

THE ARCHITECTURAL RECORD

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MAIN ENTRANCE—DUDLEY PETER ALLEN MEMORIAL ART
BUILDING, OBERLIN, OHIO. CASS GILBERT, ARCHITECT.

THE ARCHITECTURAL RECORD

VOLUME XLIV



NUMBER 2

AUGUST, 1918

THE DUDLEY PETER ALLEN MEMORIAL ART BUILDING OBERLIN, OHIO



BY I. T. FRARY

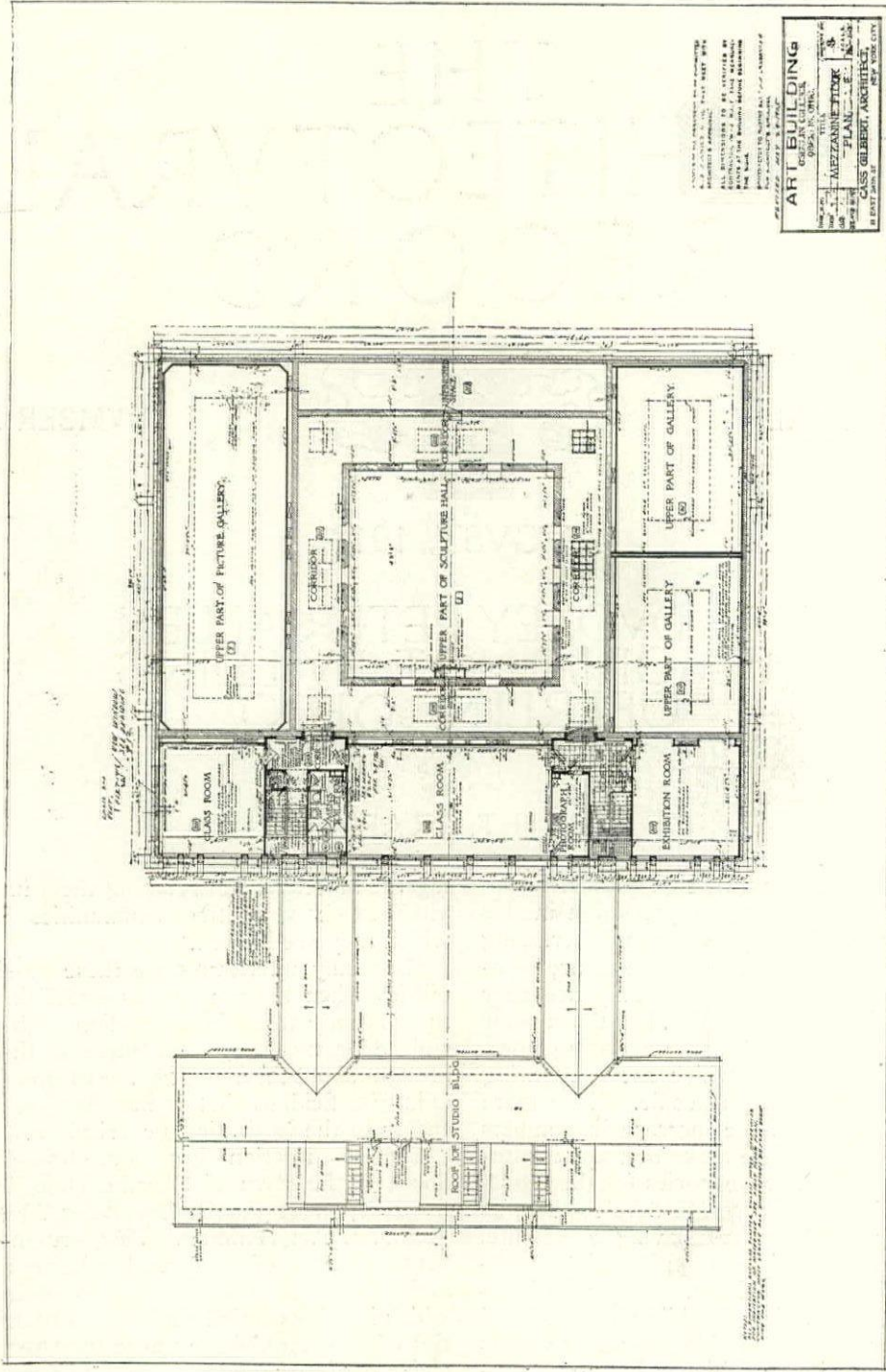
AN encouraging sign in the development of art appreciation in this country is the rapidly increasing number of art museums which are coming into existence. Not only are they found in the large cities, but the smaller towns are testifying in surprising numbers to the hold which art is securing upon the American people. Even more gratifying than the increase in numbers is the tendency to make of these institutions not mere repositories for the hoarding of art works, but to develop them as inspirational centres having a definite, practical function to perform in spreading the gospel of art. Courses of lectures, traveling exhibitions, special classes for school children and students in institutions of higher learning, temporary loans to neighboring libraries and schools—these are a few of the numerous activities which are humaniz-

ing the museums and bringing them into vital touch with the communities in which they are located.

Especially interesting are these possibilities when the museum is established in proximity to or in connection with a college or university, for there is thus brought about the added chance of broadening its field so that it may become a factor in the institution's curriculum.

Such a relation has been brought about in the town of Oberlin, Ohio, by the erection of the Dudley Peter Allen Memorial Art Building. This structure forms a part of a general scheme of architectural development and rebuilding which is being carried out by the authorities of Oberlin College under the supervision of Cass Gilbert.

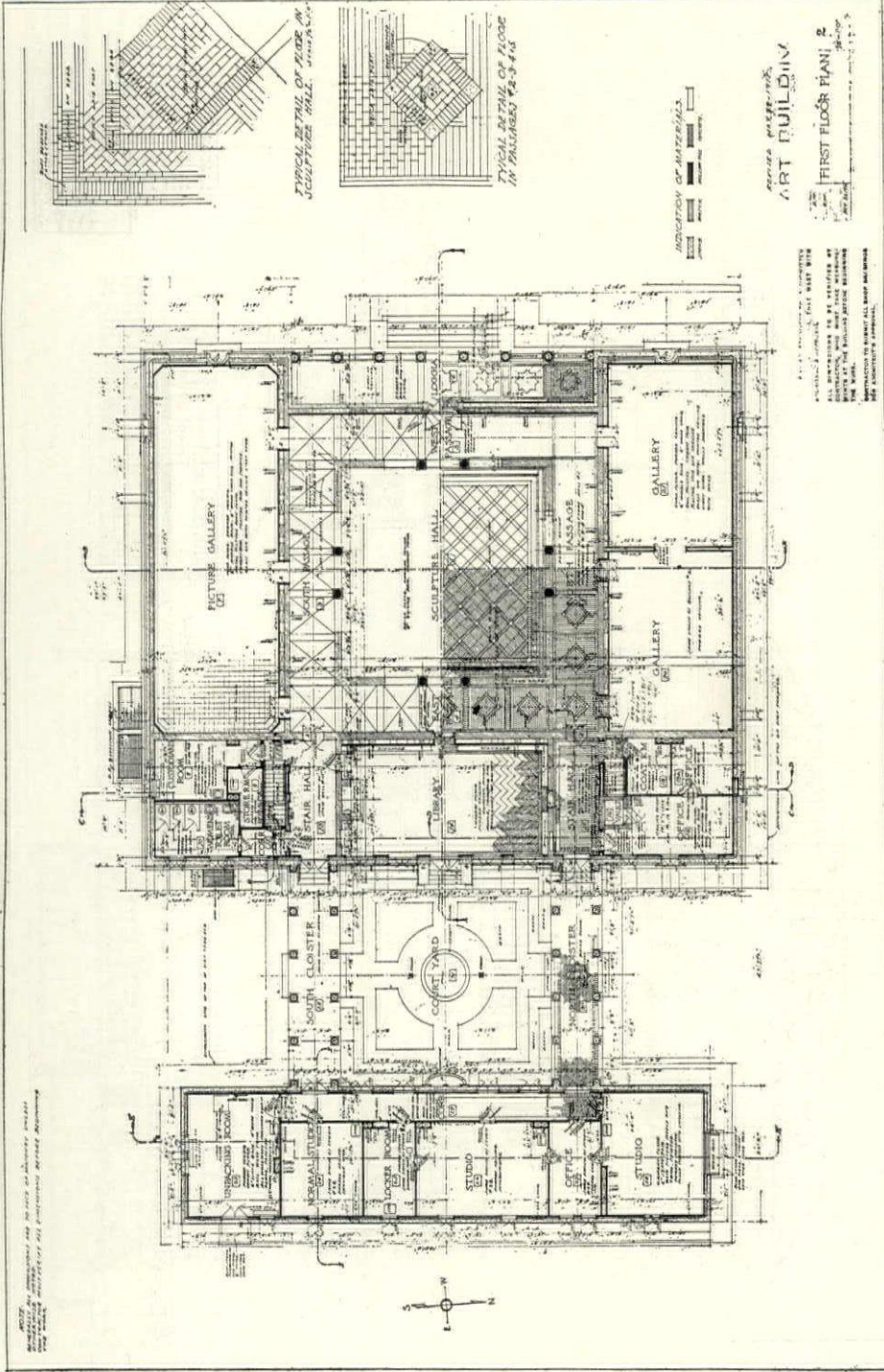
Mr. Gilbert has taken as the keynote of his program the architectural styles of Northern Italy and Southern France,



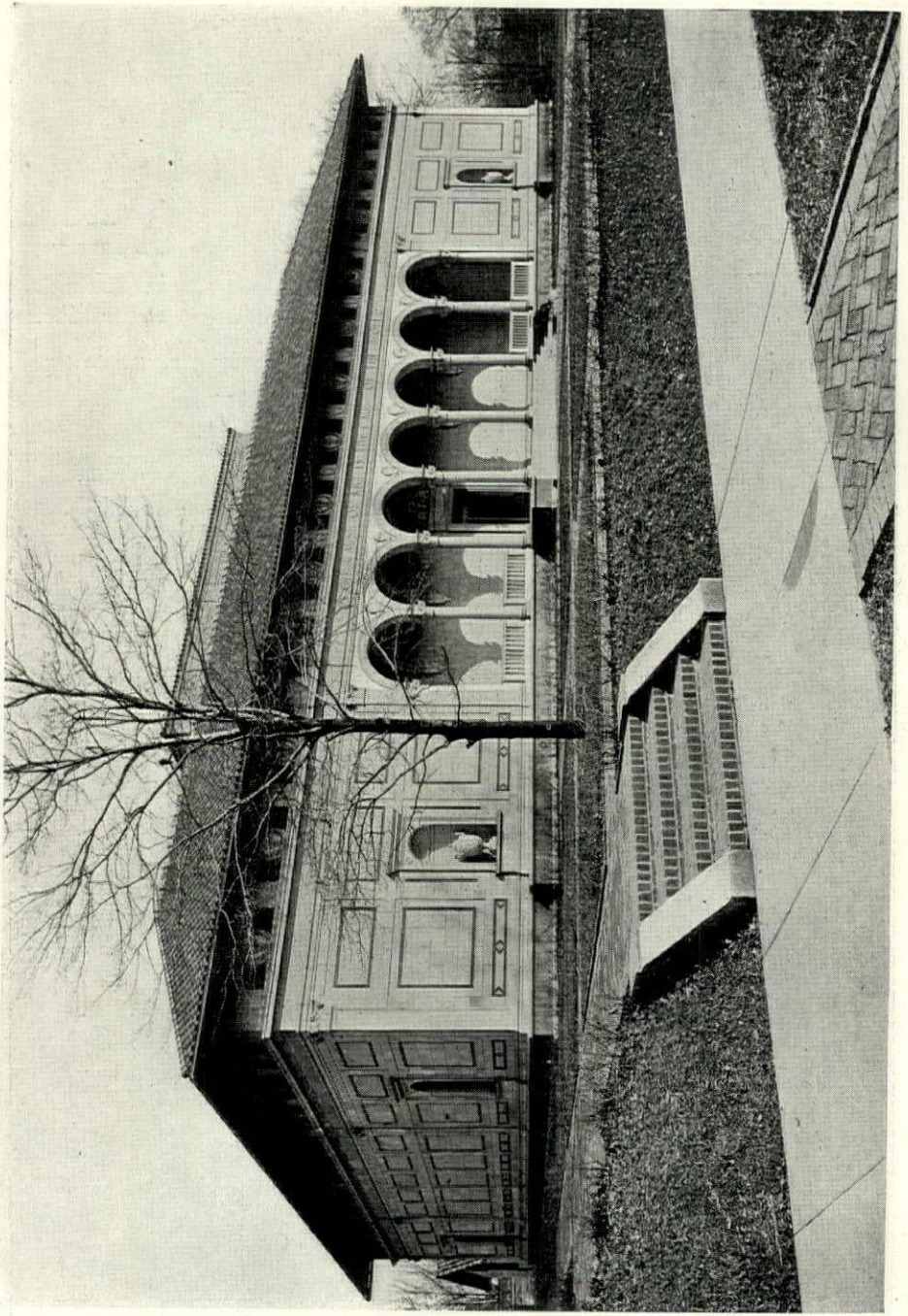
ALL DIMENSIONS TO BE CHECKED BY
 THE ARCHITECT AND THE CONTRACTOR
 BEFORE THE WORK IS STARTED.
 THE CONTRACTOR SHALL BE RESPONSIBLE
 FOR THE ACCURACY OF THE DIMENSIONS
 SHOWN ON THIS PLAN.

ART BUILDING
 100 S. W. 10TH ST., OMAHA, IOWA.
 WITH
 MR. ALBERT W. WATSON, ARCHT.
 AND
 MR. CASS GILBERT, ARCHT.
 IN EAST PART OF
 100 S. W. 10TH ST., OMAHA, IOWA.

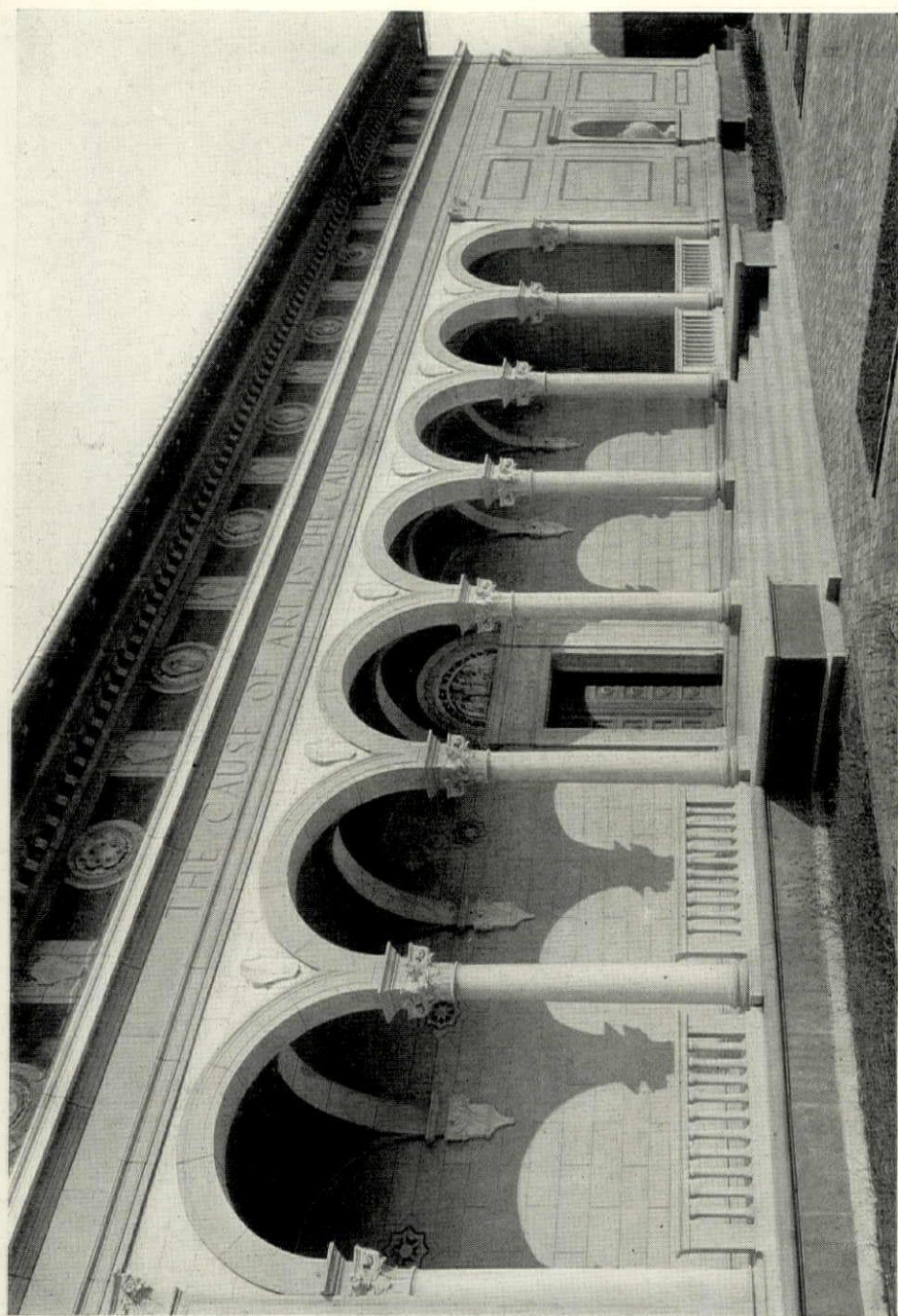
PLAN OF MEZZANINE FLOOR—DUDLEY PETER ALLEN MEMORIAL
 ART BUILDING, OBERLIN, OHIO. CASS GILBERT, ARCHITECT.



PLAN OF FIRST FLOOR—DUDLEY PETER ALLEN MEMORIAL ART BUILDING, OBERLIN, OHIO. CASS GILBERT, ARCHITECT.



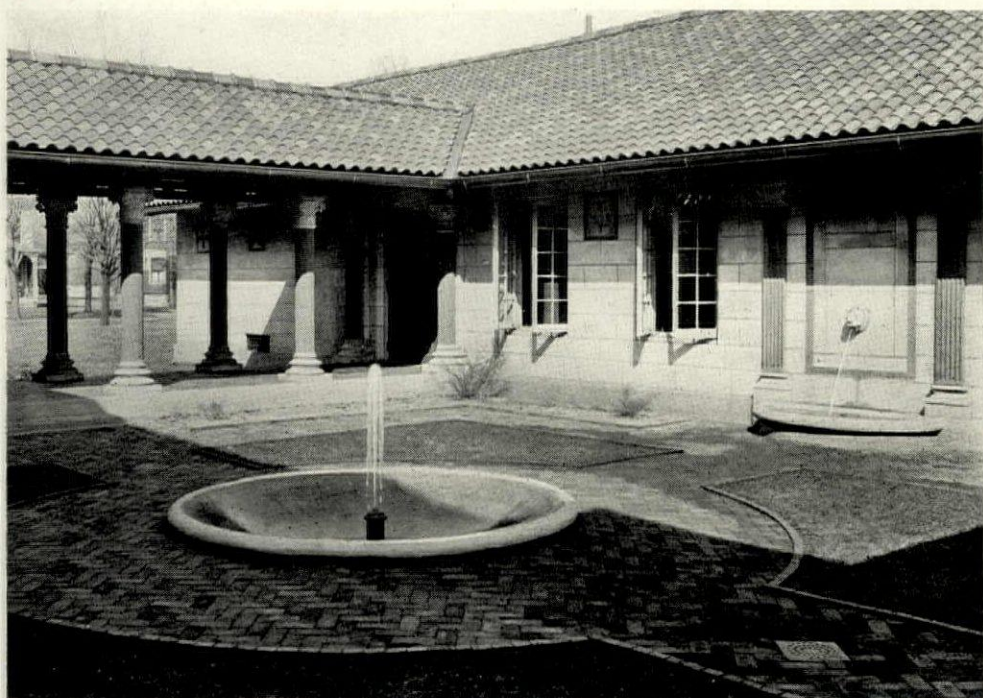
DUDLEY PETER ALLEN MEMORIAL ART BUILD-
ING, OBERLIN, OHIO. CASS GILBERT, ARCHITECT.



LOGGIA-DUDLEY PETER ALLEN MEMORIAL ART BUILD-
ING, OBERLIN, OHIO, CASS GILBERT, ARCHITECT.



DETAIL—DUDLEY PETER ALLEN MEMORIAL ART BUILD-
ING, OBERLIN, OHIO. CASS GILBERT, ARCHITECT.



FOUNTAIN COURT, LOOKING TOWARD STUDIO BUILDING—DUDLEY PETER ALLEN
MEMORIAL ART BUILDING, OBERLIN, OHIO.
Cass Gilbert, Architect.

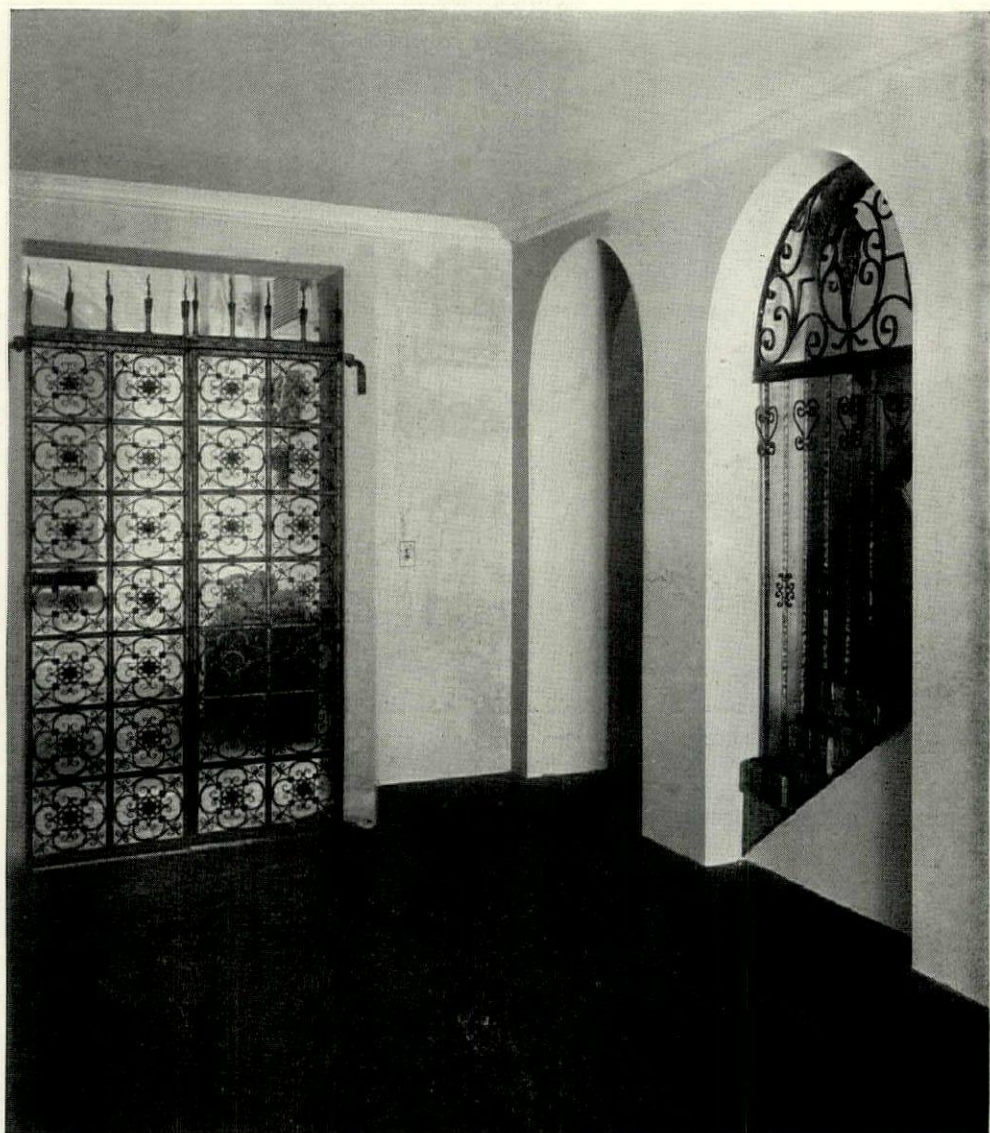
the buildings already completed being reminiscent of the work found in these interesting regions.

The Chapel is of unmistakable Romanesque origin; the Administration Building is Byzantine in its details; while the Art Building, which is the especial subject of this article, derives its inspiration from the Renaissance work of the fifteenth century. In the design of this building the entrance loggia and the overhanging roof, with their deep shadows, are dominant features; and the use of polychrome enrichment, which is especially evident in the frieze, adds a distinctive note that is but too seldom made use of by American architects.

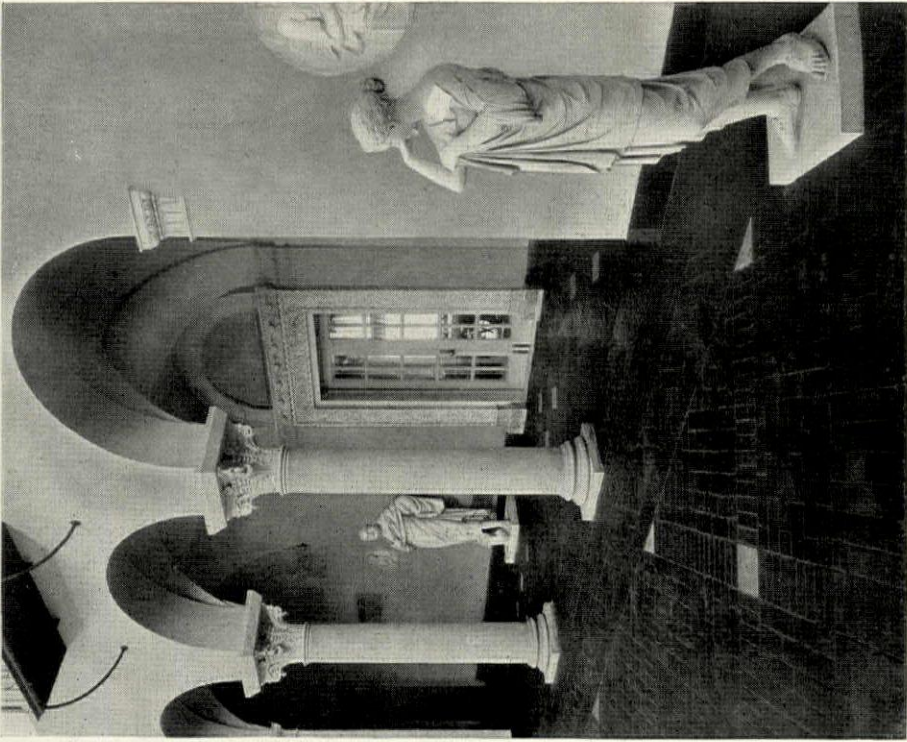
The building material used is largely a buff sandstone quarried at the neighboring town of Berea, and with this have been combined bluestone and buff limestone in pilasters and other features, while a brownish-red sandstone outlines the wall panels and forms the basement

course. A greater refinement in material is to be found in the loggia columns and balustrade, the main doorway and the vases occupying the two niches in front, all of which are of unpolished pink marble.

