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Scenery and Stage Decoration

Tradition, Composition, Scale

By J. MONROE HEWLETT

THE traditions which most of us have associated with scenic art have come to us directly and naturally from Italy and France of the seventeenth and eighteenth centuries, but during the past few years the newly awakened interest in matters of stage craft has revived the study of the traditions of Greece, the Orient, the Elizabethan stage, and in fact the entire dramatic past, insofar as data for the study of it is available, with the result that certain recent productions based in general on this study have aroused the sort of interest that usually attaches to something entirely novel. A Greek tragedy presented practically as it would have been presented two thousand years ago, one of Shakespeare's plays produced with all the accessories and lack of accessories that the courtyard of an inn afforded, a medieval miracle play with its conventional suggestion of heaven, hell, and the states that lie between, must all prove of interest to the student of the drama, and if the producer and actors are gifted with a fair share of dramatic sense this interest may well extend to the more cultivated portion of the general public; but in stage craft, as in architectural design, an archeological

tradition is only a point of departure, not a rule of procedure, and an archeological fad if followed too enthusiastically may prove just as much of a stumbling block in the path of real progress as

any other kind of a fad. Let us therefore be thankful for the interest that has made possible these revivals of the traditions of the past without going to the extreme of assuming, as some would have us do, that there is a kind of subtle superiority in primitive forms, *per se*, which is denied to the products of an age of greater sophistication. The important point to dwell upon, it seems to me, is this: if the predominant quality of a great work of dramatic art can be adequately expressed with the aid of accessories so meager as those originally available, it should be possible by a careful comparison of such a production with the typical modern production of the same work to see just where over-elaboration has confused and weakened



A FRONTISPIECE BY PIRANESI

the result and to suppress the over-elaboration without at the same time reverting to the meagerness and the oddities of the primitive forms.

The striking novelties of stage setting during recent years have not all been in the direction of

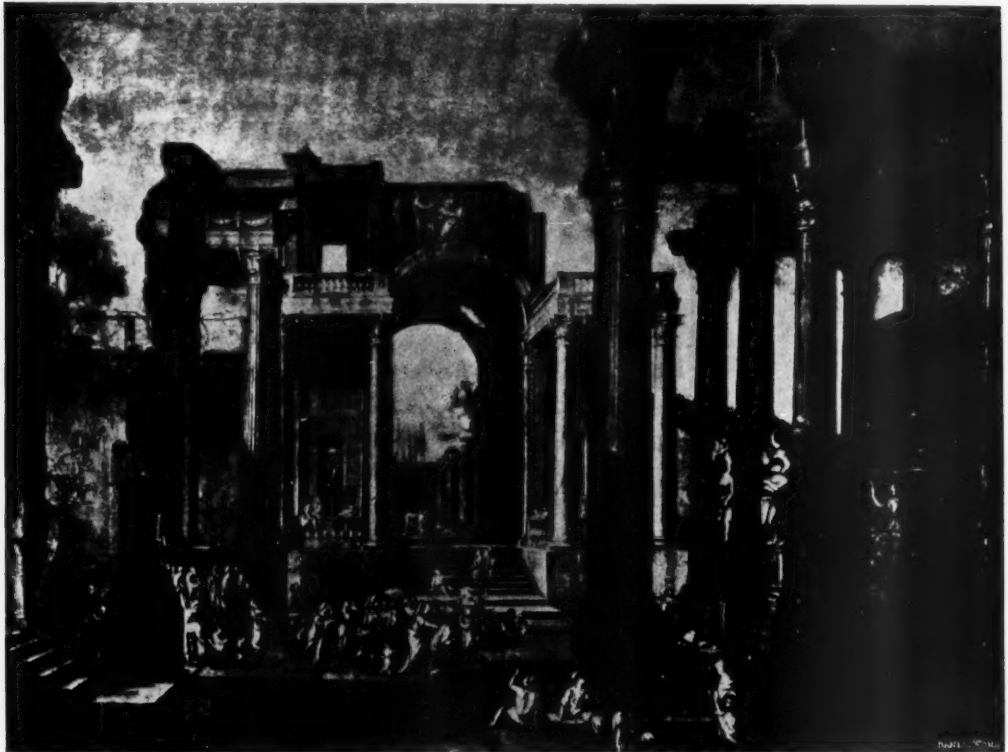
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archeological restoration. Perhaps the most interesting have been based upon oriental traditions. "Sumurun" and the "Yellow Jacket" naturally suggest themselves as typical examples of archeological suggestion dominated by originality and imagination, and applied with a delightful sense of humor. Gordon Craig, Granville Barker and Winthrop Ames have all contributed substantially to the interest of the past few years, but the interest of their contribution has consisted mainly in the stimulation of new ideas as to stage arrangement and

them in the estimation of the up-to-date critic hopelessly with the "old school," we have left a considerable number of designers who have showed skill in providing amusing decorative settings for amusing unrealities, but few, if any, who have given indication of ability to provide for modern drama a background either simple, significant, or becoming.

Scene painting as we know it is the youngest of the arts. During the two hundred years or so that it has been practised, nine-tenths of it has been



A CLASSIC COMPOSITION BY F. MAGLILO

An example of the impractical middle ground referred to in the text

direction and has rather emphasized the lack of designers and painters competent to give real vitality to these new ideas. The exciting things have been purely exotic things and the "new art of the stage" which has been so enthusiastically heralded has not yet, so far as I know, produced any new solutions of the old familiar stage problems that are not so exaggerated in their newness as to be hopelessly out of key with any familiar dramatic theme.

If we leave out of our reckoning the many able scene painters whose work is so pictorial as to class

purely pictorial. Without, therefore, discussing the pros and cons of purely decorative and symbolic settings, I propose to consider certain phases of pictorial composition as applied to scenic design, my aim being to try to make it clear that the traditions that have developed during the past two centuries are so fundamentally applicable to the problems of to-day as to render it unnecessary and highly undesirable that they should be supplanted by a new set. A study of the various collections of paintings which include French and Italian works of the seventeenth and eighteenth centuries

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RUINS—COMPOSITION BY PANNINI

reveals a new point of view, particularly noticeable in France in the work of Claude, Watteau, and Hubert Robert, and in Italy in that of Pannini, Ghisolfi, Magliuolo, Carlevaris, Canali, Visentini, and perhaps greatest of all in the dramatic power of his composition, Piranesi.

In the works of these masters the picture has become a tableau. The frame is a proscenium through which we look out into a stage setting, theatrically arranged and readjusted in all its parts. The reduction of the relative size of the frame to secure the predominance of the important actors, groups, or objects (one of the most familiar expedients of the painter both past and present) is no longer resorted to. The human figure is kept small in scale as compared with the total area of the picture, emphasis being secured by carefully arranged areas of illumination and sometimes by violent contrasts of light and shade. So much emphasis has been laid upon the idea that these features of the later renaissance indicate artificiality and decadence that one is apt to overlook the fact that they also indicate a development of dramatic consciousness under which not merely persons, but trees and rocks, architecture and sculpture, mountains and rivers, valleys and lakes were all brought into a studied relation. unreal and theatrical, if you

like, but thoroughly in harmony with the theme, beautifully and sympathetically rendered and containing the elements that make for style in decorative art.

Certain of the works of these men have been selected as illustrations for this paper, because they seem to me to have been in great measure the originators of the traditions which, even though they have come down to us in sadly mutilated form, are well worth the labor of picking up, piecing together and going on with. Although the qualities which gave distinction to these "old masters" of scene painting have almost disappeared from scene painting, they are still present in many interesting and varied forms in modern pictorial art. The works of Corot, Böcklin, Gaston La Touche, René Ménard, and Frank Brangwyn would furnish inspiration for a whole generation of scene painters whether in the field of poetic fantasy, vivid impressionism, atmospheric mystery, weird and somber imagery, gracious pastoral simplicity, or vigorous emphasis of reality. If the modern designer can arrive at a definite conviction as to the sentiment to be expressed in a given work there is no lack of precedents and traditions as to how to achieve the thing he is seeking.

