


THE ARCHITECTURAL RECORD



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VOL. XLIII. No. 3. MARCH, 1918 SERIAL No. 234

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Yearly Subscription—United States \$3.00—Foreign \$4.00—Single copies 35 cents. Entered
May 22, 1902, as Second Class Matter, at New York, N. Y. Member Audit Bureau of Circulation.

PUBLISHED MONTHLY BY

THE ARCHITECTURAL RECORD COMPANY

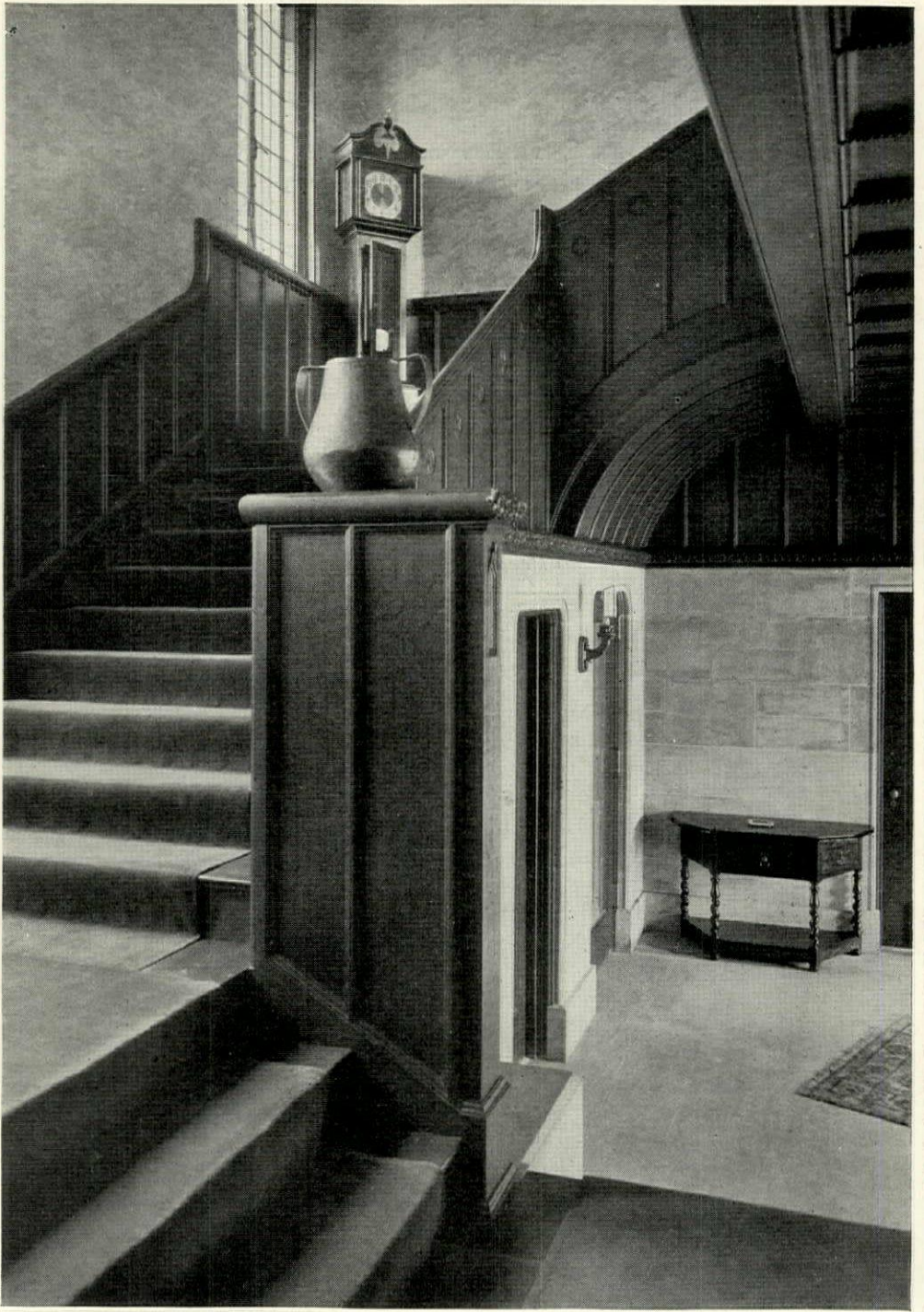
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MAIN STAIRWAY—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL. PERKINS, FELLOWS & HAMILTON, ARCHITECTS.

