knob, a lock, a door closer, night latch, or even the small hinges and lock for the corner cupboard . . . all will be in perfect accord if you select RUSSWIN. Consult your architect or interior decorator, when making plans, or write to us for descriptive booklet covering RUSSWIN Hardware expressly made for leading periods of design. Russell & Erwin Manufacturing Company (The American Hardware Corporation, Successor) New Britain, Connecticut—New York, Chicago, London.

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

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Helioglass is being installed today in many fine homes, hospitals, sanitariums, schools, apartment and office buildings. You probably know our Architectural representative personally. Ask him for any special data you may desire on Helioglass. He will secure it for you.

PITTSBURGH PLATE GLASS CO., Pittsburgh, Pa.

WAREHOUSES IN EVERY PRINCIPAL CITY OF THE U. S.

HELIOGLASS
AN ULTRA VIOLET RAY GLASS
A Lighting Conception May Perish Like a Poorly Constructed Building

As an architect, of course you know the importance of providing for every stress and strain in a construction problem. A slight miscalculation here or there and the entire structure would be unsound.

As an architect, you likewise know that your exterior lighting designs will perish as an expression if they are not finished perfectly in every detail. A blemish here or there and the entire effect is destroyed.

Every Smyser-Royer Co. lighting fixture is built to last. These fixtures are carefully finished and made strong enough to stand the test of time. If you desire to have an original design produced you can depend upon a faithful interpretation of the specifications. In case an original conception is not needed our Catalogue J displays lamps, lanterns and brackets for every period and purpose.

No. 441
Scale 1" equals 1'
Overall height 5' 10½"
Diameter of Lantern 26" overall
Diameter of glass 23"
Base 25" square

Designed for
CAMPBELL MEMORIAL
PORTLAND, OREGON
PAUL P. CRET, Architect

Lamp Posts  Lanterns  Brackets
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details of the new
Warwick Bed

as installed in the new
Beaux Arts Apartments*

Two views in the Beaux Arts Apartments. Above, the Warwick Beds are completely concealed by the
doors at the right. Below, the attractive, modish beds are ready for use . . . with the closet concealed.

HERE at last is a new type of
bed that permits a sliding door installa­
tion, concealing the bed when not in use . . . concealing the closet when the bed is down! This new Warwick Bed was
chosen for the $5,000,000 Beaux Arts
Apartments in New York—sponsored by
many of the country’s leading architect­
e. You will surely want to have com­
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The new Warwick Bed is one of a distin­
guished family of space-saving conveniences. Jamb-type, pivot and roller beds are also made in the “Warwick” line . . . affording the Architect every fea­
ture of convenience and economy in planning.

Our new catalog, or a special brochure on the Beaux Arts Apartments, will be
sent on request.

THE “WHITE” DOOR BED CO.
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Complete folio of these drawings sent on request
The greater value of an all TERRA COTTA building is partly due to the fact that it can always be kept looking like new.

NATIONAL TERRA COTTA SOCIETY
230 PARK AVENUE
NEW YORK
REVIEWS OF MANUFACTURERS’ PUBLICATIONS


The wide and continually growing vogue for casement windows is undoubtedly due, first of all, to the pleasing and highly architectural character which they invariably bring to a building's surroundings, and also to the fact that manufacturers and their designers have given to casements forms which render them appropriate for use in buildings of widely different types. This is particularly emphasized upon one's attention by examining this brochure or catalog in which the well-known Crittall firm illustrates and describes its varied line of casements. The entire catalog has been incorporated in the 1930 edition of "Sweets," where it occupies pages A-1131 to A-1200, and copies of the catalog as a separate publication can be had for the asking by architects.