If scenic design were a matter of composing a

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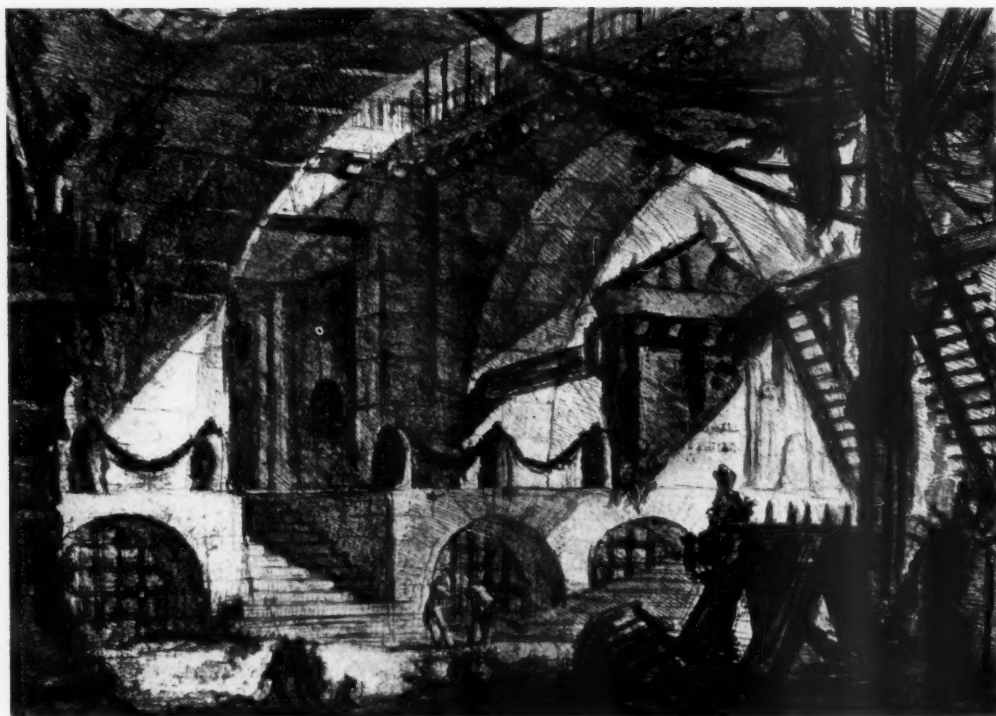
single tableau many of its difficulties would disappear, but a play, and often a single act of a play, is a succession of changing tableaux, some of them formal, static and climacteric, others casual, full of movement, and incidental; some in which the grouping of a crowd of humanity supplies the motive and some in which one or two figures must usurp the attention of the audience; some in which the greatest contrasts of light and shade may be called into requisition for the emphasis of the dramatic idea, and some in which the common light of day must pervade every part of the scene. The usual practice seems to be to design the scene for its most important moment and let the man at the switch-board do the rest. This is why the average theatergoer has ceased to expect real scenic beauty except at those rare moments when the attention of the audience is supposed to be concentrated upon some natural phenomenon such as the rising of the moon over the garden, or the sunset in the Alps, and when the magic moment has passed the lights are shifted back onto the actors and the play goes on with little thought of the scenic harmony that might be a continuing sympathetic element, but is not.

My object in these papers is not to attempt to formulate rules, or to go into a detailed discussion

of methods, but rather to stimulate an interest in scenic design and its particular problems among those whose artistic training in other fields should fit them to become leaders in the development of a saner, more truly modern and logical public opinion in these matters.

If we take as a basis the stage of the average theater, our stage picture as viewed from the rear seats of the theater becomes a composition framed by a rectangle of which the width is, say about thirty-five feet, and the height is about two-thirds of the width. Viewed from that point the back drop fills the frame with little need of any borders or wings to mark the sides of the stage, but the rear seats are not the ones most desired, and from any point in the forward half of the theater the exaggerated perspective caused by the fact that the back drop is almost twice as far from the observer as the proscenium arch, brings the proscenium arch too near to him to preserve its function as a picture frame, gives to the sides of the stage an importance in the composition relatively greater than that of the back drop and necessitates the establishment of some features in the composition that will compensate for the loss of its natural frame.

When we consider this violence of the perspective



A ROMAN PRISON. BY PIRANESI

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A COMPOSITION BY ANTONIO VISENTINI

Note the marked contrast in scale between the foreground and background, and the arrangement of the setting to augment the importance of the central figure.

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APOLLO AND THE MUSES ON MOUNT HELICON.
BY CLAUDE LORAINÉ

due to the nearness of the majority of the audience to the actors and scenery, it becomes evident that the perspective should not be forced into still greater prominence, but, as far as possible, rendered unnoticeable. There is probably no error more commonly seen or more fatal to the integrity of the stage picture than the effort to make the stage appear larger than it is by a forced and unreal perspective. That portion of the stage which is to be used by the actors should be treated in all its parts, from front to back, absolutely in scale with the living figures that are to occupy it. The adoption of this principle of scene composition results in establishing a very definite distinction between the foreground and the background and greatly simplifies the problem of arranging a definite line of demarcation between the "practical" scene building of the foreground and the pictorial treatment of the background. If we once lose the sense of scale in a stage setting the loss is irreparable and there is nothing that has so frequently caused us to lose it as the introduction of a middle ground, accessible to the actors and used by them, but designed in a reduced scale as a transition between the foreground and the background.

The greatest single problem of scenic design is the preservation of the relative importance of the actors as compared with the great space which comes within the field of vision. There are three distinct methods by which this can be accomplished—light, color, and pictorial composition. Light and color are most frequently relied upon, but to accomplish that result by these means frequently involves the sacrifice of other quali-

ties which for the moment may be of more importance to the general effect desired, whereas if it can be achieved definitely by the arrangement and massing of the composition it will persist through all the changes of lighting, color and grouping of figures that the exigencies of the production may demand.

In connection with this point it should be remembered that the average size of a theater and the consequent size of the stage (for the size of the stage is the direct resultant of the size of the theater) is not determined by any sense of just proportion between the size of the stage and the performances to be given upon it, but is a severely practical matter dictated by the box office. It is probably no exaggeration to say that six out of every ten dramatic productions could be presented upon a much smaller stage than that used with a

marked improvement in the integrity of the performance. If there is one dominant characteristic of the modern play as compared with the older works it is the intimacy of its conception, the extent to which the action centers in a few important personalities, yet a proper concentration of scenic interest is one of the rarest qualities in a modern stage setting, and when this quality is achieved it is apt to be by means of great empty spaces which are not mysterious and stimulating to the imagination, but merely blank. Right here the work of the eighteenth century is full of suggestion. When the decorator of that period wished to introduce a pictorial composition of great daintiness into a space so large as to be entirely out of scale with it he



DIDO, SHOWING AENEAS, THE PORT OF CARTHAGE.
BY CLAUDE LORAINÉ

The originator of many of the conventions that we find embodied in modern scenic art

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created a vignette, a pass-partous, a frame within a frame, thus merging the pictorial interest by proper gradations into an outer zone of greater simplicity, but neither empty nor devoid of interest, increasing the importance of his picture and causing it to dominate an entire wall without enlarging its scale or losing the intimacy of its appeal. In scenic design this outer zone becomes of vast importance, especially to those in the front seats. It is the "tormentors," the "borders," the "wings," the "grand draperies" that are the most prevalent causes of

During the past year or two there have been several interesting experiments in this direction, but those that I have seen have erred through the endeavor to compress too much material into the limits of the small stage instead of using the reduced size as an opportunity to eliminate unnecessary things and maintaining the full scale of the essentials that are preserved. In this matter the reform has to begin with the writer of the play. Playwrights as a class seem sadly deficient in the sort of constructive imagination that is requisite in order to formulate



THE EMBARKMENT FOR THE ISLE OF CYTHERIA. BY WATTEAU

One of the great masterpieces of the spirit of the Eighteenth Century

trouble. If used intelligently they may become the means whereby the pictorial interest of the stage expands and, as it were, envelopes the audience, or they may serve equally well the opposite function and carry the simplicity of the theater walls in beyond the curtain line to meet and merge into the stage picture. In most cases they are an inharmonious element related neither to the theater nor the stage setting, and their only excuse is the practical service they perform in masking the gridiron, border lights and stage walls.

I have spoken of the advantages of a small stage in preserving the proper dominance of the actors.

stage directions that can be carried out with dignity and simplicity. Anyone who has ever been connected with the preparation of an elaborate production in which the directions of the playwright have been scrupulously followed, will remember the exodus of van loads of useless "truck" which takes place about the time of the final rehearsals, due to the simplification and elimination which is inevitable under competent management and stage direction, but which, if it had taken place at an earlier stage of the proceedings, might have imparted directness and vigor to the result instead of leaving it meager and unfinished in spots.

Cleveland Chapter Entertains Directors of the Institute

By our special correspondent

AGATHERING of architects in Cleveland, Ohio, a few days ago, is worthy of note. The occasion coincided with a meeting of the Board of Directors of the American Institute of Architects. During the administration of President Mauran the Directors and Executive Committee have held business sessions in cities as far removed from the Octagon as Cincinnati and Atlanta; and such meetings have enabled the governing body to get in closer touch with local conditions in various parts of the country, and at the same time have permitted the membership to learn more of the activities of the Institute.