THE ARCHITECTURAL RECORD

VOLUME XLIII



NUMBER III

MARCH, 1918

The RESIDENCE of HAROLD L. ICKES, *Esq.*
HUBBARD WOODS, ILL.

and the

RESIDENCE of M^{RS} CYRUS H. M^CCORMICK,
LAKE FOREST, ILL.

Perkins, Fellows & Hamilton. Architects

BY PETER B. WIGHT

THE two country houses here illustrated are by Perkins, Fellows and Hamilton, a firm whose designs offer an excellent illustration of successful "team work" by men working together for the best interests of their clients and for the development of a characteristic American architecture. The houses are of the highest class of materials and workmanship; they have been built for permanence, and are as nearly fire-resisting as it has been possible to make them, in accordance with the accepted dictum that fireproof construction is as essential in high grade residences, more especially country residences, as in any other kind of buildings. Among the unfortunate but needless incidents of country life in America has been the frequent destruc-

tion by fire of great country houses in isolated localities, beyond the reach of fire-extinguishing appliances.

Both of the houses which form the subject of this article are built within the boundaries of natural forests, being so completely surrounded by trees that they cannot be seen from the public road. In the Middle West, forest surroundings are the most precious possessions of people who are tired of the monotony of the endless prairies. Consequently, wooded tracts were acquired many years ago, when found in the neighborhood of rich and growing cities, by those who were able to preserve them for appropriate suburban improvements.

This was especially the case with the site of Lake Forest, Illinois, thirty-five

miles north of Chicago. The writer saw it for the first time forty-five years ago, when it was a dense forest in that part which lies between the railroad and Lake Michigan. Winding roads had been cut through the forest, rustic bridges had been built over the ravines and the University had been established in a clearing in the centre; and there were a few private residences, all built of wood. West of the Chicago and Northwestern Railroad were farms, the woods having been nearly all cleared. The farms, extending westward about six miles, have mostly been bought by wealthy residents of Chicago, while the whole of the wooded part is laid out for suburban estates. The following are the principal native trees found at Lake Forest and throughout the North Shore district: Red oak, white oak, sugar maple, white pine, and red cedar. Among the numerous wild shrubs which make the underbrush are crab-apples, hawthorns, witch-hazel, pinnacled dogwood, June berry, and downy arrowwood; assuredly a rich variety.

The natural conditions found at Lake Forest exist also at Winnetka, Hubbard Woods and parts of all of the suburbs which lie between Evanston and Lake Forest. These locations were long ago secured by public-spirited men who parted with their holdings only on conditions precluding the destruction of the natural forests. Evanston is now a large and beautiful city; and while most of the forest trees on its site were sacrificed, they have been replaced by elms, maples and other shade trees.

It may not be out of place to mention that the great Forest Preserve (for which an issue of bonds to the amount of eleven million dollars, authorized by the State, and now being expended by the Forest Preserve Commission of Cook County) will extend from the boundary line between Cook and Lake counties, near Hubbard Woods, completely around the west of Chicago, on the line of the Desplaines River. This will be a natural park, not improved with buildings. Mr. Dwight Heald Perkins, of Perkins, Fellows and Hamilton, was the moving spirit in bringing about this great

forest reservation and is now a member of the plan committee of the Forest Preserve District Commission.

I.