A survey of conditions throughout this country might easily show that more money is spent for heating during the course of a year than for any other one thing,—the term "heating" including equipment, fuel, maintenance, repairs, etc. And yet a great part of the heat produced at a vast cost is wasted because of the faulty insulation of buildings or the lack of any insulation whatever, or else because of the escape of heat through cracks or crevices about doors or windows, or sometimes because of faulty distribution of the heat which is produced. This booklet deals with the use of Venturafin Unit Heaters for forcing or directing heat into areas where it is needed but where the normal and natural radiation of heat would not carry it. "No building is too large or too small to receive the benefits and economies of the Venturafin Method of Heating. Forced heat, at any desired velocity, directed in one or several directions simultaneously, is possible by Venturafin's three-speed heat control switch and individually adjustable streamline heat deflectors. "Low" on the heat control switch and Venturafin forces a gentle stream of heated air directly into working areas. "Medium" on the heat control switch, and Venturafin forces heated air at a higher velocity in the desired directions. "High," and Venturafin is transformed into a high velocity unit that forces great quantities of heated air into circulation. Comfortable working conditions are assured, even under the most severe outside weather conditions and on unusually short notice. No longer is there any danger of a plant's being too cold or too hot in which to work. No longer are ceiling areas too hot in which to work. No longer are ceiling areas too hot in which to work. No longer are ceiling areas too hot in which to work. No longer are ceiling areas too hot in which to work.


The Architectural Forum's catalog reviewer rarely receives advertising matter from manufacturers which is more interesting in subject matter or more attractive in appearance than that coming from the Crane Company. This little booklet is a case in point. In dealing with the important matter which it discusses, it presents many illustrations in full color showing interiors of different sorts which are beautiful and attractive while at the same time rather simple, in accord with the trend of popular taste which prevails today, and in these interiors there are shown, duly installed, fixtures from the Crane line, not necessarily in white but in various shades of blue, green, buff, rose, etc. The brochure illustrates and describes in full every detail.


The use of welding instead of riveting in the erection of buildings of steel is of course possessed of several advantages. Perhaps the advantage which would be most widely appreciated would be the absence of noise which is caused by building with rivets, though another outstanding advantage has to do with the simplification which the arc welding method of joining structural steel gives. The booklet which goes with considerable detail into the study of which arc welding has been considerable experimenting on the part of the manufacturers and their designers have given to casements forms which render them appropriate for use in buildings of widely different types. This is particularly impressed upon one's attention by examining this brochure or catalog in which the well-known Crittall firm illustrates and describes its varied line of casements. The entire catalog has been incorporated in the 1930 edition of "Sweets," where it occupies pages A-1131 to A-1200, and copies of the catalog as a separate publication can be had for the asking by architects.


Architects who pay more than perfunctory attention to the designing of interior details are likely to be interested in this brochure which not only illustrates quite a number of interior fittings but gives working drawings, details, and everything else needed to actually produce them. Among the fittings for which drawings are given there are the built-in tables and benches often used for "breakfast alcoves"; cabinets of different kinds; bookshelves; dressers; built-in wardrobes; and quite a number of plans for wood sheathing of interior walls. All these details, which while extremely simple are in excellent taste, are illustrated in finish as well as their clients. The brochure says: "This book of plates is published by the National Lumber Manufacturers' Association to assist in the application of wood. The illustrations are reproductions of architectural renderings.


Present-day custom often calls for use, instead of individual water coolers, of systems by means of which water chilled to a palatable temperature is piped through a building and supplied to stationary drinking fountains. This is now the custom in large structures of all kinds,—schools, railroad terminals, department stores, theaters, and commercial and industrial buildings of all sorts. Since this method of supplying drinking water came into vogue there has been considerable experimenting on the part of the manufacturers to determine the most desirable forms which the fountains themselves should take. This has been attained with considerable success, until, like the automobile, the drinking fountain has attained such excellence that further improvement seems to be hardly possible. This brochure illustrates and describes the excellent line of drinking fountains offered by the Halsey W. Taylor Company and fountains of many types and sizes, adapted for use in different places, and pedestal types as well: all to be had in vitreous china, white or of any one of several different colors.
Medical science endorses Monax

Germs are mighty small objects, as anyone who has ever looked for one can tell you. They can't be seen with the naked eye, or even with a microscope in very poor light.

In the Institute of Pathology at Western Reserve University, they are constantly studying these microscopic enemies of humanity. For this work, correct lighting is essential. When the Institute's new home was built, recently, Monax Globes were specified. No greater compliment could be paid to an enclosing globe than this tacit endorsement by medical science.

Monax globes were chosen because they give ample light, well diffused. Sharp shadow and harsh glare are conspicuously absent. Light from Monax Globes is easy on the eyes, even when a globe is directly in the line of vision.

As Monax Globes absorb scarcely any light, they are economical of wattage. Dust does not cling to the smooth surface of Monax Glass: Hence Monax Globes are economical to maintain.