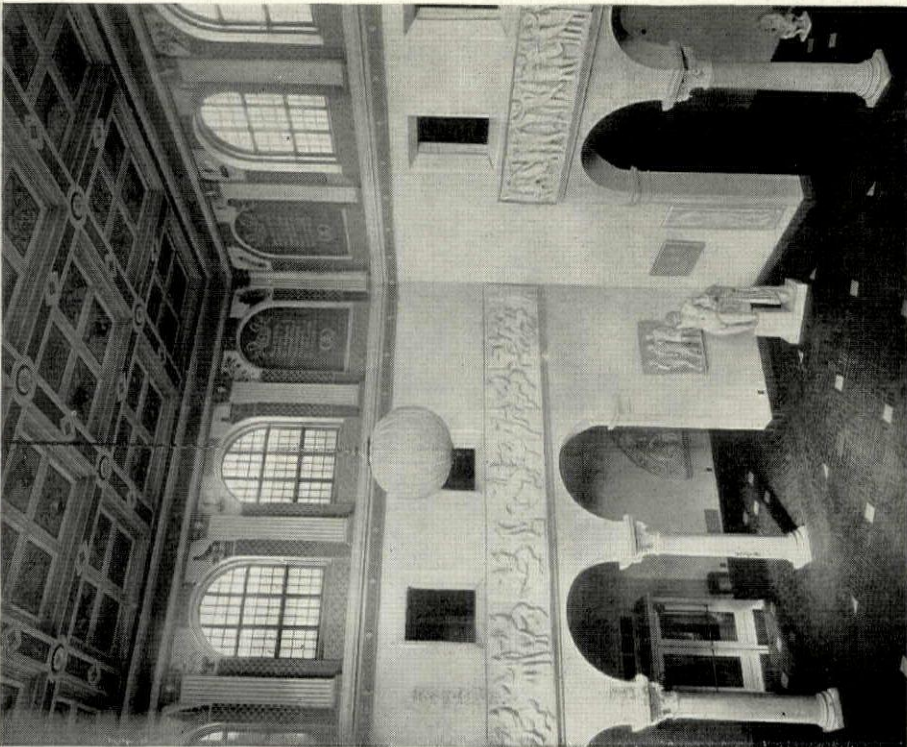
The most telling color note is that in the frieze, where, against a brownish-red background of stone, are contrasted the brilliant tones of della Robbia roundels. Some of the shields which enrich these roundels are of a blue, which is too intense to be entirely satisfactory and leads one to wish that the terra cotta were of a texture that would accumulate dust and grime to temper its too ardent hue. Less obtrusive is a replica of a della Robbia lunette, which has been inserted above the main doorway and that proves most satisfying in its setting of pinkish-gray marble. Touches of blue play an important part in the exterior color scheme, and we find the roof shadows emphasized by the rafter ends, which are



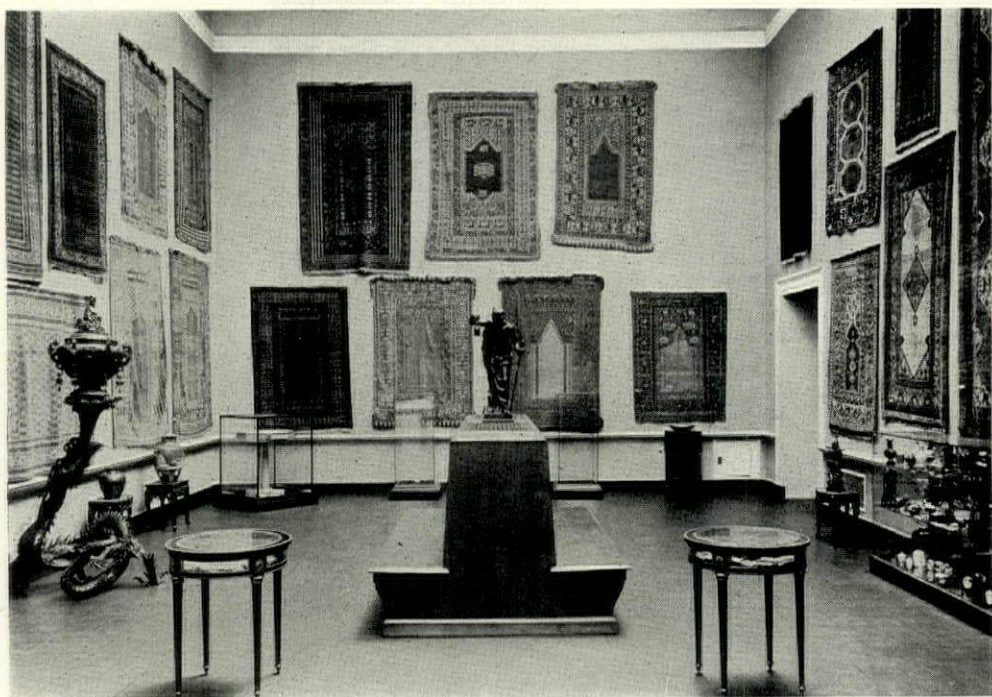
STAIR HALL—DUDLEY PETER ALLEN MEMORIAL ART
BUILDING, OBERLIN, OHIO. CASS GILBERT, ARCHITECT.



SCULPTURE HALL—DUDLEY PETER ALLEN MEMORIAL ART BUILDING, OBERLIN, OHIO.
Cass Gilbert, Architect.



SCULPTURE HALL—DUDLEY PETER ALLEN MEMORIAL ART BUILDING, OBERLIN, OHIO.
Cass Gilbert, Architect.



GALLERY—DUDLEY PETER ALLEN MEMORIAL ART BUILDING, OBERLIN, OHIO.
Cass Gilbert, Architect.



GALLERY—DUDLEY PETER ALLEN MEMORIAL ART BUILDING, OBERLIN, OHIO.
Cass Gilbert, Architect.

of a bluish hue. The same emphasis of shadow is found in the loggia, where the vaulting is encrusted with blue mosaic relieved by patterns of gold. The cold colors are not dominant, however; for the brownish-red stone in the walls is but an echo from the red tile of the roof and from the brown bricks used in the walks and in the floor of the loggia. This note has also been carried inside, where brown is found to be the prevailing floor color throughout the building.

The sculpture hall, which is entered directly from the loggia, is carried well up above the rest of the building, so that its light is received from windows opening above the surrounding roofs. A corridor surrounding the hall opens into it on all sides through triple arches, thus producing interesting vistas and adding greatly to the wall space available for placing sculpture. The hall possesses unusual character, now somewhat nullified by the decorative treatment of both walls and ceiling, which is unpleasantly crude and raw, while the crystal ball dangling at the end of an iron chain can hardly be regarded as a happy solution of the lighting problem.

The functions of this building may be considered as twofold: as those of a museum and as those of an art school, for in it is accommodated the entire art department of the College. Twenty or thirty courses of art study are available to the students, and here are provided the necessary classrooms, studios and lecture rooms to care for these varied activities.

The main picture galleries occupy the space on both sides of the sculpture hall and are lighted entirely from the skylights. The administrative department occupies the rear portion of the main floor and includes a library containing

about 1,500 volumes, 8,000 or 9,000 photographs and about 20,000 lantern slides. On the second floor, immediately above, are located three classrooms, the largest of which contains equipment for stereopticon lectures. These rooms connect with corridors which surround the sculpture hall and provide valuable exhibition space. The corridors receive their light from skylights and also to some extent from openings into the hall.

At the rear of the main building, connected with it by two open cloisters enclosing a fountain court, is a studio building, where much of the class work is carried on and which also contains the unpacking and shipping room.

The interior of the building has been kept very simple and free from ornamental and decorative effects that might detract from the objects of art which it was built to house. As a result of this restraint, the limited amount of enrichment used has gained materially by contrast. The most beautiful of these features are perhaps the exquisite wrought iron doors which guard the stair halls and the antique doorway, placed at the entrance to the library, which has a memorial inscription carved in the lunette.

The general scheme of reconstruction embarked upon by Oberlin College has, for its ultimate aim, the rescuing of that institution from the chaos of architectural aberrations which have, in the course of a rather aimless growth, sprung into existence without apparent thought, rhyme or reason. Great possibilities are presented by the undertaking, and if it is developed upward from the standard established by the Art Building, America is assured of another monumental group which will do credit to her architecture.



STREET FACADE—HENRY MILLER'S THEATRE. PAUL R. ALLEN & H. CREIGHTON INGALLS, ASSOCIATED ARCHITECTS.

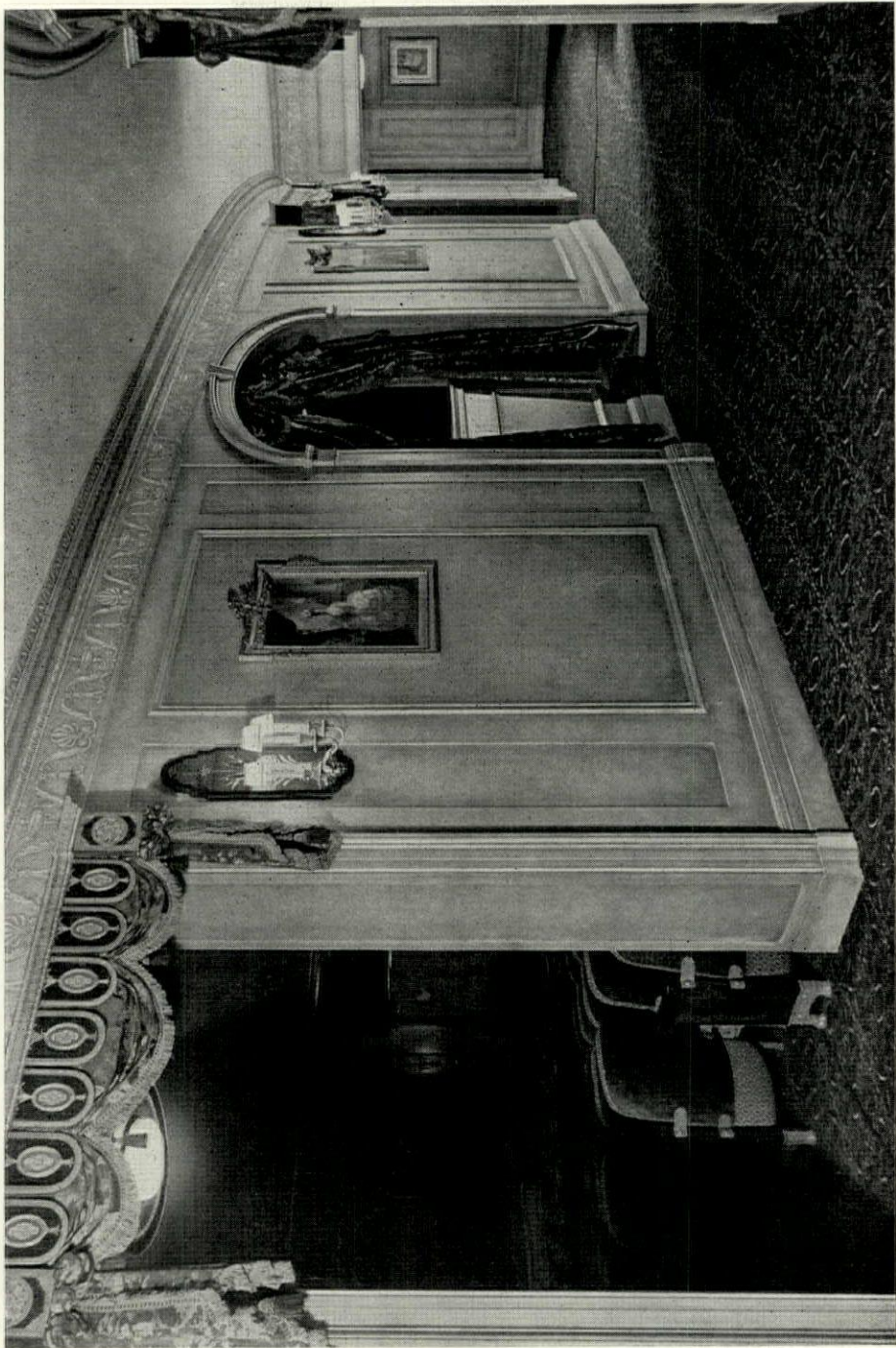
The
Henry Miller Theatre
New York City
Paul R. Allen & H. Creighton Ingalls
Associated Architects
By
Charles Over Cornelius

THE opening, early in April, of Mr. Henry Miller's Theatre in West Forty-third street, is an event of importance, not only to the theatrical world and the theatre-going public, but in an equal degree marks a point of high interest to all who are impressed by an accomplishment of distinction in the art of building beautifully. The man whose cultivation has developed from an education of essential soundness towers above the dead level of human mediocrity by reason of his ability to revivify in his imagination important epochs of history and to relate accurately to them the present in which he lives. In much the same manner this latest addition to the list of New York theatres stands out from the writhing and contorted mass of its commercially designed confreres, recreating as it does in the busy midst of the twentieth century all the charm and polish of that mid-eighteenth century whose life and manners bore so great a similarity to our own.

The art of the drama in England made itself manifest in the very early days of that country's history, and its continuous development and elaboration from the simplest form of miracle and morality plays reached a definite stage in their evolution with the playwrights of the Elizabethan era. Here began the sturdy growth of the English drama as it exists today, yet there is a far cry from the

crude productions of the Globe theatre to the perfect finish which a twentieth century audience demands. By the middle of the eighteenth century a form of play construction and a manner of theatrical production had developed, which is so closely akin to the demands of our own taste that the theatrical links are close-forged between that day and this. On the stage of the Theatre Royal in Drury Lane, David Garrick and Peg Woffington defied tradition by their interpretation of the plays of Shakespeare, Sheridan and lesser lights, rousing to enthusiasm a critical public by a finished presentation whose appeal is as valid today as it was in the days of George the Third.

Enough of the inspiration of Drury Lane has been breathed into Henry Miller's theatre to mark it as a lineal descendant in English tradition. The exterior has preserved largely the Georgian character in warm brick and lucent white marble, the scale tending toward the domestic rather than the monumental, and the whole reminiscent of the Adam work contemporary with the Adelphi development and their remodeling of the theatre in Drury Lane. In general one might say that the Adam influence has confined itself to the larger aspects of the façade, the use and treatment of the pedimented end motifs, the proportioning of the main order, the slight reveal and the restraint



FOYER—HENRY MILLER'S THEATRE.
PAUL R. ALLEN & H. CREIGHTON
INGALLS, ASSOCIATED ARCHITECTS.

of the decoration. In other respects and details the spirit is of a slightly earlier type, the central doorway and the arched windows recalling the earlier English Georgian architecture which formed the point of departure for much of our American colonial work.

As the first theatre in the Broadway district erected under the new zoning and theatre laws of New York, the building shows an economical utilization of the spaces at either side of the lot which it was formerly required to leave open for the full depth. This gain in space has made possible a lengthening of the façade and its occupation of the entire frontage. The bays at either end mark the space of these courts, with their broad low arches giving access to the open areas behind. The group of three entrances in the centre admits to the box-office lobby, flanked at right and left by doorways, the first serving as an exit from the balcony, the latter as entrance and exit for the gallery. These two doorways also afford direct access from the street to Mr. Miller's private office and the offices of his staff, respectively. The façade is peculiarly successful in its expression of the interior immediately behind it, the levels of office floor and balcony recalled by the windows appropriately proportioned. The interest of detail is consistent throughout and extends even to the quaint playbill boards with their broken pediments and nicely spaced lettering.

The plan of the building behind this frank façade is thoroughly in keeping with its external expression. The central doors admit directly to the box-office lobby, which, with its oval form and nice proportions, serves as an appetizer for the feast of delicacy spread tastefully within. Three doorways from this lobby give into a shallow foyer that runs across the rear of the orchestra. At either end of this foyer stairs descend to the lounge and at the right ascend to the balcony. The main room of the theatre is entered directly from the foyer, from which it is separated by a wall which replaces the usual draughty opening behind the last row of seats. The remainder of this floor, given over to the stage and its

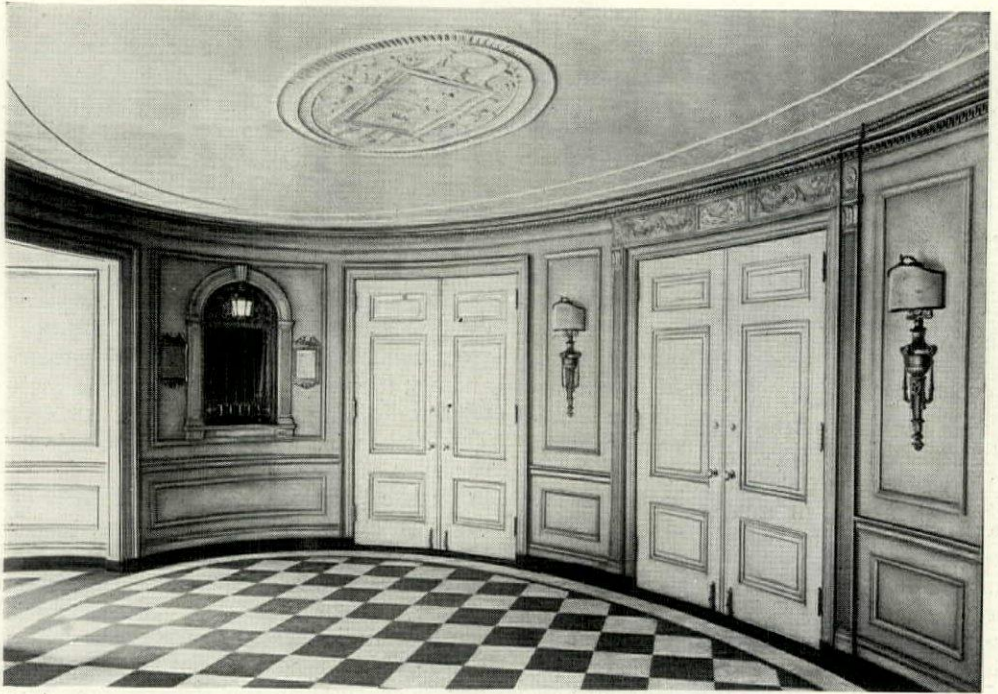
necessarily adjacent service, is planned with an elimination of unnecessary complexity.

That part of the floor below which is designed for the comfort of the public is arranged with much nicety. The stairs leading down from the foyer approach from both sides to the lounge—a spacious room which serves as a meeting place for both men and women. The descent of both stairways is broken near the basement level by roomy landings, from which open the ladies' retiring room and gentlemen's smoking room, each with adjoining toilets and lavatories. The orchestra, which is screened from the view of the audience above, is placed in such a position that its music carries to both lounge and auditorium; while the organ chimes which announce the curtain-rising are similarly arranged.

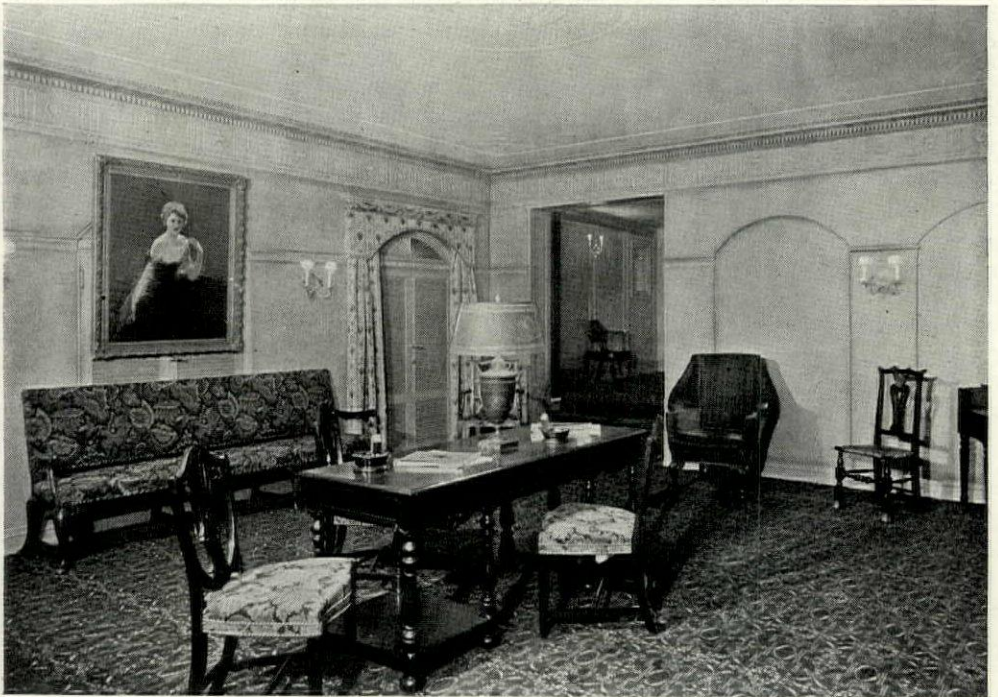
The plan of the balcony floor, which can be studied from the accompanying plan, requires no especial explanation; nor does that of the gallery, which is not illustrated.

If, in the plan, the hand of an experienced master is visible in the solution of so special a problem, no less is it seen in the execution of the plan in the third dimension. That part of the building which is designed for its effect upon the public has been carried out with such a consistency of good taste and an imagination so creative of individual atmosphere, that one instinctively feels a faith in all that one has heard of the positive psychological effect of really good architecture upon its beholder. The accompanying photographs by no means do justice to the building as it is, so much of its charm depending upon the color; but a passing description of the interior taken in conjunction with the photographs may present a facsimile of the building for those who have not seen it.

The decorations of the box-office lobby have been kept very simple, the painted walls being treated with molding and plaster cornice, and relieved by the well-placed wall lights. The floor is of black and white marble bounded by the black of the lower member of the base-board, and the ceiling of molded



BOX OFFICE LOBBY—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.



LOUNGE—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.

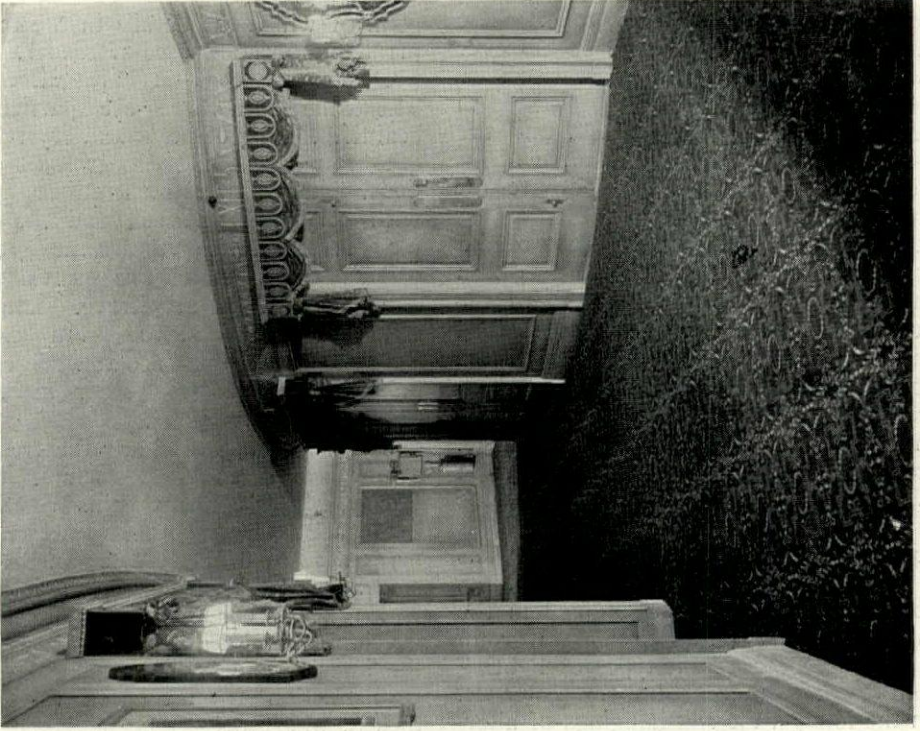
plaster is tinted a creamy tone. The only decoration of the trim occurs over the central door. The metal work of the grilles and the fixtures is finished in dull gilt and a grayish black, and the wall color is a warm cream with a mauve glaze, while the doors are the shade of old ivory.

The color chosen for the walls of the foyer is a bright blue, and this has been carried through all of that part of the building which may in general be called the circulation. The blue walls of the foyer are repeated in the stairway which leads from it to the balcony, as well as in those which descend to the lounge. In the lounge itself the color is a bright English green, of much the same value as the blue of the foyer and stairs. This consistency in the main wall color has a unifying effect without any monotony, for much of variety is obtained in the different parts of this circulation group by the use of different types of lighting fixtures and different drapery materials. In the lounge, the silk hangings of alternating rose and yellow stripes are brocaded with small flowers, while the over-door draperies in the foyer are heavily brocaded silk in deep blue, with a suggestion of chinoiserie in the design. The lighting fixtures, too, differ in each case: in the lounge the side lights have small oval mirror inserts in what might be considered a larger triangle of blue glass, while in the foyer the larger mirrors are surrounded by a gilded frame set with the same blue glass. All of the lights are softly shaded in parchment-colored silk. The carpeting is the same throughout, black with a small-scale design in greens and rose, whose colors will no doubt be softened by a few years' wear. The use of solid color for the walls, enlivened by the contrasting tones of the drapery, is consistent with the period style in which the theatre is carried out, as are the colors themselves—mauve, blue and green, rose amber and blue.

