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February, 1930



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BOOK DEPARTMENT

GENUINE ANTIQUE FURNITURE

A REVIEW BY

CLIFFORD WAYNE SPENCER

T 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 counterfeits 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 reality of pieces presented for his purchase. Such works, however, have also had the effect of providing the antique counterfeiters with information as to just what purchasers will be looking for, and being thus forewarned they are able to prepare for the scrutiny of people who have obtained their knowledge from such books. The only way to become anything like a competent judge of antique furniture is by devoting a great deal of time to the careful study of really fine pieces of the various styles, the 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 in the country, 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 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. 237 Pages of Text. Cloth Binding, 210 Plates, 12 x 15 ins.

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THE ARCHITECTURAL FORUM 521 FIFTH AVENUE NEW YORK teresting 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 achitectural in form as well as in detail. To such an extent is this true that cabinets 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

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produced some of the most beautiful of all English furniture, 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 concerning the value of pieces purporting to belong to any of these periods. The same thoroughgoing methods are followed in the treatment of the later styles of English furniture including the Georgian, Chippendale, Adam, Hepplewhite, and Sheraton styles. American furniture up to 1840 is treated in the last five chapters under these chapter headings: Early American Furniture up to 1725; The Windsor Chair; American Furniture 1725 to 1776; American Furniture 1776 to 1840; Genuine Versus Fake.

THE DESIGNING OF THEATERS

A WORK BY

JOSEPH URBAN

S IX theaters are illustrated in a volume entitled "Theaters 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 the stage; it is the auditorium which he would change. His aim is to make of stage and auditorium one thing, actor and audience a single body of interchanging emotion. By thrusting his action into the auditorium, by partially 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 support for actor and spectator has been attained. All of his buildings and schemes for theaters are equipped adequately 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.

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forms, while they involve not a little subtlety in the details of design, demand merely the use of simple mechanical processes which are not beyond the skill of any reasonably proficient woodworker, sometimes of an ordinary carpenter.

ty in the details stenciling of floors, together with notes on the colors originally used. It is a volume which in its practical usefulness will be of great value to architects whose work involves much use of early American interior design. 125 plates, 10 x 15 inches. Price \$15

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IIIK OLIVHET (CIT (3) 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 vet 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 EDITOR'S FORUM

THE NEW EXPRESSION IN THE ARTS

BY

EDWIN AVERY PARK

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

The Architectural Forum

VOLUME LII

ARCHITECTURAL FORUM

NUMBER TWO

FEBRUARY 1930

-

THE TEMPLE EMANU-EL, NEW YORK

KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

BY

CHARLES BUTLER

HE 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 æsthetic 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 organ, a decorated pierced plaster screen permitting the sound to pass into the Temple.

The main body of the Temple is 77 feet wide between piers and just under 150 feet in length, from the east wall of the vestibule to the sanctuary steps, with a height of 103 feet to the under side of the ridge of the ceiling. There are 49 rows of pews divided by three aisles and with two exterior aisles along the outer walls passing through the piers. The seating capacity of the main floor is just over 2,000, and from every seat there is an unobstructed view of the pulpits and the Ark. The sanctuary, raised about 3 feet above the level of the Temple floor, is reached by six steps. Where the sanctuary opens into the Temple proper there is a great recessed arch decorated with glass mosaic, against the base of which are set octagonal carved pulpits, executed in Siena marble, with carved walnut sounding boards. The walls of the Temple are covered from the top of the Senonville stone base up to the ceiling with acoustic tile, in shades varying

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 Bonawit, 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



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 Emanu-El 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 and 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 that in the Chapel is the work of Heinigke & 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 marble 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. Hvacinthe, 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 Berman & Company furnished the pulpit canopies and the entrance vestibule woodwork. The special hardware was furnished by Ostrander-Eschlman. 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. Eadie, Freund & Campbell. Dayton C. Miller of Cleveland was the consultant on acoustics. The structural steel was designed by Eugene W. Stern, consulting engineer.

THE PROBLEM OF THE TEMPLE AND ITS SOLUTION

BY

CLARENCE S. STEIN

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

ARCHITECTURAL DESIGN

Part One





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

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

Part One



PRELIMINARY PLANS SHOWING TWO DIFFERENT TYPES OF ARRANGEMENT THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

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ONE BAY OF CHAPEL, TEMPLE EMANU-EL FROM A COLOR STUDY BY HAROLD GROSS KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

The Architectural Forum



February, 1930 THE ARCHITECTURAL FORUM





LOWER PLAN PROVIDES FOR DOME THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

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ARCHITECTURAL DESIGN

Part One





STUDY IN BYZANTINE STYLE FOR THE TEMPLE EMANU-EL, NEW YORK. KOHN, BUTLER & STEIN, ARCHITECTS. GOODHUE ASSOCI-ATES, CONSULTANTS

February, 1930 THE ARCHITECTURAL FORUM



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



ARCHITECTURAL DESIGN

Part One

TWO STUD-IES IN THE FREE MOD-ERN ADAP-TATION OF T H E R O -M A N ESQUE STYLE



T H E TEMPLE EMANU-EL, NEW Y O R K. KOHN, BUTLER & STEIN, A R CHITECTS. GOODHUE ASSOCI-ATES, CONSULT-ING ARCHITECTS

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THREE PERSPECTIVE STUDIES FOR THE NEW TEMPLE IN A FREE, BOLD AND MODERN ROMANESQUE MANNER

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



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Part One





STUDIES FOR FIFTH AVENUE DOORS THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

February, 1930

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 exterior "would find itself" once we had solved the more important practical problems of interior arrangement of seating and had worked out a general scheme of the interior to serve the requirements of the services of the Temple and to express the spirit of the religious services to be conducted in the building. The chairman of the building committee, I am sure, did not altogether comprehend 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 arrangements, 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 Francisco and Boston, as well as in Paris and Florence. It is a splendid structural form for covering 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 unsatisfactory. 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 objection of being too closely related to the Christian 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 Temple 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 vertical 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 vaulting 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 covering it with a ceiling, accentuating the length rather than the width. This was done by bracketing out the ceiling in a horizontal plane and then breaking into a line following the roof, in a manner 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 requirements of the plan. The decorative treatment was to a great extent suggested by the materials necessary for acoustic purposes. We were advised 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 Occidental 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



FEBRUARY, 1930 THE ARCHITECTURAL FORUM PLATE 17



Benj. J. Lubschez

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



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

FEBRUARY, 1930 THE ARCHITECTURAL FORUM PLATE 18



Benj. J. Lubsches

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

FEBRUARY, 1930 THE ARCHITECTURAL FORUM

PLATE 19



Benj. J. Lubschez

DOOR IN FIFTH AVENUE ENTRANCE THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS





Benj. J. Lubschez

ROSE WINDOW BY OLIVER SMITH 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

PLATE 21



Richard S. Grant

WINDOW OVER THE MAIN ENTRANCE THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS


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Benj. J. Lubschez

VIEW OF CHAPEL FROM FIFTH AVENUE THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS



PLATE 23



Benj. J. Lubschez

ENTRANCE DOOR TO THE CHAPEL THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS



PLATE 24



Richard S. Grant

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





Richard S. Grant

ENTRANCE TO COMMUNITY HOUSE THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS



FEBRUARY, 1930

THE ARCHITECTURAL FORUM

PLATE 26



Richard S. Grant

INTERIOR, SHOWING SANCTUARY THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS



DETAIL, ARCH OVER SANCTUARY THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

PLATE 27



Richard S. Grant

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



Richard S. Grant

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

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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

PLATE 31



Richard S. Grant

GALLERY OVER MAIN ENTRANCE THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS



PLATE 32



Richard S. Grant

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



Benj. J. Lubschez

THE WEST END OF THE CHAPEL THE TEMPLE EMANU-EL, NEW YORK KOHN. BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS



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SANCTUARY AT EAST END OF CHAPEL THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

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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



DETAIL OF ARCADE IN THE CHAPEL THE TEMPLE EMANU-EL, NEW YORK KOHN. BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS

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Richard S. Grant

WROUGHT STEEL CHANDELIER IN CHAPEL THE TEMPLE EMANU-EL, NEW YORK KOHN, BUTLER & STEIN, ARCHITECTS GOODHUE ASSOCIATES, CONSULTANTS





Photos. Rittasc

WOMEN'S PHYSICAL EDUCATION BUILDING WEST VIRGINIA UNIVERSITY, MORGANTOWN DAVIS, DUNLAP & BARNEY, ARCHITECTS





MAIN ENTRANCE DOOR AND PORCH WOMEN'S PHYSICAL EDUCATION BUILDING WEST VIRGINIA UNIVERSITY, MORGANTOWN DAVIS, DUNLAP & BARNEY, ARCHITECTS


FEBRUARY, 1930 THE ARCHITECTURAL FORUM PLATE 40



A WINDOW IN THE LEFT HAND WING WOMEN'S PHYSICAL EDUCATION BUILDING WEST VIRGINIA UNIVERSITY, MORGANTOWN DAVIS, DUNLAP & BARNEY, ARCHITECTS

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DETAIL OF THE ENTRANCE COURT WOMEN'S PHYSICAL EDUCATION BUILDING WEST VIRGINIA UNIVERSITY, MORGANTOWN DAVIS, DUNLAP & BARNEY, ARCHITECTS



FEBRUARY, 1930 THE ARCHITECTURAL FORUM

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



Photos. Van Anda

DINING ROOM

ENTRANCE HALL





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PLATE 42



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

FEBRUARY, 1930 • THE ARCHITECTURAL FORUM PLATE 43



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



FEBRUARY, 1930

THE ARCHITECTURAL FORUM

PLATE 44



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

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FEBRUARY, 1930 THE ARCHITECTURAL FORUM PLATE 45



SOUTHEAST CORNER OF THE LIVING ROOM

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

SOUTHWEST CORNER OF LARGE BEDROOM



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PLATE 46



MANTELPIECE IN THE LIVING ROOM, AN EARLY AMERICAN FARMHOUSE, EASTCHESTER, N. Y. JAMES JENNINGS BEVAN, ARCHITECT AND OWNER

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FEBRUARY, 1930 THE ARCHITECTURAL FORUM

PLATE 47



Photos. Van Anda

GENERAL VIEW, STORE BUILDING FOR STEWART & CO., NEW YORK WARREN & WETMORE, ARCHITECTS



PLATE 48



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

S UNLIGHT 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 Ægean shore and up the Nile. What marvelous small objects did not the Egyptians fuse in furnaces! To what cobalt and lapis lazuli blues, what carmine and ruby reds the inventory of Tutankh-amen'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 shifts and holding it there for the delectation 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 kinema 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 Francklyn Paris of the firm of Paris & Wiley, New York. He is a writer on the fine arts and architecture, author of "Decorative Elements

Part One



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



Stanted Start

Martin Souther

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 Part One

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

ARCHITECTURAL DESIGN



Part One

in Architecture" and other books and articles. The volume was adopted by the U.S. Department of Education in its reading course entitled "How to Know Architecture." He is an occasional lecturer on the fine arts before the American Institute of Architects and various colleges and universities. 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

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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 bel etage, 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 coördinated 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 minutiæ. 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 mullions, 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 naïve 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



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ARCHITECTURAL DESIGN

Part One



SCHEME FOR ONE OF FOURTEEN WINDOWS, UNIVERSITY OF CHICAGO ** PARIS & WILEY, DECORATORS COOLIDGE & HODGDON, ARCHITECTS



Starting.

and hat is not

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.