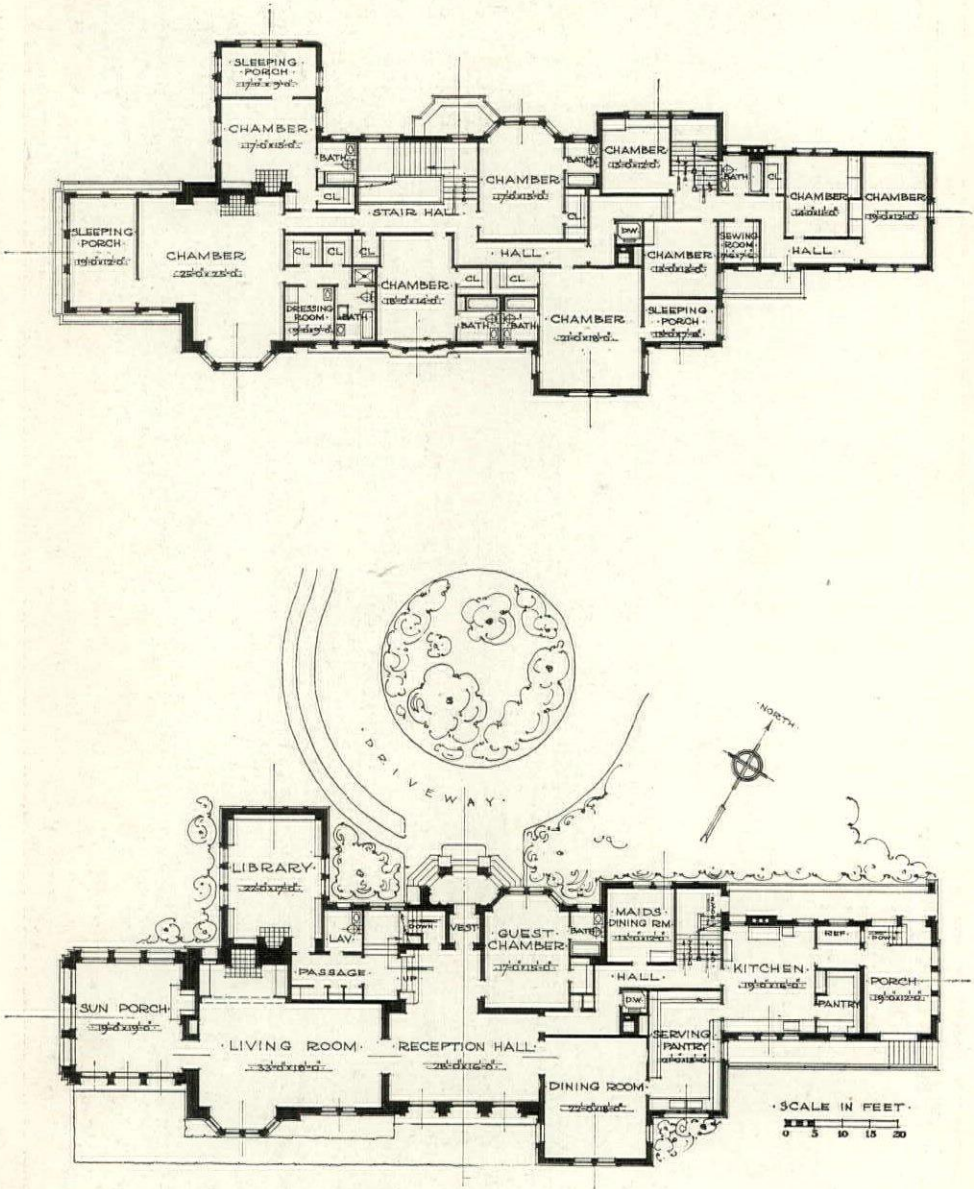
The house of Mr. Harold L. Ickes is at Hubbard Woods, which lies between Winnetka and Glencoe. It is near the Sheridan Drive, but is approached by a private road from the Drive. A clearing was found in the woods sufficient for the house, and it was not necessary to remove any trees. The locations of the surrounding trees controlled to some extent the general plan, and there is no lawn and no view from the house except over a small natural clearing on the south side, where the ground was filled in and graded up to the terrace and the brick watertable. The view from the north shows the entrance side. It is the least important side, and the entrance is through a hexagonal porch and a small vestibule for protection from the weather. But when one enters through the inside door, one has a view of the interior of the main part of the first story, from the reception hall through the living room into the sun porch, and to the left into the dining room. The main stairway works around and over the small vestibule in a very ingenious manner. The walls of the reception hall are faced with smooth-dressed Bedford stone, and the ceiling is oak timbered and paneled under the concrete floor of the second story.