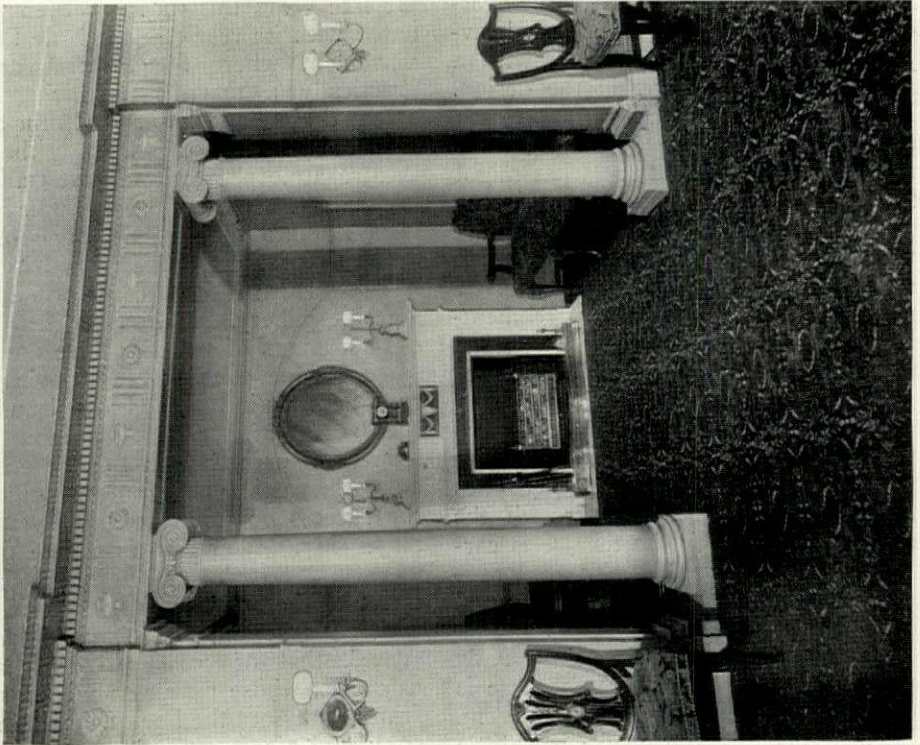
The low-ceiled lounge is an unusually attractive feature and its atmosphere is that of a quiet English drawing-room. The ingle-nook in the centre is a little

gem, of which the details in the marble mantelpiece, the brasses of fender, grate, fire irons and tools are brilliant facets. The candelabra here are particularly beautiful, being of onyx and crystal and gilt bronze set with Wedgwood medallions. The wall treatment utilizes arches with very slight reveal, and the plaster cornice—all in the same green—presents typical Adam ornament and the elimination of the architrave. The furniture at present in the room has not been chosen for the place and will eventually be changed for other pieces of greater appropriateness.

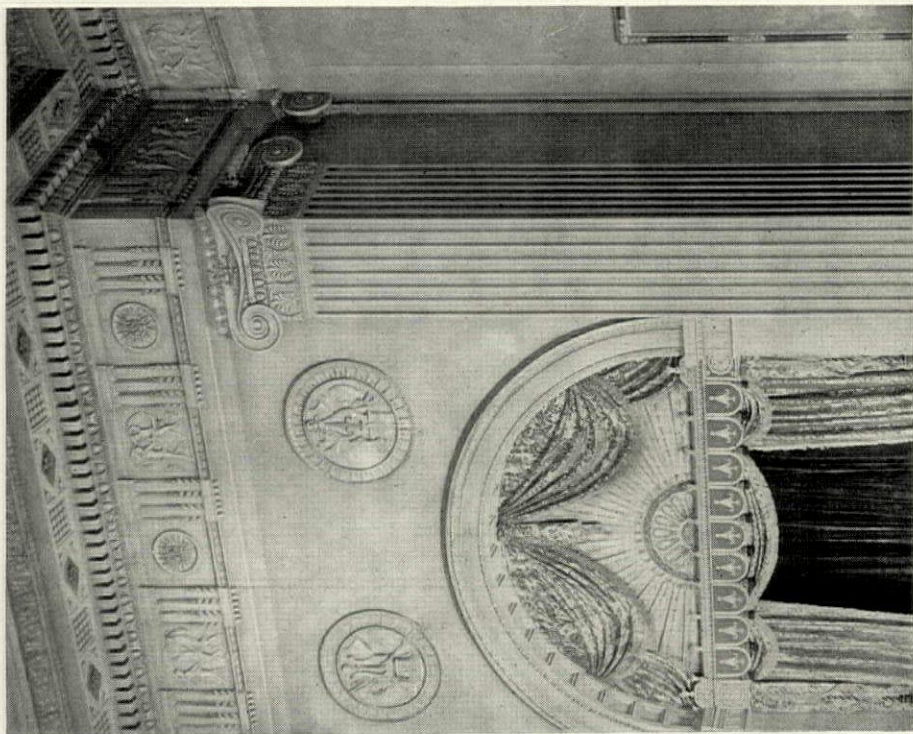
The *raison d'être* of any theatre must perforce be its main auditorium, and in Henry Miller's theatre this room exhibits a number of features which will mark it as of a new *genre*. In the first place, the tradition has been followed which keeps consciously before it the development of the English theatre from the interior courts of buildings in contradistinction from that of the Latin theatre whose origins lie in the theatres and amphitheatres of Greece and Rome. Of late years this idea has been attenuated with its result in the little theatre movement where the theatre becomes practically a magnified drawing-room. In the theatre under discussion the architects have succeeded in keeping the little theatre atmosphere of intimacy and individuality, while at the same time incorporating into their scheme one of the demands of their client upon which he has stood firm—the presence of a comfortable gallery. Mr. Miller feels that the occupants of this tier have not altogether "gone over" to the moving pictures; for, as in the days of old much of the success of a production came from its reception in the pit, the presence of an enthusiastic gallery means much in the success or failure of a present-day play. Mr. Miller also is averse to the use of first floor boxes, and this has made possible the extremely pleasing form which the second floor boxes have assumed, that of comparatively shallow balconies, whose paneled and decorative fronts carry out the line of the main balcony and tie it strongly into the side



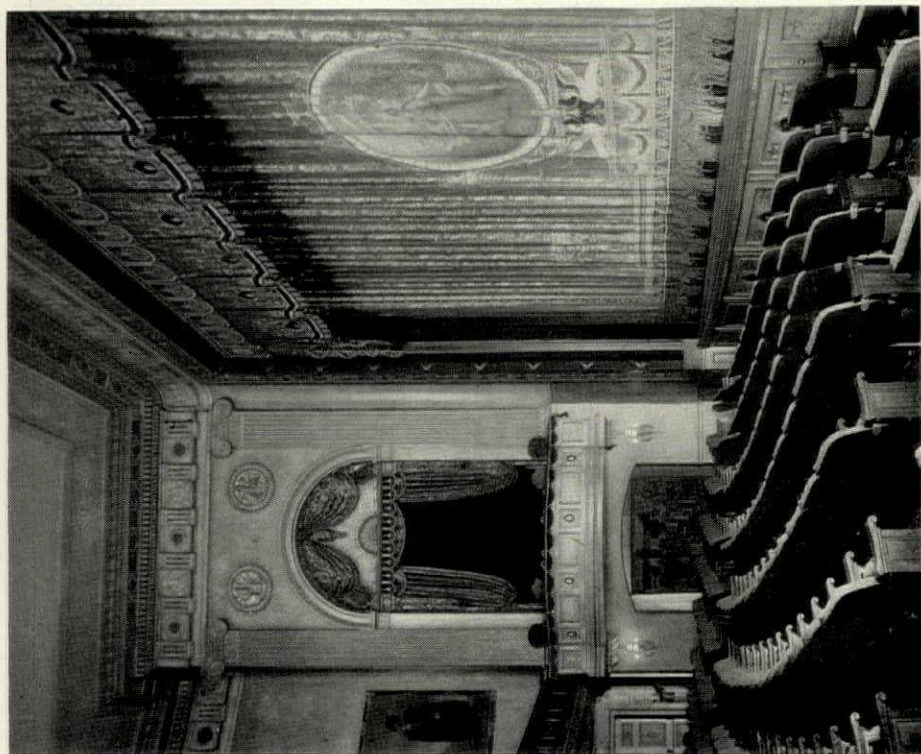
FOYER—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.



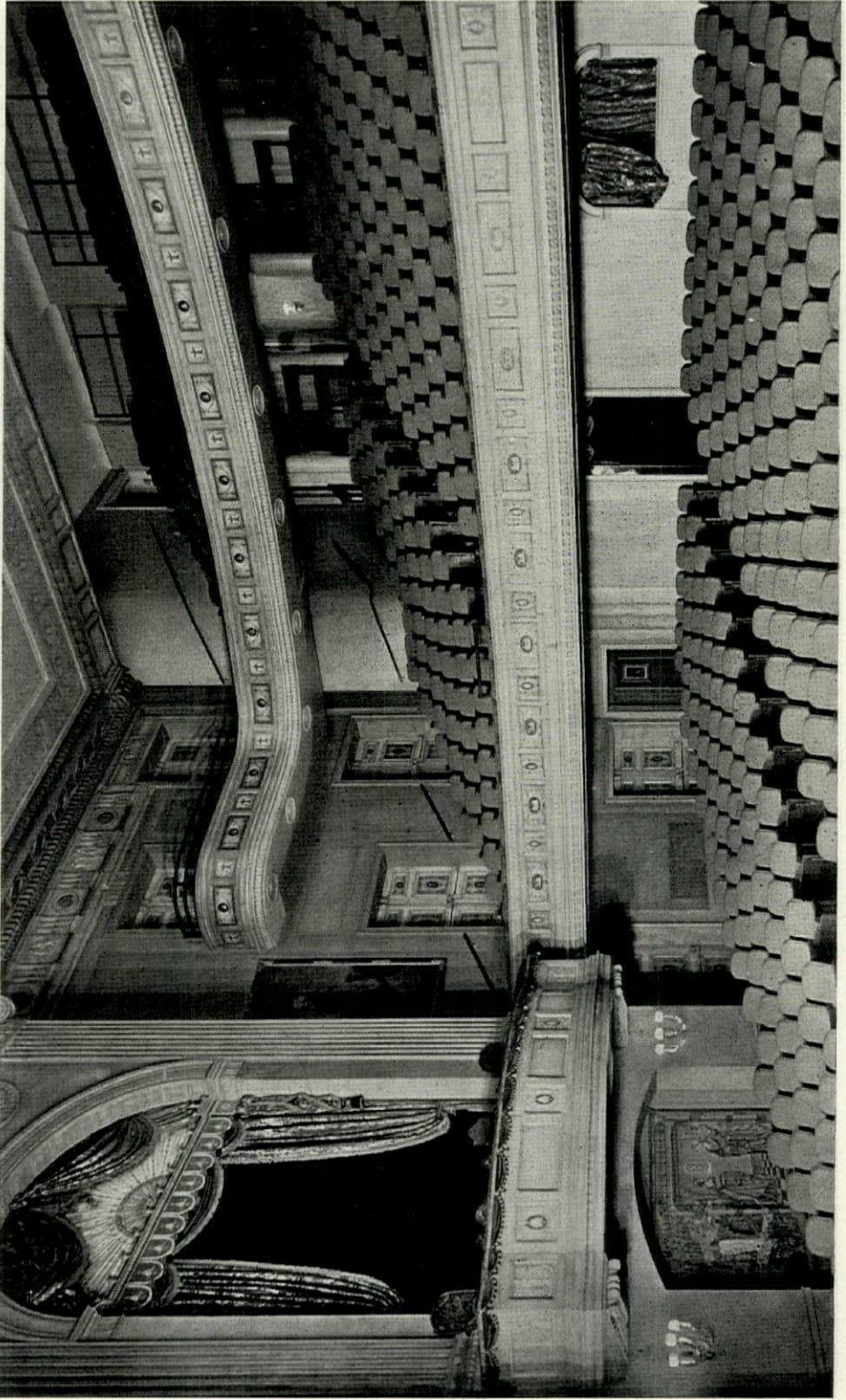
INGLE-NOOK IN LOUNGE—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.



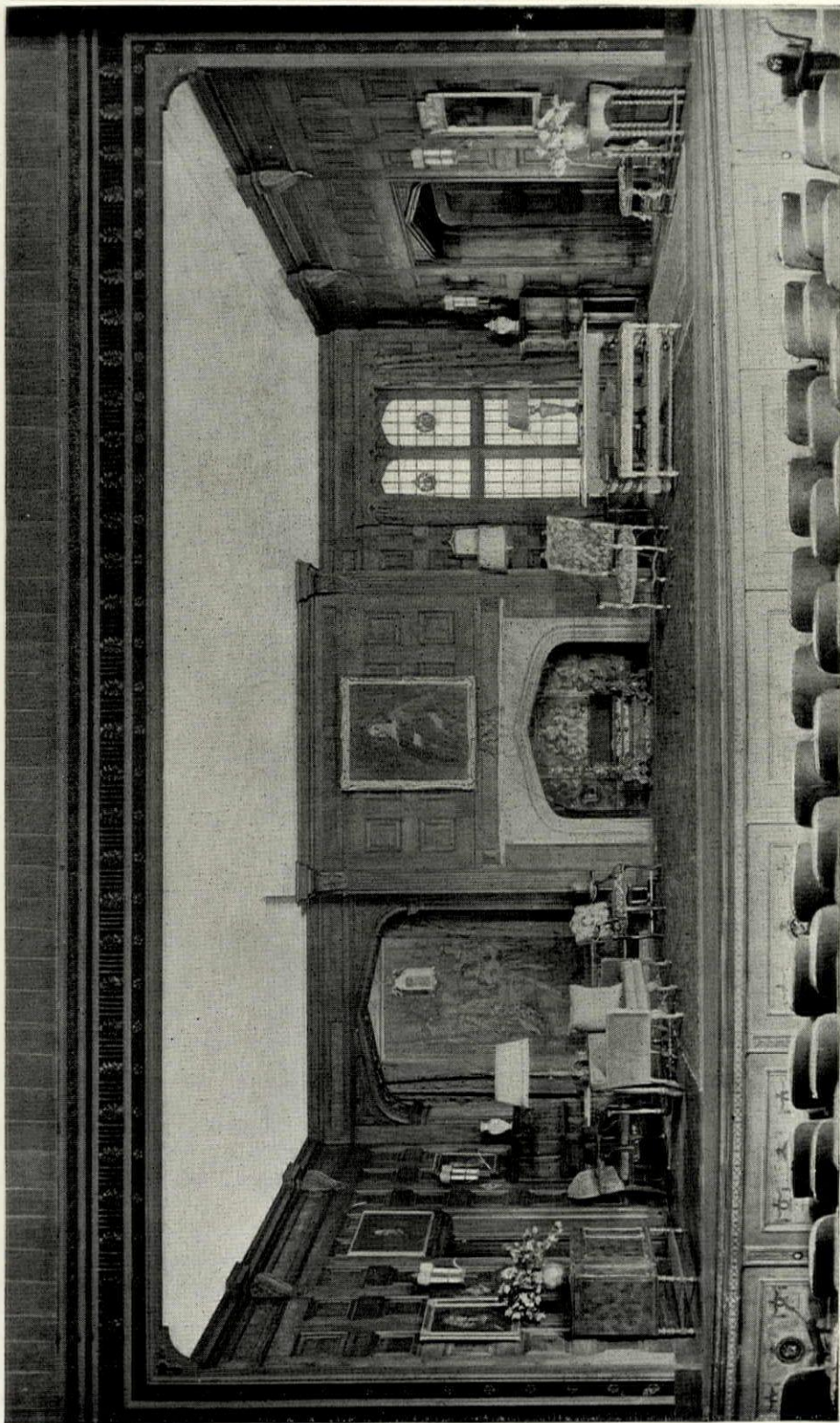
DETAIL OF PLASTER WORK—AUDITORIUM—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.



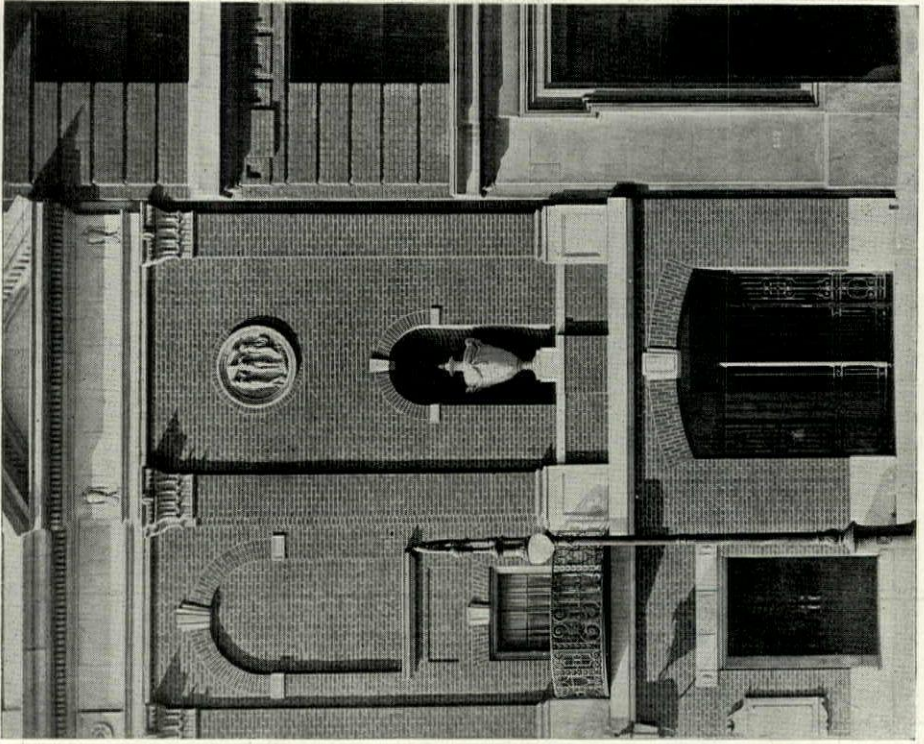
AUDITORIUM—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.



AUDITORIUM—HENRY MILLER'S THEATRE. PAUL R. ALLEN
& H. CREIGHTON INGALLS, ASSOCIATED ARCHITECTS.



STAGE SET—"THE FOUNTAIN OF YOUTH." HENRY MILLER'S THEATRE, PAUL R. ALLEN & H. CREIGHTON INGALLS, ASSOCIATED ARCHITECTS.



DETAIL OF END BAY—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.



CENTRAL DOORWAY—HENRY MILLER'S THEATRE.
Paul R. Allen & H. Creighton Ingalls, Associated Architects.

walls. It has meant, too, a considerable addition to the seating capacity of the parquet, the number of seats on this floor (404) being out of all proportion to that in the usual theatre of similar size, and this in spite of the sacrifice of an extra row at the rear by reason of the oval form of the lobby. Hence this room is a monument to the intelligent and appreciative co-operation between client and architect, each willing to give something here to gain a little there for the benefit of the whole.

The first impression of this room is made by the color harmony. The predominating tones are the warm, soft, putty color of the walls and the rich amber of the brocade hangings. The seats of tapestry in very small scale design blend more with the grays of the walls, while the darkest note is struck by the carpet, which is similar to that in the foyer and lounge. The decoration, in the Adam mode, is carried out in the painted panels in grisaille, with accents of bright color in medallions and swags, and in modeled plaster in the architectural members of capitals, cornice and ceiling. In the fans above the boxes the painted decoration has for a background a warm cream, which deepens toward the outer edge to a tone approaching that of the drapery and breaks what would otherwise be a hard line where the amber brocade cuts across its face. One particular detail, which will no doubt form a happy precedent for decorators, is the decoration of the kalamein doors of the exits, whose homely metal surfaces have here been turned into things of beauty and, from the nature of the material, let us hope joys forever.

The desire to create an impression of age has led to the use of glazes upon all of the trim and decoration, so that the whole has been antiqued with a great gain to the interest of texture. Many a good housewife might object to the dusky corners and moldings; but if ever the legitimacy of deliberate "antiquing" has been justified, it has been in this building.

The use of the lighting fixtures in the

room is worthy of note, the main source of light being the great crystal chandeliers hung from the ceiling, aided by the side-lights placed for their decorative value beneath the boxes.

So far we have turned our backs to the stage, which fills the full thirty-three foot space between the boxes. The curtain is of the same amber brocade, with its restrained decoration supporting a medallion portraying "Comedy" and "Tragedy" in a new guise after Mr. Miller's interpretation—the theatre, as an Alma Mater, touching with affection her two children, one of whom, Comedy, strives to draw her to play; the other, Tragedy, turns from her in tears. By an effect of lighting the color of the curtain seems to differ from the other drapery and takes on at times, particularly when the footlights are up, a tone that is not altogether pleasing.

The orchestra is entirely screened from the audience, the music reaching them through louvered openings in the top of the screen.

With the rising of the curtain a further display of the architect's versatility is revealed. The stage sets for the two plays which so far have been produced have been designed under Mr. Allen's and Mr. Ingalls' supervision, with the result of a tasteful and correct interior in each case suitable to its purpose, and the added consideration of an atmosphere which, seeming to pervade both sides of the footlights, gives to each member of the audience the feeling of actual presence in the room on the stage—a consideration of much interest when we consider the disparity between the average theatre and such a stage set as this of "The Fountain of Youth."

Behind the scenes there is much to interest the specialist, but which has little place in so general a description as this. The restriction of the building law forced the shape of the stage house as shown by the section; but by the use of the most-up-to-date counterweight system, the obstacles presented were overcome and the resulting ease of manipulation has simplified, too, the question of

manual labor in setting the stage. The dressing rooms for the players have been given thoughtful consideration, and by the tasteful use of chintz and paint these rooms have been made charming and restful, unlike many of their ilk.

At the inception of the project Mr. Allen associated himself with Mr. Ingalls and Mr. Hoffman, architects of the Little Theatre and Neighborhood Playhouse, for the designing and execution of this particular building. At Mr. Hoffman's entrance into the government service at the very beginning of the work, the onus fell entirely upon Mr. Allen and Mr. Ingalls, and their competent cooperation has given to New York a theatre whose peer is scarce to be found

except in the children of their own brains.

The theatre as a whole stands as a monument, first, to the debt which we owe to our mother country for her traditions in the arts; second, to the public whose appreciation in general has risen to such a plane that a theatre of so subtle an atmosphere should rise to meet its demand; and last, but by no means least, to the architects whose authoritative handling of so difficult a problem has served to unite artistically and esthetically two remote periods in the history of an art which may have reached another milestone with its present incarnation at the end of one world epoch and at the beginning of a new.



ARCHITECTURE *and* DEMOCRACY



*Before, During and
After the War --*

By CLAUDE BRAGDON, F.A.I.A.

II DURING THE WAR

THE best thing that can be said about our immediate architectural past is that it is past, for it has contributed little of value to an architecture of democracy. During that neo-feudal period the architect prospered, having his place at the baronial table; but now Poor Tom's a-cold on a war-swept heath, with food only for reflection. This is but natural; the architect, in so far as he is an artist, is a purveyor of beauty; and the abnormal conditions inevitable to a state of war are devastating to so feminine and tender a thing, even though war be the very soil from which new beauty springs. With Mars in mid-heaven, how afflicted is the horoscope of all artists! The skilled hand of the musician is put to coarser uses; the eye that learned its lessons from the sunset must learn the trick of making invisible warships and great guns. Let the architect serve the war-god likewise, in any capacity that offers, confident that this troubling of the waters will bring about a new precipitation; that once the war is over, men will turn from those "old, unhappy, far-off things" to pastures beautiful and new.

In whatever way the war may complicate the architect's personal problem, it should simplify and clarify his attitude toward his art. With no matter what seriousness and sincerity he may have undertaken his personal search for truth and beauty, he will come to question as never before both its direction and its results.

He is bound to perceive, if he does not perceive already, that the war's arrestment of architecture (in all but its most utilitarian and ephemeral phases) is no great loss to the world, for the reason that our architecture was unin-

spired, unoriginal, done without joy, without reverence, without conviction—a thing which any wind of a new spirit was bound to make appear foolish to a generation with sight rendered clairvoyant through its dedication to great and regenerative ends.

He will come to perceive that between the Civil War and the Crusade that is now upon us we were under the evil spell of materialism. Now materialism is the very negation of democracy, which is a government by the *demos*, or over-soul; it is equally the negation of joy, the negation of reverence, and it is without conviction because it cannot believe even in itself. Reflecting thus, he can scarcely fail to realize that materialism, everywhere entrenched, was entrenched strongest in the camps of the rich—not the idle rich, for materialism is so terrible a taskmaster that it makes its votaries its slaves. These slaves, in turn, made a slave of the artist: a minister to their pride and pretense. His art thus lacked that "sad sincerity" which alone might have saved it in a crisis. When the storm broke militant democracy turned to the engineer, who produced buildings at record speed by the mile, with only such architectural assistance as could be first and easiest fished up from the dragnet of the draft.

In one direction only does there appear to be open water. Toward the general housing problem the architectural profession has been spurred into activity by reason of the war, and, to its credit be it said, it is now thoroughly aroused. The American Institute of Architects sent a commissioner to England to study housing in its latest manifestations, and some of the ablest and most influential



INTERIOR OF THE RED CROSS COMMUNITY CLUB HOUSE—CAMP SHERMAN.

members of that organization have placed their services at the disposal of the Government. Moreover, there is a manifest disposition on the part of architects everywhere to help in this matter all they can. The danger dwells in the possibility that their advice will not be heeded, their services not be fully utilized, but through chicanery, ignorance, or inattention we will relapse into the tentative, "expensively provisional" methods which have governed the housing of workers hitherto. Even so, architects will doubtless recapture, and more than recapture, their imperiled prestige, but under what changed conditions, and with what an altered attitude toward their art and their craft!

They will find that they must unlearn certain things the schools had taught them: preoccupation with the relative merits of Gothic and Classic—tweedledum and tweedledee. Furthermore, they must learn certain neglected lessons from the engineer—lessons that they will be able immeasurably to better; for although the engineer is a very monster of competence and efficiency within his limits, these are sharply marked, and to any detailed knowledge of that "beautiful necessity" which determines spatial rhythm and counterpoint he is a stranger. The ideal relation between architect and engineer is that of a happily wedded pair—strength married to beauty; in the period just passed or passing they have been as disgruntled as divorcees.

The author has in mind one child of such a happy union brought about by the war. The building is the Red Cross Community Club House at Camp Sherman, which, in the pursuit of his destiny, and for the furtherance of his education, he inhabited for two memorable weeks. He learned there more lessons than a few, and encountered more tangled skeins of destiny than he is ever likely to unravel. The matter has so direct a bearing, both on the subject of architecture and of democracy, that it is worth discussing at some length.

This club house stands, surrounded by its tributary dormitories, on a government reservation, immediately adjacent to the camp itself, the whole constituting

what is known as the Community Center. By the payment of a dollar any soldier is free to entertain his relatives and friends there, and it is open to all the soldiers at all times. Because the iron discipline of the army is relaxed as soon as the limits of the camp are overpassed, the atmosphere is favorable to social life.

The building occupies its acre of ground invitingly, though exteriorly it is of no particular distinction. It is the interior that entitles it to consideration as a contribution to an architecture of that infant democracy, of which our army camps have been the cradle. The plan of this interior is cruciform, two hundred feet in each dimension: built by the Red Cross of the State of Ohio, and dedicated to the larger uses of that organization, the symbolic appropriateness of this particular geometrical figure should not pass unremarked. The cross is divided into side-aisles, nave, and crossing, with galleries and mezzanines so arranged as to shorten the arms of the cross in its upper stages, leaving the clearstory surrounding the crossing unimpeded and well defined. The light comes, for the most part, from high windows, filtering down in tempered brightness to the floor. The bones of the structure are everywhere in evidence, and an element of its beauty, by reason of the admirably direct and logical arrangement of posts and trusses. The vertical walls are covered with plaster-board of a light buff color, converted into good sized panels by means of wooden strips covered with a thin gray stain. The structural woodwork is stained in similar fashion; the iron rods, straps and bolts being painted black. This color scheme is completed and a little enlivened by red stripes and crosses placed at appropriate intervals in the general design.