Photos. Samuel H. Gottscho Hotel Governor Clinton, New York Murgatroyd & Ogden, Architects George B. Post & Sons, Consultants

A BOUT the middle of August, 1929, after a year of construction, the Hotel Governor Clinton opened its doors to the public, thereby supplying a long-felt demand for additional hotel accommodations in the Pennsylvania Station zone.

This new skyscraper hotel, towering 31 stories above and three floors below the street level, has a dignified three-story base of limestone above 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.



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS

February, 1930 THE ARCHITECTURAL FORUM



SEVENTH AVENUE ENTRANCE



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS

Section of

Part One





HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS EAST DINING ROOM
February, 1930 THE ARCHITECTURAL FORUM



COFFEE SHOP ALCOVE



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS

Phine Gerald

GRILL ROOM

Mr. Hardener

ARCHITECTURAL DESIGN Part One



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS

TYPICAL BEDROOMS



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS

Part One



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS

Part One



HOTEL GOVERNOR CLINTON, NEW YORK MURGATROYD & OGDEN, ARCHITECTS GEORGE B. POST & SONS, CONSULTANTS

EIGHTEEN GRAMERCY PARK A NEW YORK RESIDENTIAL HOTEL FOR WOMEN

MURGATROYD & OGDEN, ARCHITECTS

HIS women's club residence, located on I 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.



Alcove off Entrance Lobby

Part One



EIGHTEEN GRAMERCY PARK, NEW YORK MURGATROYD & OGDEN, ARCHITECTS



February, 1930 THE ARCHITECTURAL FORUM

MAIN ENTRANCE LOUNGE EIGHTEEN GRAMERCY PARK, NEW YORK MURGATROVD & OGDEN, ARCHITECTS

Part One



February, 1930 THE ARCHITECTURAL FORUM





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EIGHTEEN GRAMERCY PARK, NEW YORK MURGATROYD & OGDEN, ARCHITECTS

LOBBY

February, 1930

KENSINGTON FURNITURE

AWARDED GOLD MEDAL OF HONOR IN NATIVE INDUSTRIAL ART 39TH ANNUAL EXHIBITION ARCHITECTURAL LEAGUE OF NEW YORK



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AUTHENTIC PLASTER ORNAMENT



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ODERN banks constitute one of the most distinguished fields for contemporary architectural effort. The Pelham National Bank, illustrated herewith, is in many ways typical of sound principles of design as applied to this type of building.

The walls of the main banking room, illustrated above, from floor to ceiling are done in pre-cast travertine—a fine example of the Byzantine influence in the north of Italy.

The directors' room at the right is paneled in Woodkast in the manner of the 16th Century woodcarvers. The linenfold panels are reminiscent of the exquisite work done by the artisans of the Elizabethan era. The ceiling is an authentic reproduction from Wilderhope Manor.

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February, 1930

A FEW NOTABLE CHURCHES RECENTLY EQUIPPED BY DE LONG

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Part One

CHICAGO



February, 1930

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Part One



February, 1930

THE ARCHITECTURAL FORUM



Forecasting the Airport of the near future

Further information on the results of the Lehigh Airports Competition

Undoubtedly, the results of the Lehigh Airports Competition show the most brilliant collection of ideas that have ever been applied to the development of an infant industry. These impor-tant, practicable ideas feel their influence from four groups of thought-aeronautical, archi-tectural, engineering and city planning.

From the aeronautical field comes an entire new conception of traffic lanes and taxi stripssmooth, separate lanes for departing and arriving planes and well-arranged taxi strips that keep the main lanes free from planes. Architectural designers suggest for the modern airport of the near future that all-important factor of permanency, reliability and dignity which is characteristic of the great railroad terminals of today. The modern air passenger must have every comfort, convenience and provision for safety.

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

JURY OF AWARDS

Raymond M. Hood, A. I. A., A. D. P. L. G., Chairman. Prof. Wm. A. Boring, F. A. I. A., Dean of the School of Architecture, Columbia University.

- Parker Morse Hooper, A. I. A., Editor, The Architectural Forum.
- 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. Dr. George W. Lewis, Director of Research, National Advisory Committee for Aeronautics.

Major John Berry, Manager, Cleveland Municipal Airport.

Charles S. Jones, President Curtiss Flying Service.

the graduate fellowship in architecture in 1921.

C. Gifford Rich, winner of the second prize award of \$2500.00, submitted the design repro-duced 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.'

Incidentally, the implication of permanence and practicability in all the designs reveals the value of concrete as a fundamental construction material.

THE JURY'S DECISION

FIRST PRIZE: A. C. Zimmerman and Wm. H. Harrison, Los Angeles, Cal. (jointly)	\$5,000
SECOND PRIZE: C. Gifford Rich, Chicago, Ill	, \$2,300
THIRD PRIZE: Odd Nansen, East Orange, N. J., and	
Latham C. Squire, New York City (jointly)	\$1,000
FOURTH PRIZE: Will Rice Amon, New York City .	. \$500

Honorable Mention-\$100 each

W. Frank Bower, Jr., Henry L. Sandlass, Alfred A. Rothmann, jointly, of East Orange, N. J.

H. Roy Kelley, Los Angeles, Cal. James S. Nussear, Jr., architect, and William N. S. Pugh, associate, Baltimore, Md. Edward C. Remson, New York City. George A. Robbins, Philadelphia, Pa. Robert Paul Schweikher, Denver, Col. Fred E. Sloan and Elmer A. Johnston, Chicago, Ill. Lloyd N. F. Spicer, Bayside, Long Island, N. Y. Edwin M. Stitt, Pittsburgh, Pa. Charles A. Stone, U. Floyd Rible, jointly, Los Angeles, Cai. Robert D. Stott, Howard Hutchinson, Lansing C. Holden, Jr., jointly, New York City.

Virgil Westbrook, San Clemente, Cal.





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Part One



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Selected List of Manufacturers' Publications

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

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

ACOUSTICS

- COUSTICS
 R. Guastavino Co., 40 Court St., Boston. Akoustolith Plaster. Brochure, 6 pp., 8½ x 11 ins. Important data on a valuable material.
 Johns-Manville Corporation, New York. Sound-Absorbing Treatment in Banks and Offices, Booklet, 18 pp., 8½ x 11 ins. Illustrated.
 Sound-Absorbing Treatment in Churches and Religious Institu-tions. Brochure. 22 pp., 8½ x 11 ins. Illustrated.
 U. S. Gypsum Co., 205 W. Monroe St., Chicago, Ill. A Scientific Solution of an Old Architectural Problem. Folder, 6 pp., 8½ x 11 ins. Describes Sabinite Acoustical Plaster.

ASH HOISTS

Gillis & Geoghegan, Inc., 544 West Broadway, New York. G & G Telescopic Hoist catalog, 8½ x 11, A.I.A. Standard Classi-fication 30il contains complete descriptions, method of select-ing correct model to fit the building's needs, scaled drawings showing space requirements and specifications.

ASH HOISTS-TELESCOPIC

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

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

CABINET WORK

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

- Carney Company, The, Mankato, Minn. A Remarkable Combination of Quality and Economy. Booklet, 20 pp., 8½ x 11 ins. Illustrated. Important data on valuable material.

- 20 pp., 8½ x 11 ins. Illustrated. Important data on valuable material.
 Kosmos Portland Cement Company, Louisville, Ky.
 Kosmortar for Enduring Masonry. Folder, 6 pp., 3½ x 6½ ins. Data on strength and working qualities of Kosmortar.
 Kosmortar, the Mortar for Cold Weather. Folder, 4 pp., 3½ x 6½ ins. Tells why Kosmortar should be used in cold weather.
 Louisville Cement Co., 315 Guthrie St., Louisville, Ky.
 BRIXMENT for Perfect Mortar. Self-filing handbook, 8½ x 11 ins. 16 pp. Illustrated. Contains complete technical description of BRIXMENT for brick, tile and stone masonry, specifications, data and tests.
 Portland Cement Association, Chicago, Ill.
 Concrete Masonry Construction. Booklet, 48 pp., 8½ x 11 ins. Illustrated.
 Town and Country Houses of Concrete Masonry. Booklet, 20 pp., 8½ x 11 ins. Illustrated.
 Facts About Concrete Building Tile. Brochure, 16 pp., 8½ x 11 ins. Illustrated.
 The Key to Firesafe Homes. Booklet, 20 pp., 8½ x 11 ins. Illustrated.
 Design and Control of Concrete Mixers. Brochure, 32 pp., 84

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Portland Cement Stucco. Booklet, 64 pp., 81/2 x 11 ins. Illustrated.

CEMENT-Continued

Concrete in Architecture. Bound Volume, 60 pp., 8½ x 11 ins. Illustrated. An excellent work, giving views of exteriors and interiors.

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

CONCRETE BUILDING MATERIALS

Concrete Steel Company, 42 Broadway, New York.
 Modern Concrete Reinforcement. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
 Kosmos Portland Cement Company, Louisville, Ky.
 High Early Strength Concrete, Using Standard Kosmos Portland Cement. Folder, 1 page, 8½ x 11 ins. Complete data on securing high strength concrete in short time.