Macbeth Engineers offer a free consultation service to architects and building managers. Macbeth-Evans Glass Company, Charleroi, Pa.
REVIEWS OF MANUFACTURERS' PUBLICATIONS


The appearance of business offices depends in large measure on the furnishings which are used. People appreciate the appearance of the offices, but nothing in the way of accessories which is more important than the partitions now used everywhere for creating private offices and other subdivisions of floor area, and the lower partitions, screens or partitions, usually made of swinging doors, or used to separate private from public spaces. In two of the many publications being issued by Henry Klein & Co., Inc. emphasis is laid upon the importance of these items of office equipment. It is not necessary, as these brochures or folders suggest, to use the most costly types of partitions and screens; much depends upon the manner in which these items are designed, made and installed, and providing excellence in these respects is exactly the work for which the Klein firm has become widely known. One of these two publications dwells upon the firm's services for fitting up the offices of stock brokers with wall paneling, partitions, screens and the like, and gives an illustration of an improved type of stock board which has been installed in the offices of several well known New York stock brokers.

INGALLS STEEL PRODUCTS CO., Birmingham, Ala. "Steel Joists; Details, Specifications and Load Values."

Construction of many of the huge buildings which are now being erected in all parts of the country would be wholly impossible were it not for the advantages possessed by steel. The marvelous towers,—tall, slender and graceful,—which are soaring into the sky in every hand are rendered possible only by the steel skeletons around which they are built. The walls of brick, stone or terra cotta which appear so massive and yet which are merely the garments of these tower-like structures which enclose the skeleton, and which carry no weight except perhaps their own. So too with the enormous structures such as garages, auditoriums, gymnasiums and theaters in which supporting piers or columns cannot be used, and which must be roofed over with the aid of steel trusses or arches. Floors, too, are built of steel, the "finish floor" being merely a surface supported on steel trusses. This booklet deals with the use of steel for building floors. "The Ingalls Truss is the well known suspended deck truss of the Pratt type, adapted to modern structural conditions. It is a result of a natural development of structural design and building progress. It is based on fundamental knowledge of, and long experience in, the design and fabrication of steel structures. The details shown will assist the architect and his draftsmen to prepare sound designs and effective details, when using light steel trusses." The two angles form a stiff and effective structural floor construction. It is a result of a natural development of structural design and building progress. It is based on fundamental knowledge of, and long experience in, the design and fabrication of steel structures. The details shown will assist the architect and his draftsmen to prepare sound designs and effective details, when using light steel trusses. The Ingalls Truss is composed of two standard structural angles for the top chord, single round bar for the web members, and two round bars for the bottom chord. The two angles form a strong and effective top chord section, which encloses a case of metal. The two round bars, forming the bottom chord section, present the minimum metal surface in contact with the plaster ceiling and permit a more secure section to which the metal lath for the ceiling may be fastened. This truss is designed for a safe span condition. The arrangement of the members at the ends eliminates any stress due to an eccentric heel. Obviously, no bending stress exists in the ends of bearing section. By reference to and use of the standard specifications given here, construction will be obtained that conforms to sound principles of engineering and will result in a structure of high quality,—permanent, efficient and satisfactory in every way. The Ingalls organization possesses large financial, engineering and manufacturing resources. This assures unusual responsibility and a degree of service which merit the complete confidence of the building profession. This organization is earnest in its endeavor to build an industry and to advocate only those designs, construction methods and standards that conform to sound principles and accepted practice. To this end, it will gladly cooperate with architects, contractors, and others interested, that economical, safe and permanent construction will be attained." The brochure deals with its services for the improvement of type of stock board which has been installed in the offices of several well known New York stock brokers.

PECORA PAINT COMPANY, Fourth and Sedgley Avenue, Philadelphia. "Pecora Calking and Glazing Compound."

Architects, engineers and builders as well as home owners appreciate the appearance of the character which properly designed awnings can give, increased livability and comfort. Correctly chosen awnings look misplaced,—"stuck on." Awnings can make it appear more inviting, wider, more cheerful, more dignified, more imposing, gay, cosier, darker, brighter, farther away, closer. Not every fabric design would appear as well on one type of fabric as on another. A simple, dignified Colonial house in New England would usually call for low colored awnings of simple construction. A large, ornate Spanish house in Miami would require brilliant, richly colored, bold patterned awnings with decorative hardware and perhaps deeply scalloped valances." This excellent booklet goes fully and successfully into the subject of awnings. It is illustrated with line drawings and color originals by Norman Reeves give much more than an idea of the character which properly designed awnings can give. While illustrations in color in a great number of fabrics of unusual patterns and color combinations stimulate the imagination of architect, decorator or home owner. Of particular excellence and interest are the pages devoted to text, which supplement the appeal made by the illustrations.