The building attained its final synthesis through the collaboration of a Cleveland architect and a National Army captain of engineers. It is so single in its appeal that one does not care to inquire too closely into the part of each in the performance; both are in evidence, for an architect seldom succeeds in being so direct and simple, while an engineer sel-

dom succeeds in being so gracious and altogether suave.

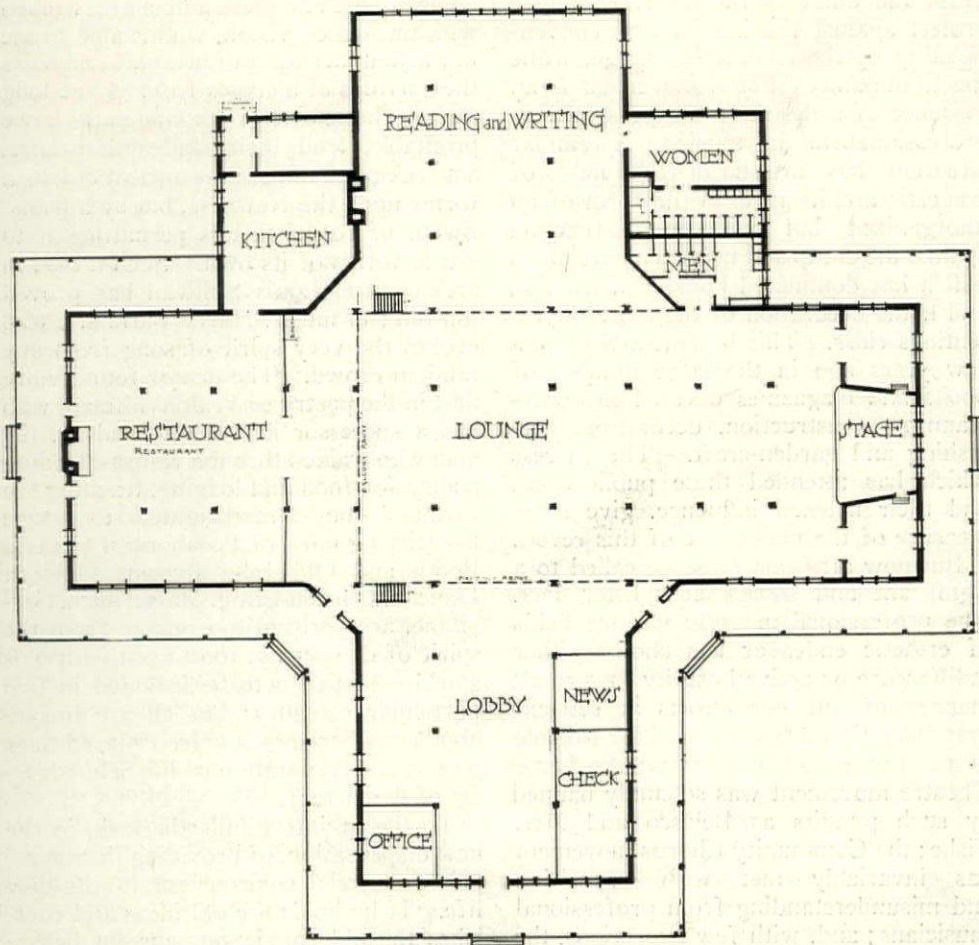
Entirely aside from its esthetic interest—based, as this is, on beauty of organism almost alone—the building is notable for the success with which it fulfills and coordinates its manifold functions: those of a dormitory, a restaurant, a ballroom, a theatre and a lounge. The arm of the cross containing the principal entrance accommodates the office, coat-room, telephones, news and cigar stand, while leaving the central nave unimpeded, so that from the door one gets the unusual effect of an interior vista two hundred feet long. The restaurant occupies the entire left transept, with a great brick fireplace at the far end. There is another fireplace in the centre of the side of the arm beyond the crossing; that part which would correspond in a cathedral to the choir and apse being given over to the uses of a reading and writing room. The right transept forms a theatre, on occasion, terminating as it does with a stage. The central floor spaces are kept everywhere free except in the restaurant, the sides and angles being filled in with leather covered sofas, wicker and wooden chairs and tables, arranged in groups favorable to comfort and conversation. Stairways at the right and left of the restaurant give access to the ample balcony and to the bedrooms, which occupy three of the four ends of the arms of the cross at this level.

The appearance and atmosphere of this great interior is inspiring; particularly of an evening, when it is thronged with soldiers and civilian guests. The strains of music, the hum of many voices, the rhythmic shuffle on the waxed floor of the feet of the dancers—these eminently social sounds mingle and lose themselves in the spaces of the roof, like the voice of many waters. Tobacco smoke ascends like incense, blue above the prevailing green-brown of the crowd, shot here and there by brighter colors from the women's hats and dresses, in the kaleidoscopic shifting of the dance. Long, parallel rows of orange lights, grouped low down on the lofty pillars, reflect themselves on the polished floor, and like the patine of time on painted canvas impart to the en-

tire animated picture an incomparable tone. For the lighting, either by accident or by inspiration, is an achievement of the happiest, an example of the friendliness of fate to him who attempts a free solution of his problem. The brackets consist merely of a cruciform arrangement of planed pine boards about each column, with the end grain painted red. On the under side of each arm of each cross is a single electric bulb, enclosed within an orange-colored shade to kill the glare. The light makes the bare wood of the fixture appear incandescent, defining its geometry in rose-color with the most beautiful effect.

The club house is the centre of the social and ceremonial life of the camp, for balls, dinners, receptions, conferences, concerts without number, and it has been the scene of a military wedding—the daughter of a major-general to the grandson of an ex-President. To these events the unassuming but pervasive beauty of the place lends a dignity new to our social life. In our army camps social life is truly democratic, as anyone who has experienced it does not need to be told. Not alone have the conditions of conscription conspired to make it so, but there is a manifest will-to-democracy—the growing of a new flower of the spirit, sown in a community of sacrifice, to reach its maturity, perhaps, only in a community of suffering.

The author may seem to have overpraised this community club house; with the whole country to draw from for examples it may well appear fatuous to concentrate the reader's attention for so long on a building, in a remote part of the Middle West, cheap, temporary, and requiring only twenty-one days for its erection. But of the transvaluation of values brought about by the war this building is an eminent example: it stands in symbolic relation to the times; it represents what may be called the architecture of Service; it is among the first of the new temples of the new democracy, dedicated to the uses of simple, rational social life. Notwithstanding that it fulfills a felt need, common to every community, there is nothing like it in any of our towns and cities; there are only such



PLAN OF THE RED CROSS COMMUNITY HOUSE—CAMP SHERMAN.

poor and partial substitutes as the hotel, saloon, the dance-hall, the lodge-room and the club. It is scarcely conceivable that the men and women who have experienced its benefits and its beauty should not some day demand and have similar buildings in their own home towns.

Beyond the oasis of the community club house at Camp Sherman stretch the cantonments—a Euclidian nightmare of bare boards, black roofs and ditches, making grim vistas of straight lines. This is the architecture of Need in contradistinction to the architecture of Greed, symbolized in the shop-window prettiness of those sanitary suburbs of our cities created by the real estate agent and the speculative builder. Neither

contains any enduring element of beauty.

But the love of beauty in one form or another exists in every human heart, and if too long or too rigorously denied it finds its own channels of fulfillment. This desire for self-expression through beauty is an important though little remarked phenomenon of these mid-war times. At the camps it shows itself in the efforts of men of specialized tastes and talents to get together and form dramatic organizations, glee-clubs and orchestras; and more generally by the disposition of the soldiers to sing together at work and play and on the march. The renaissance of poetry can be interpreted as a revulsion against the prevailing prosi-

ness; the amateur theatre is equally a protest against the inanity and conventionality of the commercial stage, while the Community Chorus movement is an evidence of a desire to escape a narrow professionalism in music. A similar situation has arisen in the field of domestic architecture, in the form of an unorganized but widespread reaction against the cheap and ugly commercialism which has dominated house construction and home decoration of the more unpretentious class. This became articulate a few years ago in the large number of books and magazines devoted to house-planning, construction, decoration, furnishing and garden-craft. The success which has attended these publications, and their marked influence, give some measure of the magnitude of this revolt.

But now attention must be called to a significant and somewhat sinister fact. The professional in these various fields of esthetic endeavor has shown either indifference or active hostility toward all manner of amateur efforts at self-expression. Free verse aroused the ridicule of the professors of metrics; the Little Theatre movement was solemnly banned by such pundits as Belasco and Mrs. Fiske; the Community Chorus movement has invariably met with opposition and misunderstanding from professional musicians; and, with few exceptions, the more influential architects have remained aloof from the effort to give skilled architectural assistance to those who cannot afford to pay them ten per cent.

Thus everywhere do we discover a deadening hand laid upon the self-expression of the democratic spirit through beauty. Its enemies are of its own household: those who by nature and training should be its helpers hinder it instead. Why do they do this? Because their fastidious, esthetic natures are outraged by a crudeness which they themselves could easily refine away if they chose; because also they recoil at a lack of conformity to existing conventions—conventions so hampering to the inner spirit of the Newness that, in order to incarnate at all it must of necessity sweep them away.

But in every field of esthetic endeavor

appears here and there a man or a woman with unclouded vision, who is able to see in the floundering of untrained amateurs the stirrings of a *demos* from its age-long sleep. These, often forsaking paths more profitable, lend their skilled assistance, not seeking to impose the ancient outworn forms upon the Newness, but by a transference of consciousness permitting it to create forms of its own. Such a one, in architecture, Louis Sullivan has proved himself; in music, Harry Barnhart, who evokes the very spirit of song from any random crowd. The *demos* found voice first in the poetry of Walt Whitman, who has a successor in Vachel Lindsay, the man who walked through Kansas, trading poetry for food and lodging, teaching the farmers' sons and daughters to intone his stirring odes to Pocahontas, General Booth and Old John Brown. Isidora Duncan, Gordon Craig, Maeterlinck, Scriabine, are perhaps too remote from the spirit of democracy, too tinged with old-world estheticism to be included in this particular category; but all are image-breakers, liberators, and have played their part in the preparation of the field for an art of democracy.

To the architect falls the task, in the new dispensation, of providing the appropriate material environment for its new life. If he holds the old ideas and cherishes the old convictions current before the war, he can do nothing but reproduce their forms and fashions. For architecture, in the last analysis, is only the handwriting of consciousness on space; and materialism has written there already all that it has to tell of its failure to satisfy the mind and heart of man. However beautiful old forms may seem to him they will declare their inadequacy to generations free of that mist of familiarity which now makes life obscure. If, on the other hand, submitting himself to the inspiration of the *demos*, he experiences a change of consciousness he will become truly and newly creative.

His problem, in other words, is not to interpret democracy in terms of existing idioms, be they classic or romantic, but to experience democracy in his heart and let it create and determine its new form

through him. It is not for him to *impose*; it is for him to be *imposed upon*.

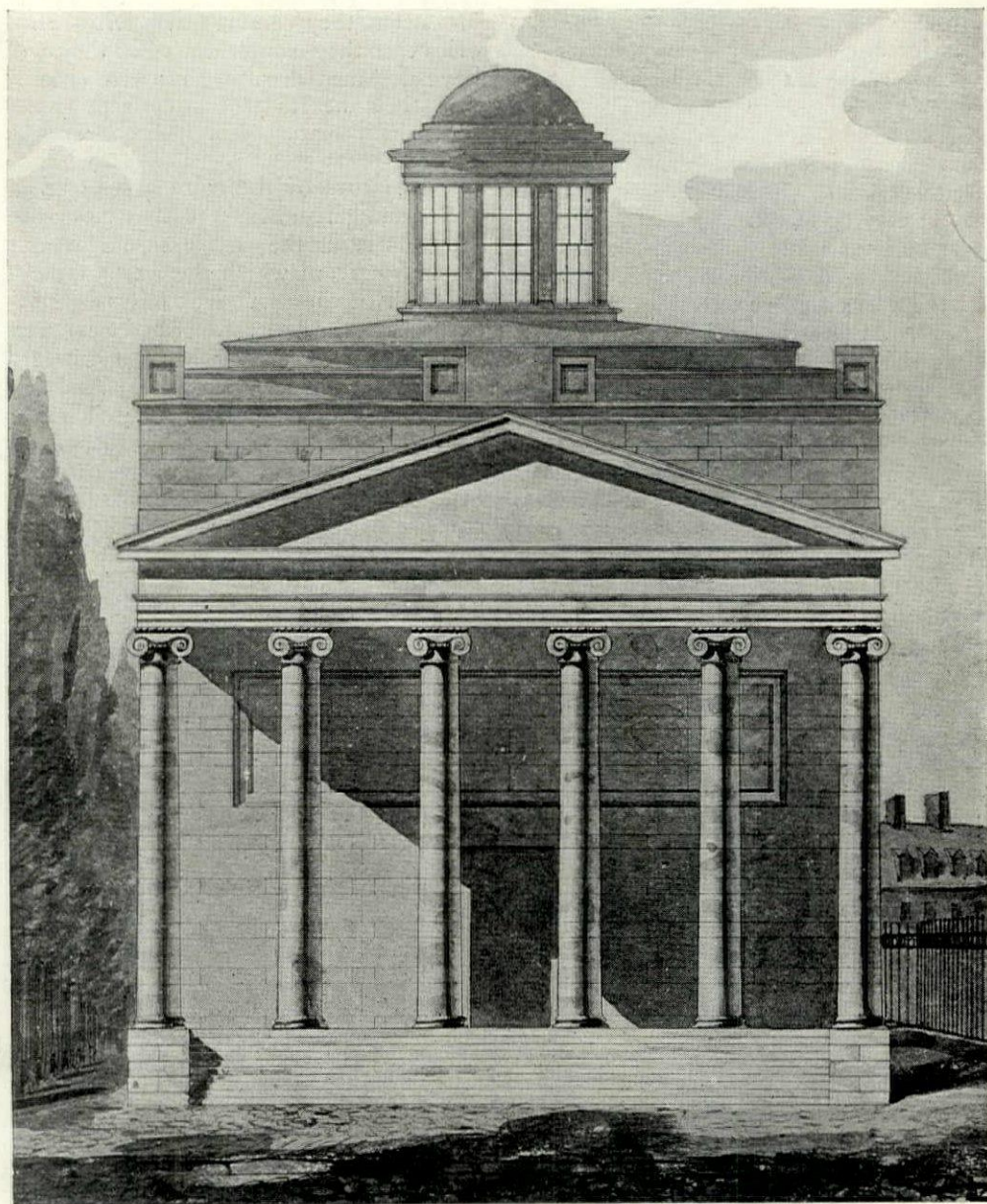
"The passive Master lent his hand
To the vast soul that o'er him planned"

says Emerson in "The Problem," a poem which seems particularly addressed to architects, and which every one of them would do well to learn by heart.

If he is at a loss to know where to go and what to do in order to be played upon by these great forces, let him direct his attention to the army and the army camps. Here the spirit of democracy is already incarnate. These soldiers, violently shaken free from their environment, stripped of all but the elemental necessities of life, and facing a sinister destiny beyond a human-shark-infested ocean, are today the fortunate of earth by reason of their realization of brotherhood, not as a beautiful theory, but as a blessed fact of experience. They will come back with

ideas that they cannot utter, with memories that they cannot describe; they will have dreamed dreams and seen visions, and their hearts will stir to potencies for which materialism has not even a name.

The future of the country will be in their young hands. Will they re-create from its ruins the faithless and loveless feudalism from which the war set them free? No! they will seek only for self-expression, the expression of that aroused and indwelling *demos* which shall create the new, the true democracy. And because it is a spiritual thing it will come clothed in beauty; that is, it will find its supreme expression through the forms of art. The architect who assists in the emprise of weaving this garment will be supremely blessed, but only he who has kept the vigil with prayer and fasting will be supremely qualified.



From the architect's original drawing in possession of the Historical Society of Pennsylvania.

EAST FACADE, BANK OF PENNSYLVANIA.
BENJAMIN H. LATROBE, ARCHITECT.

The Bank of Pennsylvania. 1799

*An Unknown Masterpiece
Of American Classicism*

By
-Fiske Kimball-

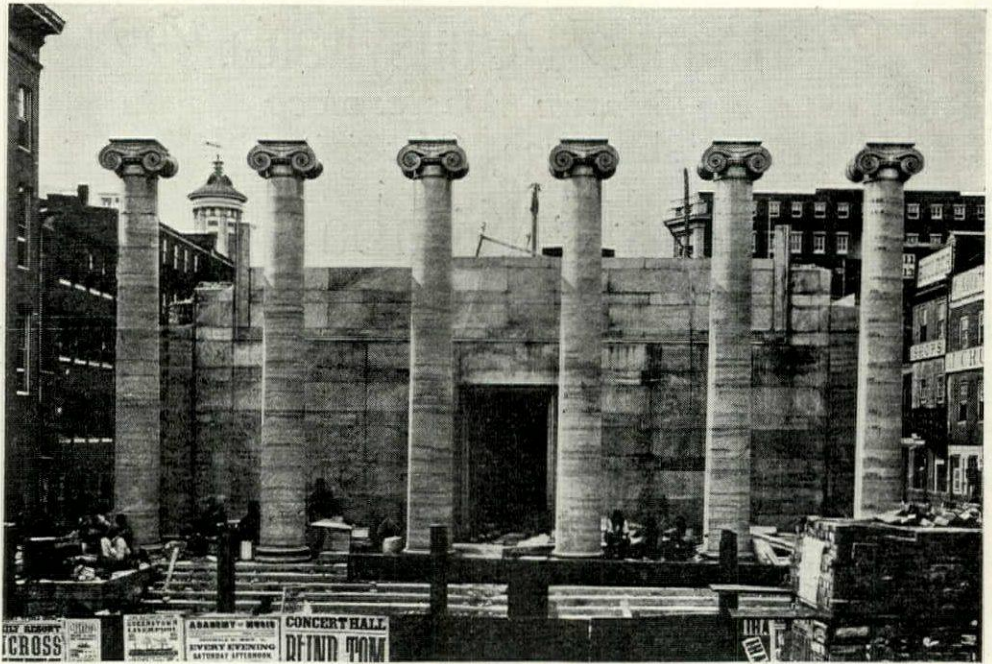
AMONG the works of art long since swept away by the ruthless, unexampled growth of cities in America, none was more beautiful than the masterpiece created by Latrobe in his first monumental work on our soil—the Bank of Pennsylvania. Yet this first fruit of the Greek spirit—the worthy forerunner of McKim's chaste and subtle creations a century later—was destroyed at a moment when its qualities were unregarded, and is still unknown to a generation which once more appreciates classic excellence. The crude engravings of it in Birch's contemporary Philadelphia views and in Owen Biddle's "Young Carpenter's Assistant," themselves but little known, give scarcely an idea of its purity and elegance. No photograph or drawing of it has ever been published.

This neglect must now give way, however, on reproduction of the original designs of the architect himself, drawn and rendered with a professional skill which earlier had been unknown in America, giving the form and effect of the building in completeness. In the galleries of the Maryland Historical Society hangs the perspective, our first competent example of architectural "charlatanism," as it was called by a contemporary less familiar with the art. The Historical Society of Pennsylvania has two sets of rendered plans and elevations, an exhibition set at eighth-inch scale, another at sixteenth-inch scale made by the architect for his brother in England. Isolated drawings in the hands of Latrobe's descendants and in the Library of Congress duplicate three of the sheets. Both sets bear dates subsequent to the beginning of

work, and show the building in its final form. The perspective only, differing in some respects from the other drawings preserved, seems to have been made prior to the execution.

As the file of Latrobe's professional correspondence which is preserved does not begin until 1803, two years after the building was occupied, the story of its creation must be pieced together from scattered allusions elsewhere in his writings, and from the manuscript, "Minutes of the Proceedings of the Stockholders of the Bank of Pennsylvania," now belonging to the Historical Society.

At their meeting of February second, 1798, the stockholders resolved, "That, as the building at present occupied by the Bank is insecure, the President and Directors be and they are hereby authorized to purchase a convenient site for a Banking House, and erect thereon such a building as they may think sufficiently secure and convenient for the purposes of the Institution." The quarters hitherto occupied were like those of the other early banks in not having been constructed especially for banking purposes, and in having no marked architectural character. A single exception was the new marble building of the Bank of the United States in Third Street, Philadelphia, for which the versatile amateur Samuel Blodget had provided an acceptable academic design based on the Royal Exchange in Dublin. Although the Pennsylvania Bank had not the official character and support of its older neighbor, its President, Samuel M. Fox, was determined that it should be housed in the finest manner. His enlightenment as a patron of the arts is highly praised by Latrobe, who said after Mr. Fox's death,



EAST PORTICO—BANK OF PENNSYLVANIA.

Benjamin H. Latrobe, Architect.

From a photograph taken during its demolition, in possession of the Ridgway Library, Philadelphia.

in an oration before the Society of Artists, that "the existence and taste" of the building were due not to the architect but to him.

It was fortunate for the authorities of the bank, nevertheless, that it so happened that in March, 1798, Latrobe came to Philadelphia for his first brief visit, hoping for a government commission. Although he had as yet had no opportunity in America to show his abilities in monumental architecture, his work on the Penitentiary at Richmond already testified to some skill in his profession, and he was armed with the best of letters of introduction. "Among the acquaintances which his letters procured for him," his son writes in the memoir prefixed to Latrobe's published *Journal*, "was the president of the Bank of Pennsylvania. Upon one occasion, when in company with this gentleman, the conversation turned upon the banking house which it was proposed to build, and Mr. Latrobe, having heard described the accommodation that would be necessary,

made a sketch of a design while the conversation was going on, with the pen and ink that happened to be at hand, and left it with the president, without the remotest expectation of its ever being executed. In the following July (1798) he was not less surprised than gratified to receive a letter from Philadelphia, informing him that his design for the Bank of Pennsylvania had been adopted, and pressing him to prepare correct copies of the sketch that he had left behind him, and such instructions as would enable the workmen to build it."

With the construction of the bank and also of the city water works in view, Latrobe thus left Richmond and removed to Philadelphia in December, 1798. On the first of February following, at the annual meeting of the stockholders, the President "stated that a convenient site for a Banking house on Second Street, between Chestnut and Walnut Streets, had been purchased . . . he submitted the plan agreed on for the building and mentioned the forwardness thereof."

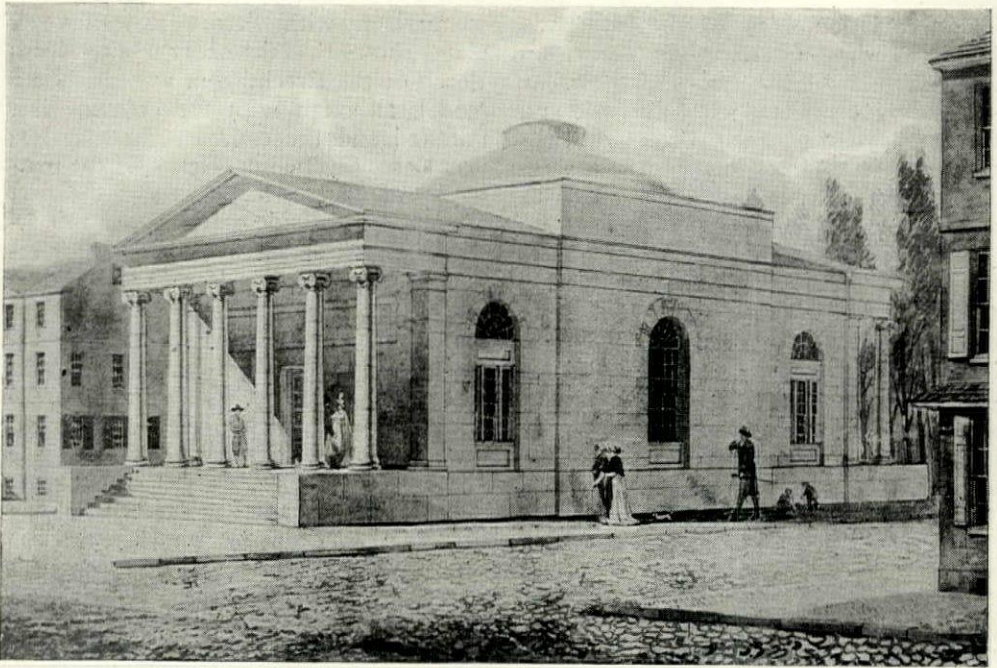
The foundation stone of the bank was laid, according to Latrobe's diary, on April fifth, 1799, the arches of the cellar story were completed on July first, and the arches of the principal story on September first. After a report of progress at the meeting in 1800 the President was able to report to the stockholders on January 30, 1801, that the bank "was so nearly completed that it was expected to be occupied in a few weeks—that no expense had been spared to render the building secure, though every possible care had been observed to avoid unnecessary ornament—conforming as much as possible to the plan submitted to the stockholders, and originally determined upon by the Directors."

The design as revealed in the drawings might well be that of an exceptionally pure example of the modern American "one-story" bank of limited frontage—so marked has been the reversion to the type of which it was the very first. A circular banking hall, domed on the model of the Pantheon, forms the centre, with vestibule before and counting room behind. The façades to the streets in front and rear consist each of a pedimented portico six columns wide, in a graceful Greek Ionic order. The side façade has three large arches, which in the perspective embraced both the main and mezzanine stories of vaults and minor rooms, but were afterwards cut down to permit small windows and panels above. Slight breaks in the side wall mark the central room, which rises above the main cornice in a square attic and a saucer dome. In the perspective the eye of the dome is treated as a skylight with a low circular curbing, but in execution a lantern, itself treated with Roman details, was substituted, doubtless as a result of the practical difficulties of climate.