In Cleveland on Sept. 7, after two periods of day and night sessions of the fourteen officers and directors, taking care of the details of committee work and counselling over the many problems of policy and administrative work, they became the guests at a dinner given by the Cleveland chapter. A hundred and fifty architects, including visitors, from Buffalo, Erie, Detroit, Toledo and other cities, sat down to a dinner in the Hermits' Club. That club, by the way, is an interesting organization of men who can do things literary, dramatic, musical or esthetic. Its president since it was organized, thirteen years ago, is Frank Meade, who, like some other architects, can qualify in more than one branch of art. The charming half-timber club house is discovered upon walking a few rods through an alley from one of the main business thoroughfares. Soon after, the architects took possession of the Hermits' headquarters, under the toastmastership of the president of the Cleveland chapter.

Soon the rafters of the artistic dining hall were resounding to the conversation and the laughter and songs of a jolly crowd of master builders. The chapter members showed their familiarity with the true art of hospitality in their provident thought and planning for the occasion as well as the cordial welcome and courteous consideration during the presence of their visitors.

Cleverly designed menus in blue print described an excellent dinner in terms technical and true from the "shingle stain" (cocktails) to a typewritten booklet of original songs at each plate which foretold the vocal interludes at various stages of the meal.

Individual guests found themselves and their architectural efforts characterized in pointed limericks, which were sung out loud in instalments during the course of the evening.

Various persons were called upon unexpectedly to tell stories or otherwise to be entertaining. Abe Garfield stood on a chair and in masterly fashion talked on a text of nothing.

Before the dinner ended, a spot light directed attention to the stage at one end of the long dining room, the curtain was drawn, revealing the shade of Michael Angelo condemned to wander in purgatory until some worthy successor should be found to permit his spirit to rest in eternity.

Secretary Briggs brought forth a ponderous volume and attempted to find consolation for the restless soul of Michael by reading the names of would-be Angelos present. Each one found his name unknown to the author of St. Peter's; and his work, if known, quite displeasing. The figure in white, with his ashy bearded face and his shackling chains, proved to be E. A. Richardson, who is as good an actor as an architect.

Finally the program settled down to serious things, and President Laurence Mauran delivered an address which mentioned some of the phases of the work of the Institute, the responsibilities of the profession, and gave some interesting instances and details of camouflage, in which so many architects as well as sculptors and painters are finding a field for service in the great war. Treasurer D. Everett Waid made some remarks in which he referred to the distressing condition of architectural practice in war time and the responsibilities and opportunities which must be met when the war is terminated. He spoke also of the education of architects as affected by legislation in fourteen states which already have enacted registration or regulation laws, and the possible complications when many other states shall have passed similar laws—if the Institute does not exercise its influence in favor of some uniformity of standards.

In the course of the evening an able take-off on architects' advertising was perpetrated by members of the Cleveland chapter. Guests were called upon for greetings—Favelle of San Francisco, Favrot of New Orleans, Jensen of Chicago and others. Boston was represented by Secretary Stanley Parker, who talked seriously and sang inimitably some architectural songs.

The following day saw a continuation of hospitality on the part of the Cleveland men, who conducted a large party of the visitors in automobiles through and about Cleveland, crowning a fine day with a delightful country club luncheon.

Success to the Cleveland club say all their guests, and success, too, to the growing work of the American Institute of Architects.

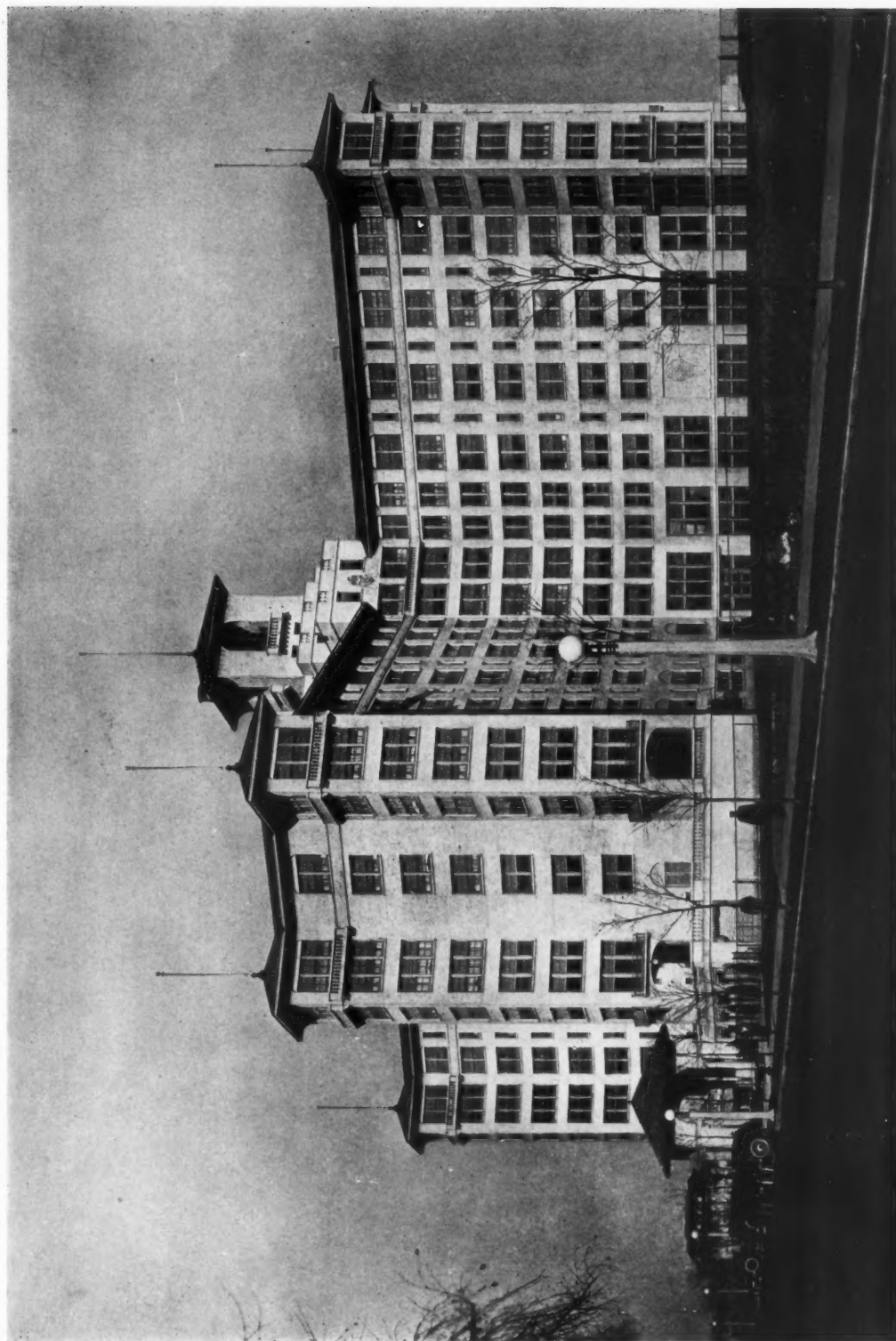
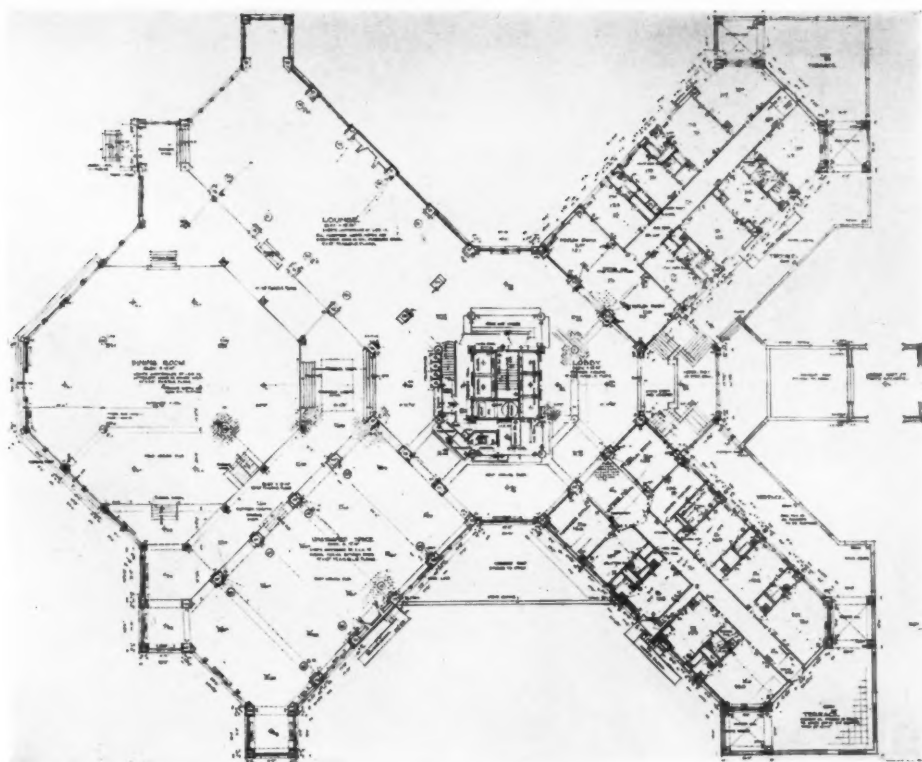