CONCRETE COLORINGS

- The Master Builders Co., 7016 Euclid Ave., Cleveland. Color Mix, Colored Hardened Concrete Floors (integral). Bro-chure, 16 pp., 8½ x 11 ins. Illustrated. Data on coloring for floors.
- Dychrome. Concrete Surface Hardener in Colors. Folder, 4 pp., 8 x 11 ins. Illustrated. Data on a new treatment.

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Master Builders Co., Cleveland, Ohio. Color Mix. Booklet, 18 pp., 8½ x 11 ins. Illustrated. Valuable data on concrete hardener, waterproofer and dustproofer in permanent colors.

- permanent colors.
 National Fire Proofing Co., 250 Federal St., Pittsburgh, Pa.
 Standard Fire Proofing Bulletin 171. 8½ x 11 ins., 32 pp. Illustrated. A treatise on fireproof floor construction.
 North Western Expanded Metal Co., 1234 Old Colony Building, Chicago, Ill.
 North Western Expanded Metal Products. Booklet, 8½ x 10¾ ins. 16 pp. Fully illustrated, and describes different products of this company, such as Kno-burn metal lath, 20th Century Corrugated, Plaster-Sava and Longspan lath channels, etc.
 A. I. A. Sample Book. Bound volume, 8½ x 11 ins., contains actual samples of several materials and complete data regarding their use.

CONSTRUCTION, STONE AND TERRA COTTA

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

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

DOORS

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

DOORS AND TRIM. METAL

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- The Kawneer Company, Niles, Michigan. Detail sheet, 8½ x 11 ins., with A.I.A. File No. featuring Heavy Welded Bronze Doors.
- Welded Bronze Doors.
 Richards-Wilcox Mfg. Co., Aurora, Ill.
 Fire-Doors and Hardware. Booklet, 8½ x 11 ins., 64 pp. Illustrated. Describes entire line of tin-clad and corrugated fire doors, complete with automatic closers, track hangers and all the latest equipment-all approved and labeled by Underwriters' Laboratories.
 Truscon Steel Company, Youngstown, Ohio.
 Copper Alloy Steel Doors. Catalog 110. Booklet, 48 pp., 8½ x 11 ins. Illustrated.

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DRINKING FOUNTAINS
 Halsey W. Taylor Co., Warren, Ohio Halsey Taylor Drinking Fountains. Architects' Catalog H. 52 pp., 8½ x 11 ins. Ilustrated.

DUMBWAITERS

Sedgwick Machine Works, 151 West 15th St., New York, N. Y. Catalog and Service Sheets. Standard specifications, plans and prices for various types, etc. 4½ x 8½ ins., 60 pp. Illustrated. Catalog and pamphlets, 8½ x 11 ins. Illustrated. Valuable data on dumbwaiters.

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 General Electric Co., Merchandise Dept., Bridgeport, Conn.
 Wiring System Specification Data for Apartment Houses and Apartment Hotels. Booklet, 20 pp., 8 x 10½ ins. Illustrated.
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 The House of a Hundred Comforts. Booklet, 40 pp. 8 x 104
- That's and their use. The House of a Hundred Comforts. Booklet, 40 pp., 8 x 10½ ins. Illustrated. Dwells on importance of adequate wiring. Harvey Hubbell, Inc., Bridgeport, Conn. Electrical Specialties. Catalog No. 19. 52 pp., 8½ x 10 ins. Illustrated.

- Illustrated.
 Pick-Barth Company, Inc., Albert, 1200 West 35th St., Chicago, and Cooper Square, New York.
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 Electric Heating Specialties. Booklet, 24 pages. 8½ x 11 ins. Illustrated. Specialties for heating, cooking, hospitals, organ lofts. etc.

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 Electrical Equipment for Heating and Ventilating Systems. Booklet, 24 pp., 8½ x 11 ins. Illustrated. This is "Motor Application Circular 7379."
 Westinghouse Panelboards. Catalog 224. Booklet, 64 pp., 8½ x 11 ins. Illustrated.
 Beauty; Power; Silence; Westinghouse Fans. (Dealer Catalog 45.) Brochure, 16 pp., 8½ x 11 ins. Illustrated. Valuable information on fans and their uses.
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 Westinghouse Commercial Cooking Equipment (Catalog 280). Booklet, 32 pp., 8½ x 11 ins. Illustrated. Equipment for cooking on a large scale.
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- Concrete Engineering Co., Omaha, Neb. Handbook of Fireproof Construction. Booklet, 54 pp., 8½ x 11 ins. Valuable work on methods of fireproofing.
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- National Fire Proofing Company, Fulton Building, Pittsburgh.
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 North Western Expanded Metal Co., 407 South Dearborn Street.
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 Structural Cypsum Corporation, Linden, N. J. Gypsteel Pre-cast Fireproof Floors. Booklet, 36 pp., 8½ x 11 ins. Illustrated. Data on flooring.

FLOORING

- Armstrong Cork Co. (Linoleum Division), Lancaster, Pa.
 Armstrong's Linoleum Floors. Catalog, 8½ x 11 ins., 44 pp. Color plates. A technical treatise on linoleum, including table of gauges and weights and specifications for installing linoleum floors. Newly revised, February, 1929.
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- National Lumber Manufacturers' Association, Transportation Build-ing, Washington. Wood Floors. Booklet. 30 pp., 8½ x 11 ins. Illustrated.
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Mash Engineering Company, South Norwalk, Conn.
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National Radiator Corporation, Johnstown, Pa.

Pump. ational Radiator Corporation, Johnstown, Pa. Aero Radiators; Beauty and Worth. Catalog 34. Booklet, 6 x 9 ins., 20 pp., describing and illustrating radiators and accessories. Six Great Companies Unite to Form a Great Corporation. Book-let, 28 pp., 8½ x 10½ ins. Illustrated. Valuable data on heat-ing.

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Rome Brass Radiator Corporation, 1 East 42nd Street, New York.
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Sarco Company, Inc., 183 Madison Ave., New York City, N. Y. Steam Heating Specialties. Booklet, 6 pp., 6 x 9 ins. Illustrated. Data on Sarco Packless Supply Valves and Radiator Traps for vacuum and vapor heating systems.
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The Fire that Burns Uphill. Brochure, 24 pp., 028 X 274 the Illustrated in color. Magazine feed heaters for steam, vapor and hot water heating. F. Sturtevant Company, Hyde Park, Boston, Mass. Tempervane Heating Units. Catalog 363. Booklet, 44 pp., 8½ x 11 ins. Illustrated. Data on "Heating Every Corner with Maximum Economy."

Maximum Economy." Frane Co., The, La Crosse, Wis. Bulletin 14, 16 pp., 8½ x 10½ ins. Covers the complete line of Trane Heating Specialties, including Trane Bellows Traps, and Trane Bellows Packless Valves. Bulletin 20. 24 pp., 8½ x 105½ ins. Explains in detail the opera-tion and construction of Trane Condensation. Vacuum, Booster, Circulating, and similar pumps. How to Cut Heating Costs. Booklet, 18 pp., 8½ x 11 ins. Illus-trated.

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GISTS, TELESCOPIC Gillis & Geoghegan, Inc. 535 West Broadway, New York. G & G Telescopic Hoist. Booklet. 24 pp. 8½ x 11 ins. Illustrated complete data on hoists. Ash Removal. Folder. 8½ x 11 ins. Illustrated. Hoists for re-moving ashes from basements.

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 The Frink Co., Inc., 369 Lexington Ave., New York City.
 Catalog 426. 7 x 10 ins., 16 pp. A booklet illustrated with photographs and drawings, showing the types of light for use in hospitals, as operating table reflectors, linolite and multilite concentrators, ward reflectors, bed lights and microscopic reflectors, giving sizes and dimensions, explaining their particular fitness for special uses.
 Holophane Company, 342 Madison Avenue, New York.
 Lighting Specific for Hospitals. Booklet, 30 pp., 8½ x 11 ins. Illustrated.
 The International Nickel Company, 67 Wall St. New York N. York N.

- Illustrated. e International Nickel Company, 67 Wall St., New York, N. Y. Iospital Applications of Monel Metal. Booklet, 8½ x 11½ ins., 16 pp. Illustrated. Gives types of equipment in which Monel Metal is used, reasons for its adoption, with sources of such Th H

Metal is used, reasons for its adoption, who solved equipment. Pick-Barth Company, Inc., Albert, 1200 West 35th St., Chicago, and Cooper Square, New York. Some Thoughts About Hospital Food Service Equipment. Book-let, 22 pp., 7½ x 9¼ ins. Valuable data on an important subject. Promethews Electric Corporation, 360 West 13th St., New York. Electric Heating Specialties. Booklet, 24 pages. 8½ x 11 ins. Illustrated. Specialties for heating, cooking, hospitals, organ lots. etc.

lofts, etc. Wilmot Castle Company, Union Trust Bldg., Rochester, N. Y. The Hospital Sterilizer Data Sheets. Booklet, 16 pp., 87/2 x ins. Illustrated. Data on planning sterilizer installations. x 11

HOTEL EQUIPMENT

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

INCINERATORS

Home Incinerator Co., Milwaukee, Wis. The Decent Way. Burn it with Gas. Brochure, 30 pp., 51/4 x 71/4 ins., inside. Illustrated. Incinerator sanitation equipment for

- Inc., inside. Illustrated. Incinerator same service residence use.
 A. I. A. File, 12 pp., 834 x 1034 ins., inside. Suggestions for architect on incineration, showing installation and equipment.
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- ins., inside. Illustrated. A complete outline of the many advantages of incineration.
 Blue Star Standards in Home Building. 16 pp., 5½ x 8½ ins., inside. Illustrated. Explaining fully the Blue Star principles, covering heat, incineration, refrigeration, etc.
 Josam Mig. Co., Michigan City. Ind.
 Josam-Graver Incinerators. Folder, 4 pp., 8½ x 11 ins. Illustrated.
 Kerner Incinerator Company, 715 E. Water St., Milwaukee, Wis.
 Incinerators (Chinney-fed). Catalog No. 15 (Architect and Builders' Edition). Size 8½ x 11 ins., 16 pp. Illustrated. Describes principles and design of Kernerator Chinney-fed Incinerators for residences, apartments, hospitals, schools, apartment hotels, clubs and other buildings. Shows all standard models and gives general information and working data.
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 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.
 The Kernerator (Chinney-fed) Booklet. Catalog No. 17, 20 pp., 8½ x 11 ins.