Architects and decorators do not always bear in mind the fact that considerable character can be given to a building by use, when awnings are to be installed at windows or over terraces and verandas, of appropriate and tasteful fabrics made in some of the beautiful and unusual forms which it is entirely possible to use. The French have always been particularly successful in use of these temporary shelters, as any one familiar with the "sidewalk cafes" in Paris or with the Persian shrubs which appear here and there, and beautifully and seasonally when awnings are used in America, they are made up in one stereotyped form and of fabrics which are uninteresting when they are not deadly dull. "The appearance of a house always changes after awnings are installed. Most well made awnings of high quality fabric add informal charm, increased livability and comfort. Correctly chosen awnings become beautiful parts of a house. Incorrectly chosen awnings look misplaced,—"stuck on." Awnings can make a house either more brilliant or more conservative. They can make it appear more inviting, wider, more cheerful, more dignified, more imposing, gay, cosier, darker, brighter, farther away, closer. Not every fabric design would appear as well on one type of fabric as on another. A simple, dignified Colonial house in New England would usually call for low colored awnings of simple construction. A large, ornate Spanish house in Miami would require brilliant, richly colored, bold patterned awnings with decorative hardware and perhaps deeply scalloped valances." This excellent booklet goes fully and successfully into the subject of awnings. It is illustrated with line drawings and color originals by Norman Reeves give much more than an idea of the character which properly designed awnings can give. While illustrations in color in a great number of fabrics of unusual patterns and color combinations stimulate the imagination of architect, decorator or home owner.
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INDEX TO ADVERTISING ANNOUNCEMENTS

Part I—Architectural Design

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athey Company</td>
<td>110</td>
</tr>
<tr>
<td>A. P. W. Paper Company</td>
<td>96</td>
</tr>
<tr>
<td>American Telephone &amp; Telegraph Co...</td>
<td></td>
</tr>
<tr>
<td>American Tar Products Company</td>
<td></td>
</tr>
<tr>
<td>American Window Glass Company</td>
<td>96</td>
</tr>
<tr>
<td>Armstrong Cork Company</td>
<td>21</td>
</tr>
<tr>
<td>Athey Company</td>
<td>110</td>
</tr>
<tr>
<td>Bakelite Corporation</td>
<td>87</td>
</tr>
<tr>
<td>Bearse, Chandler Mfg. Co...</td>
<td>54</td>
</tr>
<tr>
<td>Berman Company, E...</td>
<td>52</td>
</tr>
<tr>
<td>Best Bros., Keene’s Cement Co...</td>
<td>65</td>
</tr>
<tr>
<td>Bigelow-Sanford Carpet Company</td>
<td>43</td>
</tr>
<tr>
<td>Black &amp; Company, Frederic...</td>
<td>51</td>
</tr>
<tr>
<td>Booded, Foor...</td>
<td>29</td>
</tr>
<tr>
<td>Brasco Manufacturing Company</td>
<td>10</td>
</tr>
<tr>
<td>Bruce Company, E...</td>
<td>57</td>
</tr>
<tr>
<td>Carey Company, The...</td>
<td>71</td>
</tr>
<tr>
<td>Casement Hardware Co...</td>
<td>58</td>
</tr>
<tr>
<td>CELLized Oak Flooring, Inc...</td>
<td>57</td>
</tr>
<tr>
<td>Casement Hardware Co...</td>
<td>58</td>
</tr>
<tr>
<td>Circle A Products Corporation</td>
<td>26</td>
</tr>
<tr>
<td>Cortin, F...</td>
<td>93</td>
</tr>
<tr>
<td>Carney Company, The...</td>
<td>71</td>
</tr>
<tr>
<td>Castle Co., Wilmot</td>
<td>19</td>
</tr>
<tr>
<td>Armstrong Cork &amp; Insulation Company</td>
<td>58</td>
</tr>
<tr>
<td>Armstrong Cork &amp; Insulation Company</td>
<td>58</td>
</tr>
<tr>
<td>Arkansas Oak Flooring Company</td>
<td>57</td>
</tr>
<tr>
<td>American Walnut Manufacturers Association</td>
<td>46</td>
</tr>
<tr>
<td>Artex Company, H.O.</td>
<td>93</td>
</tr>
</tbody>
</table>