PLATE 138

EDGEWATER BEACH HOTEL, CHICAGO, ILL.
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FIRST FLOOR PLAN

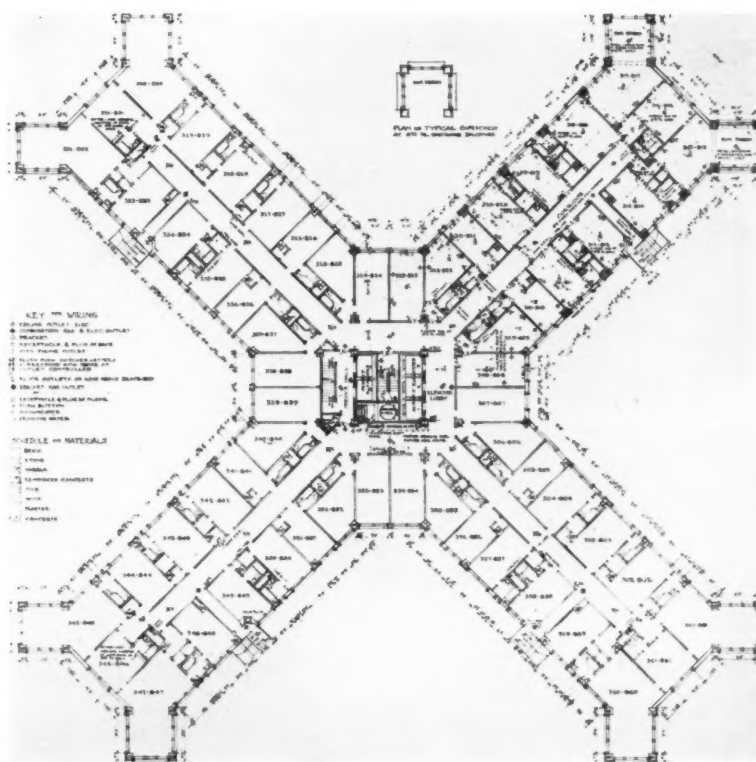
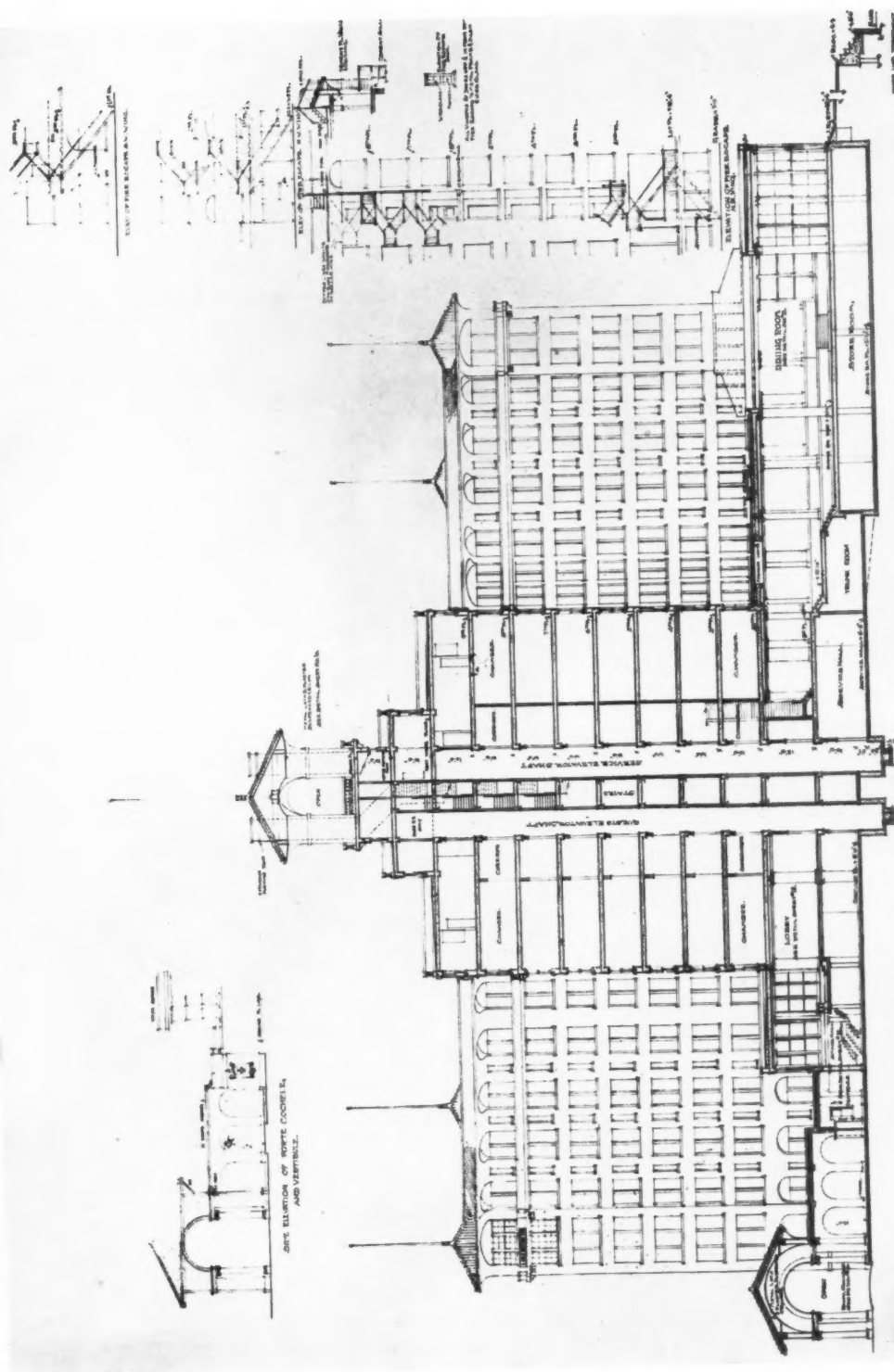


PLATE 139

TYPICAL FLOOR PLAN

EDGEWATER BEACH HOTEL, CHICAGO, ILL.
MARSHALL & FOX, ARCHITECTS



SECTION, LOOKING NORTH
EDGEWATER BEACH HOTEL, CHICAGO, ILL.
MARSHALL & FOX, ARCHITECTS



PLATE 141

EDGEWATER BEACH HOTEL, CHICAGO, ILL.

MARSHALL & FOX, ARCHITECTS



PLATE 142

RIALTO THEATRE, STATE STREET, CHICAGO, ILL.