 - Kernerator (Chimney-fed) Booklet. Catalog No. 17, 20 pp., x 11 ins. Illustrated. Data on a valuable detail of equip-The ment.

INSULATION

- Armstrong Cork & Insulation Co., Pittsburgh, Pa. The Insulation of Roofs with Armstrong's Corkboard. Booklet. Illustrated. 7½ x 10½ ins., 32 pp. Discusses means of insu-lating roofs of manufacturing or commercial structures. Insulation of Roofs to Prevent Condensation. Illustrated book-let, 7½ x 10½ ins., 36 pp. Gives full data on valuable line of roof insulation.
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- 32 pp. Illustrated.
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 National Lumber Manufacturers' Association, Transportation Building, Washington.
 The Cost of Comfort. Booklet. 80 pp., 8½ x 11 ins. Illustrated. A handbook on the economies of dwelling insulation.
 Structural Cypsum Corporation, Linden, N. J.
 Heat Insulation Value of Gypsteel. Folder, 4 pp., 8½ x 11 ins. Brochure, by Charles L. Norton, of M. I. T.

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- DISTS Bates Expanded Steel Truss Co., East Chicago, Ind. Catalog No. 4. Booklet, 32 pp., 8½ x 11 ins. Illustrated. Gives details of truss construction with loading tables and specifica-
- Concrete Steel Company, 42 Broadway, New York, N. Y. Structural Economies for Concrete Floors and Roofs. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
- Modern Concrete Reinforcement. Brochure, 32 pp., 8½ x 11 ins. Illustrated.
- Construction Details for Installing Havemeyer Trusses. Data sheets, 8½ x 11 ins. Illustrated. Standard Practice for Placing Havemeyer Reinforcement in Col-umns, Beams and Slabs. Data sheets, 8½ x 11 ins. Illustrated.

KITCHEN EQUIPMENT

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

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LANTERNS

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

LATH, METAL AND REINFORCING

- Milwaukee Corrugating Co., Milwaukee. The Milcor Manual. Booklet, 96 pp., 8½ x 11 ins. Illustrated. Data on metal lath and similar materials.

- Data on metal lath and similar materials.
 Milcor Metal Ceiling Catalog. Booklet, 288 pp., 8½ x 11 ins. Illustrated. Data on metal ceiling and wall construction.
 National Steel Fabric Co., Pittsburgh, Pa.
 Better Walls for Better Homes. Brochure, 16 pp., 7¾ x 11¾ ins. Illustrated. Metal lath, particularly for residences.
 Steeltex for Floors. Booklet, 24 pp., 8½ x 11 ins. Illustrated. Combined reinforcing and form for concrete or gypsum floors and roofs. and roofs
- Steeltex Data Sheet No. 1. Folder, 8 pp., 8½ x 11 ins. Illus-trated. Steeltex for floors on steel joists with round top chords. Steeltex Data Sheet No. 2. Folder, 8 pp., 8½ x 11 ins. Illus-trated. Steeltex for floors on steel joists with flat top flanges.
- Steeltex Data Sheet No. 3. Folder, 8 pp., 8½ x 11 ins. Illus-trated. Steeltex for folders on wood joists. North Western Expanded Metal Co., 1234 Old Colony Building, Chicago, Ill.
- North
- North Western Expanded Metal Products. Booklet, 8½ x 10¾ ins., 20 pp. Fully illustrated, and describes different products of this company, such as Kno-burn metal lath, 20th Century Corrugated. Plasta-saver and longspan lath channels, etc. Longspan ¾-inch Rib Lath. Folder, 4 pp., 8½ x 11 ins. Illus-trated. Deals with a new type of V-Rib expanded metal.
- Contains
- A. I. A. Sample Book. Bound volume, 8½ x 11 ins. Contain actual samples of several materials and complete data regard ing their use. Norwest Metal Lath. Folder, 81/2 x 11 ins. Illustrated. Data on Flat Rib Lath.
- on Flat Rib Lath. **Truscon Steel Company**, Youngstown, Ohio. Truscon 34-inch Hy-Rib for Roofs, Floors and Walls. Booklet, 8½ x 11 ins., illustrating Truscon 34-inch Hy-Rib as used in industrial buildings. Plates of typical construction. Progres-sive steps of construction. Specification and load tables.

LAUNDRY MACHINERY

- American Laundry Machinery Co., Norwood Station, Cincinnati, O. Functions of the Hotel and Hospital Laundry. Brochure, 8 pp., 8½ x 11 ins. Valuable data regarding an important subject. General Laundry Machinery Corporation, 608 South Dearborn St.,
- Chicago, General All-Metal Washer. Booklet, 16 pp., 8½ x 11 ins. Illus-trated. Timken-equipped Monel metal washer with one-lever
- control.
- General Dry Tumbler. Brochure, 16 pp., 8½ x 11 ins. Illustrated. Specifications and details of Up-Draft Dry Tumbler with auto-matic temperature control.
- Troy Laundry Machinery Co., Inc., 9 Park Place, New York City. Laundry Machinery for Large Institutions. Loose-leaf booklet, 50 pp., 8½ x 11 ins. Illustrated.
- Jo pp., 8/2 x 11 ms. Indicated.
 Laundry Machinery for Small Institutions. Loose-leaf brochure, 50 pp., 8/2 x 11 ins. Illustrated.
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 Fragment of Celestialite, Booklet, 24 pp., 7x 10 ins. Illustrated.
 Data on lighting for offices, schools, hospitals, etc.
 Celestialite Catalog 727. Booklet, 18 pp., 8½ x 11 ins. Illustrated.
 Valuable brochure on lighting.
 Holophane Company, Inc., 342 Madison Ave., New York, N. Y.
 The Lighting of Schools; A Guide to Good Practice. Booklet.
 24 pp., 8½ x 11 ins. Illustrated.
 Lighting Specifications for Hospitals. Brochure, 30 pp., 8½ x 11 ins.
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- Industrial Lighting. Bulletin 448A. Booklet, 24 pp., 81/2 x 11 ins.
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 Holophane Catalog. Booklet, 48 pp., 8½ x 11 ins. Combination catalog and engineering data book.
 The Lighting of Schools. A Guide to Good Practice. Booklet, 24 pp., 8½ x 11 ins. Illustrated.
 Smyser-Royer Co., 1700 Walnut Street, Philadelphia, Pa. Catalog "J" on Exterior Lighting Fixtures. Brochure, illustrated, giving data on over 300 designs of standards, lanterns and brackets of bronze or cast iron.
 Todhunter, 119 East 57th 5t., New York, N. Y. Lighting Fixtures, Lamps and Candlesticks. 24 pp., 8½ x 11 ins. Illustrated. Fine assortment of lighting accessories.
 Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Industrial Lighting Equipment. Booklet, 32 pp., 8½ x 11 ins. Illustrated.
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National Lumber Mfrs. Assn., Washington, D. C. Use of Lumber on the Farm. Booklet, 38 pp., 8½ x 11 ins. Illustrated.

MAIL CHUTES

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

MANTELS

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

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- Broadway.
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- Central Alloy Steel Corporation, Massillon, Ohio. Sheet Iron Primer. Booklet, 64 pp., 5½ x 7¾ ins. Illustrated. The Path to Permanence. Brochure, 52 pp., 8½ x 11 ins. Illus-trated. Data on sheet iron.
- The International Nickel Company, 67 Wall St., New York, N. Y. Monel Metal Primer. 8 folders, 4 pp., 8½ x 11 ins. Illustrated. Valuable data on use of monel in kitchens, laundries, etc.

MILL WORK-See also Wood

- Hartmann-Sanders Company, 2155 Elston Ave., Chicago, Ill. Column Catalog, 7½ x 10 ins., 48 pp. Illustrated. Contains prices on columns 6 to 36 ins. diameter, various designs and illustrations of columns and installations.
- The Pergola Catalog. 7½ x 10 ins., 64 pp. Illustrated. Contains illustrations of pergola lattices, garden furniture in wood and cement, garden accessories.
- Klein & Co., Inc., Henry, 11 East 37th St., New York, N. Y. Two Driwood Interiors. Folder, 4 pp., 6¼ x 9 ins. Illustrated. Use of moulding for paneling walls.
- A New Style in Interior Decoration. Folder, 4 pp., 61/4 x 9 ins. Illustrated. Deals with interior woodwork.
- Driwood Period Mouldings in Ornamented Wood. Booklet, 28 pp., 8½ x 11 ins. Illustrated.
 How Driwood Period Mouldings in Ornamented Wood Set a New Style in Decoration. Folder.
- Roddis Lumber and Veneer Co., Marshfield, Wis.
 Roddis Doors. Brochure, 24 pp., 5¼ x 8½ ins. Illustrated price list of doors for various types of buildings.
 Roddis Doors, Catalog G. Booklet, 184 pp., 8½ x 11 ins. Completely covers the subject of doors for interior use.
- Roddis Doors for Hospitals. Brochure, 16 pp., 81/2 x 11 ins. Illustrated work on hospital doors.
- Roddis Doors for Hotels. Brochure, 16 pp., 8½ x 11 ins. Illus-trated work on doors for hotel and apartment buildings.

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- Clinton Metallic Paint Co., Clinton, N. Y. Clinton Mortar Colors. Folder, 8½ x 11 ins., 4 pp. Illustrated in colors, gives full information concerning Clinton Mortar Colors with specific instructions for using them.
- Color Card. 31/4 x 61/2 ins. Illustrates in color the ten shades in which Clinton Mortar Colors are manufactured.
- Something New in Stucco. Folder, 3½ x 6 ins. An interesting folder on the use of coloring matter for stucco coated walls.

ORNAMENTAL PLASTER

- Jacobson & Co., 241 East 44th St., New York, N. Y. A Book of Old English Designs. Brochure, 47 plates, 12 x 9 ins. Deals with a fine line of decorative plaster work.
- Architectural and Decorative Ornaments. Cloth bound volume, 184 pp., 9 x 12 ins., 18 plates. Price, \$3.00. A general cata-log of fine plaster ornaments.
- Geometrical ceilings. Booklet, 23 plates, 7 x 9 ins. An important work on decorative plaster ceilings.