The details of the portico, as seen in old photographs taken during the demolition of the building, bear out the statement of Owen Biddle that it was "a neat specimen of the Ionic order, taken from an ancient Greek temple." The temple on the Illysus is specified by Scharf and Westcott as the source of inspiration, but

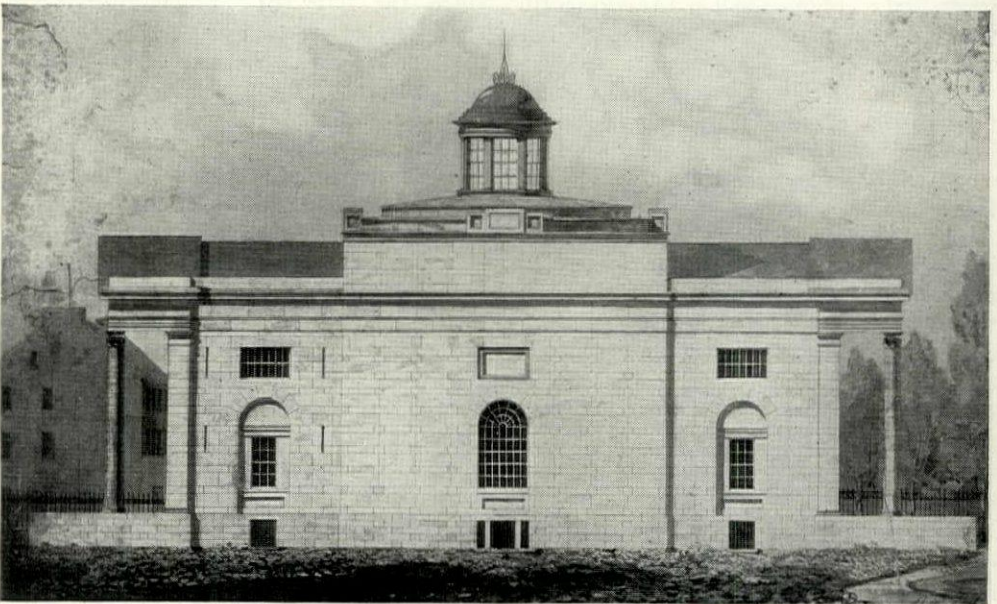
comparison with Stuart and Revett's plates shows that the order of the North Porch of the Erechtheum was used as a model, although with the columns left unfluted and the capital somewhat less ornamented. The importance of the matter is, of course, that this was the first attempt on this side of the water to substitute Greek detail, with its superior refinement, for academic or Roman forms—a step quite in consonance with modern ideas, but then entirely new in America. Although Jefferson had proposed as early as 1771 to imitate the Monument of Lysicrates as a garden feature, and had owned a copy of Stuart and Revett since 1789, while the Library Company of Philadelphia already had the first volume of it in 1770, academic traditions had so far proved too strongly rooted to permit a single actual experiment with Greek forms. The French professionals here, such as Hallet, were still, like all their compatriots, worshippers of Rome; and the single English professional to precede Latrobe, George Hadfield, was likewise of Roman training. In England, to be sure, the use of Greek details had slowly been gaining ground since the days of Stuart himself, in such circles as that of Latrobe's own master, S. P. Cockerell. Thus it was that with his first important building here Latrobe initiated the Greek revival in America.

That the stimulus under which the design was produced was not entirely the advanced English training of the architect, however, is shown by a note of his own in reference to another question of style: "The Bank of Pennsylvania I know has been much admired, but it would have been much handsomer if Joseph Fox and the late John Blakely, Esqrs., directors, had not confined me to a copy of the Parthenon at Athens." It thus appears that some of the American laymen wished to go much farther in the direction of a literal classic imitation—applying the basic idea of Jefferson for the Virginia Capitol, with the adoption of a Greek model—and that the English professional resisted and defeated this,



THE BANK OF PENNSYLVANIA.
Benjamin H. Latrobe, Architect.

From the architect's original drawing in possession of the Maryland Historical Society.



NORTH FLANK—BANK OF PENNSYLVANIA.
Benjamin H. Latrobe, Architect.

From the architect's original drawing in possession of the Historical Society of Pennsylvania.

except in so far as it involved the employment of his preferred Greek forms of details. The parallel experiences later, with the Second United States Bank and with Girard College, where laymen succeeded in coercing the architects to imitate the full temple form for utilitarian buildings, establishes beyond question the essentially American initiative of this extreme of classicism. Its dislike of following the contemporary traditions of Europe was an outcome of the idea of national independence; its insistence nevertheless on the support of unimpeachable authority was an inevitable suggestion of the parvenu. Although the choice of Greece as the final authority was already foreshadowed by developments in Europe, such slavish imitation of Greek buildings as the Americans proposed was not reached there until much later.

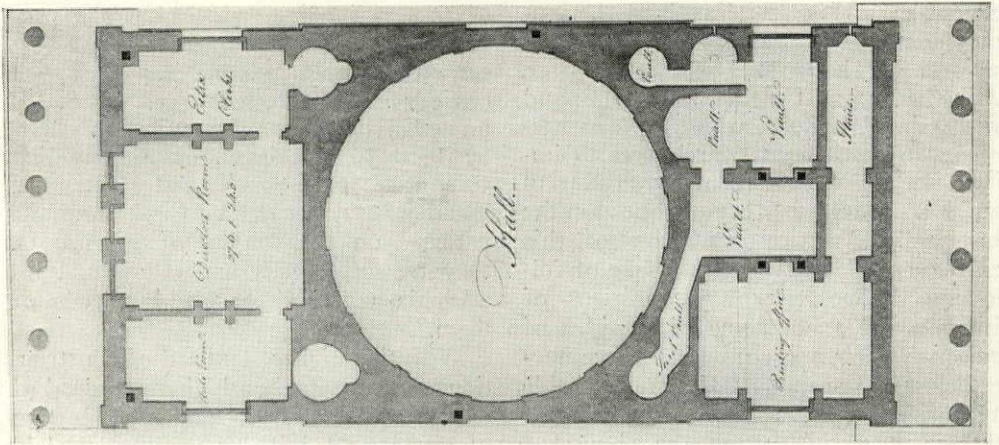
Even though the Bank did not wholly realize the ideas of the most radical of its directors, its novelty in America was sufficiently striking. One has only to note in the perspective the contrast between the building and its neighbors to appreciate the change it denotes between our colonial and our national architecture. The classic and monumental qualities of the building, to be sure, were shared in less degree by other buildings of the new republic—the Virginia Capitol, L'Enfant's Federal Hall, the Bank of the United States already mentioned, the unfinished federal buildings in Washington—but none of these embodied so well a vision of classic beauty, realized in stone through professional skill. Indeed,—although later Latrobe's example was followed until the Wall Street of 1830 might well suggest the row of treasuries at Olympia,—for a long time after its erection the Bank of Pennsylvania remained unique.

In construction the building was quite as novel here as in design, for it was vaulted throughout in masonry. The old Exchange in Charleston, built in 1767-1771, had groined vaults of brick in the basement story, but there was nothing anywhere in the states comparable to the great domed banking room and the suites

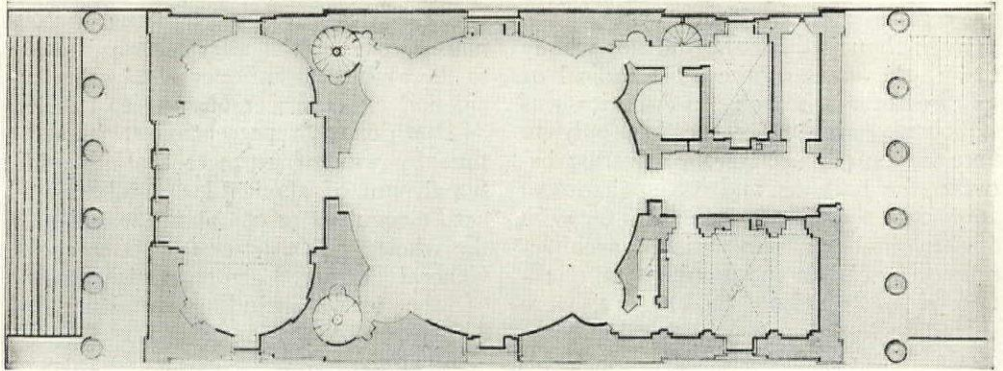
of fireproof offices which Latrobe provided. The innovation, so far as it concerned the vaults and offices, was of such obvious advantage, however, that it led immediately to extensive imitation. Thus by 1810 John Dorsey, of the building committee for the capitol at Harrisburg could write: "I regret to lose time and patience on the subject of Fireproofs, they are so perfectly understood in Philadelphia where there are hundreds of them."

With this higher standard of construction went inevitably a higher standard of expense. At the stockholders' meeting of January 29, 1802, "The President laid before the meeting . . . a particular account of the expenditures in the purchases of lots and erecting the Banking-house . . . including the cost of the palisade inclosure, of building watch-houses, paving the alleys, compensation to the architect, stationery and other incidental expenses, amounting to 216,180 24/100 dollars, representing at the same time by way of estimate that an additional sum of about 12,000 dollars will yet be required to complete the finish of the whole." In a letter to a later client, General Harper, Latrobe states the cost of the bank, including furniture, as \$25.16 per square foot.

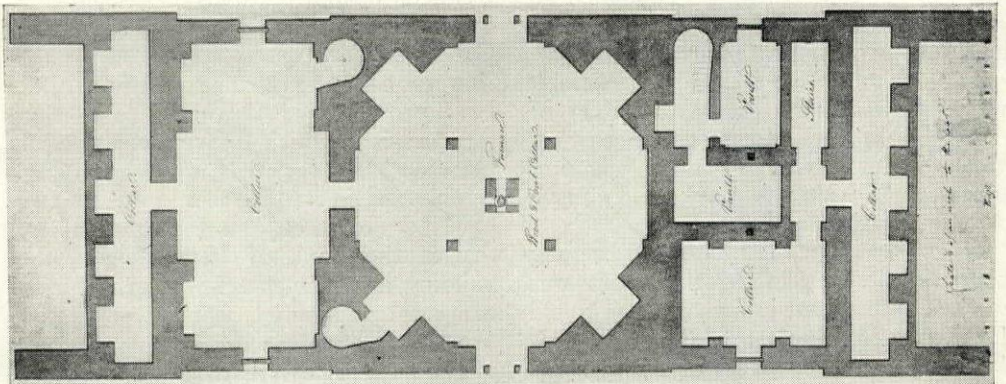
As compared with the cost of five or six dollars per square foot then current for ordinary brick buildings in Philadelphia, these costs could not fail to lay the architect open to criticism. Regarding these Latrobe wrote, in a letter to Bishop Carroll, a few years later: "As to the charges of extravagance in my works, I can prove to you, if you desire it—that in all cases in which I have given an estimate, and the work has not been altered or enlarged in its progress, my estimates have been correct, and I further assert that if the Bank of Pennsylvania, the building to which the charge of extravagance is commonly applied, were measured and valued according to the usual mode and prices, it would amount to \$40,000 more than its actual cost—that the two porticos cost a few hundred dollars less than my estimate of \$57,000, and



Second Floor Plan.



First Floor Plan.



Basement Plan.

BANK OF PENNSYLVANIA. BENJAMIN H. LATROBE, ARCHITECT.
 From the architect's original drawings in possession of the Historical Society of Pennsylvania.

that in the whole there is a very small excess." The directors, indeed, had undertaken the expense with their eyes open, and Latrobe records elsewhere that in this building he had no dispute with anyone.

The policy of the directors in erecting a splendid building does not seem to have involved any disastrous financial consequences, but to have proved an enlightened act of investment. In the fatal panic of 1837, however, the bank failed, in common with so many others, and the building passed to different uses. After the Civil War the site came into possession of the government, and the building was taken down. A legend exists in Philadelphia that the stones were transported to some town in Maine to be reerected as a custom house, and still remain there in storage owing to a change of plan. A careful search in the Maine seaports has failed to substantiate this, however, and Mr. Joseph Jackson, the veteran correspondent of the Philadelphia *Ledger*, states with assurance that the story is erroneous. The stones,

proving to have no takers when offered for sale, were used in building the foundations of the Appraisers' Stores, which thus mark the grave of this artistic masterpiece.

Although when it met its end in mid-Victorian darkness, the bank found no one to value or appraise it, this was by no means the case in the days of its first building. The architect has recorded in his diary as the one compliment he valued, the unaffected praise of the French major, Beaujour, "a man of great talents . . . long in Greece and Egypt . . . a perfect judge of the fine arts." "Walking up Second Street," writes Latrobe, "I observed two French officers standing opposite the building and looking at it without saying a word. I stepped into Black's shop and stood close to them. After some time, one of them, who I believe was Mr. Beaujour, exclaimed several times, '*Si beau, et si simple!*' . . . He said no more, and stood for more than a quarter of an hour longer before he walked away with his companion."



HAMPSTEAD GARDEN SUBURB.



HAMPSTEAD GARDEN SUBURB.

INDUSTRIAL HOUSING DEVELOPMENTS IN AMERICA

By LAWRENCE VEILLER
Secretary of the National Housing Association

PART VI HOUSING AFTER THE WAR

WITH the enemy still only fifty-five miles from Paris, it may seem to many premature to discuss things that may happen after the war. Whether the war ends to-morrow or three years from now, however, we shall have the same problems to face.

All of the housing problems that we had with us before the war began, we shall still have with us when the war ends. The problem of the city slum will still face us. Perhaps at that time it will cry out for solution more imperatively than it does to-day. Perhaps the country will tolerate with less patience than at present the "miasmatic breath blown from the city slums." Perhaps, when it contemplates the significant facts of physical unfitness of the youth of the country disclosed through the war, when it reflects upon the fact that from 66 to 70 per cent of our youth of draft age, 21 years to 31 years, were found ineligible for military service because of physical defects, the country as a whole may come to the conclusion that we have paid dear for our slums.

No matter what else it does, the country must set itself resolutely to make the slum a thing of the past.

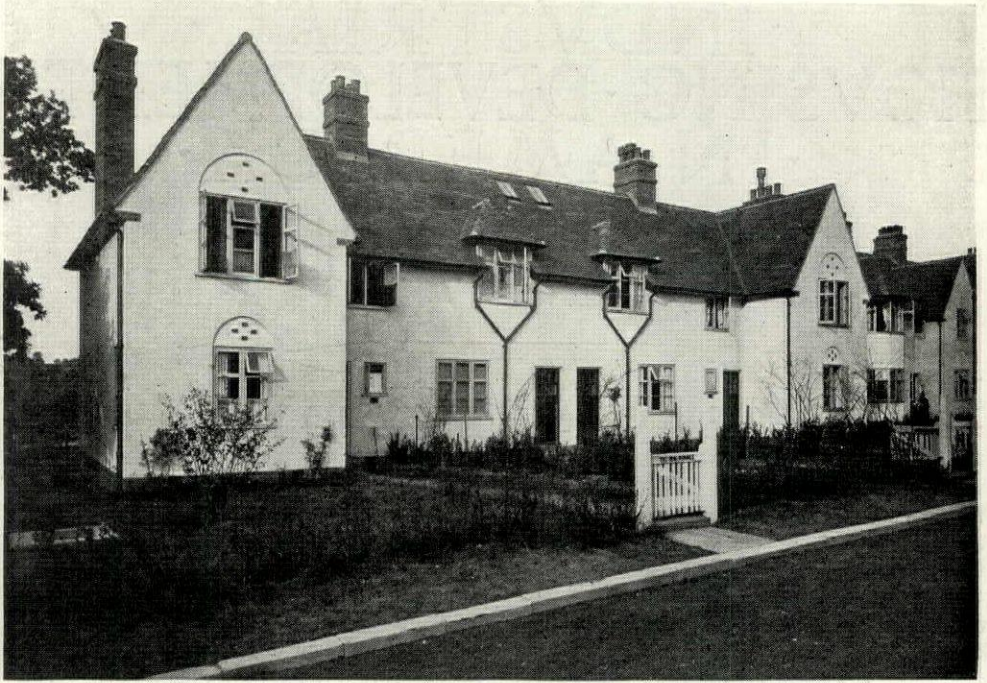
We may even have a new national slogan in "Slumless America." To achieve this, however, means that the abolition of the slum must become a national issue politically. Housing has

been a political issue in Europe for nearly a generation; there is no reason why political battles shouldn't be fought here on similar questions. They are fraught with more consequence to the nation than the tariff, the liquor question or bimetallism. When this happens, however, we shall need to have a national housing program as well as a national housing policy.

The vault, that sink of iniquity and relic of barbarism, which still exists to-day by the hundreds of thousands throughout the large and small cities of the country must be banished forever. The dark room, breeder of tuberculosis and other infections, must be outlawed, not merely in the tenement, but in the cottage as well.

Congestion, that evil of great cities, which as yet has only begun to show itself here and there throughout the land, must be headed off. Room overcrowding and its attendant peril, the lodger evil, must be resolutely dealt with. Before the war, it was a menace to our national welfare. The war has intensified the evil. Unless dealt with effectively, it will ultimately threaten our national existence.

Acceptance of these statements implies that which will not be so readily agreed to; the enactment of a National Housing Law. To those who know with what difficulty housing laws have been secured



HAMPSTEAD GARDEN SUBURB.



HAMPSTEAD GARDEN SUBURB.

in a few states and cities, after what laborious uphill battles against adverse interests, this will indeed sound like the millennium. But if the slum is to go—if indeed merely future slums are to be prevented from developing, this is essential.

And what of the slums that are already here? Will these be wiped out? I venture to think so. We have tolerated them too long already. While we have been reluctant hitherto to follow the example of Europe and especially of Great Britain in embarking on vast reconstruction schemes, that is one of the things the war will have taught us. We are beginning to realize even now that it is less costly in the long run for the State to spend vast sums in wiping out insanitary areas than in paying for them indirectly in poverty, disease and crime.

All these are problems we had with us before the war. The war, however, has brought new problems with it—problems that will need to be faced when the war is ended, if not before.

We face to a large extent the same problems that England faces. To some extent, but only slightly, what France faces; for, neither we nor England have been invaded. We have no devastated areas to reconstruct, no vast populations to rehouse.

All three countries, however, face now, and will have to deal with it after the war, the problem of meeting a vast shortage of houses. The building of houses in all three countries has practically ceased since the war began.

England, according to conservative estimates made recently, needs *a million new houses*. And during the next ten years, it is estimated, will need two million houses. Up to the time of the war the speculative builder had provided most of England's new housing. For ten years before the war, however, there had been a very serious falling off in production.

In the forty largest cities in England and Wales, for example, the production of new houses decreased from 32,000 a year in 1904 to 12,000 a year in 1914. At the same time the average yearly increase in population in those cities from

1901 to 1911 was 96,896; and from 1911 to 1914, the three years before the war, was 129,028, while the average number of new houses built per year in that time was less than 14,000.*

A variety of reasons have been assigned to account for this situation; the high cost of building materials, the inability of the workers to pay an economic rent, and especially the Finance Act of 1909 which many observers believe put a serious check on private enterprise.

The war with its prohibition of building, except for the most urgent needs, put the finishing touch to the situation.

Where are the one million houses that England needs to-day to come from—or the two million that it is estimated she will need in the next ten years?

Can the speculative builder who failed to meet England's needs ten years before the war be relied upon to meet her needs to-day? It seems hardly likely. Every thing is against it. The rate of interest on sound investments in England has risen from 3½ to 5½ per cent.; the cost of building materials has gone up from 30 to 50 per cent. since the war.

This situation has given great concern to thoughtful observers in England.

Ewart G. Culpin, Secretary of the Garden Cities and Town Planning Association of England, as long ago as October, 1916, said in reference to an "After-the-War Housing Policy":

"It seems to be agreed that the housing of the future will not be undertaken by private individuals unless there are very drastic alterations in legislation both as to taxation and financial assistance, and it has been taken for granted that the only alternative to this is housing by local authorities. . . . It is not everybody who is agreed upon the desirability of municipal housing, and, whatever may be our opinions, we have to face this fact and to realize that municipal housing has been on many occasions—and probably will be on many more occasions—the subject of the rough and tumble of municipal elections."

Even the operative builders themselves

*Report of the National Conference on Housing After the War, an organization of operative builders of England. January, 1918.



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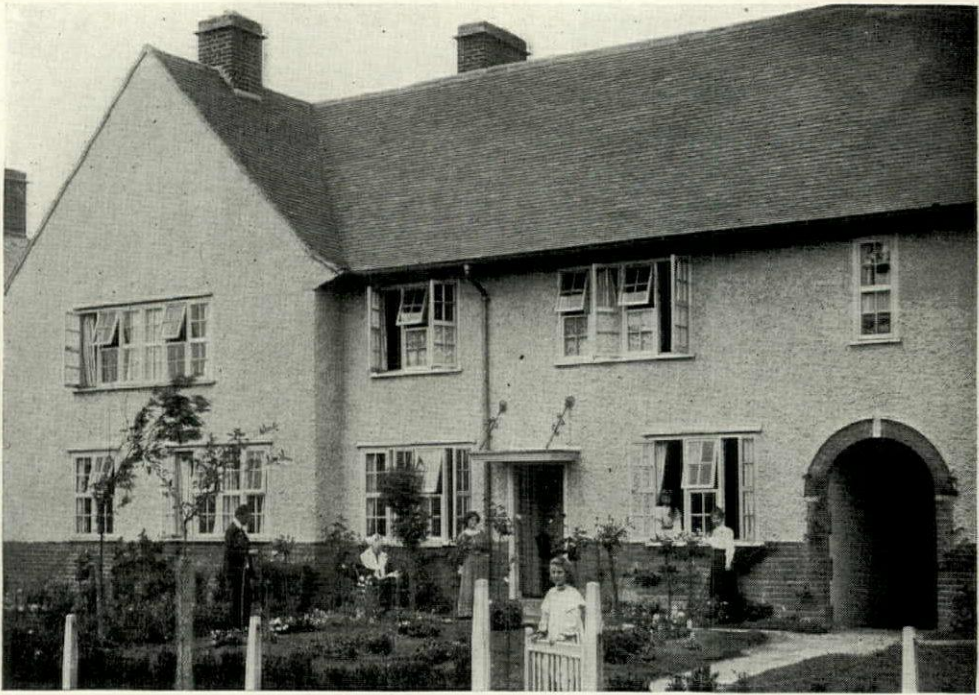
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realize that private enterprise unaided is unequal to the situation. In the Report of the National Conference on Housing After the War, already referred to, they say:

"The concern of this conference is to enable housing accommodation to be provided after the war. As the great volume of private capital ordinarily available cannot be relied upon until the confidence of investors has been restored, the State will have to come to the assistance of private enterprise and other agencies who will undertake this work."

In a striking presentation of the claims of the Garden City, published under the title "New Towns After the War," it is said:

"During the war the building of houses, except in a few munition areas, has practically stopped, and overcrowding has reached an intolerable point. Everyone recognizes that the moment the war is over the building industry must be set energetically at work to make up the shortage. Everyone agrees also that in the organization and financing of these housing activities the State will be called upon to take a decisive part."

Thus, we have the testimony of three widely separate groups—the public utility societies, the operative builders and the advocates of Garden Cities—that the State must play an important part in whatever housing is done after the war.

England, fortunately, is alert to the situation, and in thorough British fashion is thrashing out now in anticipation of her hour of need the questions that need to be considered, so that when the time for action comes she may be fully prepared. The British Labor Party in its Reconstruction Program has housing as one of its chief planks. It says:

"In order to prepare for the possibility of there being any unemployment, either in the course of demobilization or in the first years of peace, it is essential that the Government should make all necessary preparations for putting instantly in hand, directly or through the local authorities, such urgently needed public works as the rehousing of the population alike in rural districts, mining villages

and town slums, to the extent possibly, of a million new cottages and an outlay of three hundred million sterling (about \$1,500,000,000)."

Thus, we find on all sides and in every quarter a recognition of the need and an agreement by the most diverse elements that upon the shoulders of the State the chief responsibility rests. Naturally, different views are held by different interests as to the methods by which the desired ends are to be achieved. The operative builders hold that it should be done through Government subvention to private enterprise; the public utility societies that it should be done through organizations such as theirs; another group believe that it should be done by the local or municipal authorities; and others believe it should be done directly by the Government.

One of the most interesting proposals that has been put forth is that presented in the book "New Towns After the War," already referred to, published anonymously during the past winter and written evidently by some one thoroughly familiar with town-planning and the Garden City movement.

The writer advocates the establishment by the Government after the war of 100 new towns of the Garden City type. "Manufacturers interested in the efficiency of British industry, workingmen and women wanting better surroundings for their life and work, agriculturalists seeking a reconstruction of the rural system, . . . all who have a regard for the bodily, social and esthetic health of the nation" are appealed to for support of this scheme.

It is a far-reaching proposal on a colossal scale, in direct opposition to many of the other schemes proposed. Of these, the writer says:

"The after-war housing schemes foreshadowed by the Local Government Board, and even the maximum programmes of the propagandist housing and town-planning societies, promise merely a speeding up of the present essentially unsound development. There is no thought of national design. If all the proposals are carried out we shall



ENGLAND'S GOVERNMENTAL GARDEN VILLAGE. WELL HALL, WOOLWICH—VIEW IN WELL HALL ROAD.



ENGLAND'S GOVERNMENTAL GARDEN VILLAGE. WELL HALL, WOOLWICH—VIEW OF WHINYATES ROAD.

have many more Garden Suburbs placed on the fringe of great cities, and some subsidized cottage building in the villages, but no attempt to treat the industrial and psychological causes of urban overgrowth and rural decay. None of these schemes goes to the root of the matter. . . . They will perpetuate and even extend the fundamental evils of our urban system and do nothing to arrest the decline of the small towns."

Even in England, where the Garden City idea is far better understood than it is in America, it is still imperfectly apprehended and the Garden City is often confused in the popular mind with the Garden Suburb and the Garden Village. As expressed in "New Towns After the War," it is essential "in order to protect the vital feature of limitation (of size), the town must be encircled by a belt of open land, wide enough to possess a distinctively rural character and to permit of farming on the scale proper to the district. And in order to keep other towns at arms' length, and to maintain direct contact between urban and rural life, this belt of land must be permanently reserved for agriculture." Limitation of size considered so essential is expressed by a maximum population of 50,000, which "with an average density of 25 persons to the acre, would require an urban area of about 2,000 acres."

This is the scheme as stated. Even in these days of vast projects it takes one's breath away. One hundred new towns, with a population of five million people to be built where to-day there is nothing but open country and at a cost of possibly twenty-five hundred million dollars, each town not only to be a complete entity in itself, self-contained and sustaining within its own confines, its own population, supplied with all public utilities, water, gas, sewers, light, streets, pavements, shops, factories, amusements—but, in addition each town to be a model of what every town ought to be—with its rural belt and its agricultural industries and population—and all of these towns to be so strategically located as to serve the needs of all of England.

The English plans are by no means limited to this far-reaching scheme. Thomas Mawson, England's distinguished town planner, over a year ago in his book, "An Imperial Obligation," suggested the establishment of numerous "Heroes' Villages," along Garden City lines, in which the vast army of wounded and disabled soldiers who have given their all for their country might find new occupations suited to their changed conditions under such surroundings as would tend to make for their welfare and happiness.

Of the returned disabled soldier he says:

"He shall not stand in the mean courts of a large town such as that into which he will inevitably drift if we do not will it otherwise; where life is drab and drear and even the light of the sun is obscured by clouds of smoke, so that green things and wild living things in which the heart of every man who is a man delights, have taken themselves elsewhere."