MARSHALL & FOX, ARCHITECTS

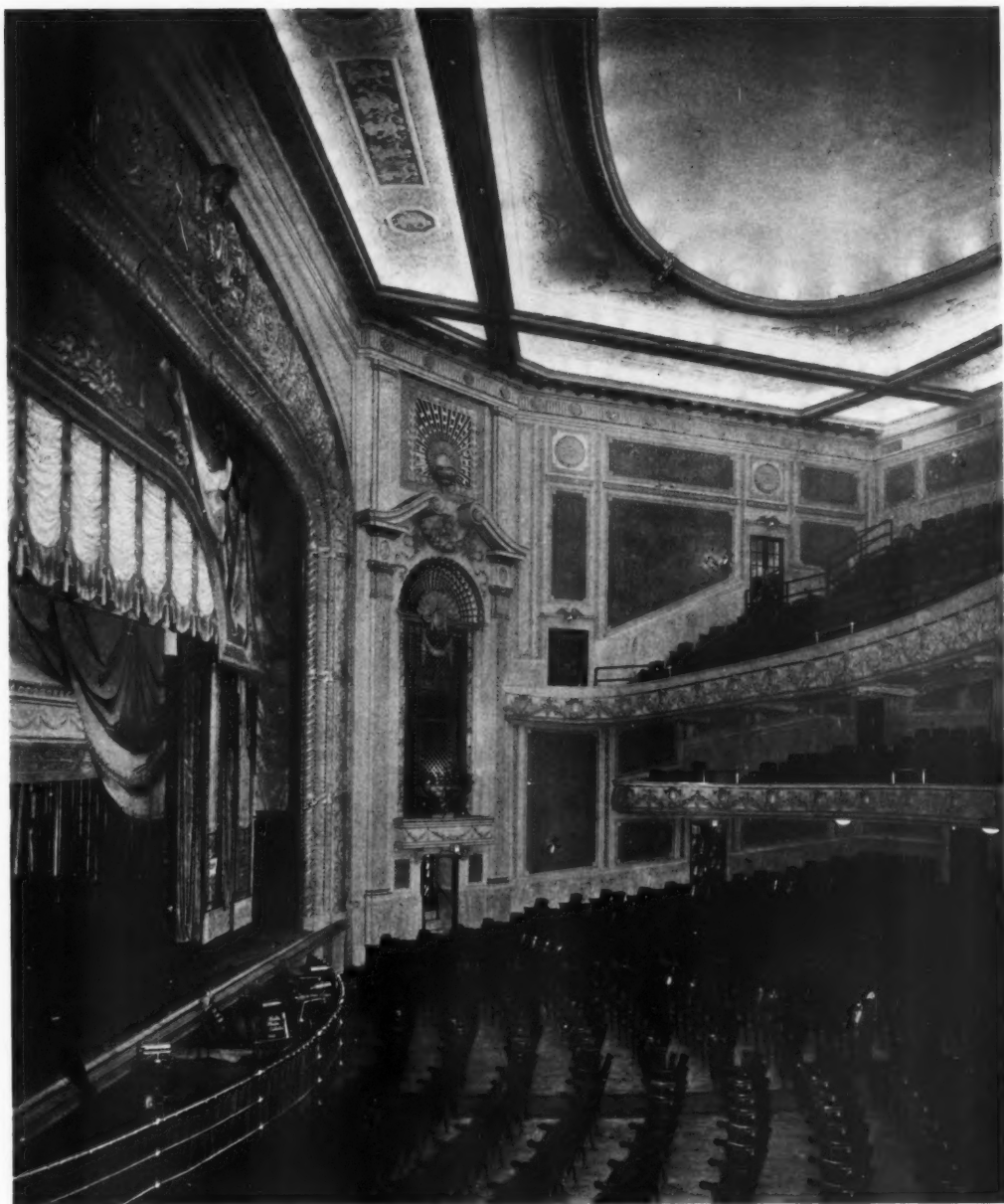


PLATE 143

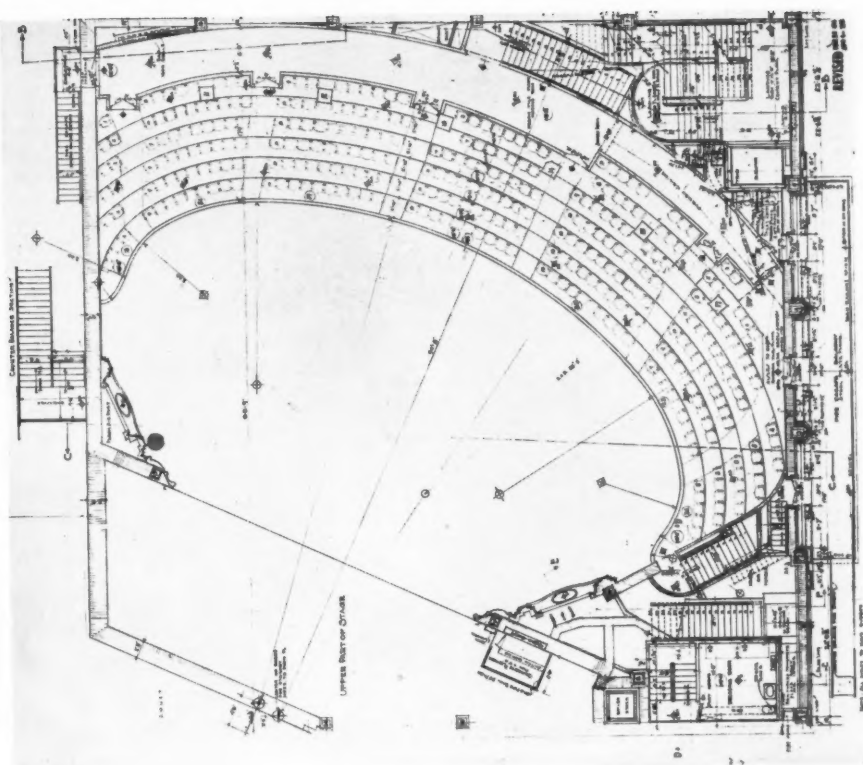
RIALTO THEATRE, STATE STREET, CHICAGO, ILL.

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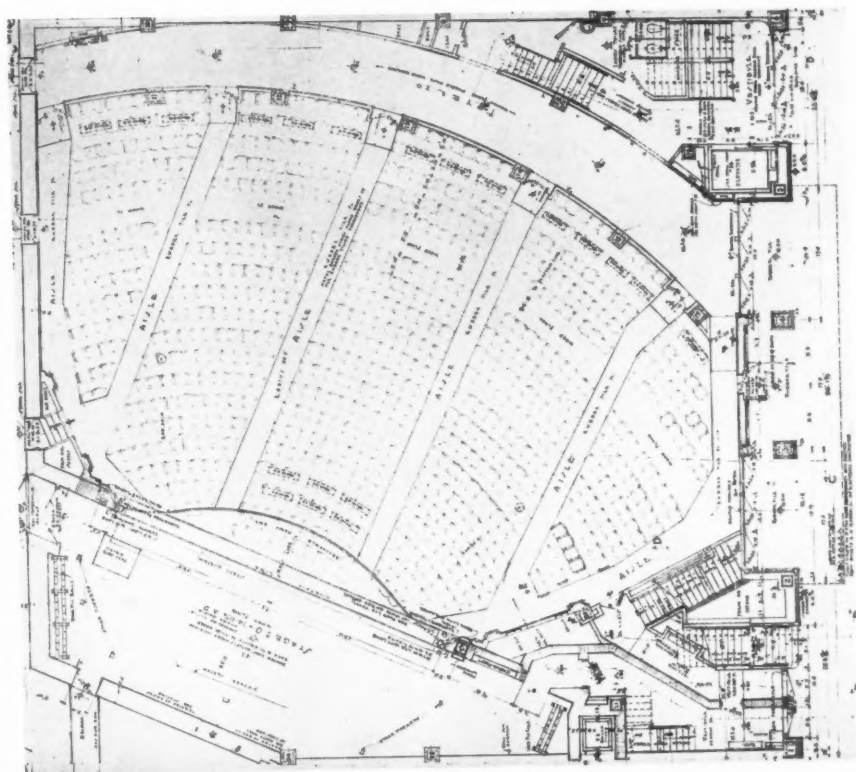
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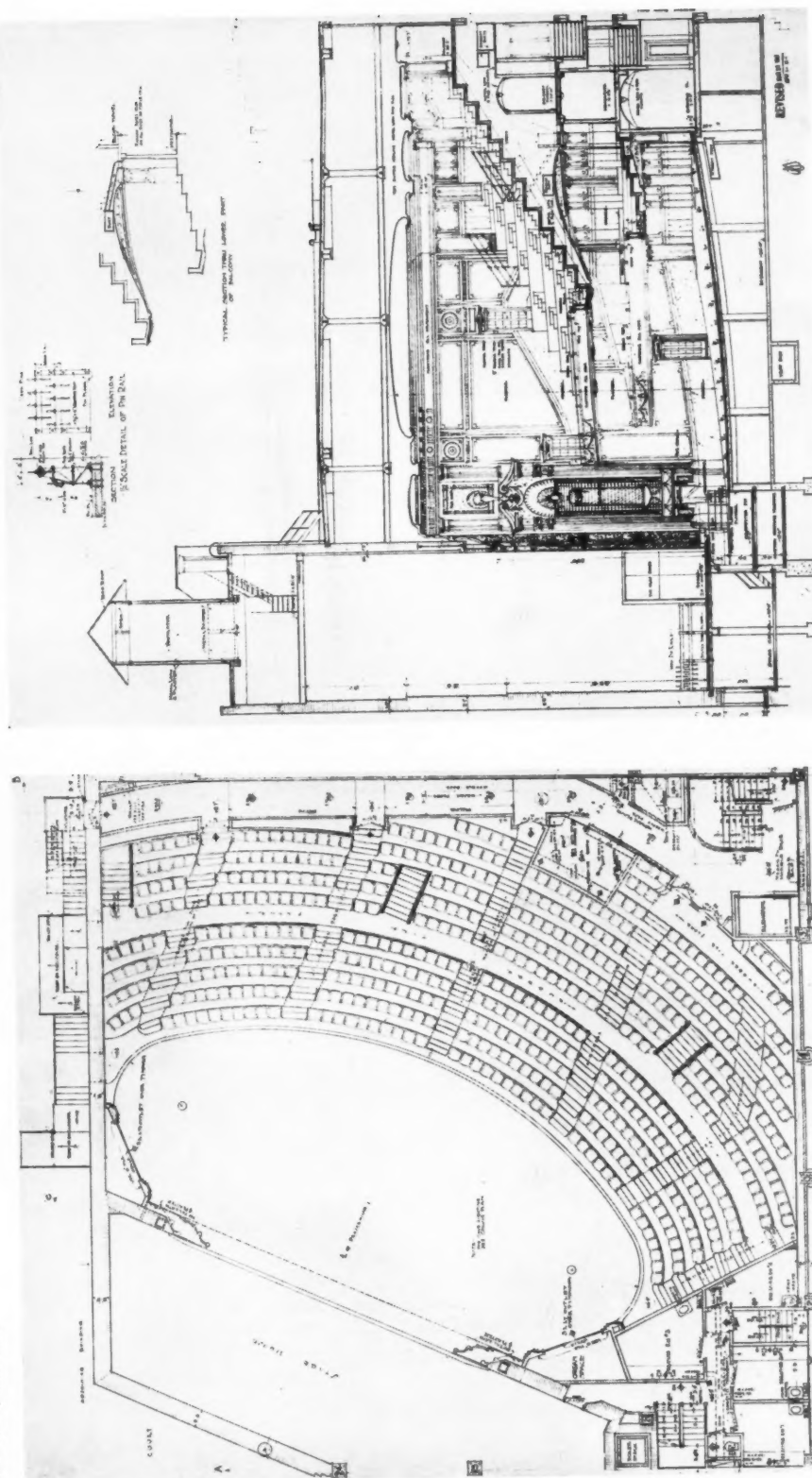
MEZZANINE FLOOR PLAN