The library is approached from the first platform of the main stairway and consequently has a lower ceiling than the other rooms. This gives it more the character of a quiet and retired study, which it is. Raising the floor of the library has given more space for a billiard room, which is directly beneath it.

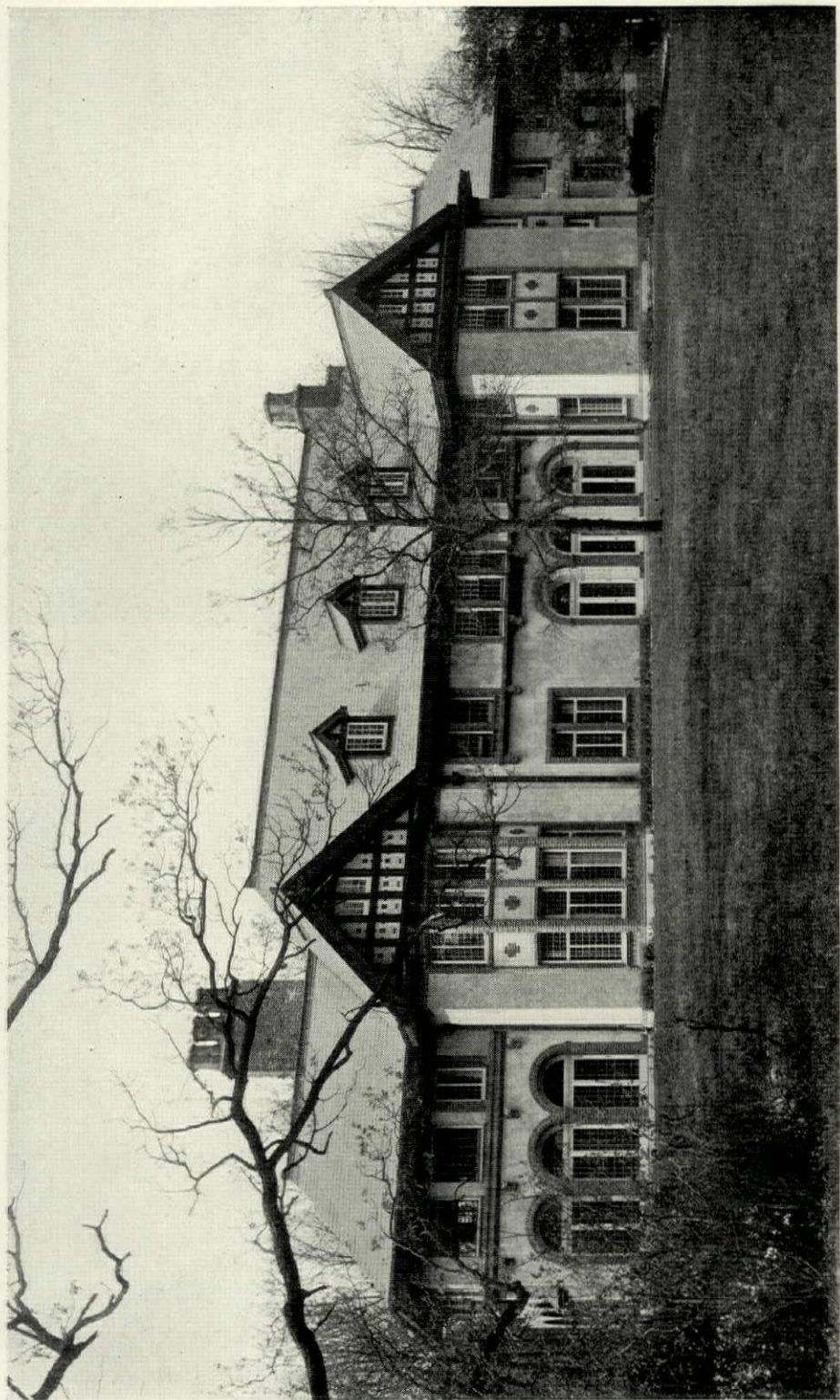
It must be explained that this is a structural tile and rough-cast plaster house and that no stone had been used on the exterior. The margins of all openings of the exterior, the door and window jambs, the arches and lintels, are all of red brick of varied shades running through the walls and forming a constructive margin to the hollow building tiles, twelve inches thick, which compose