Nor is the Government any less alert to its obligations or responsibilities than are these distinterested observers and students of England's life. England for some time has had its Ministry of Reconstruction. Under it, 87 commissions and committees are at work planning for rebuilding after the war is over. These are the questions that England, with the battle line almost at her very door, is considering.

What of America? Has she at last learned the lesson of her unpreparedness? Or, will she repeat in this field of industrial welfare, the same mistakes she made in the field of war?

Are the conditions that we face here at all similar to those England faces? All thoughtful men, I think, will admit that they are very much the same.

We face a similar housing shortage; we face a similar increase in the cost of building; we face too the inability of many workers to pay an economic rent.

Here, as in England, private enterprise had broken down at the advent of the war. To-day it is at a standstill. The financing of industrial housing schemes



ENGLAND'S GOVERNMENTAL GARDEN VILLAGE. WELL HALL, WOOLWICH—VIEW FROM DICKSON ROAD.



ENGLAND'S GOVERNMENTAL GARDEN VILLAGE. WELL HALL, WOOLWICH—VIEW IN GIBBORNE WAY.

without Government aid is equally difficult here, if not indeed impossible.

We shall face, undoubtedly, after the war the necessity of building on a vast scale. Whether we shall build 100, or 50, "New Towns," on Garden Village lines with Government funds, will depend very largely on the success or failure of the industrial housing communities now being developed under Government control with Government funds by the U. S. Department of Labor and the Shipping Board.

We too shall need to provide adequately and appropriately for our returned disabled soldiers, no longer able to compete with their civilian brothers not so handicapped, though we hope we shall not have the half-million England is said to have. Perhaps we, too, may build "Heroes' Villages" for them, along Garden City lines.

The war has taught us many things already. It will teach us many more. In one thing it has taught thrift to the

most wasteful nation in the world. It has taught us a new respect for food. It has given a new significance to rural life.

Many things that the Government never did in the past it will do after the war. With greater control will come less waste, greater efficiency. The establishment of Industrial Zones has already taught us the folly of manufacturing goods on the western coast to be hauled all across the continent to be sold on the eastern coast.

We are beginning to learn in a host of ways the value of cities intelligently planned. Not only is the Garden City coming into its own with town planning, but rural planning as well is beginning to be considered.

The war has brought much with it that we never looked for. In the recent words of our great leader, Theodore Roosevelt:

"When we have closed the giant war, we must then prepare for the giant tasks of peace."

THE SPIRIT *of the* RENAISSANCE



By *Beverley Robinson*

ACCEPT this then for universal law, that neither architecture nor any other noble work of man can be good unless it be imperfect; and let us be prepared for the otherwise strange fact, which we shall discern clearly as we approach the period of the Renaissance, that the first cause of the fall of the arts of Europe was a relentless requirement of perfection. . . ."

One may venture perhaps to quote Ruskin now in this very transitional period of architecture, and, for that matter, of all phases of human endeavor. While architecture, like other arts, is much obscured in the lore of antiquity, this is a time when all questions of point of view and of taste are being thoughtfully reconsidered.

Although Ruskin is generally recognized as a man of unusual powers of observation and of generalization, his weakness lay in his continual attitude of looking backward. All who would attempt such tasks as his must, in spite of the difficulties, look forward sympathetically into future development, lest they find their views prematurely antiquated.

What Ruskin meant to denounce in the Renaissance was not its perfection, but that which in another place he thus expresses: "But the Renaissance is exactly the contrary of all this. It is rigid, cold, inhuman, incapable of glowing, of stooping, of conceding for an instant." Not the "perfection," but the regularity, the "stiffness" of it, were the qualities that he objected to.

These are quite clear faults that should be guarded against in any style of design, but I believe that the invalidity of such charges as aimed especially against the Renaissance can be shown. Certainly in Italy at no time was there such "perfection" and stiffness as has been universal during this and the previous century.

The freedom of the early Italian Renaissance is well known. Familiar to all are the delightfully miscellaneous types of capitals and pilaster shafts with their fascinating arabesque decoration. Nor am I prepared to believe that their spontaneity and variety resulted from anything but the *joie de vivre* prevalent during this period of self-confessed humanistic thought. While there was at that time a lack of written material on ancient architecture, and few were the men who had a first hand knowledge of the Forum, in spite of these difficulties the architects of the Quattrocento could have produced closer copies, had it been that their sole aim was to reproduce the glories of ancient Rome to the extent that the writers of the day so often declare.

Another feature which showed particularly marked freedom during the early period, and continued to be interesting through later periods, was the rusticated masonry. Much the most successful example of this is in the Palazzo Strozzi. (Fig. 1.) Here the courses show differences in the length of the stones as well as in the heights of the courses, proving that the designer's mind was keenly sensitive to the beauty derived from making motives which seem alike at first glance, really as various as possible. This deliberate construction of differences can be seen where some of the units designed as long stones are really made up of several smaller ones, with joints as nearly invisible as possible. Thus in the illustration the stone marked A shows one of these invisible joints upon close examination.

In the Palazzo Rucellai the erudite Alberti, in spite of his alleged pedantry, shows the same fondness for studied irregularities in the naturally formal lines of the rustications. See Fig. 2.

Perhaps the most striking of ornamental details produced during the early Renaissance is the baluster. It is so thoroughly abstract in form, so purely intellectual in conception, and therefore completely beyond the disparaging charge of sensuousness, often brought against the Renaissance by those who idealize Gothic alone. Furthermore the baluster is entirely a product of the Renaissance, the slight resemblance that it has to Roman vases and candelabrum shafts being too remote to permit them to be counted as certain prototypes.

Frankl, in his excellent work, *Die Entwicklungsphasen Der Neuern Baukunst*, states that the earliest balustrade is to be found in front of the Villa Poggio Caiano, by Giuliano da San Gallo, and gives the date as 1485. I am inclined to think that the balustrade of the balcony of the side window of the Palazzo Cornaro Spinelli, in Venice, shown in Fig. 3, is probably a few years earlier. Raschdorf, in *Palast-Architectur von Ober*

Italien, says that this balcony is of the original building, which he dates between 1475 and 1485.

Another phase there is in Renaissance design, thus far largely overlooked, which is begun during the Quattrocento and carried through the whole development in Italy, that is the matter of constructed variations, similar to those of the Middle Ages, so ably investigated and presented by Professor William H. Goodyear.

While in the court of the Palazzo Bevilacqua in Bologna, I observed that both stories of its beautiful arcades are planned on curved lines which are convex to the centre of the court. This irregularity is precisely like those of the forecourts of the Egyptian temples, and the medieval cloisters which Professor Goodyear has investigated. One of these curved medieval cloisters is in this same city of Bologna—that of the Celestines—and this may have suggested the curves of the Renaissance court.

Few realize the freedom and vitality



FIG. 2. FLORENCE, PALAZZO RUCELLAI, 1451-55, BY LEON BATTISTA ALBERTI.

that was prevalent during the following period, the Cinquecento, the so-called formal period of the Italian Renaissance. At the extremes of this period we find other examples of constructed variations.

Mr. Kingsley Porter has observed curves in the plan of the cloister of the church of Santa Maria della Pace, in Rome, one of Bramante's early achievements; while in Venice Professor Goodyear has found in the two churches by Palladio, Il Redentore and San Giorgio Maggiore, the interior upward widening, and in the façade of the latter, added later by Scamozzi, a forward lean or overhang. These are the same kinds of variations as were of repeated occurrence in the Middle Ages.

The balusters of this period show marked variety. While in Rome I had an opportunity to observe carefully the form of a baluster of the Palazzo Spoleto, which stands opposite the Palazzo Massimi Colonna, and found it to have a most interesting modeling. It was of the early double-sleeved type, but the

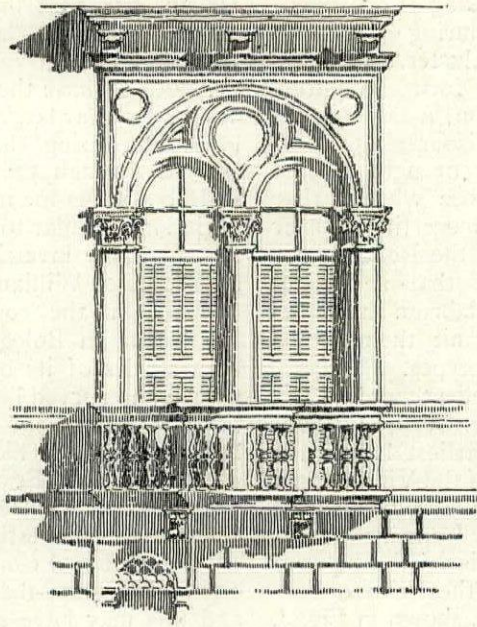
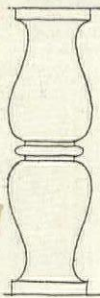


FIG. 3. VENICE, PALAZZO CORNARO SPINELLI, 1480. DESIGNED BY ONE OF THE LOMBARDI.

members of the upper half were each one slightly smaller, both in height and width, than its fellow of the lower half, just as one naturally makes the upper curve of the letter S smaller than the lower curve. The difference was at first glance unnoticeable; only upon taking some measurements did the scheme of its variations become apparent. I believe that were many of the published drawings of double-sleeved balusters to be accurately measured, they would show similar asymmetry,

exactly as Dehio and Bezold's plan show such great divergences from those of the same churches made by Prof. Goodyear.

The baluster of the single-sleeved type was produced at this time, and, together with its predecessor of the double-sleeved variety, continued in general use, all sorts of variations being continually introduced into both types. The most beautiful of



Villa Reale,
Poggio a Catano



Venice, Loggetta

0 1 2 3 4 5 CM.

FIG. 4. THE BALUSTER IS ENTIRELY A PRODUCT OF THE RENAISSANCE.

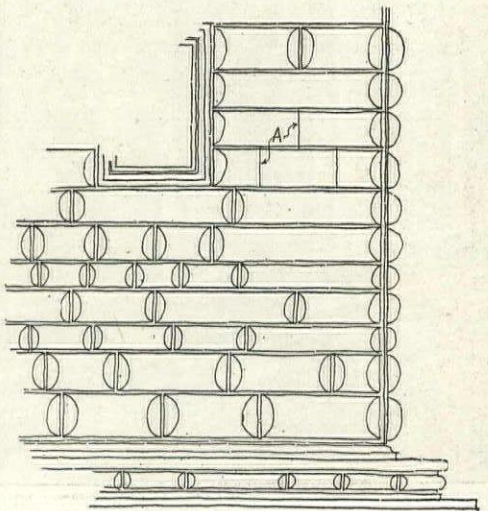


FIG. 1. FLORENCE, PALAZZO STROZZI, 1489, BY BENEDETTO DA MAJANO AND IL CRONACA.



FIG. 5. VENICE, LIBRARY OF ST. MARK, 1536, BY SANSOVINO.



FIG. 8. FONTANA TREVI, 1736, BY SALVI.

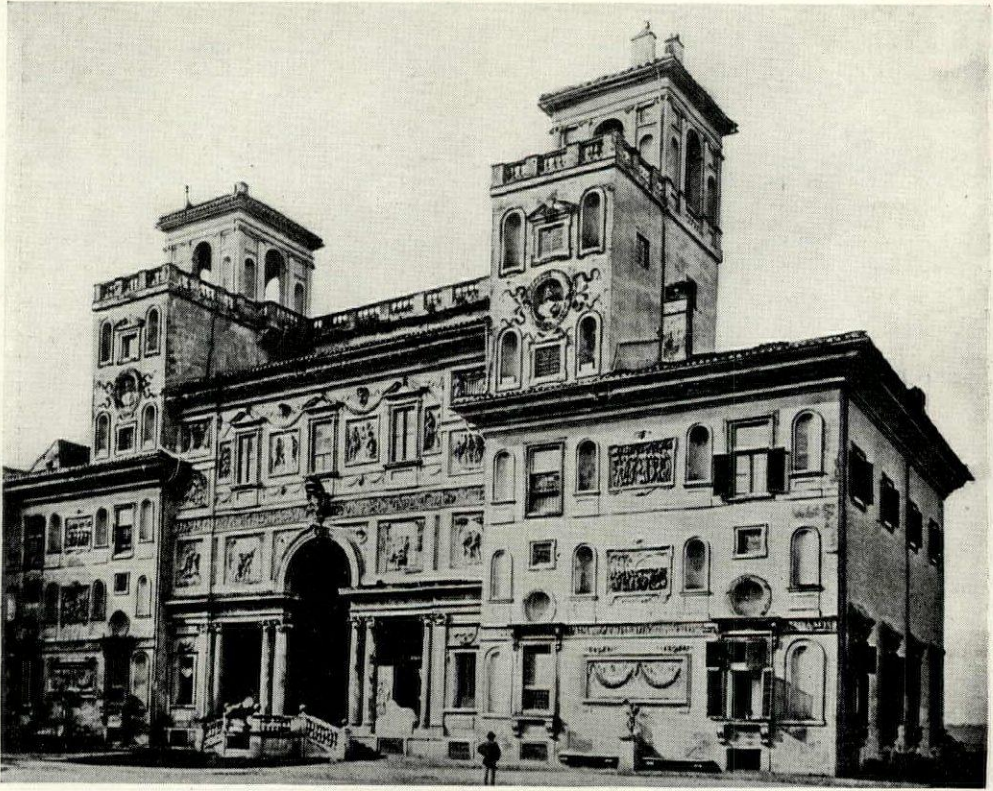


FIG. 6. ROME, VILLA MEDICI.

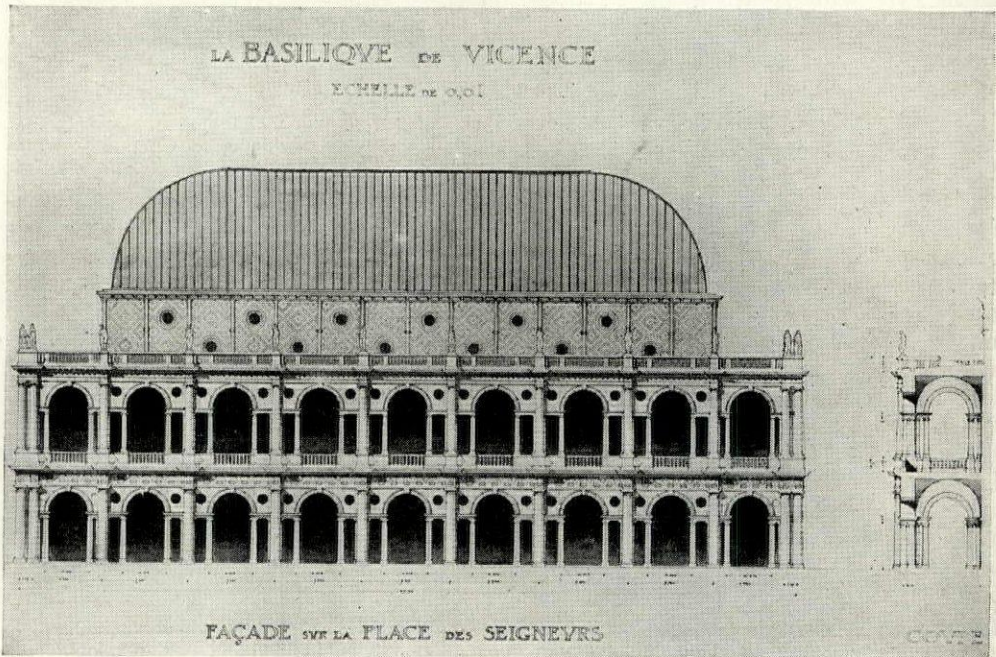


FIG. 7. BASILICA AT VICENZA. ARCADES BY PALLADIO, 1549.

all is one that is half way between the two in point of development, found in the lower railing of Sansovino's Logetta at Venice, shown in Fig. 4. It is but one of the many playful changes practised.

Certainly no one can accuse Sansovino's other masterpiece, the famous Library of St. Mark, of stiffness or coldness, with its splendid big frieze, far beyond the usual classical size, and in detail, his bold touch in the bent medallion turning the angle metope of the lower order, as in Fig. 5.

The free and vivacious spirit of this "formal" period is best observed in the villas of the day, any one of which will serve for an illustration. Figure 6 shows the Villa Medici in Rome, which in its variety of ornament, the power of its central loggia, and in the novelty of its proportions shows that the often declared "formality" of the Cinquecento might better be called maturity. It was a time when just as much freedom was in vogue, but it was executed with a self-confident force.

Palladio's work in the north, as is well known, for the most part does not follow the rules laid down by this expounder and apostle of Vitruvius, and are in fact far freer and more individual in type than is usually appreciated.

His Basilica at Vicenza (Fig. 7) shows the curious terminal bays which are narrower than those of the middle. Authors generally attribute this irregularity to certain insurmountable difficulties which occurred in transforming the older building. Although we can well sympathize with the problems of an alteration job, any architect who objected to such an irregularity could somehow have found a motive that would have secured regularity. The truth probably is that he liked it, not only for the feeling of firmness that it gives to the start and finish of the rhythm of arches, but because the slight irregularity adds a charm of its own to the whole. Had an architect of the present day designed it, the result would have well merited Ruskin's condemnation.

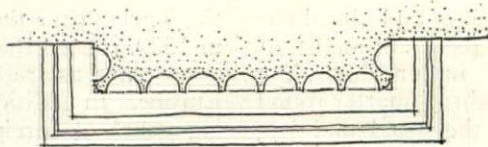


FIG. 9. ANGLE MOLDING.

This tendency of Palladio toward frank, free expression can be found in all his works.

There is no doubt that following the time of Palladio and Vignola, there was, as a general thing, a greater stiffness in handling the orders; but, on the other hand, in the planning and decoration of structures, this period is distinguished by its spirited character, which only recently men have been able to appreciate in spite of the mists of puritanical ethics that have hitherto beclouded their vision. The intense feeling in Baroque design has tended to provoke proportionally superlative praise or condemnation, according to the qualities of the example under consideration.

Who can view the Fontana Trevi, shown in Fig. 8, without being aware of the warmth, richness and softness of effect? Its theatricality is perfectly frank, deceiving no one, and is in harmony with the ecstatic nature of the thought of that day.

The great pilasters, so characteristic of this period, fail to please, not through ineffectiveness but through overeffectiveness, to the point of being overwhelming. They are just as much a *tour-de-force* in their way as the openwork spires or the fan vaults of the Middle Ages.

But while colossal pilasters may seem dry and inexpressive through their too frequent recurrence in certain vicinities, in detail some of them are very well considered. Figure 9 shows a sketch of the angle molding of a pilaster like those of St. Peter's or St. John Lateran, with a rule joint instead of a mere fillet. Without this rule joint the angle filled would be wholly out of scale with those of the middle of the shaft in pilasters of so huge a size.

The variety and cleverness of planning in the Baroque period is admirably exemplified in the justly famous church of Santa Maria della Salute in Venice, shown in Fig. 10. As observed by W. J. Anderson in his work on the Renaissance of Italy, skill is manifest in the bold transition which the brackets form be-

tween the chapels below and the dome above. Likewise the reentrant angles of the interior of the major dome are cleverly masked with three-quarter round columns, instead of the usual and less successful pilaster treatment.

Besides, note that the two domes appear to be the same size both in plan and elevation, although really quite different, due to the optical tendency to attribute this difference to perspective.

The Italian Renaissance died mainly as a result of the economic losses that Italy had sustained in the previous centuries, which now were fully felt. The cutting off of all land routes to India by

the Turks after their conquest of Egypt in 1520, robbed the Italian cities of their importance as trading posts to northern Europe. In addition there were the galling yokes of foreign masters to be sustained.

As a consequence there followed a continual reduction in the number and wealth of the nobles, who thus far had been the patrons of art and architecture, and a proportionally greater impoverishment of the masses of the population. For the wherewithal to purchase and the leisure for enjoyment which are the accompaniments of wealth, are essential to the development of an artistic period.



FIG. 10. VENICE, SANTA MARIA DELLA SALUTE.

The
Union Special Machine
Company's Plant
Chicago, Illinois
George C. Nimmons & Co. Architects

WHETHER or not future historians will agree that the invention and development of machinery is the greatest achievement of our times, the opinion, at present, seems to prevail that machinery in its various types and developments has brought about and been responsible for more radical changes in modern civilization than any other agency.

When one considers the great amount of labor formerly required merely to produce the necessary food and clothing of mankind, it seems as if most of their time must have been spent on these things alone. Five hours was the time necessary to harvest a single bushel of wheat; days were spent in weaving the cloth for a single suit, and then more days to sew it. Now the bushel of wheat is harvested in ten minutes and the white bread, which only kings could formerly have on stated occasions, was so plentiful with us before the war that it was given away free with every public meal, even at the most humble restaurant.

The great looms that weave our clothing, and the machines that sew it, do in minutes what it used to take days to accomplish; and so it is with almost everything essential to life: machines do it in a small fraction of the time it originally required.

It was, therefore, by the coming of all of these machines that the people were relieved of devoting a large amount of their time to the procuring of the essentials of life. Yet the disappointing thing about it all is that, when these opportu-

nities came, the people did not originate a custom of dedicating some of this time so saved to their own use, for the purpose of self improvement and lightening the burdens of their own lives.

At any rate, machines are the liberators, as they have already made possible the beginning of such a movement. The invention of still more machines, together with a clearer perception of the great benefits to be so gained may some day, not very far distant, bring about this most desirable reform which would make our industrial workers bigger, stronger, and still better men.

It is a satisfaction, however, to contemplate the various types of wonderful machines. There are those monsters which chew up the hardest of metal, as if it were paper, manifesting a power that is almost beyond conception; and then there are those small, intricate mechanisms that perform their work so accurately and precisely that it can only be measured by a micrometer. But among all the machines there are probably none more delicate and rapid in their execution and few which play a more important part in human life than the sewing machines. From the original simple model, these machines have been so developed that they now do, with lightning rapidity, work which it would seem by inspection could only have been done by human hands.

There are manufacturers who produce a regular standard sewing machine which does plain sewing, with a few attachments added, for domestic use; and then



THE UNION SPECIAL MACHINE COMPANY'S PLANT IN CHICAGO, ILL.

George C. Nimmons & Co., Architects.

there are a few concerns which make a still more interesting product by designing and creating special power-driven machines for the manufacturers of clothing, shoes, tents and the various things to be sewn. Among these is the Union Special Machine Company, whose building is illustrated and described herewith.

Their building is being erected now in sections so as not to disturb the operation of the present plant, and to add to their facilities for producing machines to make soldiers' uniforms, shoes, tents, etc. It occupies the east end of the block between Kinzie street and Austin avenue, fronting on Franklin street, Chicago. Its size is approximately 220 ft. by 150 ft., eight stories and basement high. There is an alley in the centre, spanned by bridges above the first story and connected by tunnels under the alley

in the basement. Its construction is of reinforced concrete, with brick and terracotta veneering.

The architectural problem consisted of designing a machine shop exactly suited to their purposes, in which the processes of manufacture were to be carried on vertically through its eight stories instead of horizontally as is usually the case with a machine shop. The various parts of the machines to be made consist of those plain parts which form the structure of the machines, and then all of the intricate, delicate operating parts which are not permitted to vary from the correct size more than one-fourth of a thousandth to one-tenth of a thousandth of an inch. The most important operations are therefore bench work, or fine machine work connected with the benches, requiring the best of light. On

account of this and on account of the relatively small amount of raw material consumed, storage space was not needed so much as the maximum perimeter for outside bench lighting. The plan illustrated was consequently adopted, with the bridge connection where it is, so as to centralize control and supervision and to give access from one section of the building to the other on axial lines that lead into the distributing aisles of each building.

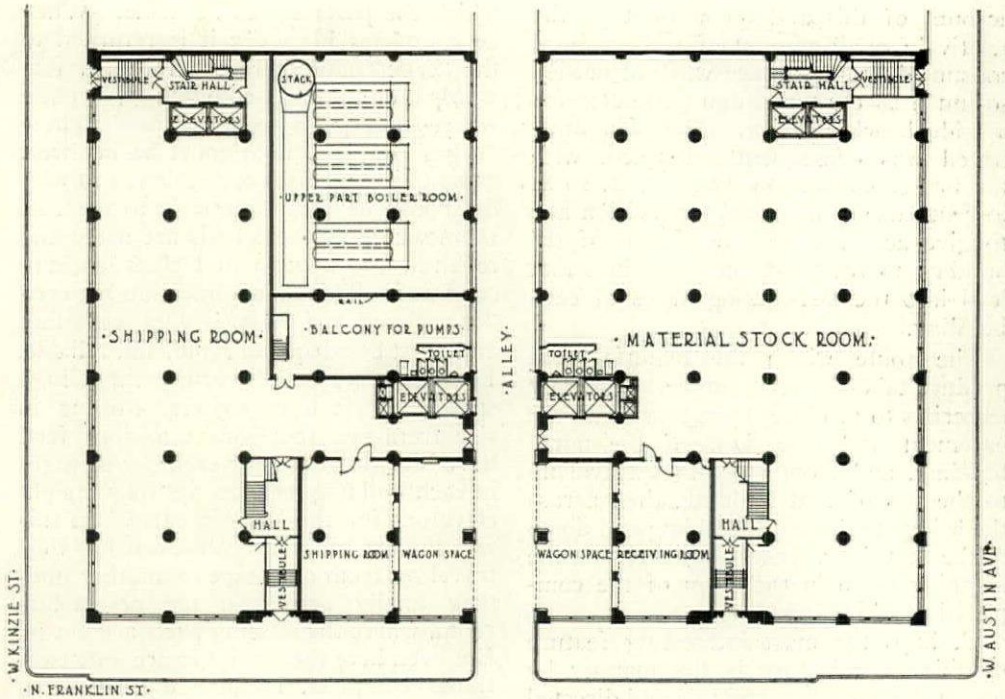
The route which the manufactured product takes is very simple. The raw materials to produce it are taken into the basement and first floor of the north building, and from there they travel up to the top of that building, then across the bridge to the south building and down to the first floor, where they arrive in the shipping room in the form of the completed machines.

Perhaps the most interesting feature of this manufacture is the manner by which the work is carried on and directed in this vertically arranged machine shop.