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- Minwax Company, Inc., 11 West 42nd St., New York. Color Card and Specifications for Minwax Brick and Cement Coating. Folder, 4 pp., 8½ x 11 ins. Illustrated.
- National Lead Company, 111 Broadway, New York, N. Y. Handy Book on Painting. Book, 5½ x 3¼ ins., 100 pp. Gives directions and formulæ for painting various surfaces of wood, plaster, metals, etc., both interior and exterior.
- Red Lead in Paste Form. Booklet, 6¼ x 3½ ins., 16 pp. Illus-trated. Directions and formulæ for painting metals.
- Came Lead. Booklet, 6 x 834 ins., 12 pp. Illustrated. Describes various styles of lead cames.
- Sherwin-Williams Company, 601 Canal Rd., Cleveland, Ohio. Complete Architectural Specifications for painting, varnishing and lacquering, reprinted from the Sherwin-Williams Archi-tectural Catalogue as it appears in Sweet's Architectural Cata-logue. Form Number B 303. 8½ x 11, bound in paper, thirty pages of specifications and color chips; carries A. I. A. file number.

- PAINTS, STAINS, VARNISHES, WOOD FINISHES-Continued Toch Brothers, New York, Chicago, Los Angeles. Architects' Specification Data. Sheets in loose leaf binder, 8½ x 11 ins., dealing with an important line of materials.

 - S. Gutta Percha Paint Co., Providence, R. I. Barreled Sunlight. Booklet, 8½ x 11 ins. Data on "Barreled Sun-light" with specifications for its use.

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- Circle A. Products Corporation, New Castle, Ind. Circle A. Partitions Sectional and Movable. Brochure. Illus-trated. 8½ x 11¼ ins., 32 pp. Full data regarding an im-portant line of partitions, along with Erection Instructions for partitions of three different types.
- Irving Hamlin, Evanston, Ill. Hamlinized Folding Partitions Made from Hamlin's Evanston Soundproof Doors, Sectional and Movable. Folder, 4 pp., 8½ x 11 ins. Illustrated.
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 Hauserman Company, E. F., Cleveland, Ohio.
 Hollow Steel Standard Partitions. Various folders, 8½ x 11 ins. Illustrated. Give full data on different types of steel parti-tions, together with details, elevations and specifications.
 Henry Klein & Co., 25 Grand Street, Elmhurst, L. I., N. Y. Telesco Partition. Catalog, 8¼ x 11 ins., 14 pp. Illustrated. Shows typical offices laid out with Telesco partitions, cuts of finished partition units in various woods. Gives specifications and cuts of buildings using Telesco.
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- Telesco Office Partition, 25 Grand St., Elmhurst, L. I., N. Y. (See Henry Klein & Co.)

U. S. Gypsum Co., Chicago, Ill. Pyrobar Partition and Furring Tile. Booklet, 8½ x 11 ins., 24 pp. Illustrated. Describes use and advantages of hollow tile for inner partitions.

PIPE

- American Brass Company, Waterbury, Conn.
 Bulletin B-1. Brass Pipe for Water Service. 8½ x 11 ins., 28 pp. Illustrated. Gives schedule of weights and sizes (1.P.S.) of seamless brass and copper pipe, shows typical installations of brass pipe, and gives general discussion of the corrosive effect of water on iron, steel and brass pipe.
 American Rolling Mill Company, Middletown, Ohio.
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o x y ins. Data on dredging pipe.
Clow & Sons, James B., 534 S. Franklin St., Chicago, Ill. Catalog A. 4 x 16½ ins., 700 pp. Illustrated. Shows a full line of steam, gas and water works supplies.
Duriron Company, Dayton, Ohio. Duriron Acid, Alkali, Rust-proof Drain Pipe and Fittings. Book-let, 20 pp., 8½ x 11 ins. Illustrated. Important data on a valuable line of 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.
- this subject.
 "National" Rulletin No. 3. The Protection of Pipe Against Internal Corrosion, 8½ x 11 lins., 20 pp. Illustrated. Discusses various causes of corrosion, and details are given of the deactivating and deareating systems for eliminating or retarding corrosion in hot water supply lines.
 "National" Bulletin No. 25. "National" Pipe in Large Buildings. 8½ x 11 lins., 88 pp. This bulletin contains 254 illustrations of prominent buildings of all types, containing "National" Pipe, and considerable engineering data of value to architects, engineers, etc.
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SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 76

PLASTER

- Best Bros. Keene's Cement Co., Medicine Lodge, Kans. Information Book. Brochure, 24 pp., 5 x 9 ins. Lists grades of plaster manufactured; gives specifications and uses for plaster. plaster manufactured; gives specifications and uses for plaster.
 Plasterers' Handbook. Booklet, 16 pp., 3½ x 5½ ins. A small manual for use of plasterers.
 Interior Walls Everlasting. Brochure, 20 pp., 6¼ x 9¼ ins. Illustrated. Describes origin of Keene's Cement and views of buildings in which it is used.

PLUMBING EOUIPMENT

- Clow & Sons, James B., 534 S. Franklin St., Chicago, Ill. Catalog M. 954 x 12 ins., 184 pp. Illustrated. Shows complete line of plumbing fixtures for Schools, Railroads and Industrial line of Plants.
- rane Company, 836 S. Michigan Ave., Chicago, Ill. Plumbing Suggestions for Home Builders. Catalog, 3 x 6 ins., 80 pp. Illustrated.
- Plumbing Suggestions for Industrial Plants. Catalog, 4 x 61/2 ins., 34 pp. Illustrated.
- Planning the Small Bathroom. Booklet, 5 x 8 ins. Discusses planning bathrooms of small dimensions.
- John Douglas Co., Cincinnati, Ohio. Douglas Plumbing Fixtures. Bound volume, 200 pp., 83/2 x 11 ins. Illustrated. General catalog.
- Another Douglas Achievement. Folder, 4 pp., 8½ x 11 ins. Illus-trated. Data on new type of stall. Hospital. Brochure, 60 pp., 8½ x 11 ins. Illustrated. Deals with fixtures for hospitals.
- Duriron Company, Dayton, Ohio. Duriron Acid, Alkali and Rust-Proof Drain Pipe and Fittings. Booklet, 8½ x 11 ins., 20 pp. Full details regarding a valuable form of piping.
- Imperial Brass Mfg. Co., 1200 W. Harrison St., Chicago, Ill. Watrous Patent Flush Valves, Duojet Water Closets, Liquid Soap Fixtures, etc. 8½ x 11 ins., 136 pp., loose-leaf catalog, showing roughing-in measurements, etc.
- Iaddock's Sons Company, Thomas, Trenton, N. J. Catalog K. 7% x 10% ins., 242 pp. Illustrated. Complete data on vitreous china plumbing fixtures with brief history of Sani-Pottery. tary
- Speakman Company, Wilmington, Del. Catalog K. Booklet, 150 pp., 8½ x 10% ins. Illustrated. Data on showers and equipment details.
- Trenton Potteries Company, Trenton, N. J. The Blue Book of Plumbing. Bound volume, 182 pp., 8½ x 10½ ins. Illustrated.

PNEUMATIC TUBE SYSTEMS

- G & C Atlas Systems, Inc., 544 West Broadway, New York. 12 pp., 8½ x 11. Illustrated booklet of tube systems for retail stores and other buildings.
- pp., $8\frac{1}{2}$ x 11. Data Sheet showing schematic diagrams for hotel, bank, factory and wholesale buildings, table of sizes, space requirements and preliminary layout steps. A.I.A. 35h21.

PUMPS

- UMPS Kewanee Private Utilities Co., 442 Franklin St., Kewanee, Ill. Bulletin E. 744 x 1014 ins., 32 pp. Illustrated. Catalog. Com-plete descriptions, with all necessary data, on Standard Service Pumps, Indian Brand Pneumatic Tanks, and Complete Water Systems, as installed by Kewanee Private Utilities Co.
- Nash Engineering Company, South Norwalk, Conn. Bulletin 52. Brochure. 6 pp., 1044 x 7½ ins. Illustrated in color. Devoted to Jennings Standard Centrifugal Pumps for house ser-vice, boosting city water pressure to supply top stories, for circulating warm water, etc.
- Bulletin. 97. Booklet. 16 pp., 10¾ x 7½ ins. Illustrated in color. Describes the design, construction and operation of the Jen-nings Suction Sump Pump.
- Bulletin 11. Brochure. 8 pp., 1034 x 71/2 ins. Illustrated in color. Deals with Nash Hytor Vacuum Pumps for air and gases.
- The Trane Co., La Crosse, Wis. Trane Small Centrifugal Pumps. Booklet, 33/4 x 8 ins., 16 pp. Complete data on an important type of pump.

RAMPS

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

REFRIGERATION

- The Fulton Syphon Company, Knoxville, Tenn. Temperature Control of Refrigeration Systems. Booklet, 8 pp., 81/2 x 11 ins. Illustrated. Deals with cold storage, chilling of water, etc.
- North Western Expanded Metal Company, Chicago, Ill. Designing Data. Book, 6 x 9 ins., 96 pp. Illustrated. Covers the use of Econo Expanded Metal for various types of reinforced concrete construction.

REINFORCED CONCRETE-See also Construction, Concrete Longspan ¼-inch Rib Lath. Folder, 4 pp., 8½ x 11 ins. Illus-trated. Deals with a new type of V-Rib expanded metal. Truscon Steel Company, Youngstown, Ohio. Shearing Stresses in Reinforced Concrete Beams. Booklet, 8½ x 11 ins., 12 pp.