Part II—Architectural Engineering and Business

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aero-Motors Corporation</td>
<td>225</td>
</tr>
<tr>
<td>Alabama Pipe Company</td>
<td>164</td>
</tr>
<tr>
<td>American Company of America</td>
<td>147</td>
</tr>
<tr>
<td>American Blow Molding Co.</td>
<td>153</td>
</tr>
<tr>
<td>American Brass Company, Inc...</td>
<td>153</td>
</tr>
<tr>
<td>American Lumber Construction, Inc...</td>
<td>150</td>
</tr>
<tr>
<td>American Radiator Company</td>
<td>117, 201, 209, 216, 222</td>
</tr>
<tr>
<td>American Rolling Mill Company, Inc...</td>
<td>163</td>
</tr>
<tr>
<td>American Tar Products Company</td>
<td>125</td>
</tr>
<tr>
<td>American Telephone &amp; Telegraph Company</td>
<td>145</td>
</tr>
<tr>
<td>Armstrong Cork &amp; Insulation Company</td>
<td>203</td>
</tr>
<tr>
<td>Automatic Electric, Inc...</td>
<td>211</td>
</tr>
<tr>
<td>Bates Expanded Steel Truss Co...</td>
<td>170</td>
</tr>
<tr>
<td>Bailey Co., The William...</td>
<td>116</td>
</tr>
<tr>
<td>Bell &amp; Amos, Inc...</td>
<td>139</td>
</tr>
<tr>
<td>Bennell, J. A...</td>
<td>166</td>
</tr>
<tr>
<td>Brownell Company, The...</td>
<td>188</td>
</tr>
<tr>
<td>Brunswick-Balke-Collender Co...</td>
<td>207</td>
</tr>
<tr>
<td>Carbondale Machine Co., The...</td>
<td>125</td>
</tr>
<tr>
<td>Carnegie Steel Co...</td>
<td>199</td>
</tr>
<tr>
<td>Carriagio Steel Company</td>
<td>176</td>
</tr>
<tr>
<td>Cattle Co., Wilmot...</td>
<td>166</td>
</tr>
<tr>
<td>Central Alloy Steel Corp...</td>
<td>183</td>
</tr>
<tr>
<td>Chippewa Mill &amp; Lumber Company</td>
<td>168</td>
</tr>
<tr>
<td>Chow &amp; Sons, James B...</td>
<td>183</td>
</tr>
<tr>
<td>Compound &amp; Pyrono Door Company, The...</td>
<td>190</td>
</tr>
<tr>
<td>Concrete Engineering Company</td>
<td>175</td>
</tr>
<tr>
<td>Concrete Steel Co...</td>
<td>185</td>
</tr>
<tr>
<td>Crowing Pressure Relieving Joint Co...</td>
<td>186</td>
</tr>
<tr>
<td>Cushing Co...</td>
<td>186</td>
</tr>
<tr>
<td>Cutler Mail Chute Co...</td>
<td>214</td>
</tr>
<tr>
<td>Domestic Stoker Company</td>
<td>220</td>
</tr>
<tr>
<td>Douglas Co., The, John...</td>
<td>251</td>
</tr>
<tr>
<td>Durbin Co., C. A...</td>
<td>164</td>
</tr>
<tr>
<td>Durbin Company...</td>
<td>164</td>
</tr>
<tr>
<td>Durbin Company...</td>
<td>164</td>
</tr>
<tr>
<td>Electric Storage Battery Company, The...</td>
<td>121</td>
</tr>
<tr>
<td>Electric Storage Battery Company, The...</td>
<td>121</td>
</tr>
<tr>
<td>Expan-Hub...</td>
<td>164</td>
</tr>
<tr>
<td>Fabri-Tubes Mfg. Co...</td>
<td>134</td>
</tr>
<tr>
<td>Fitchburg Boiler Company</td>
<td>216</td>
</tr>
<tr>
<td>Pilgrim Corporation, The...</td>
<td>137</td>
</tr>
<tr>
<td>Pullin Sylphon Company, The...</td>
<td>205</td>
</tr>
<tr>
<td>General Electric Vapor Lamp Company</td>
<td>224</td>
</tr>
<tr>
<td>General Lumber Manufacturing Co...</td>
<td>212</td>
</tr>
<tr>
<td>Gillis &amp; Gephardt Corporation</td>
<td>136</td>
</tr>
<tr>
<td>Harding Bros., Inc...</td>