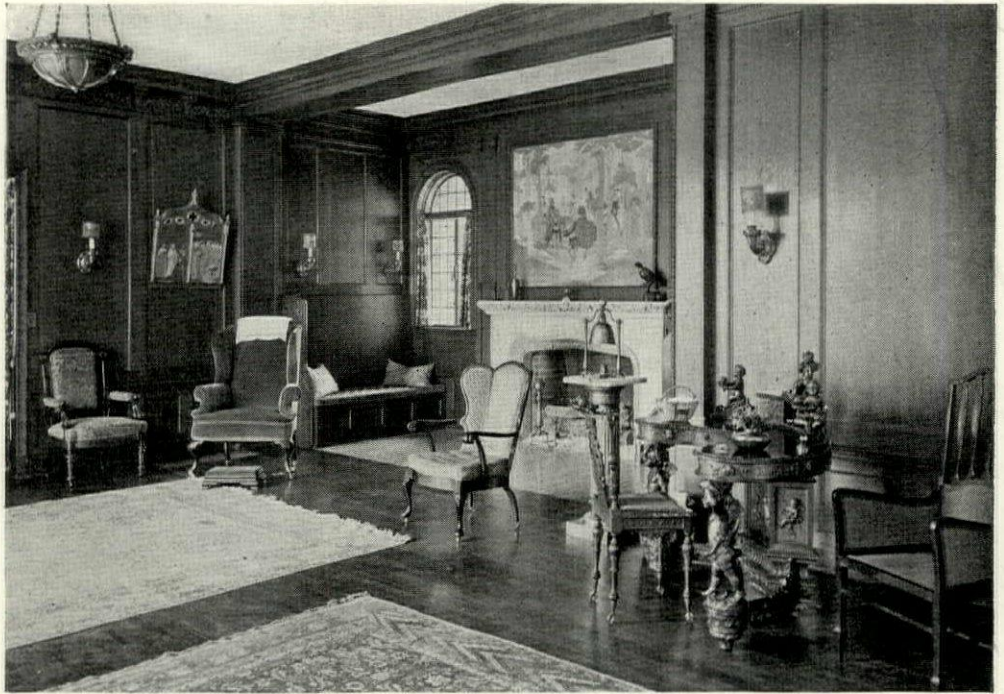
ENTRANCE FRONT—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL. PER-ICKINS, FELLOWS & HAMILTON, ARCHITECTS.



FIRST AND SECOND FLOOR PLANS—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL. PERKINS, FELLOWS & HAMILTON, ARCHITECTS.