FIRST FLOOR PLAN

RIALTO THEATRE, STATE STREET, CHICAGO, ILL.

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SECTION ON MAIN AXIS

BALCONY FLOOR PLAN

PLATE 145

RIALTO THEATRE, STATE STREET, CHICAGO, ILL.

MARSHALL & FOX, ARCHITECTS



The Edgewater Beach Hotel, Chicago, Ill.

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THE Edgewater Beach Hotel, Chicago, is located at the foot of Balmoral Avenue, between the shore of Lake Michigan and Sheridan Road, which at this point are parallel and about three hundred feet distant.

The hotel is built on a plan unique and interesting and represents a particularly successful solution of the summer resort hotel problem. Reference to the plates will show that the general plan has been developed in the form of a Greek cross, the axes of the arms being placed diagonally with reference to Sheridan Road. The advantage of this arrangement is evident, and the notable features which result may be referred to as follows:

The necessity of an inside court is eliminated. Every room has an outside exposure.

A view of the lake is had from all rooms except those facing directly on Sheridan Road.

Ample space is provided for the main dining

room, which is located on the ground floor between the two easterly wings.

The cab stand and service entrance, with turning basin, are comfortably accommodated between the northerly wings.

The space between the westerly wings is utilized by the entrance driveway and large porte cochere, and also by several small shops. These shops have access both from Sheridan Road and the interior of the hotel. They are one story in height, and their flat roof forms a continuous terrace across the front of the hotel; this terrace is at the first floor level and may be reached from either of the west wings.

It will be noted that the central portion of the building is occupied by the passenger and service elevators, two stairways, kitchen vent and smoke-stack. On the first floor additional space in this portion of the plan is utilized for the main lobby,

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the clerk's office, cigar stand, etc., thus making an arrangement of maximum convenience.

The structural features may be described as follows: The building is a nine-story reinforced concrete and steel structure surmounted by a central tower rising fifty feet above the roof of the top floor. All columns are of reinforced concrete, ex-

The window sills are of stone. The exterior walls are formed of hollow tile covered with cement plaster. This coating is of a light buff tint which harmonizes well with the red tile roof. An unusual feature is the simple curved cornice which is decorated with a design stenciled in pale blue.

The typical story is ten feet in height. The lobby



EDGEWATER BEACH HOTEL, CHICAGO, ILL.

MARSHALL & FOX, ARCHITECTS

cept the four steel columns forming a part of the tower. The footings are of concrete resting on clusters of wooden piles. The floor system is of flat-slab construction seven and one-half inches thick, but the usual enlarged column heads are eliminated by using a heavy matt of reinforcing steel over each column, thus providing flat ceilings.

and main floor are ten feet above the ground level. The dining room floor is about seven feet below the main floor. The dining room is surrounded on the inside by a terrace, while the ceiling is provided with a large movable skylight which may be rolled aside to give a clear view of the sky. These features may be noted on the vertical section.

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Building Trade Conditions

UNDOUBTEDLY the opportunities for building investment are as strong to-day, in spite of alarmists' statements to the contrary, as they have been at any time during the past twenty years.

A calm review of conditions as they now exist and a retrospective study of previous years can only serve to strengthen the opinion that, even in spite of the decreased purchasing power of the dollar, investors need not be fearful of depreciation of the value of building investments.

While there may be, and probably is, inactivity in building operations in certain localities, improvements of national importance are steadily progressing. As soon as the building industry is able to readjust itself to an at present somewhat abnormal condition there can be no doubt that the situation in the building field will become markedly improved.

There is small possibility that the conditions existing in 1914 will ever again be realized, but there is every probability that with the opportunities for profitable investment that are now present there need be no fear of building stagnation or financial disaster for the investor.

In our close touch with present conditions we are apt to forget that the disorganization of business due to our entry into the war is no worse, if as bad,

as during previous years. During the Civil War prices reached a higher level than they have thus far during this one, but the reaction was steady until a safe basis had been reached, and the same conditions will undoubtedly again prevail. There is nothing to be gained and very much harm may be done by the hysterical and misleading statements that are being made.

There is and always will be a survival of the fittest, and the man who has the best equipment of brains and combines them with energy and close application will weather any stress that may confront him. The "hard-headed" observer who closely watches conditions and intelligently weighs cause and effect will be able to comprehend the real significance of the present outlook and successfully meet the changes that are taking place.

A glance at the figures compiled for the eight months preceding September, indicates how little cause there is for present uneasiness as to the balance of the year. It is stated:

"From January 1 to September 1 operations in New York, New Jersey, New England, Pennsylvania, Maryland, District of Columbia, Virginia, Ohio, West Virginia, Illinois, Indiana, Iowa, Wisconsin, Michigan, Minnesota, North and South Dakota and portions of Missouri and eastern Kansas aggregated \$1,156,176,155, which is the largest amount of new work recorded since 1910. The second largest period was in 1916, when the figures totaled \$838,024,922."

In common with our Allies, we have suffered from "war fright," but we are rapidly overcoming it, and it is only among timid men that the trepidation will continue.

Tunneling the English Channel

FOR many years engineers have discussed the project of a tunnel under the English Channel. The advantages of such a means of communication between England and France, while always conceded, have for certain reasons been regarded as entailing an engineering project possible of accomplishment, but one that could be brought to completion only at an expense so great as to prevent its undertaking.

Developments of recent years in tunneling under rivers or other bodies of water, particularly in the United States, have been marked by success, and the method perfected so very successful as to lead engineers to the conclusion that even longer and deeper tunnels than those already constructed are practicable.

Sir Francis Fox, in a paper published in *The Geographical Journal*, dwells at some length on

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the advantages that would accrue from the establishment of an all-rail communication between England and France. Sir Francis is a recognized engineering authority in England, and well known through his connection with the great Simplon Tunnel through the Alps. It is his opinion that a tunnel under the channel would present few if any serious difficulties.

The success of this project depends entirely on an accurate knowledge of the geological condition under the bed of the channel between the two countries. Those conditions, it is believed, are altogether favorable. It is an established fact that the white chalk cliffs of England and France are on an identical stratum. This stratum rests on a bed of gray chalk 200 feet thick, which in turn rests on a bed of gault. Both of these beds are entirely impervious to water and are, in the opinion of engineers, well adapted for tunnel construction.