<td>234</td>
</tr>
<tr>
<td>Hoffman Specialty Company, Inc...</td>
<td>226</td>
</tr>
<tr>
<td>Hoffman &amp; Billings Mfg. Co...</td>
<td>226</td>
</tr>
<tr>
<td>Imperial Brass Mfg. Co...</td>
<td>234</td>
</tr>
<tr>
<td>International Nickel Company, The...</td>
<td>213</td>
</tr>
<tr>
<td>Janette Manufacturing Company</td>
<td>216</td>
</tr>
<tr>
<td>Jenkins Bros...</td>
<td>182</td>
</tr>
<tr>
<td>Johnson Co., S...</td>
<td>223</td>
</tr>
<tr>
<td>Johnson Service Company</td>
<td>189</td>
</tr>
<tr>
<td>Josam Mfg. Company, The...</td>
<td>128</td>
</tr>
<tr>
<td>Kewanee Boiler Corporation</td>
<td>158</td>
</tr>
<tr>
<td>Kolman Steel Company</td>
<td>178</td>
</tr>
<tr>
<td>Kerner Inculcator Co...</td>
<td>227</td>
</tr>
<tr>
<td>Kewanee Boiler Company</td>
<td>114</td>
</tr>
<tr>
<td>Kewanee Private Utilities Co...</td>
<td>164</td>
</tr>
<tr>
<td>Kewanee Private Utilities Co...</td>
<td>164</td>
</tr>
<tr>
<td>Kewanee Private Utilities Co...</td>
<td>164</td>
</tr>
<tr>
<td>Kewanee Private Utilities Co...</td>
<td>164</td>
</tr>
<tr>
<td>Kewanee Private Utilities Co...</td>
<td>164</td>
</tr>
<tr>
<td>Licensed Manufacturers of Non-Metallic Shale Cable...</td>
<td>134, 135</td>
</tr>
<tr>
<td>Louisiana Cement Company</td>
<td>163</td>
</tr>
<tr>
<td>McClellan Radiator Corporation...</td>
<td>125</td>
</tr>
<tr>
<td>Milwaukee Corrugating Co...</td>
<td>179</td>
</tr>
<tr>
<td>Monax Manufacturing Co...</td>
<td>126</td>
</tr>
<tr>
<td>Mountain Manufacturing Co...</td>
<td>231</td>
</tr>
<tr>
<td>McCuller Co...</td>
<td>155</td>
</tr>
<tr>
<td>Nash Engineering Co...</td>
<td>119, 120, 197</td>
</tr>
<tr>
<td>National Fireproofing Company</td>
<td>111</td>
</tr>
<tr>
<td>National Tube Company</td>
<td>182</td>
</tr>
<tr>
<td>Nelson Corporation, The...</td>
<td>171, 172, 173, 174</td>
</tr>
<tr>
<td>Oris Elevator Company</td>
<td>158</td>
</tr>
<tr>
<td>Ludwigs-Gallot Company</td>
<td>25</td>
</tr>
<tr>
<td>Lupton’s Sons, David...</td>
<td>16</td>
</tr>
<tr>
<td>Macbeth-Evans Glass Co...</td>
<td>103</td>
</tr>
<tr>
<td>Nashville Edw. Flooring Co...</td>
<td>57</td>
</tr>
<tr>
<td>National Lead Company</td>
<td>83</td>
</tr>
<tr>
<td>National Terra Cotta Society</td>
<td>103</td>
</tr>
<tr>
<td>Newcomb Mfg. Company, F...</td>
<td>50</td>
</tr>
<tr>
<td>Northwestern Terra Cotta Company</td>
<td>5</td>
</tr>
<tr>
<td>Pardee Works, The C...</td>
<td>32</td>
</tr>
<tr>
<td>Peaco Paint Company</td>
<td>62</td>
</tr>
<tr>
<td>Penn Hardware Company</td>
<td>95</td>
</tr>
<tr>
<td>Pittsburgh Plate Glass Co...</td>
<td>98</td>
</tr>
<tr>
<td>Rambusch...</td>
<td>52</td>
</tr>
<tr>
<td>Ramp Building Corporation</td>
<td>9</td>
</tr>
<tr>
<td>Rising and Nelson Slate Company</td>
<td>31</td>
</tr>
<tr>
<td>Robinson &amp; Co., Inc., H...</td>
<td>56</td>
</tr>
<tr>
<td>Russell &amp; Erwin Mfg. Co...</td>
<td>56</td>
</tr>
<tr>
<td>Sanymetal Products Company, The...</td>
<td>83</td>
</tr>
<tr>
<td>Sargent &amp; Company...</td>