In the first place, drawings are made of each type of machine and from these a complete model machine is constructed and thoroughly tested out. After it has proved satisfactory, it is taken apart and its parts are used as models by the workmen in filling the order. Of course, the model of every new part made is carefully filed and kept for repeat orders, until the number of different parts now on file are thirty thousand, not counting the stock of duplications of these models which must also be carried. On account of the great number of these parts and the necessity of keeping complete control of them and their models, a central storage and distributing place, called the "Cage," is provided on each machine shop floor, where not only are all these parts kept, but also all the portable tools to make them. The workmen's benches are arranged all around the outside walls of the building under the windows; and when the work starts in the morning, each workman comes to the "cage," gets from the foreman his assignment, which consists of the model to go by, the tools necessary to use and the material of

which the parts are to be made. When he completes his work it is returned to the "cage," and there the foreman forwards it on to the assembly room or place where those parts are to be used. These "cages" on each floor must be in direct communication with each other, and they must also be very accessible to the tool room where all these tools are made and repaired and kept in first class working condition. This communication between "cages" and tool room is very important and must be adequate, rapid, and reliable. For this purpose, therefore, three high speed electric dumbwaiters, varying in size from one foot square to four feet, have been arranged for each tier of cages in each building, besides the four freight elevators for the heavier parts. In this way the machines are constructed as they travel on from one stage to another until they finally arrive in the assembling room, where the missing parts are put in. But even here the machines are only two-thirds complete, because the adjusting and testing processes through which they must go require a third more work before they are perfect. After each machine is assembled, a running test of three days at 3,300 stitches per minute is given, and then it is put through an actual test of sewing the various materials it is intended to sew, with all the attachments.

The things which the different machines will do are very interesting. Some will not only sew with a double locked stitch that will not ravel, but they will cut, trim, or fold the material as required while the needles all the time are taking 2,500 to 4,000 stitches a minute; others will make beautiful lace-like ornaments on the edge of a waist or skirt, while they join the parts together or pleat or tuck a lady's garment according to the latest fashion. Most of the machines have two needles, some four, and one very elaborate type twenty-five needles, all working at the same time. But, of course, the all-absorbing work now is that of the machines for the soldiers' uniforms, shoes, underwear, belts, and tents, and also the machines for sand bags for breastworks, and those with the carriers for closing the filled powder



FIRST FLOOR PLAN.

THE UNION SPECIAL MACHINE COMPANY'S PLANT IN CHICAGO, ILL.

George C. Nimmons & Co., Architects.

bags. As one sees these machines tried out he cannot help but be impressed with the fact that it was only with the aid of such machines as these that our soldiers could possibly have been provided with clothing in time to enter the war as soon as they did.

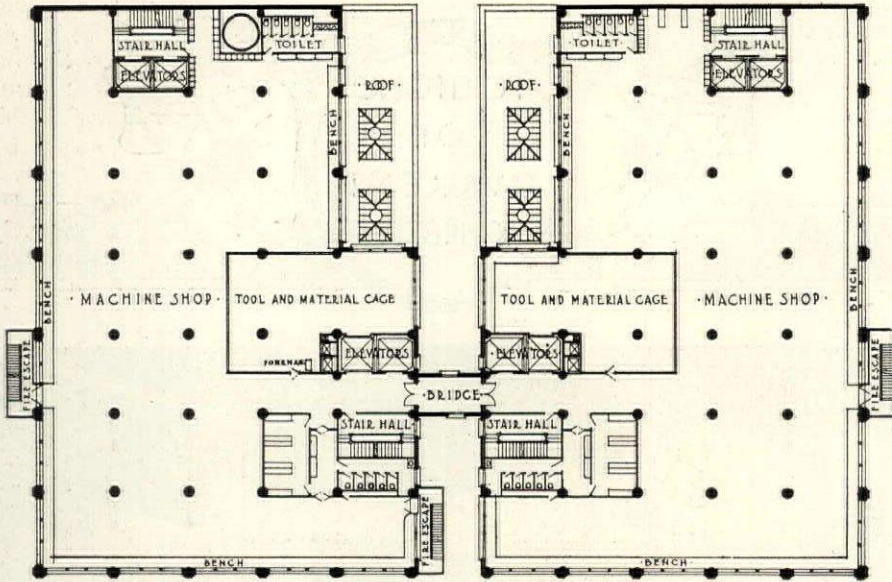
The workmen in this machine shop are, of course, necessarily highly trained mechanics, capable of delicate work. They were formerly all men, but now women are being trained to fill the vacancies. The shop throughout is to be clean and sanitary in all its appointments, and the space in the second story of the north building will be given over to recreation, lunch and welfare work of the employees. The main offices will be in the second story of the south building, and the shipping department in the floor below. The power plant, supplying heat, light and power, will be located in the basement, with large coal storage provided.

After one has become familiar with the requirements of such a building, he will find that the demand for light and

ventilation is so insistent that his architectural conscience, particularly if he has been well grounded in Ruskin's doctrines, will not allow him, no matter how small they may look, to increase the piers or spandrels one inch beyond their structural necessity.

The problem of design of such a building is more like an elevator cage than it is like any prototype of a building with self-supporting walls and ordinary openings. If war times had not prevented the use of more terra cotta, the piers would have been designed more like vertical ribs and the spandrels like connecting bands.

However, the piers are veneered with brick, with beveled jambs, so as to admit the light of the angles, and terra cotta trimmings have been employed to emphasize and embellish the structural features in a simple manner. The windows in this building not only come down to the work bench, but they go below it so as to light the space under the bench and the floor at this point, which is usually placed in shadow.

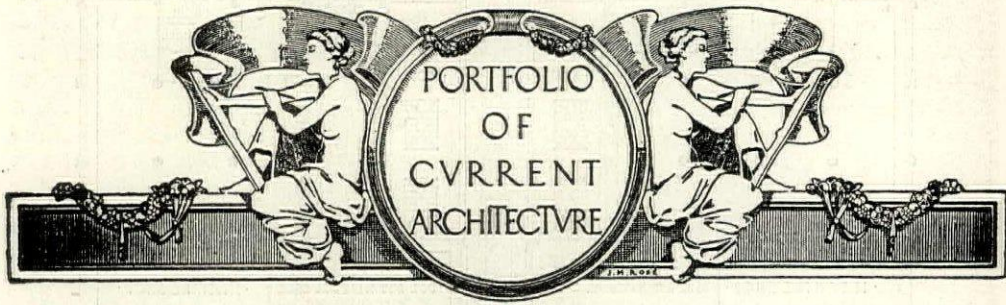


TYPICAL FLOOR PLAN.
 THE UNION SPECIAL MACHINE COMPANY'S PLANT IN CHICAGO, ILL.
 George C. Nimmons & Co., Architects.

The main entrance of each building on Franklin street is done in terra cotta, and the elevated water tanks are enclosed in the tower rising from a point near the centre of the building.

When one sums up the great benefits to humanity which the creation and development of an invention like the sewing machine has brought about, it seems

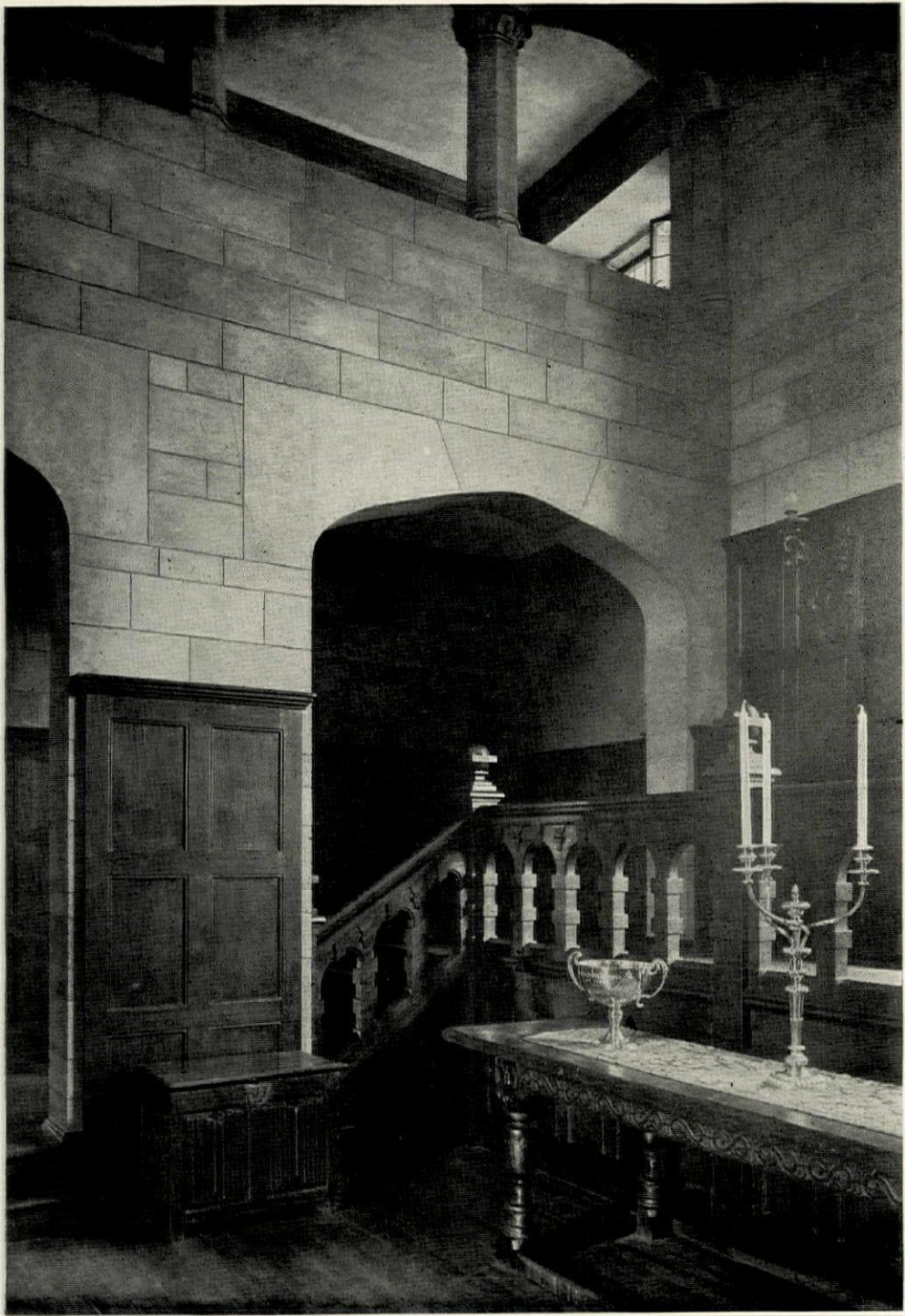
as if the building should not only be the best that can be built for the purpose, but that an attempt should be made to have it appear at least attractive in design and thereby endeavor to express in a way the gratitude and appreciation of the people for the drudgery and tiresome labor which the sewing machine has saved them.



PORTFOLIO
OF
CURRENT
ARCHITECTURE



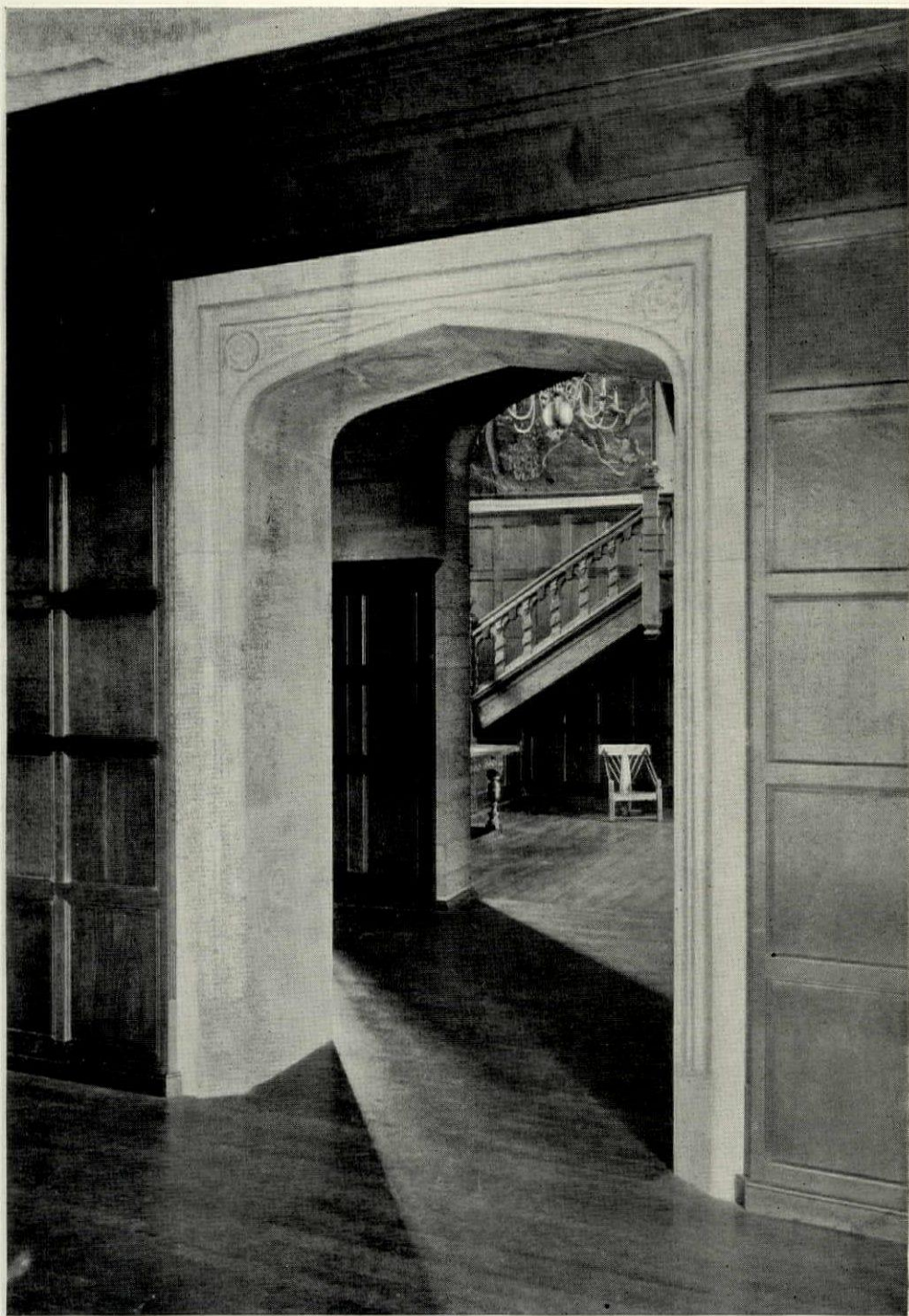
MORNING ROOM—HUNTING HILL, GLEN RIDDLE,
PA. HOUSE OF W. M. JEFFORDS, ESQ.
WILSON EYRE & McILVAINE, ARCHITECTS.



STAIR HALL—HUNTING HILL, GLEN RIDDLE,
PA. HOUSE OF W. M. JEFFORDS, ESQ.
WILSON EYRE & McILVAINE, ARCHITECTS.



STAIR HALL—HUNTING HILL, GLEN RIDDLE,
PA. HOUSE OF W. M. JEFFORDS, ESQ.
WILSON EYRE & McILVAINE, ARCHITECTS.



LIVING ROOM, LOOKING INTO STAIR HALL—HUNTING HILL, GLEN RIDDLE, PA.; HOUSE OF W. M. JEFFORDS, ESQ. WILSON EYRE & McILVAINE, ARCHITECTS.



LIVING ROOM, LOOKING INTO STAIR HALL—HUNTING HILL, GLEN RIDDLE, PA. HOUSE OF W. M. JEFFORDS, ESQ. WILSON EYRE & McILVAINE, ARCHITECTS.



LIVING ROOM—HUNTING HILL, GLEN RIDDLE,
PA. HOUSE OF W. M. JEFFORDS, ESQ.
WILSON EYRE & McILVAINE, ARCHITECTS.



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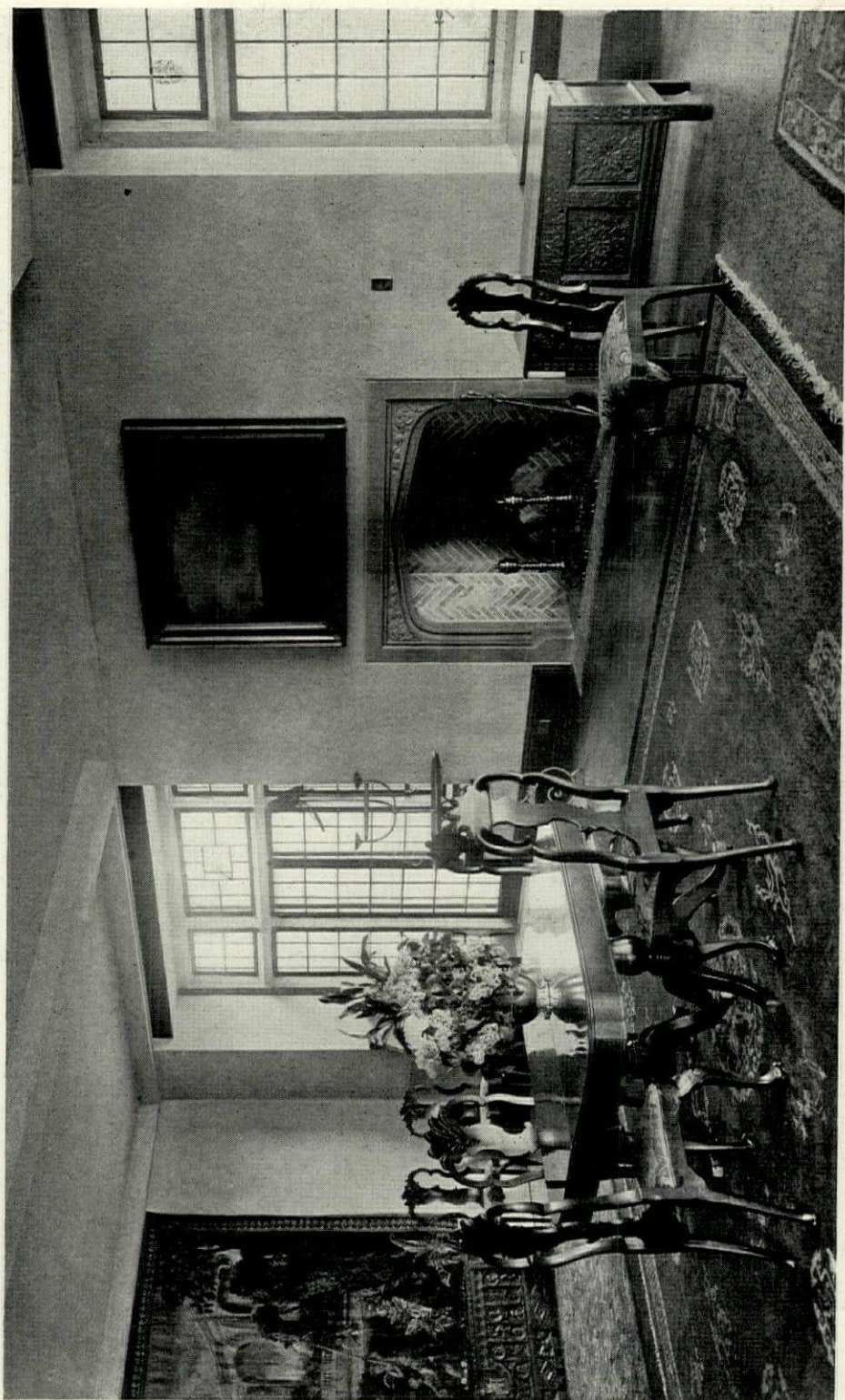
LIVING ROOM—HUNTING HILL, GLEN RIDDLE,
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DINING ROOM—HUNTING HILL, GLEN RIDDLE,
PA. HOUSE OF W. M. JEFFORDS, ESQ.
WILSON EYRE & McILVAINE, ARCHITECTS.



DINING ROOM—HUNTING HILL, GLEN RIDDLE,
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DINING ROOM—HUNTING HILL, GLEN RIDDLE.

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BOOKS ON COLONIAL ARCHITECTURE

A Review for 1917

By RICHARD F. BACH

Curator, School of Architecture, Columbia University

PART II.

THE bibliography which the following listed and classified titles aim to bring to date for the year 1917 was published in full in the *Architectural Record* for the months of September, 1915, January, March and August, 1916, February, May, August and September, 1917. The scheme of classifications as given in these issues was based upon a careful survey of the entire field of the literature of the Colonial architecture, including the minor arts, but excluding painting and sculpture as distinct fields, and was arranged with an eye to its immediate utility as a ready source of information as to titles and subject matter. Readers have without doubt noted that the method of arrangement was one calculated to bring together books or articles in accordance with their most direct appeal as to subject matter. In the case of articles in periodicals such classification is a matter of no difficulty whatever, as a rule, for the reason that the space available for a single article is too small to warrant the consideration of subject matter related to more than one field. In the case of books, however, the problem of classification is a much more difficult

task, chiefly for the reason that so many books, though bearing definite place names as part of their titles, still treat of buildings of so many different kinds as to make their geographical classification a useless method for our purposes. We do not, in other words, favor the ruthlessness of a numerical system of classification which arbitrarily puts Viollet-le-Duc's separately published article on construction under general building construction, when the initiate is fully aware that its interests are medieval throughout, and that it should therefore, for utility's sake, be put with medieval architecture. Therefore, books of the character above noted appear in the appended lists in the place dictated by their primary interest, and if the interest maintained is sufficiently general, especially as to building type, they have fallen logically in the leading very general or inclusive class. Thus, for instance, Horace Mather Lippincott's *Early Philadelphia, Its People, Life and Progress*, will be found in this general class, while on the other hand, Swepson Earle's *Maryland's Colonial Eastern Shore* falls within the Southern States dwellings class, in

view of its predominant domestic interest.

Classifications that aim to arrange kinds of human interest—and art is one of the chief of human interests—can never be made satisfactory for all concerned, because too many things are known by more than one name, or are felt in more than one way. To be finally good and workable a classification must be distinctly and rigidly arbitrary, else it can never be detailed. But to be humanly interesting a classification must be elastic and allow for the eternal relativity of things, and the degree of allowance it makes is also the degree in which it ceases to be an ideal classification. All of which means that our own Colonial literature classifications are only as good as necessary to be as useful as possible, but not by any means ideal, for then they would have no place in these pages. The ease with which we may be able to classify screws and nails does not apply to books on a formative type of art expressing vividly what may be vaguely termed the “growing pains” of a nation.

* * *

In the appended bibliographical lists will be found in their proper classification all books and articles in the periodicals, having a Colonial subject or direct connection, published during the year 1917. In addition, a number of titles also appear of works published before 1917, but which were issued or discovered after their respective sections of the original or main bibliography had been printed. Since the review articles and the bibliographies went to press at different times, some titles were reviewed but not included in the corresponding sections of the bibliography; such items in all cases appear in their respective classifications in these addenda for 1917.

The following modifications of the original bibliographical arrangement should be noted by those who wish to correct their copies and bring them to date by means of the classified lists to follow. Books on domestic architecture in general are classed under main heading III. This main class is further subdivided into IIIa, works concerning

Domestic Architecture in the New England States; IIIb, works concerning Domestic Architecture in the Middle States and IIIc, works concerning Domestic Architecture in the Southern States. As originally published the proper class numbers, because of an oversight, were not printed in full. Thus in the Architectural Record for August, 1916, the letter *a* should be inserted after the class number III. Likewise in the issue for December, 1916, the class number IIIb should be inserted before the caption: Dwellings—Middle States; and the class number IIIc before the caption: Dwellings—Southern States. The works in each of these regional classes are subdivided by arabic numerals into: 1—works covering each region as a whole; 2—works covering separate States; 3—works covering separate cities or localities, or (if needed) individual buildings. To establish the requisite correspondence of numbers, the subclasses of the last two regional groups should be numbered; thus in the Architectural Record for December, 1916, page 582, the caption letters *a*, *b*, *c*, under Dwellings—Middle States, should be replaced by numerals 1, 2, 3. The same applies to Dwellings—Southern States, on the same page, with the further modification that there should be three, instead of two, subdivisions in the classification: Dwellings—Southern States; these subdivisions are then to be entitled as are those for the other two regional classes. This arrangement was not warranted by the material available when the original bibliography for this class was prepared, but recent publications have encouraged the change suggested.

The above indicated modifications will not disarrange the original bibliography as to classes or relative position of titles; they require nothing more than the insertion of two class numbers and the changing of six or seven others, as stated in the preceding.

In the classification of articles from the periodicals exactly the same disposition of subject matter as at first published has been adhered to; the main class, VI, 5, *d*, has been made to include

also miscellaneous articles not otherwise accounted for and the caption made to read to accord with this extension of the rubric. A section, number VI, 7, has been added so as to make it possible to include the series of reviews of Books on Colonial Architecture as published in the Architectural Record from August 1915, to July 1917, as well as the original sections of the Bibliography of the Literature of Colonial Architecture as published in the Architectural Record from September 1915, to September, 1917.

I. General Works, including also Biographies, Volumes Concerning Churches and Books Treating of Buildings of Varied Types Within a Given Locality.

- Bacon, Mrs. Mary D. Old New England Church. Octavo; pp. xxxiv+442, ill. New York; Doubleday, Page and Company; 1906. \$3.75.
- Denison, Robert C. The United Church on the Green, New Haven, Connecticut. Octavo brochure; pp. 16, unnumbered. New Haven, 1915. Privately published.
- De Normandie, James. Three Old Churches. Being one of 12 articles in *The Portsmouth Book*. Quarto; pp. 9 to 16, ill. Boston; Ellis; 1912. No longer available.
- Eberlein, Harold Donaldson. The Architecture of Colonial America. Octavo; pp. xiv+289, ill. Boston; Little, Brown and Company; 1915. \$2.50.
- Embury, Aymar II. Asher Benjamin. A reprint of *The Country Builder's Assistant, The Rudiments of Architecture, The American Builder's Companion, The Practical House Carpenter, and Practice of Architecture*. Plates and text selected by Aymar Embury II, architect. Quarto, pp. x+169; pl. numbered according to originals, but foll. regular pagination in reprint. New York; The Architectural Book Publishing Company; 1917. \$12.50.
- Faris, John T. Old Roads Out of Philadelphia. Octavo; pp. xix+327, with 117 ills. and a map. Philadelphia; The J. B. Lippincott Company; 1917. \$4.
- Kimball, Fiske. Thomas Jefferson. Architect. Original Designs in the Collection of Thomas Jefferson Coolidge, Junior, with an essay and notes by Fiske Kimball. Folio; pp. vii+205; index, pp. xi; 233 drawings reproduced in heliogravure. Boston, printed for private distribution at The Riverside Press, Cambridge; 1916. Few copies to be had from Houghton, Mifflin and Company, New York and Boston, at \$25.
- Whitney, F. A. Historical Sketch of the Old Church, Quincy, Mass. Octavo; pp. 17, ill. Albany; Munsell; 1864. No longer available.

II. Works Concerning Public and Secular Buildings, other than Dwellings; (including also a few Regional Works of Historic Interest).