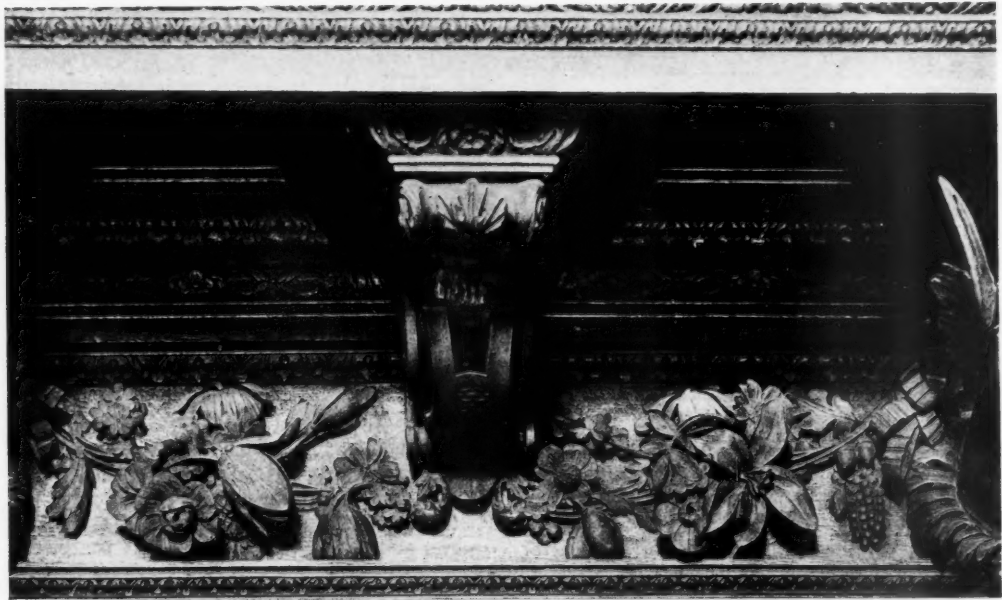
As proposed by Sir Francis, the tunnel would consist of two tubes, thus providing better facilities for ventilation, drainage and repairs. The strategic importance of such an undertaking and its probable use in time of war have been carefully considered. The tunnel would be under the jurisdiction of the War Office. A dip in the level would be provided,

and a "water lock," by which the tunnel could in emergency be flooded with water from floor to roof for a distance of a mile.

Many desirable ends would be served by this great engineering operation if brought to a successful conclusion, and as the problem has been discussed and the solution assured by so great an authority there is strong possibility that it will be taken up seriously.

The active part taken by engineers in the present war is one of large importance. In fact engineers have succeeded in overcoming obstacles that were hitherto regarded as insurmountable. Instances of great achievement in this country have multiplied so rapidly that they now receive but short comment. What would have been regarded as bordering on the marvelous three years ago is to-day but another instance of the possibilities developed by modern engineering.

That the Channel tunnel will be eventually built is certain, and when it is it will serve to mark the completion of another engineering feat that simply adds to the record of a profession whose past has been marked by the greatest accomplishment, and of the limitation of whose future endeavor no intelligent person would be willing to risk prediction.





RIALTO THEATER, STATE STREET, CHICAGO, ILL.
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The Rialto Theater, Chicago, Ill.

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THE Rialto Theater is the latest addition to Chicago's amusement places. It is located on South State Street on a plot of ground approximately square in shape. Due to the fact that the lot is only one hundred feet in depth, it was necessary to place the axis of the stage and auditorium on a diagonal in order to obtain the desired seating capacity. This arrangement was also dictated by ordinance requirements regarding the number and location of exits, since there is an alley in the rear of the lot only. With these conditions to be met, the architects have developed an ingenious plan showing a minimum of lost space and irregular detail, which frequently result from layouts of this character. A seating capacity of approximately 1,500 has been obtained, a large portion of the seats being within convenient range of the stage. Exits have been provided both to the front and rear; as will be noted on the plate showing the front elevation, three of these are located over the entrance with accompanying fire escape to the left.

The framing, which is of steel, involved some complicated details. These were simplified considerably in the roof design by the use of a large truss twelve feet in depth, which spans the entire width of the lot near the front of the building. The stairways also presented several complicated problems, the solution of which is shown clearly on the plans. The balcony and mezzanine cantilevers are of steel. The floors are of concrete and are covered with rubber tile in the aisles and corridors. An elevator serves the offices, which are located on the top floor above the entrance.

The façade is of cream colored terra cotta, except the portion below the belt rail which, together with the fluted columns, is of a dark mottled green shade. The column capitals are done in gold. The grille, which fills the arched openings and forms an important feature of the decorative scheme, is composed of light green bars on a dark purple background.

Color Harmony

BY EDWIN S. PARKER

THE restless modern mind, eager for new fields of conquest, has turned from problems whose solutions were imperative to the conscious search for new problems with which to do battle, eager to try its powers like the knights of old. Thus the acute problem of the academic decadence brought forth the corrective movement of the Impressionists, who saw that beauty did not lie in the object but in the perceiving mind, and that thus any object was food for the creative artist. The success of this solution was followed by a conscious attempt on the part of later men to find new problems whose solutions in turn would make them, too, conquerors in art. And so we get the various movements which are known to the average person by the inclusive term of Cubism.

Now from these various movements there has arisen another: an attempt to correlate design with music, that purest and most abstract of arts, and to thus make it more pure; and we get the movement which has formed an analogy between colors and

sounds, so that we now have color harmonies based upon those of music. The spectrum is made to correspond with three octaves of music, divided into 37 shades, each of which corresponds to a half tone on an instrument, and by arranging these shades to correspond with chords in music, they get harmonies of color instead of sounds. They say also that these color combinations really are harmonious when tried, and, based on this analogy, they hope to open vast fields of unexplored esthetic territory and to produce a new and more abstract art.

There are, however, certain objections to this theory arising from the physical and philosophic nature of the problem. In the first place, the whole gamut of colors forms only a portion of one real color octave instead of three, and any analogy by octaves is thus purely arbitrary.

But the great fallacy in this theory lies not in the nature of color design, but in the nature of a chord of music. Years ago there were certain combinations of notes that were called (and still are called)

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harmonies, and others that were called discords. Then, little by little, more of these so-called discords were introduced into music, until now there is probably no combination of notes that has not been used effectively by some great modern master of the art.

Each time new discords were added the older generation, trained to the older and simpler harmonies, threw up its hands in horror and pronounced the world of music mad; until now we, used to Strauss and Debussy, throw up our hands at Ornstein and Schönberg, the newest of all.

I went to the piano recently to see if by actual experiment I could pick out the different harmonies, for my knowledge of music is almost entirely that of a listener. I failed flatly. The various combinations of notes certainly sounded different, but I am entirely unprepared to say that some were beautiful and others ugly.

Now from all this evidence we can conclude but one thing: the difference between harmony and so-called discord in music is not the difference between beauty and ugliness, but that between easy and difficult beauty. The trained mind can appreciate Strauss—the untrained Rubenstein and Mendelssohn. And thus we see that all combinations of notes are food for the creative mind of the composer, who welds them into a great organic whole where discord resolves into harmony, where the difficult resolves into the easy; and we thus get a music of none but constructive limitations.

But where the whole of music is possible beauty it is nonsense to say that only combinations of color based on the so-called harmonies shall be beautiful, and all else ugly, for that is what music-color harmony amounts to. To the great master, all is harmony in music though some combinations are easier to understand than others, and so these new found color harmonies must be, after all, only accidental, and this new field of exploration shrinks to nothing.

After all, taken from the physical point of view, the difference between these different chords is simply due to the degree of complexity of the sound wave-front produced. When the wave-front is simple we get harmony, easy beauty. When it is complex we should expect more difficulty of appreciation, and we do, in fact, get so-called discord or difficult beauty. But with colors the case is totally different, for here we get the beauty of harmony and also real ugliness of discord, for here in certain cases expectations are aroused and are not fulfilled, and this gives us the only possible case of positive ugliness.

There is a peculiar fact about colors that seems to have been discovered by the exponents of the more modern movements, namely: that certain

colors take a certain apparent distance from the eye, regardless of their actual placements, so that to get a perfect appearance of spatial integrity the colors must be very carefully related, often in contradiction to the actual colors in nature, for space is a greater factor than color and we cannot always get both. This phenomenon seems due partly to the association of certain colors with certain distances, and partly to subtle relations between the colors themselves. But most of all is it dependent upon the pigments used in painting, for these assume distances of their own, entirely regardless of what their color may be. Lead white will stand off the canvas, while zinc white will recede, but both are white. And it is in this way that the Post-Impressionists have achieved their wonderful feeling for spatial values.