<td>39</td>
</tr>
<tr>
<td>sedan Slate Co...</td>
<td>44</td>
</tr>
<tr>
<td>Sedgwick Slate Co...</td>
<td>50</td>
</tr>
<tr>
<td>Sos Manufacturing Company</td>
<td>88</td>
</tr>
<tr>
<td>Suburbanite Mfg. Co...</td>
<td>114</td>
</tr>
<tr>
<td>Thompson &amp; Webster Engineering Company</td>
<td>17</td>
</tr>
<tr>
<td>Thorp &amp; Co., Inc., J...</td>
<td>44</td>
</tr>
<tr>
<td>Trusco Steel Company</td>
<td>2</td>
</tr>
<tr>
<td>United Chromium Incorporated</td>
<td>77</td>
</tr>
<tr>
<td>Weidenmiller Brothers, Inc...</td>
<td>58</td>
</tr>
<tr>
<td>Wheelin’s Wholesale Company</td>
<td>109</td>
</tr>
<tr>
<td>Wirt Harvey Manufacturing Co...</td>
<td>59</td>
</tr>
<tr>
<td>Wright Rubber Products Co...</td>
<td>59</td>
</tr>
<tr>
<td>Youngquist Manufacturing Co...</td>
<td>219</td>
</tr>
<tr>
<td>Promethens Electric Corp...</td>
<td>184</td>
</tr>
<tr>
<td>Raymond Concrete Pipe Company</td>
<td>113</td>
</tr>
<tr>
<td>Reading Iron Company</td>
<td>137, 169</td>
</tr>
<tr>
<td>Republic Iron &amp; Steel Co...</td>
<td>141, 142</td>
</tr>
<tr>
<td>Revere Copper and Brass Co...</td>
<td>130</td>
</tr>
<tr>
<td>Riverbend Mfg. Co., Second Cover</td>
<td>122</td>
</tr>
<tr>
<td>Rome Brass Radiator Corporation</td>
<td>138</td>
</tr>
<tr>
<td>Sarco Co., Inc...</td>
<td>222</td>
</tr>
<tr>
<td>Sedgwick Machine Works</td>
<td>188</td>
</tr>
<tr>
<td>Southern Fiber &amp; Wood Co...</td>
<td>156</td>
</tr>
<tr>
<td>Speakerman Company</td>
<td>156</td>
</tr>
<tr>
<td>Standard Conveying Company</td>
<td>193</td>
</tr>
<tr>
<td>Sterling Engineering Co...</td>
<td>160</td>
</tr>
<tr>
<td>Stringer Bros. Co...</td>
<td>164</td>
</tr>
<tr>
<td>Structural Gypsum Corporation</td>
<td>146</td>
</tr>
<tr>
<td>Sturtivant Company, B...</td>
<td>229</td>
</tr>
<tr>
<td>Taylor Co., The Halsey W...</td>
<td>167</td>
</tr>
<tr>
<td>Titusville Iron Works Co...</td>
<td>221</td>
</tr>
<tr>
<td>Tuth &amp; Brothers...</td>
<td>224</td>
</tr>
<tr>
<td>Troy Machinery Company, Inc...</td>
<td>213</td>
</tr>
<tr>
<td>Trusco Steel Company</td>
<td>112</td>
</tr>
<tr>
<td>United Metal Products Co...</td>
<td>184</td>
</tr>
<tr>
<td>U. S. Mineral Wool Co...</td>
<td>214</td>
</tr>
<tr>
<td>Viller Manufacturing Company, The...</td>
<td>212</td>
</tr>
<tr>
<td>Vonnegut Hardware Co...</td>
<td>133</td>
</tr>
<tr>
<td>Walworth Company</td>
<td>159</td>
</tr>
<tr>
<td>Weber &amp; Co., L...</td>
<td>169</td>
</tr>
<tr>
<td>Western Electric Company</td>
<td>133</td>
</tr>
<tr>
<td>Western Pine Manufacturers Association</td>
<td>186</td>
</tr>
<tr>
<td>Westminster Electric Manufacturing Company</td>
<td>129, 130, 131, 132</td>
</tr>
<tr>
<td>Wood Conversion Company</td>
<td>194</td>
</tr>
<tr>
<td>Youngmen Brothers Company</td>
<td>214</td>
</tr>
<tr>
<td>York Ico Machinery Company</td>
<td>148</td>
</tr>
<tr>
<td>Youngstown Sheet &amp; Tube Co., The...</td>
<td>177</td>
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PHILIPPINE LAMINEX DOOR, BENJAMIN FRANKLIN HOTEL