- The Capitol of Massachusetts, showing the enlargement erected in 1853 and 1854. Gridley J. F. Bryant, Architect. A series of four elevations, six sections, seven plans, no text, bd. in octavo form at the Avery Architectural Library, Columbia University, New York, under number AH 73; M 38. Origin not recorded.
- King, David. An Historical Sketch of the Redwood Library and Athenaeum in Newport, Rhode Island. Octavo brochure; pp. 53. Boston; John Wilson and Sons; 1860. No longer available.
- King, David. An Historical Sketch of The Redwood Library and Athenaeum in Newport, Rhode Island. Octavo brochure; pp. 12. Providence; Providence Press Company; 1876. No longer available.
- Lippincott, Horace Mather. Early Philadelphia, Its People, Life and Progress. With a photogravure frontispiece by Charles H. Stevens and 119 ills., from photos and prints. Octavo; pp. 340, ill. Philadelphia; J. B. Lippincott Company; 1917. \$6.
- Stanard, Mary, Newton. Colonial Virginia, Its People, Life and Customs. Octavo; pp. xvi+376, ill. Philadelphia, J. B. Lippincott and Company; 1917. \$6.
- Latrobe, B. Henry. A private letter to the individual members of Congress on the subject of the Public Buildings of the United States at Washington, from B. Henry Latrobe, Surveyor of the Public Buildings. Octavo; pp. 32 and 1 plan. Washington City; Samuel H. Smith; 1806. No longer available.
- Newlands, Francis G. The White House Restoration. Compensation of Architects. Remarks of Hon. Francis G. Newlands, of Nevada, in the Senate of the United States, Feb. 29 and Mar. 21, 1904. Octavo brochure; pp. 31. Washington; Government Printing Office; 1904.
- Preservation and Restoration of City Hall, (Hartford, Conn.,) being Bulletin No. 6 of the publications of The Municipal Art Society of Hartford, Conn. Octavo brochure; pp. 16, ill. Hartford, Conn., published by the Society; 1906.
- Scattergood, David. Handbook of the State House at Philadelphia. Duodecimo; pp. 64, ill. Philadelphia; published by the author; 1890. \$25. No longer available.
- III. Works concerning Domestic Architecture—General Historical and Popular Books, (including also Accurate Architectural Works and Volumes of Photographs and Measured Drawings, Covering the Subject at Large).**
- Book of a Hundred Houses. A Collection of Pictures, Plans and Suggestions for Household-ers. Square octavo; pp. vi+403, ill. Chicago; Herbert S. Stone and Company; 1902. \$1.75.

McQuade, Walter. Measured Drawings of New York City Hall, "Architecture" Series of Measured Details, in *Architecture*, vol. 35, no. 1, Jan., 1917, plate 1; no. 2, Feb., pl. 15; no. 3, Mar., pl. 33; no. 4, Apr., pl. 52; vol. 36, no. 1, July, 1917; pl. 109.

Millar, Donald. Measured Drawings of Some Colonial and Georgian Houses. Folio; 2 vols.: (1) pp. 6 and 40, pl. (2) pp. 4 and pl. 44 to 80. New York. The Architectural Book Publishing Company; 1916. \$25.

a. Works Concerning Domestic Architecture in the New England States.

1. Covering the region as a whole.

Old Brick Houses of New England. Small quarto brochure; pp. 55, ill. Boston; Rogers and Manson Company; 1917. \$1.

2. Covering Separate States.

No additions.

3. Covering Separate Cities or Localities or Individual Buildings.

Northend, Mary Harrod. Memories of Old Salem. Octavo; pp. 341, ill. New York; Moffatt, Yard and Company, 1917. \$4.

b. Works Concerning Domestic Architecture in the Middle States.

1. Covering the Region as a Whole.

No additions.

Note: See introductory statement in corresponding place in original bibliography, *The Architectural Record*, v. 40, No. 6; Dec., 1916; p. 582.

2. Concerning Separate States.

Mills, W. Jay. Historic Houses of New Jersey, with numerous photogravure illustrations from drawings by John Rae and from photographs and rare prints. Crown octavo; pp. 15+348, 19 pl. Philadelphia; The J. B. Lippincott Company; 1902. \$5.

3. Covering Separate Cities or Localities or Individual Buildings.

Dean, Bashford and Welch, Alexander McMillan. The Dyckman House, built about 1783, restored and presented to the City of New York in MCMXVI. Octavo brochure; pp. 47, ill. New York; privately printed; 1916.

Gerard, James W. The Old Dutch Streets under the Dutch. A paper read before the New York Historical Society, June 2, 1874. Octavo brochure; pp. 52. New York; F. B. Patterson; 1875. No longer available.

Shelton, William Henry. The Jumel Mansion, being a full history of the House on Harlem Heights built by Roger Morris before the Revolution, together with some account of its more notable occupants; with illustrations. Small Quarto; pp. xii+257, ill. Boston; Houghton, Mifflin and Company; 1916. \$10.

c. Works Concerning Domestic Architecture in the Southern States.

1. Covering the region as a whole.

No additions.

2. Covering Separate States.

Earle, Swepson, and Skirven, Percy G., editors. Maryland's Colonial Eastern Shore, Historical Sketches of Counties and of Some Notable Structures. Crown Octavo; pp. xix+204, ill. Baltimore; Munder, Thomsen Press; 1916. \$3.50.

3. Covering Separate Cities or Localities, or Individual Buildings.

Smith, Alice R. Huger and Smith, D. E. Huger. The Dwelling Houses of Charleston, South Carolina, with 128 ills., from drawings by Alice R. Huger Smith, photos and architectural drawings by Albert Simons. Octavo; pp. 387, ill. Philadelphia; The J. B. Lippincott Company. 1917; \$6.

IV. Volumes Relating to the Minor Arts* (excl. Furniture and Furnishings).

*Note: The references in this section concerning the various minor arts, as was stated when this bibliography was first undertaken, must necessarily remain incomplete, chiefly because of the somewhat popular character of many publications in this field.

1. General Works.

Kent, Henry Watson; Valentiner, W. K., and Levy, Florence N. The Hudson-Hulton Collection; Catalogue of an Exhibition of American Paintings, Furniture, Silver and other objects of art: MDCXXV—MDCCCXXV. Quarto; 2 vols; (1) pp. xliii+162, ill.; (2) pp. xvii+160, ill. New York; Metropolitan Museum of Art; 1909. \$10.

2. Glassware.

No additions.

3. Metal.

Bigelow, Francis Hill. Historic Silver of the Colonies and Its Makers. Octavo; pp. xxvii+476, ill. New York; The Macmillan Company; 1917. \$6.

Elwell, N. W. Colonial Silverware of the 17th and 18th Centuries, comprising solid sets, small wares, candelabras, communion services, etc., compiled and photographed by N. W. Elwell. Folio; no text, 39 pl. Boston; Geo. H. Polley and Co.; 1899.

Silver Used in New York, New Jersey and the South; Catalog of an Exhibition at the Metropolitan Museum of Art, with a note on Early New York Silversmiths by N. T. Haines Halsey. Octavo; pp. xxxvi+97, ill. New York; Metropolitan Museum of Art. 1911. \$0.25.

4. Pottery.

No additions.

V. Furniture and Furnishings.

1. General Works.*

No additions.

2. Volumes composed wholly or chiefly of Photographs.

No additions.

3. Volumes of Measured Drawings.

No additions.

4. Volumes concerning Individual Furniture Types or the Work of Individual Craftsmen.

Ware, William Rotch, editor. *Seats of the Colonists and Other Furnishings*, vol. 11, largely with measured drawings by H. C. Dunham. Text by William B. Bigelow, Horace C. Dunham and R. Davis Benn. Folio; pp. 24 and 28 pl. New York; American Architect Co. (U. P. C. Book Co.); 1904. \$5.

*Note: In the original bibliography this section, as first printed in *The Architectural Record*, vol. 41, No. 5; May, 1917; page 472, had the added caption: "incl. a few works on interior decoration and on periods." In the Addenda for 1917, the Colonial field proper has been closely adhered to and any other works of such general character excluded.

VI. Articles in the Periodicals.

Note: It is obvious that in the preparation of this section, not voluminous completeness, but rather decided interest has served as guide for the selection of material. It should also be stated that since our chief interest is architectural, or at least has to do with arts allied to architecture, certain aspects of the minor arts have not been covered in the appended lists. This applies especially to textiles, tableware and the like. See also explanation of method of selection in *The Architectural Record*, vol. 42, no. 1; July, 1917; page 89.

1. General Articles.

Farr, Albert. A Return to the Colonial, in *The Architect and Engineer of California*, vol. 51, no. 2; Nov., 1917; pp. 38-59, ill.

2. Churches.

No additions.

3. Public and other Secular Buildings (excl. Dwellings).

A Colonial Lodge Building at Aurora, New York, with measured drawings by Benjamin F. Betts, in *The Architectural Review*, vol. 5, no. 8; Aug., 1917; p. 172, and pl. 49 to 54.

Dykeman, J. L. The Lancaster School, Albany, N. Y., in *Architecture*, vol. 36, no. 6; Dec., 1917; pp. 245-246, ill.

Howard, James Q. The Architects of the American Capitol, in *The International Review*, vol. 1, no. 6; Nov., 1874; pp. 736-753.

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4—Domestic Buildings.

a. Dwellings in the New England States.

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Haddon, Rawson Woodman. The Roger Morris House (Jumel Mansion) New York City, with measured drawings by Joseph Palle, in *The Architectural Record*, vol. 42, no. 1-2; July and Aug., 1917; pp. 46-62, 126-139, ill.

Micklewright, Albert E. Early Architecture of New Jersey, in *Architecture*, vol. 35, no. 1, Jan., 1917; page 18 and 26; no. 2, Feb., plates 31, 32; no. 3, Mar., plates 36, 37; no. 4, Apr., plates 69, 70; no. 5, May plates 90, 91; no. 6, June, plates 93, 94; vol. 36, no. 1; July, 1917; plates 112, 113; no. 2, Aug., plates 141, 142; no. 3, Sept. plate 160; no. 4, Oct., plate 180; no. 5, Nov., plate 195. All measured drawings.

Rose, Christina Levinston. An Unknown Colonial Tyne, in *Country Life in America*, vol. 32, no. 2; June, 1917; pp. 67-69, ill.

c. Dwellings in the Southern States.

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5. Architectural Details and Minor Arts.

a. Doors, Doorways, Mantels, Windows, etc.

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Cousins, Frank and Riley, Phil M. Six Old Salem Doorways, in *The Architectural Record*, vol. 42, no. 4; Oct., 1917; pp. 393-399, ill.

Minor Colonial Details. Part 1. Some Old "Summer Houses" from Eastern Massachusetts Gardens. In *The Architectural*

Review, vol. 5, no. 8; Aug., 1917; pp. 169-171, ill.

Three Old Deerfield Fireplaces, belonging to the latter half of the Eighteenth Century. Photographs by Frances and Mary Allen. In *The Architectural Review*; vol. 5, no. 6; June, 1917; p. 113, ill.

b. *Fences, Brickwork, etc.*

No additions.

c. *Metal Work.*

No additions.

d. *Furniture, Wall Papers, Silver, Pottery and Miscellaneous.*

Bogan, Helen Dean. Old Pictorial Wall Papers, in *Country Life in America*, vol. 32, no. 3; July, 1917; pp. 48-50, ill.

Boyd, John Taylor, Jr. Some Examples of Colonial Lettering, in *The Architectural Record*, vol. 40, no. 6; Dec., 1916 pp. 588-590, ill.

6. Biographical.

Gallagher, Mrs. Austin. Robert Mills, Architect and Engineer, in *The Architectural Record*, vol. 40, no. 6; Dec., 1916; pp. 584-588, ill.

7. Bibliographical.

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Bach, Richard F. Books on Colonial Architecture, in *The Architectural Record*, vol. 38, no. 2, 3, 5, 6; Aug., Sept., Nov., Dec., 1915; pp. 281-286; 379-382, 592-594, 690-693; vol. 39, no. 1, 2, 3, 4, 6; Jan., Feb., March, April, June, 1916; pp. 89-92, 186-190, 292-294, 384-388, 568-574; vol. 40, no. 1, 2, 3, 5, 6; July, Aug., Sept., Nov., Dec., 1916 pp. 89-92, 185-187, 279-281, 493-494, 578-580; vol. 41, no. 1, 2, 3, 4, 5, 6; Jan. to June, 1917; pp. 84-87, 187-188, 373-374, 566-571; vol. 42, no. 1; July, 1917; pp. 88-89.

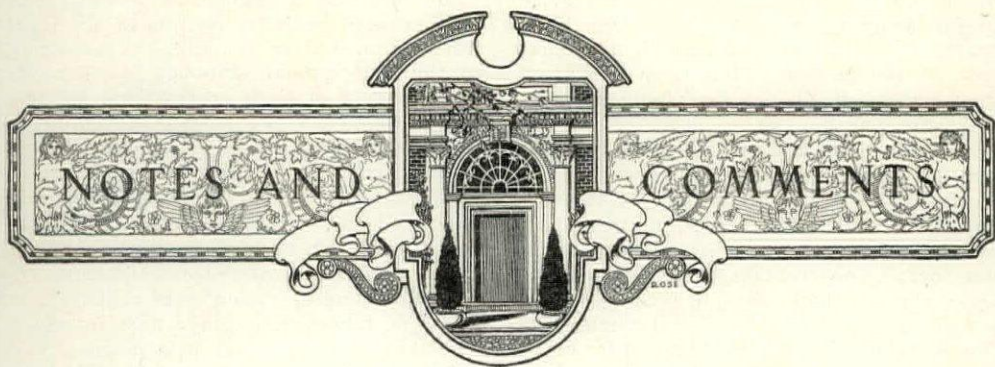
Bach, Richard F. A Bibliography of the Literature of Colonial Architecture, addenda to close of 1917, in *The Architectural Record*, vol. 44, no. 2; Aug. 1918; pp. 175.

Bach, Richard F. Books on Colonial Architecture, addenda for 1917, in *The Architectural Record*, vol. 44, no. 1; July 1918; pp. 85.

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To our original list of Dealers in Photographs of Colonial Architecture, published in the *Architectural Record* for September, 1917, on pages 283-284, should be added the following item:

Boston Photo News Company, 114 State Street, Boston, Mass. Subjects: houses, general Massachusetts, but chiefly Salem; also details, doors and doorways, knockers, etc. Sizes: 8 inches by 10 inches. Prices: 50 cents each, provided in either flexible or heavy paper filing weight at same figure. Will send photographs on approval for selection to architects and students of architecture on receipt of deposit. No catalog.



Architecture Nationalized by the War.

It is well for architects to remark the fundamental changes which war threatens to enforce on their profession. It is true that we are only in the early stages of this revolution, if revo-

lution it be, and we shall hardly find it profitable — though doubtless diverting enough—to attempt to settle our destiny ahead of time. The chief necessity is rather to acknowledge the fact of change, be alert to its different turns, and strive to mold the profession to the country's best advantage.

Is it clear that the majority of architects have realized even the changes that have already occurred? Perhaps some architects are too absorbed in the war itself to think much about architecture. Others doubtless take a matter-of-fact point of view and simply feel that their business is bound to be stagnant until peace is signed, that there is nothing to do but to await that happy day when they may hope to resume their practice where they left it off.

But can this be done? When the industries and the great services of the nation are coming under the hand of Government, is it possible for building to escape the fate of iron, coal, oil, wool and food? Where the building industry goes, architecture must follow. In most parts of the country no great building operation may be undertaken without the consent, tacit or approved, of the war authorities. Throughout the war the building industries will have to obey the law that materials, labor and transportation must fulfill the needs of war before they can satisfy private interests.

Thus architecture must take its place in the colossal organization. Their organization will tend to perpetuate itself and it is

certain that the lasting of it apart at the end of the war will be as difficult as it was to put it together. It has already laid hold of many architects. Some have gone into the Army, to learn another profession; others are in the service of the Government, struggling with the huge problems of military and national construction. The former will return to their work with a new point of view, the latter with a vaster outlook, civic rather than merely professional. Each will wish to establish their profession on a more national basis; in other words, will desire to see architects work more for the community instead of simply for the pleasure of individuals. They will not desire architecture to escape the duties of the other professions. Chemistry and engineering and medicine are already well harnessed in the country's service. In medicine, thousands more will follow the 22,000 physicians already in the Army and the Navy, among them the leaders of their profession. The British have been obliged practically to nationalize the profession of medicine. With the demands of the great army at the front, and the need to replace constant losses, there are but few doctors left for the civil population of the British Empire, and the Empire naturally demands that those still left in "private" capacity shall give some heed to the demands of the public for service. The United States has not yet arrived at this situation concerning medicine, but certain changes already have occurred. In the camps the ablest physicians are at the disposal of the pick of all ranks and serve for slight pay. Formerly the leaders of the medical profession were somewhat a luxury for the rich or well-to-do, despite the generous giving of their time in free clinics and dispensaries; but now they are glad to serve all alike and are enthusiastic at the opportunity of building up the health

of all the people, for that is what service in the army means. Many of them hope that the medical service furnished to that part of the populace that is in the army may be extended to the whole country after the war.

Architects should welcome a similar change. They should look forward to a day when their services would be imperative in a community, not only for schools or city planning or parks, as at present, but for all construction, public or private. Only then will they realize their fullest possibilities and only then will a truly national style of American architecture arise.

JOHN TAYLOR BOYD, JR.

State Registration of Architects and Columbia University.

Like many another undertaking aiming at public improvement, the law requiring state registration of architects puts the burden of making good the improvement largely—and, in the majority of cases, quite squarely—upon the shoulders of that particular portion of the public which, in the instance in question, is most directly affected. Since May 4, 1917, only persons registered as architects under the laws of New York have been permitted to engage in the independent professional practice of architecture. Needless to say, while the law aimed at large calibre results—that is, in accordance with the plans of its projectors—the actual accomplishment has been chiefly in the form of a hair-splitting application of the title "Architect." The public is still at liberty to engage an architectural draftsman, an architectural designer, an architectural builder, or any other type of person qualified by the same adjective in completing its buildings; for, unfortunately, the large and gullible public has not yet been educated to the point of understanding that the initials R. A., signifying Registered Architect, might really connote a definite attainment in the profession tantamount in significance to the letters M. D. so far as the standard of professional service rendered is concerned. To be exact the law provides as follows: Any person residing in, or having a place of business in, the state who, before this article takes effect, shall not have been engaged in the practice of architecture in New York State under the title of architect shall, before being styled or known as an architect, secure a certificate of his qualifications to practice under the title of architect, as provided by this article.

So important a regulation, having been once granted the effectiveness of the legal status, immediately demands the attention of the professional schools. In so far as the curricula of such professional schools within the state are already accepted as of suitable standard by the State Board of Examiners and Registration of Architects the law is, of course, adequately accounted for, because this board accepts graduation from such a standard course of instruction in lieu of the examinations required of candidates for state registration. There is, however, another field in which especially the university in a large city is called upon to meet the provisions of such a law. This educational field is that represented by the large number of persons who cannot afford to devote the daylight hours to their own educational advance, and therefore seek employment during those hours and attend evening courses of instruction.

There were available to aspiring "architects," who must now and henceforth be content to be known as nothing more than draftsmen, no adequate means of obtaining the requisite training leading to the diploma of graduation from an approved architectural school, as required by the law, unless they could muster the necessary funds to attend a regular course of instruction for four years. The problem was further complicated by the fact that an increasing number of schools, such as Columbia, California and Harvard, now require six years' attendance in a combined academic and professional course before the degree of Bachelor of Architecture is awarded.

In Columbia a comprehensive system of evening courses known as Extension Teaching has long been available. A number of such courses, devoted especially to architecture, had already been offered for upward of ten years. When the state registration law went into effect the university met the need for specialized and systematic instruction, which this law created by the establishment of a complete curriculum leading to a Certificate of Proficiency in Architecture. This curriculum is equivalent in scope, character and difficulty of the purely professional part of the day course leading to the degree in architecture. Furthermore, this Certificate of Proficiency is accepted by the state in lieu of the examinations required of candidates for state registration.

All work in this certificate course is given in the evening and Saturday hours, so that it becomes possible for the first

time in this country for a draftsman to combine his professional practice with his professional instruction. To be sure the attendance upon such evening courses, owing to the small number of hours available each day, must be extended for a period of at least six years before all the required work has been completed. But it should be borne in mind that during this period the candidate regularly earns his salary and constantly improves himself from the distinctly practical point of view by uninterrupted office experience.

For admission to this course high school graduation is required. Students must be eighteen years of age. In the case of students who have not completed the high school course an arrangement may be made whereby they may complete such part of their secondary education as they may have missed, also by Extension Teaching courses. When the necessary qualifications are at hand such students are given the opportunity to begin upon their architectural work as special students in the architectural branch pending the completion of the required instruction of high school grade.

When it is borne in mind that the administration of these evening courses falls entirely within the control of the regular administration of the day courses, subject to the same regulations as to standards of scholarship maintained and profiting by the same extensive equipment, it will be seen that the draftsmen of Greater New York and its immediate vicinity have been offered an opportunity of improving themselves the like of which have been extended to but few professions.

The establishment of this course of instruction by Columbia University is a signal advance in architectural education. It is, furthermore, a direct indication of the responsive character of large American universities, which have, so far as their professional schools are concerned, been accused too often of a lack of adaptability to existing circumstances and the demands of the time.

RICHARD F. BACH.

Conservation of Architecture.

With the destruction of architectural monuments going on so relentlessly in Europe there must be evident to the architectural profession the necessity for

preserving more complete records of those which remain.

All works of art, whatever their nature, are subject to destruction, whether it be at the hands of war-mad Huns, as the result of fire, or the slower but equally destructive action of time and the elements. Priceless architectural treasures are constantly slipping from us, and with the loss of each the world of art is rendered that much the poorer. In France the losses due to the fanaticism of the French Revolution, more than a century ago, and the hatred of the Teuton invaders of today have been incalculable, and much that has been destroyed is probably lost irretrievably, owing to the lack of adequate photographs, measured drawings, or better still, of casts to serve as enduring records.

In the Trocadero of Paris is gathered together a vast collection of architectural casts. The Metropolitan of New York has followed this example, and others have to a greater or less degree recognized the desirability of preserving replicas of the world's architectural masterpieces, but it is quite conceivable that disaster might destroy any or all of these few great collections as well as the originals from which the casts were taken.

When one considers how precarious is the existence of these architectural treasures and how easily they may be destroyed, it would seem not merely a desirable thing, but a positive duty, that adequate records of them be preserved. In pursuance of this idea, it would be most desirable that great Museums of Comparative Architecture be established in various parts of the world, so separated as to assure the impossibility of their being all destroyed however great the cataclysm that may come.

The combined resources of such a group of institutions would make possible the securing of a mass of records which no single institution could afford, and if, moreover, the cooperation of art museums everywhere were to be enlisted, a marvelous work could be accomplished and the cost so minimized that the lesser institutions would be able to avail themselves of collections that would be otherwise entirely beyond their means.

Such a movement for the preservation of records of the world's masterpieces would soon attract widespread attention and would accomplish not only the immediate object, but would also tend to awaken an increased popular interest in the subject of architecture.

I. T. FRARY.

**National
Federation of
Building
Industries.**

The convention of the building industries of the United States, held in Atlantic City on July 15 and 16, marks perhaps a turning point in economic war history. It promises, on the one hand, to coordinate the knowledge of this highly specialized and varied industry with its changing conditions in different parts of the United States, and, on the other hand, it promises to coordinate the knowledge of the authorities under which the industry is working. Each department of the Government may have the benefit of the accumulated knowledge gained by all other departments, as well as the knowledge accumulated by all branches of the industry, and any action taken affecting this industry (which employs perhaps a million and a half men, has perhaps two thousand million capital invested and produces three thousand million dollars annually) may, therefore, be advisedly taken.

This well conceived action by the building industry at this critical time is important to the nation because the condition of the building industry not only affects the human problem of housing, but indirectly affects the cost of all necessities of life, and depression in the building industry is likely to be followed by depression in the real estate market and a financial depression of the country at large.

About three hundred representatives from all parts of the United States attended the convention. The delegates from local and national associations formed themselves into a central War Service Committee, each unit of which may be members of the War Service Committee of that particular branch of that particular industry, so that the central committee will be a clearing house of the War Service Committee of each industry.

The industry is very fortunate in the personnel of its Executive Board, and of its officials, representing as they do, the best brains and experience of the industry and geographically distributed throughout the country:

President, Ernest T. Trigg, President of John Lucas & Co., Inc., Philadelphia, President of the Philadelphia Chamber of Commerce, Director in the Chamber of Commerce of the United States of America, and Advisor for the Fourth District of the Resources and Conversion Section of the War Industries Board; Vice-President, Walter S. Dickey, of Kansas City, Mo., a manufacturer of clay products, and a member of the Inland Waterways Commission;

Treasurer, A. M. Maddock, President of Thos. Maddock's Sons Co., Trenton, a member of the National Committee of Confederated Plumbing Manufacturers and Dealers.

B. F. Affleck, Chicago, President of the Portland Cement Association, also President of the Universal Portland Cement Company.

Colonel J. R. Wiggins, Philadelphia, President of the National Association of Builders' Exchanges.

John L. Kaul, Birmingham, Ala., a member of the Southern Pine Association.

Charles Gompertz, San Francisco, Cal., President of the Building Industries Association of San Francisco, and representing the General Contractors' Associations of Los Angeles, Seattle, Tacoma, Oakland, Portland, and San Jose.

John A. Kling, Cleveland, Ohio, former President of the National Builders' Supply Association, and at present President of the Cleveland Builders' Supply Association, largely interested in lime manufacture.

Rudolph P. Miller, New York, of the Engineering Council and Mechanical Electric Mining Engineers, with a membership of about thirty-eight thousand. He was four years the Superintendent of Buildings of the City of New York, and the author, practically, of the present New York building code.

The spirit of the convention was entirely devoid of individual or trade self-seeking, and was exemplified in the following telegram sent to President Wilson:

July 15, 1918.

Honorable Woodrow Wilson,
President of the United States,
Washington, D. C.

Representatives of the various branches of the building industry, gathered from all parts of the country at the summons of the Chamber of Commerce of the United States, send you fervent good wishes for the completion of the task of bestowing upon the world a permanent peace.

We are glad to bear our share of the burden of the war for liberty and shall cheerfully accept whatever sacrifices and readjustments may be essential to its vigorous prosecution.

The government has a perplexing problem in the endeavor to restrict construction activities where necessary, while keeping employed labor and materials not needed for war purposes.

To solve that problem successfully in an industry of such magnitude, such ramifications and such large influence on general trade and prosperity will immeasurably strengthen the nation for the support of taxation and loans which must continue as long as the war lasts.

We are assembled to devise an instrumentality through which the building industry may give united and effective aid in solving that problem.

We pledge you and those officially associated with you the fullest cooperation within our power.

E. A. Roberts,
(Secretary.)

A complete report of this meeting may be obtained upon application to The Architectural Record.