Color harmony is dependent on this placement of colors, for when all the colors in a picture are so organized as to give us a feeling for logical space relations entirely apart from their positions on objects which would otherwise determine them spatially, we get a wonderful sense of harmony. We see the space as shown graphically. We also perceive the space directly from the colors, and this logical co-ordination of what we see with what we know gives us truth and beauty.

But when some object is out of "tone" and stands apparently free from all that to which it should hold fast, we feel the lack of logic and it gives us discord.

Ordinary wall paper will perhaps give us the best example of this. We know, of course, that it is on a flat surface from the very nature of it, but by actual appearance the figures stand out from the background, giving us two planes where we know there is one. We expect one plane; there appears to be two planes, and because our expectations are aroused and not satisfied we get positive ugliness.

Color harmony comes, then, when the colors are so related that the direct spatial color perception agrees with the actual or portrayed space relations. We get discord when the spatial logic is violated. And by varying the pigments to vary the apparent distance of the colors, probably any color scheme could be made either harmonious or discordant, and a color chord could easily be changed into a discord.

But is there not still a ray of hope for color music? Can we not try some other analogy that may bring us nearer the mark? Surely there must be some way out of this quandary and perhaps a little deeper inquiry into the nature of music may give us a fresh start.

Whatever the notes employed, the time element in music is paramount. Destroy the rhythm and you get chaos. And so we should employ the time

element in our color music to get a true analogy. That this is really within the range of possibility is easily seen, for we have all, as children, been fascinated by the toy kaleidoscope, in which we have watched form merging into form, color into color; where patches appeared, spread, and broke into a living design in which a myriad of moving forms played and danced in precise regularity before our eyes. What could be more delightful to watch!

Now what the eye can see can be projected upon a screen, and so the way is clear to develop this changing and interweaving of shape and colors into some tangible system of themes and airs, on which in turn the various forms of music could be built, giving us in color instead of sound the counterparts of the song, rondo, fugue and sonata; actual color music. And this is not so impossible, for a passage once introduced could be contrasted with another to imitate the rondo, one movement could be made to chase another as in the fugue, and we have endless possibilities here before us. It will take much labor and time to develop the keyboard for this new music, but once established there is no limit before it.

And in closing let me give a solemn warning. The actual emotional effect of a color or sound, quite contrary to the general conceptions, is of no consequence to art. If the purpose of art is to arouse emotions it must take forever an inferior place, for an emotion is always a reaction, a mechanical product. And though it may be the accompaniment of an action it is in itself inferior to the thing which brought it forth. It is the action, the conscious doing, that counts in life, not the emotional reactions that follow and are beyond our control. And if art is to arouse feelings merely, it can be no more than a toy, a thing to pass an idle hour.

But art is not a toy, a pastime. It is a creative experience, an activity of our highest selves, an absolute necessity to a significant life. And in the final analysis we find it to be the revelation of a Divine Order in the things of the world about us, of a spiritual body in the nature we have long thought dead. As such and such only can it take its place among the three greatest realities of life: the Good, the Beautiful, and the True, which, philosophy tells us, unite ultimately in a vision of the Absolute.

Industrial Information

Automatic Light and Power Plant

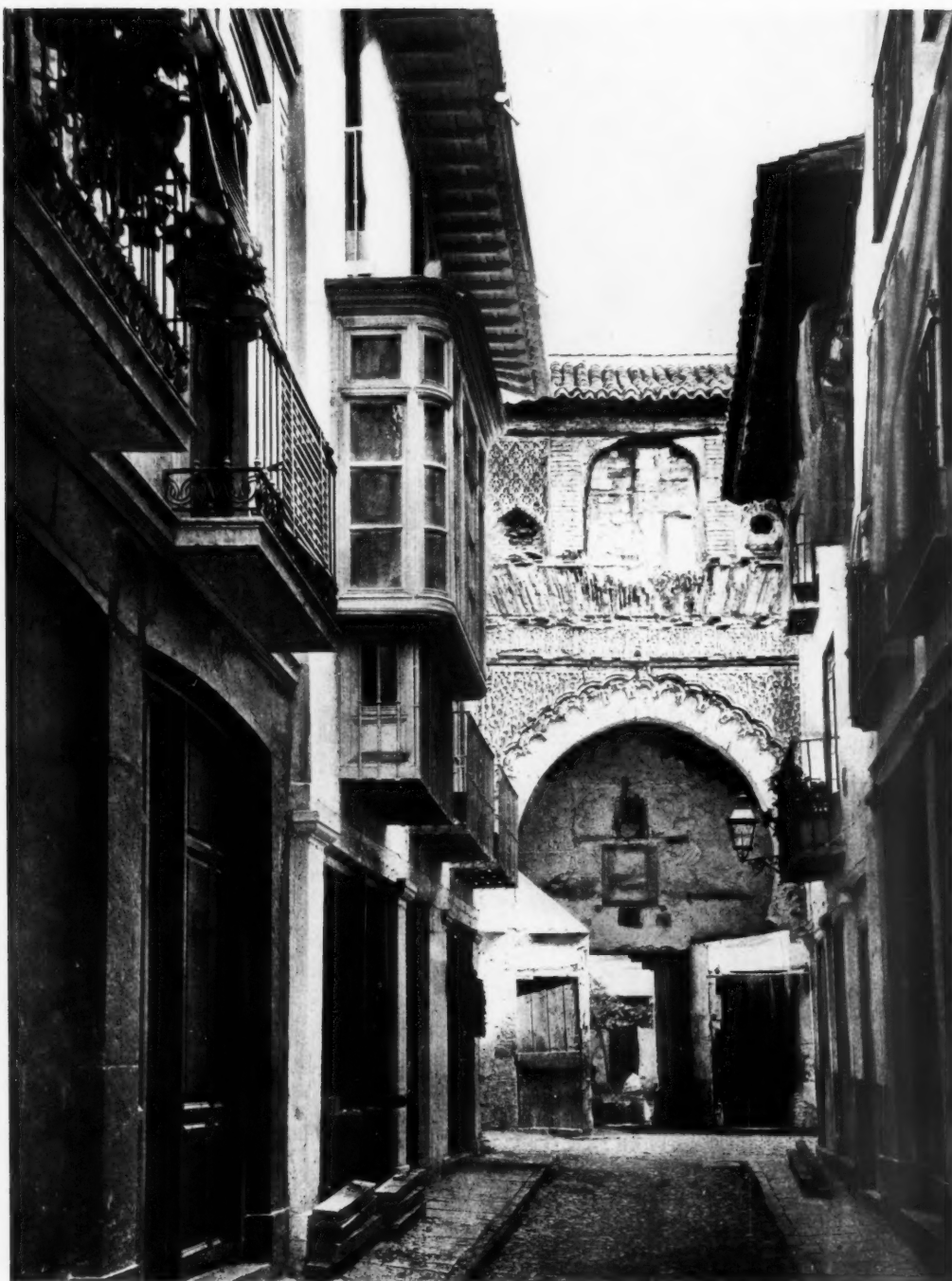
A plant manufacturing a 32-volt electric current at a low cost for supplying light and power is made by The Matthews Engineering Company of Sandusky, Ohio. Catalog No. 10, published in June of this year, gives full particulars of terms, prices and specifications. Besides the stationary plant the company manufactures portable and marine plants, which are also described and specified in the catalog. A valuable feature of Matthews service is a guarantee covering ninety days' continuous service.

Weather Stripping "The Diamond Way"

The Diamond Metal Weather Strip Co. of Columbus, Ohio, has issued a folder of blue print details illustrating applications of its equipment. Architects will find much useful information in the folder, and their attention is directed also to the technical catalog issued by the company. Full-size details will be sent upon request if equipment desired is specified by the inquirer, also samples of materials.

Sanitary Refrigerators

An up-to-date, strictly sanitary refrigerator construction is described in a handsome booklet published by the Jewett Refrigerator Co., Buffalo, N. Y. Compartment linings are of solid porcelain, $1\frac{1}{4}$ in. thick. The corners are rounded to be easily kept clean, and there are no cracks or crevices on the inside of the refrigerator to catch dirt or decaying foods. There is a heavy wire mesh basket arranged to hang from the roof of the ice compartment to hold the ice, leaving a space below it suitable for storing bottles, greens, etc. The shelves are of wire mesh also, removable for easy cleaning. The exterior construction is of ash, and a heavy insulation of cork, lumber and waterproof paper brings the thickness of the wall to $5\frac{1}{8}$ in. This company makes a specialty of built-to-order and built-in refrigerators. Full information is to be found in the booklet, including photograph and diagram illustrations, specifications and price lists.



A STREET IN GRANADA

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