SEATTLE, WASHINGTON . . . EARL A. ROBERTS, ARCHITECT

To utilize the beauty of Philippine Laminex, you aren’t restricted to stock doors; we frequently build them to specifications, and at quite moderate cost. Nevertheless, in many notable instances architects have successfully employed the stock Laminex designs. Some twenty-three of them are pictured in the Philippine Laminex Manual. This interesting book, which also explains how Laminex construction overcomes the swelling and warping tendencies of ordinary doors, will be mailed to you if you’ll send the coupon in. Write us in detail, however, if you’ve a personal design in mind.

THE WHEELER, OSGOOD COMPANY, DEPT. F-140, TACOMA, WASHINGTON: KINDLY SEND ME A MANUAL.

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There was a time—
when architects thought that all weatherstrips were makeshifts. But that was before the startling records of the ATHLEY Cloth-to-Metal Weatherstrips compelled their attention to savings in heating equipment and fuel.

Today they specify

ATHLEY Cloth-Lined Metal Weatherstrips and figure radiation and boiler capacities accordingly. The saving in equipment alone more than pays for the ATHLEY installation.

Any building, old or new, with wooden, steel, casement or tilting sash may be ATHLEY Cloth-Lined Metal Weatherstripped successfully.

ATHLEY COMPANY
6025 W. 65th St., CHICAGO
Representatives in Principal Cities
In Canada: Cresswell-Pomeroy, Reg’d
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$30,000

would have been saved in the original heating plant had the buildings above been ATHLEY Weatherstripped when erected.

$1,200 to $1,500 a month would have been saved in fuel for many years besides the cost of handling fuel and ashes.

Thousands of dollars spent in cleaning and decorating were also wasted, for ATHLEY Cloth-Lined Weatherstrips of metal keep out all smoke and fine dust as well as cold.
AN EXPRESSION OF HIGHEST CRAFTSMANSHIP

MASTERFULLY conceived and engineered, the great commercial structure is one of the most modern expressions of craftsmanship at its finest. Each step of growth is planned minutely. Its sinews must be tested steel. Famous quarries furnish the stone. Only the choicest materials can meet its precise specifications.

- Sargent Hardware is installed in the Palmolive Building, as in many other outstanding structures of the country. Sargent Hardware is selected for its fitness of design. For its perfect operation. For its durability. Sargent reputation rests on many years' insistence on the finest materials and the most expert workmanship. The high quality of Sargent Hardware can be counted on. Sargent & Company, New Haven, Connecticut; 94 Centre Street, New York City; 150 North Wacker Drive (at Randolph), Chicago, Illinois.
A small fraction of a magnificent project

The project —

The photograph —
— shows but a portion of the dormitory court; and the entire project would take a good many photographs, as you may glean from the nearly 55,000 square feet of Sheldon's slate in its roofs.

The Sheldon slate —
— is a combination of weathering grays, dark grays, bronzes, and blacks, creating a notably harmonious effect within the roof itself and with the balance of the buildings.

The walls, etc.
The masonry is a combination of warm-toned gray shading into tans, interspersed with brick of soft reds and gun-metal shades. The stone quoins and trim about window and door openings are of a seam-face granite showing the usual amount of warm grays blending into russet stains.
To complete the picture, it is proper to add that all exposed metal flashing, ornamental leaders and leader heads are executed in lead-coated copper.

Your projects
In connection with any good building you may have in contemplation or on the boards, we are at your service to design for it a roof which, like the one here described, represents the utmost in beauty and every other quality that will insure everlasting satisfaction on the part of all concerned.

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