RESTAURANT EQUIPMENT

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

ROOFING

- The Barrett Company, 40 Rector St., New York City. Architects' and Engineers' Built-up Roofing Reference Series; Volume IV Roof Drainage System. Brochure, 64 pp., 8½ x 11¼ ins. Gives complete data and specifications for many details ins. Gives of roofing.
- of roofing. Federal Cement Tile Co., 608 S. Dearborn Street, Chicago. Catalog and Roof Standards. Booklet, 36 pp. 8½ x 11 ins. Illus-trated. Describes Featherweight Concrete Insulating Roof Slabs, including complete data, weights and dimensions, specifications and detail drawings. Also includes complete information on Featherweight Nailing Concrete Roof Slabs for use with orna-mental slate or copper covering. The catalog is profusely illus-trated and contains also a partial list of users. Ference of Theorem and Theorem Roof. Proclume 16 pro-
- Examples of Theaters and Theater Roofs. Brochure, 16 pps., 8½ x 11 ins., Illustrated. Contains views of theaters designed by some of the country's leading architects.
- Federal Interlocking Tile and Glass Tile. 4 pp., 8½ x 11 ins. Illustrates and describes complete roof or precast concrete slabs requiring no composition covering.
- Heinz Roofing Tile Co., 1925 West Third Avenue, Denver, Colo. Plymouth-Shingle Tile with Sprocket Hips. Leaflet, 8½ x 11 ins. Illustrated. Shows use of English shingle tile with special hips. Italian Promenade Floor Tile. Folder, 2 pp., 8½ x 11 ins. Illus-trated. Floor tiling adapted from that of Davanzati Palace.
- Mission Tile. Leaflet, 81/2 x 11 ins. Illustrated. Tile such as are used in Italy and Southern California.
- Georgian Tile. Leaflet, 81/2 x 11 ins. Illustrated. Tiling as used in old English and French farmhouses.
- in old English and French farmhouses. Johns-Manville Corporation, New York. The New Book of Roofs. Brochure, 24 pp. 8½ x 11 ins. Illustrated. Roofing from the Architect's point of view. Ludowici-Celadon Company, 104 So. Michigan Ave., Chicago, Ill. "Ancient" Tapered Mission Tiles. Leaflet, 8½ x 11 ins., 4 pp. Illustrated. For architects who desire something out of the ordinary this leaflet has been prepared. Describes briefly the "Ancient" Tapered Mission Tiles, hand-made with full corners and designed to be applied with irregular exposures. Milwaukee Corrugating Co., Milwaukee. Milwor Architectural Sheet Metal Guide. Booklet. 72 pp., 8½ x 11 ins. Illustrated. Metal tile roofing, skylights, ventilators, etc. Milloor Sheet Metal Handbook. Brochure. 128 pp., 8½ x 11 ins. Illustrated. Deals with rain-carrying equipment, etc. Structural Gypsum Corporation, Linden, N. J.

- Structural Gypsum Corporation, Linden, N. J. Relative Effectiveness of Various Types of Roofing Construction in Preventing Condensation of the Under Surface. Folder, 4 pp., 834 x 11 ins. Important data on the subject.
- Gypsteel Pre-cast Fireproof Roofs. Booklet, 48 pp., 8½ x 11 ins. Illustrated. Information regarding a valuable type of roofing.
- U. S. Gypsum Co., Chicago, Ill. Pyrobar Roof Construction. Booklet, 8 x 11 ins., 48 pp. Illus-trated. Gives valuable data on the use of tile in roof construction.
- Sheetrock Pyrofill Roof Construction. Folder, 8½ x 11 ins. Illus-trated. Covers use of roof surfacing which is poured in place.

SCHOOL EOUIPMENT

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

SEWAGE DISPOSAL

- Kewanee Private Utilities, 442 Franklin St., Kewanee, Ill. Specification Sheets. 734 x 1034 ins., 40 pp. Illustrated. Detailed drawings and specifications covering water supply and sewage disposal systems.

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SEWAGE DISPOSAL-Continued

Nash Engineering Company, South Norwalk, Conn. Bulletin 67. Booklet. 16 pp. 1034 x 71/2 ins. Illustrated in color. Describes Type A Jennings Sewage Ejector for handling Un-screened sewage and raising it from basements below sewer level.

Bulletin 103. Brochure. 16 pp. 1034 x 7½ ins. Illustrated in color. Deals with small size Type B Jennings Sewage Ejector.

SCREENS

80

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

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Columbia Mills, Inc., 225 Fifth Avenue, New York, N. Y. Window Shade Data Book. Folder, 28 pp., 8½ x 11 ins. Illus-trated.

SHELVING-STEEL

 David Lupton's Sons Company, Philadelphia, Pa.
 Lupton Steel Shelving. Catalog E. Illustrated brochure, 40 pp., 8% x 11 ins. Deals with steel cabinets, shelving, racks, doors, partitions, etc.

STEEL PRODUCTS FOR BUILDING

- Bethlehem Steel Company, Bethlehem, Pa. Steel Joists and Stanchions. Booklet, 72 pp., 4 x 634 ins. Data for steel for dwellings, apartment houses, etc. Steel Frame House Company, Pittsburgh, Pa. (Subsidiary of Mc-Clintic-Marshall Corp.)
- Steel Framing for Dwellings. Booklet, 16 pp., 81/2 x 11 ins. Illus-

- trated.
 Steel Framing for Gasoline Service Stations. Brochure, 8 pp., 8½ x 11 ins. Illustrated.
 Steel Frame Standard Gasoline Service Stations. Booklet, 8 pp., 8½ x 11 ins. Illustrated. Three standard designs of stations.
 Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. The Arc Welding of Structural Steel. Brochure, 32 pp., 8½ x 11 ins. Illustrated. Deals with an important structural process.

STONE, BUILDING

- Indiana Limestone Company, Bedford, Ind.
- Volume 3, Series A-3. Standard Specifications for Cut Indiana Limestone work, 8½ x 11 ins., 56 pp. Containing specifications and supplementary data relating to the best methods of speci-fying and using this stone for all building purposes.
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 Volume 6. Series B. Indiana Limestone School and College Buildings. 8½ x 11 ins., 48 pp. Illustrated.
 Volume 12. Series B. Distinctive Homes of Indiana Limestone. 8½ x 11 ins., 48 pp. Illustrated.
 Old Gothic Random Ashlar. 84 x 11 ins., 16 pp. Illustrated.

Old Gothic Random Ashlar. 81/2 x 11 ins., 16 pp. Illustrated.

STORE FRONTS

Name

Address

- Brasco Manufacturing Co., 5025-35 South Wabash Ave., Chicago, Ill. Catalog No. 33. Series 500. All-Metal Construction. Brochure, 20 pp., 8½ x 11 ins. Illustrated. Deals with store fronts of a high class.
- Catalog No. 34. Series 202. Standard construction. Booklet, 16 pp. 8½ x 11 ins. Illustrated, complete data on an important type of building.
- Detail Sheets. Set of seven sheets, 8½ x 11 ins., printed on trac-ing paper, giving full-sized details and suggestions for store front designs.
- Davis Solid Architectural Bronze Sash. Set of six sheets, 8½ x 11 ins., printed on tracing paper. Full-sized details and suggestions for designs of special bronze store front construction.
- The Kawneer Company, Niles, Mich. Catalog M, 1929 Edition, 64 pages, 8½ x 11 ins., with the A.I.A. File No., profusely illustrated. General Catalog.

STORE FRONTS-Continued

- Detail Sheet and descriptive folder, 81/2 x 11 ins., with A.I.A. File No. featuring "B" Store Front Construction, designed along modernistic lines.
- Modern Bronze Store Front Co., Chicago Heights, Ill. Introducing Extruded Bronze Store Front Construction. Folder, 4 pp., 8% x 11 ins. Illustrated. Contains full-sized details of metal store fronts.

Zouri Drawn Metals Company, Chicago Heights, Ill. Zouri Safety Key-Set Store Front Construction. Catalog, 8½ x 10½ ins., 60 pp. Illustrated. Complete information with detailed sheets and installation instructions convenient for architects' files.

International Store Front Construction. Catalog, 8½ x 10 ins., 70 pp. Illustrated. Complete information with detailed sheets and installation instructions convenient for architects' files. Store Fronts by Zouri. Booklet, 30 pp., 9 x 12 ins. Illustrated.

TELEPHONE SERVICE ARRANGEMENTS

- All Bell Telephone Companies. Apply nearest Business Office, or American Telephone and Telegraph Company, 195 Broadway, American Te New York.
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TERRA COTTA

- National Terra Cotta Society, 19 West 44th St., New York, N. Y Standard Specifications for the Manufacture, Furnishing and Setting of Terra Cotta. Brochure, 8% x 11 ins., 12 pp. Com-plete Specification, Glossary of Terms Relating to Terra Cotta and Short Form Specification for incorporating in Architects' Specification.
- olor in Architecture. Revised Edition. Permanently bound vol-ume, 9% x 12% ins., containing a treatise upon the basic prin-ciples of color in architectural design, illustrating early Euro-pean and modern American examples. Excellent illustrations in color. Color in Architecture. Revised Edition.
- Present Day Schools. 8½ x 11 ins., 32 pp. Illustrating 42 ex-amples of school architecture with article upon school building design by James O. Betelle, A. I. A.
- 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

National Fire-Proofing Co., 250 Federal Street, Pittsburgh. Natco. The Complete line of Structural Clay Tile. Booklet. 39 pp. 8½ x 11 ins. Illustrated. A General Catalog.

- Natco Double Shell Load Bearing Tile Bulletin. 81/2 x 11 ins.,
- 6 pp. Illustrated. Natco Face Tile for the Up-to-Date. Farm Bulletin. 8½ x 11 ins. Natco Header Backer Tile Bulletin. 81/2 x 11 ins., 4 pp. Illus-
- trated. Natco Unibacker Tile Bulletin. 8½ x 11 ins., 4 pp. Illustrated. Natcoflor Bulletin. 8½ x 11 ins., 6 pp. Illustrated.

TILES

- Hanley Company, Bradford, Pa. Hanley Quarry Tile. Folder. 4 pp., 5 x 8 ins. Illustrated.
 C. Pardee Works, 9 East 45th St., New York, N. Y., and 1600 Walnut St., Philadelphia, Pa. Pardee Tiles. Bound volume, 48 pp., 8½ x 11 ins. Illustrated.

VALVES

- Crane Co., 836 S. Michigan Ave., Chicago, Ill. No. 51. General Catalog. Illustrated. Describes the complete line of the Crane Co. C. A. Dunham Co., 450 East Ohio St., Chicago, Ill.

The Dunham Packless Radiator Valve. Brochure, 12 pp., 8 x 11 ins. Illustrated. Data on an important type of valve.

Jenkins Brothers, 80 White Street, New York. Office Buildings Yesterday and Today. Folder, 8½ x 11 ins. Illustrated. Valves for use in office buildings.

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Burlington Venetian Blind Co., Burlington, Vt. Venetian Blinds. Booklet, 7 x 10 ins., 24 pp. Illustrated. De-scribes the "Burlington" Venetian blinds, method of operation, advantages of installation to obtain perfect control of light in the room. the room.

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VENETIAN BLINDS-Continued

Columbia Mills, Inc., 225 Fifth Ave., New York. Columbia Venetian Blinds. Booklet, 6 pp., 8½ x 11 ins. Illustrated. Complete data and specifications.

VENTILATION

82

- American Blower Co., Detroit, Mich. American H. S. Fans. Brochure, 28 pp., 81/2 x 11 ins. Data on an important line of blowers.
- Duriron Company, Dayton, Ohio. Acid-proof Exhaust Fans. Folder, 8 x 10½ ins., 8 pp. D. garding fans for ventilation of laboratory fume hoods. Data re-Specification Form for Acid-proof Exhaust Fans. Folder, 8 x 101/2 ins.

WATERPROOFING

Master Builders Company, Cleveland, Ohio.

- Waterproofing and Dampproofing and Allied Products. Sheets in loose index file, 9 x 12 ins. Valuable data on different types of materials for protection against dampness.
- Waterproofing and Dampproofing File. 36 pp. Complete descrip-tions and detailed specifications for materials used in building with concrete.
- Will Company, Inc., 11 West 42nd St., New York. Waterproofing Stadia. Folder, 4 pp., 8½ x 11 ins. Illustrated. Transparent Waterproofings for All Masonry Walls and Sur-faces. Folder, 4 pp., 8½ x 11 ins. Illustrated.
- Data Sheet on Membrane Waterproofing. Folder, 4 pp., 81/2 x 11 ins. Illustrated.
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 Toch Brothers, New York, Chicago, Los Angeles. Architects' Specification Data. Sheets in loose leaf binder, 81/2 x 11 ins., dealing with an important line of materials.

WEATHER STRIPS

- Athey Company, 6035 West 65th St., Chicago, Ill. The Only Weatherstrip with a Cloth to Metal Contact. Booklet, 16 pp., 8½ x 11 ins. Illustrated. Data on an important type of weather stripping.

WINDOWS

- Detroit Steel Products Co., 2250 E. Grand Boulevard, Detroit. Fenestra Blue Book. Brochure, 75 pp., 8½ x 11 ins. Illustr Data on steel windows. Illustrated.
- The Kawneer Company, Niles, Mich. Circular, 8½ x 11 with A.I.A. File No. featuring full size details and specifications of Heavy Type Sealair Independent Balanced Sash Window.
- Circular, 8½ x 11 with A.I.A. File No. featuring full size details and specifications of Light Independent Balanced Sash Sealair Windows.
- Circular, 8½ x 11 with A.I.A. File No. featuring full size details and specifications of In-swinging Sash Sealair Windows. The above to be furnished in non-ferrous metal and steel.
- David Lupton's Sons Company, Philadelphia, Pa. Lupton Pivoted Sash. Catalog 12-A. Booklet, 48 pp., 85% x 11 ins. Illustrates and describes windows suitable for manufacturing buildings.

Lupton Commercial Projected Windows. Brochure. 24 pp., 8½ x 11 ins. Illustrated. Details and specifications.

WINDOWS, CASEMENT

Name

- Detroit Steel Products Co., 2250 E. Grand Boulevard, Detroit. Fenestra Casements. Booklet, 14 pp., 8½ x 11 ins. Illustrated. Discusses casements, particularly for residences.
- Screen Casements. Brochure, 16 pp., 81/2 x 11 ins. Fenestra Sc Illustrated.
- Decorating With Casements. Booklet, 18 pp., with inserts in color $6 \ge 3\frac{1}{2}$ ins. Deals with use of decorations, particularly draperies, with casement windows.
- Hope & Sons, Henry, 103 Park Ave., New York, N. Y. Catalog, 12¼ x 18½ ins., 30 pp. Illustrated. Full-size details of outward and inward opening casements.

- WINDOWS, CASEMENT-Continued David Lupton's Sons Company, Philadelphia, Pa. Lupton Casement of Copper Steel. Catalog C-217. Booklet, 24 pp., 85% x11 ins. Illustrated brochure on casements, particularly for residences.
 - Lupton Creates a Complete Casement. Folder, $8\frac{1}{2} \ge 11$ ins. Illustrated data on a casement providing for screens, shades Illustrated data on and draperies.

Lupton Heavy Casements. Detail She ins. Details and specifications only. Detail Sheet No. 101, 4 pp., 81/2 x 11

- Richards-Wilcox Mfg. Co., Aurora, Ill. Casement Window Hardware. Booklet, 24 pp., 8½ x 11 ins. Illustrated. Shows typical installations, detail drawings, con-struction details, blue-prints if desired. Describes AIR-way Multifold Window Hardware.
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- List of Parts for Assembly. Booklet, 81/2 x 11 ins., 16 pp. Full lists of parts for different units.

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Detroit Steel Products Co., 2250 E. Grand Boulevard, Detroit. Fenestra Screen Casements. Brochure, 16 pp., 8½ x 11 ins. Fenestra Sc Illustrated.

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- Columbia Mills, Inc., 225 Fifth Avenue, New York, N. Y. Window Shade Data Book. Folder, 28 pp., 8½ x 11 ins. Illus-trated.
- Window Shade Rollers. Brochure, 24 pp., 8 x 11 ins. Illustrated. Rollers and accessories.

WINDOWS, STEEL AND BRONZE

- David Lupton's Sons Company, Philadelphia, Pa.
 A Rain-shed and Ventilator of Glass and Steel. Pamphlet, 4 pp., 83% x 11 ins. Deals with Pond Continuous Sash. Sawtooth Roofs, etc.
 - How Windows Can Make Better Homes. Booklet, 37% x 7 ins., 12 pp. An attractive and helpful illustrated publication on use of steel casements for domestic buildings.
- ruscon Steel Company, Youngstown, Ohio. Drafting Room Standards. Book, 8½ x 11 ins., 120 pages of me-chanical drawings showing drafting room standards, specifica-tions and construction details of Truscon Steel Windows, Steel Lintels, Steel Doors and Mechanical Operators.
- Truscon Solid Steel Double-Hung Windows. 24 pp. Booklet, 8½ x 11 ins. Containing illustrations of buildings using this type of window. Designs and drawings of mechanical details.
- Continuous Steel Windows and Mechanical Operators. Catalog 126. Booklet, 32 pp., 8½ x 11 ins. Illustrated.

WOOD-See also Millwork

- American Walnut Mfrs. Association, 618 So. Michigan Boulevard, Chicago, Ill.
- American Walnut. Booklet, $7 \ge 9$ ins., 46 pp. Illustrated. A very useful and interesting little book on the use of walnut in Fine Furniture with illustrations of pieces by the most notable furniture makers from the time of the Renaissance down to the present.
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National Lumber Mfrs. Assn., Washington, D. C. Airplane Hangar Construction. Booklet, 24 pp., 8½ x 11 ins. Use of lumber for hangars.

Modern Home Interiors. Booklet, 8½ x 11 ins. Illustrated. Deals with interior uses of wood.

WOOD FINISH

Minwax Company, 11 West 42nd St., New York. Color card and specification for Minwax Flat Finish. Folder, 4 pp., 8½ x 11 ins. Illustrated. Deals with a penetrative, pre-servative stain finish giving stain and soft wax effect.

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ARCHITECTURAL ALUMINUM





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Design drawings and further details of the flagpole holder and spandrels used on the Chrysler Building will be found on the following page.

ARCHITECTURAL ALUMINUM

ARCHITECTURAL DESIGN

Part One



ALCOA

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 $\frac{1}{4}$ ". 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.

We will be glad to furnish further details concerning any of the fabrications described here.

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

ARCHITECTURAL ALUMINUM



Bakelite Molded plates are "more than satisfactory" in the new Penobscot Building

T HROUGHOUT the forty-seven floors of the Penobscot Building, Detroit, thousands of screwless type Bakelite Molded switch and outlet plates have been installed. They were selected after an exhaustive investigation convinced the owners of their advantages. Experience has proven the wisdom of the choice, and the building manager writes that Bakelite Molded plates "are more than satisfactory."

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.

ATHENATERIAL OF ATHOUSAND USES

"The registered Trade Mark and Symbol shown above may be used only on products made from materials manufactured by Bakelite Corporation Under the capital "B" is the numerical sign for infinity, or unlimited quantity. It is symbolizes the infinite number of present and future uses of Bakelite Corporation's products."

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ARCHITECTURAL DESIGN

Part One



Invisible Hinges (Good Taste + Strength) Completely invisible when the door is closed. Flush doors—clean lines —no projections. Admittedly the ideal hinge for discriminating work. A style for every use See our catalog in Sweet's (pages 1578-9), or write direct to us for samples and complete catalog. Soss Mfg. Co., Inc. Roselle, New Jersey Detroit Office 1051 Book Bldg. Washington Blvd. Adjustable Window Shade Fixture No Awnings Necessary Fits Any

USED BY Shreve, Lamb & Harmon Schwartz & Cross Geo. A. Fuller & Co. G. Richard Davis Henry Mandell Co. Schools, Hospitals, Homes, A partment Houses PROTECTO WINDOW SHEADE FIXTURE Beautiful...... Because ornamentally designed. Permanent.... Because made of lifetime metal.

Type Shade

Simple...... A turn of knob raises or lowers shade. Write for Full Information.

General Window Equipment Corp. 621 Broadway New York, N.Y.

Floodlighted from Within





Installation of floodlighting projectors outside the tower

Williamsburgh Savings Bank Building. Architects, Halsey, McCormack and Helmer, Inc. Consulting Engineer, Frank Sutton. Floodlighted by General Electric.

OD ETER

28 34

18 18



The architect who provides for floodlighting when a building is designed is sure that his thought will be faithfully interpreted at night as well as by day; and he obviates structural changes that a future installation might necessitate. G-E illuminating engineers offer you their services in thus continuing your message which else would be interrupted at nightfall.

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.



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J-M Tile Flooring resilient and decorative



RCHITECTS 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.

JOHNS-MANVILLE

RODUC

A thoroughly tested flooring

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.



New York

San Francisco

Chicago

BUILDING INDUSTRY Asbestos and Asphalt Shingles Tile Flooring

Transite

Cleveland Toronto

Built-up Roofs **Floridene Stone**

Part One



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 rensed it

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

517 WHEATFIELD STREET

-:-

NORTH TONAWANDA, N. Y.

The greenhouse shown above is on the estate of Mr. Warren Curtis, Jr., at Lewiston Heights, New York.

THE ARCHITECTURAL FORUM



A REAL PROPERTY AND

10.0

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 Hardware: Corbin





Among Denver's finest buildings recently built and equipped with Good Hardware-Corbin:

Continental Oil Bldg. Denver Theatre Shrine Mosque Hotel Cosmopolitan

What Denver buildings deserve . . Denver architects specify

When most of the finest buildings in so modern a city as Denver are equipped throughout by Corbin, we know we are not alone in our belief that good buildings deserve good hardware.

What all good buildings deserve, Denver buildings are getting-Good Hardware-Corbin.

P. & F.	CORBIN	SINCE 1849	NEW BRITAIN CONNECTICUT
	The American Hardware Corp	oration, Success	sor
New York	Chicago		Philadelphia

Part One

Libbey-Owens has put beauty into window glass

Residence of Capt. W. G. Roper, Atlanta, Ga. Glazed with Libbey-Owens Glass



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 ARCHITECTURAL FORUM

February, 1930



PENN LOCKS AND FINISHING HARDWARE



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.



ILLUSTRATIONS: PENN-KENILWORTH

PENN HARDWARE COMPANY · Reading · Pennsylvania BOSTON · CHICAGO · LOS ANGELES · NEW YORK CITY · PHILADELPHIA · SAN FRANCISCO

ARCHITECTURAL DESIGN

Physics Building, Unixer-sity of Washington, Seattle, Wash, Glazed with "A.W.G. CO." Window Glass-John Graham, Arch.W.P. Fuller & Co., Glazing Contractors.

Part One



MORE GLASS FOR

MEANS LESS FOR SPECTACLES



WINDOWS

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

In schools and office buildings especially, be sure to specify plenty of "A.W. G. CO." Window Glass. This is an important step in improving the beauty, comfort and value of any building.

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.

2928



GRECIAN ART is wrought into the EXCLUSIVE DESIGNS by RUSSWIN

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.



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At right are three exclusive RUSSWIN designs Beaumont Lalonde Warwick





MINERVA

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

ARCHITECTURAL DESIGN

Part One



WHEN YOUR CLIENT CALLS FOR ULTRA VIOLET RAY GLASS

Your problem is to recommend a glass which, first of all, may be depended upon to transmit a major portion of the vital rays; and secondly, may be depended upon to *retain* this property permanently.

Helioglass does both these things. It has very high transmission properties. It retains those properties indefinitely. And it is sponsored by the organization that is so well known to you in the field of plate glass and fine sheet-drawn window glass; the organization which has developed a nation-wide service through branch warehouses in all parts of the country, making Helioglass as easy for you to obtain as its other products which you use.

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

A^S 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' 10¹/4" Diameter of Lantern 26" overall Diameter of glass 23" Base 25" square

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





ARCHITECTURAL DESIGN

Part One



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 installation, 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 architects. You will surely want to have complete information for your files.

The new Warwick Bed is one of a distinguished family of space-saving conveniences. Jamb-type, pivot and roller beds are also made in the "Warwick" line . . . affording the Architect every feature 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" I 40 East 49th St., Western Offices: 130 N I		* Architects: The Firm of Kenneth M. Murchison Associate Architects Raymond Hood, Godle and Fouilhoux.
DISAPPEARING BEDS	THE "WHITE" DOOR BEI 40 E. 49th St., New York C □ Please send me for my Beaux Arts Apartments. □ Please send me your late Name. Firm. Address. City.	ity. file the brochure on the st catalog.

100
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PLANNED LIGHTING WITH HOLOPHANE SPECIFICS

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THE LIGHTING RESULTS CHEMICAL NATIONAL BANK NEW YORK CITY

PHOTOGRAPH SHOWS

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Part One



Plate No. 16 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

Mountain States Telephone and Telegraph Building, Denver, Col. Wm. N. Bowman Architect

CRITTALL CASEMENT WINDOW CO., Detroit. "Crittall Metal Windows." The many advantages of casements.

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 their 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 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.

AMERICAN BLOWER CORPORATION, Detroit. "The Venturafin Method of Heating, Bulletin No. 7818."

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 made 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 Ventura-fin 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 heated before working areas. There is no guesswork or chance,—Venturafin gives positive heat control. Venturafin units are practically indestructible. They are equipped with non-corrosive steam heating coils, the well known Ventura fan manufactured by The American Blower Corporation, and an electric motor made by the world's largest motor manufacturers . . . all housed in a sturdy die-formed, beauti-fully finished steel case. Venturafin units are built in many styles and types for installation wherever steam is available." But this particular booklet deals particularly and in considerable detail with the 1929 models of "Venturafin Unit Heat-'The new Units are made in four sizes to cover practically all industrial heating needs and have been im-proved and refined very much over previous models. Each Unit is equipped with air deflectors to direct the heated air toward the floor, and most models are furnished regularly with speed regulators to give various degrees of heat as Venturafin is particularly adapted for use in inrequired. dustrial plants, warehouses, garages, stores, entrance ways, laundries, gymnasiums, etc. The rapid acceptance of Unit Heaters since the advent of the original Venturafin in 1924, is accounted for by the reduced cost of installation over ordinary heating methods and the better heat distribution obtained by their use. Unit Heaters should be of interest to all heating engineers at the present time." The booklet explains by adequate illustrations and diagrams as well as by the carefully written and edited text its complete workings.

THE CRANE COMPANY, 836 South Michigan Avenue, Chicago. "Plumbing Fixtures for the Home."

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 LINCOLN ELECTRIC COMPANY, Cleveland. "Studies in Structural Arc Welding." Valuable work on the subject.

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 Lincoln Electric Company is issuing a set of eight "Studies in Arc Welding" which go with considerable detail into the matter. The studies dwell upon the use of arc welding in connections, and one study has to do with the use of arc welding in building the steel construction enclosing the swimming pool of a large Y. W. C. A. building in Detroit.

NATIONAL LUMBER MANUFACTURERS' ASSOCIA-TION, Washington. "Modern Home Interiors."

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 builtin tables and benches often used for "breakfast alcoves"; cabinets of different kinds; bookshelves; dressers; builtin 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 likely to please architects as well as their clients. The brochure says: "This book of plates is published by the National Lumber Manufacturers' Association to assist in the appropriate use of wood. The illustrations are reproductions of architectural renderings.

THE HALSEY W. TAYLOR CO., Warren, Ohio. "Halsey Taylor Drinking Fountains." The wide extent of their use.

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 Co.,—wall 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 Globe No. 5133 installed in the Institute of Pathology, Western Reserve University. Abram Garfield, Cleveland, Ohio, Architect. Installation by Enterprise Electric Fixtures, Inc.

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

HENRY KLEIN & CO., 40-46 West 23rd Street, New York. Office Partitions and Screens. A useful brochure on design.

The appearance of business offices depends in large measure on the furnishings which are used in them. Probably there is 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 parapets, usually made with swinging gates or doors, 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 taste with 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 grace-ful,—which are soaring skyward on every hand are ren-dered possible only by the steel skeletons around which there are built the walls of brick, stone or terra cotta which appear so massive and yet which are merely the garments clothing which enclose or surround 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 floor construction. It is a result of a natural development of structural design and building progress. It is based on fundamental knowledge of, and a long expe-rience 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 weight floor supports. 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 stiff and effective top chord section, and are economical 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 can be fastened. This truss is designed for a single-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 By reference to and use of the standard specifisection. cations 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 pos-sesses large financial, engineering and manufacturing re-This assures unusual responsibility and a degree sources. service which merit the complete confidence of the building profession. This organization is earnest in its 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, constructors, and others interested, that economical, safe and permanent con-struction will be attained." The brochure deals with its subject in the most complete way possible, illustrated by countless diagrams and giving, among other details, every precessary item of data recording allowable uniform loads necessary item of data regarding allowable uniform loads in pounds per square foot for structures of different types.

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

Architects, engineers and builders as well as home owners appreciate today as never before the importance of using insulation against the entrance of chilled air into a building or the passage of heat from it, since it has been proved that proper insulation may in even one heating season lead to a reduction in the cost of fuel sufficient to pay for the insulation. But even the best insulation which could be had would be quite powerless to prevent the entry of chilled air or the passage of heated air through the cracks which al-most always exist around the frames of windows and doors caused by the swelling and contraction of the frames, which are generally of wood, the contraction and swelling of the structural members themselves when of wood, or the settling of the building when it is of any type of masonry, since all this creates these openings, or else enlarges them when they already exist. Then too, such openings permit the entrance into a building of dust and soot. "Pecora Calking and Glaz-ing Compound" makes a permanently air-tight joint, for while forming a tough hide or skin on the surface, which is impervious to heat, cold and moisture, it remains soft and elastic underneath, and never breaks nor dries out. This elasticity is permanent, giving with every movement caused by the settling of new buildings and by shrinking or swelling of frame, sash or sill. It adheres to wood, brick, stone, con-crete, glass, and masonry, maintaining its line of contact with all surfaces, making a permanent building seal. And it is apparent that calking can be done at any season and with no inconvenience to occupants of buildings. Very few builders or contractors imbed glass in putty, as was done in former years, but even when they do, putty becomes hard and brittle, and separates from the glass, causing a leak around it. Putty also falls out and has to be replaced, only to fall out again. When calking compound is used, it sticks where it is applied, and stops all leaks for all time, and does not have to be replaced. Once installed, it is there to stay.

THE OTIS COMPANY, 32 Thomas Street, New York. "Awnings; A Guide to Their Selection."

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 Parisian suburbs will agree; and yet nine times out of ten 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, gayer, cozier, darker, brighter, farther away, closer. Not every fabric design would appear as well on one type of house 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. Several excellent illustrations in color from originals by Norman Reeves give much more than an idea of the character which properly designed awnings can give, while illustrations in color of 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 supple

The shades you specify... How will they look in a year or two?

WINDOW SHADES are bound to be conspicuous — they occupy so prominent a position. If they are ordinary shades, their dirty condition will soon advertise the fact.

If they are the New and Improved du Pont TONTINE shades, they will be conspicuous for their beauty and long life—reflecting the good judgment of the architect who specified them. For TONTINE shades are washable. By applying soap and water, they can be scrubbed clean—thus retaining their freshness long after ordinary shades have been discarded.

Impregnated with pyroxylin, the basic substance used in the famous Duco, TONTINE is a really different shade. It will not crack, pinhole or fray. Its pyroxylin-impregnated surface prevents spotting and staining from rain, and fading from sunlight.

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The shades in the new Daily News Building, Chicago, Ill., will retain their good looks through years of service because they are TONTINE throughout. Holabird & Root, Architects.

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