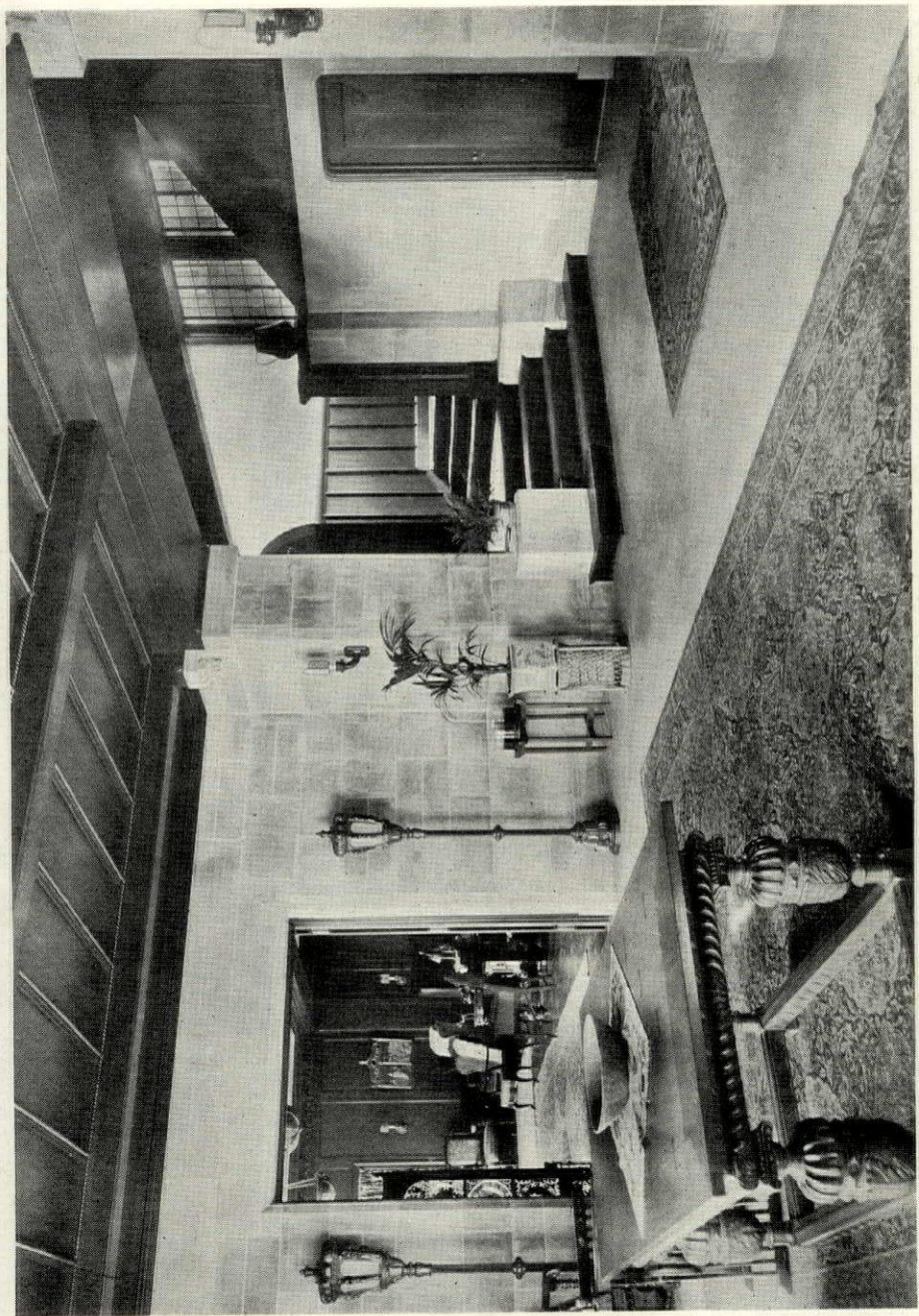
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LIVING ROOM, SHOWING FIREPLACE ALCOVE—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL.
Perkins, Fellows & Hamilton, Architects.



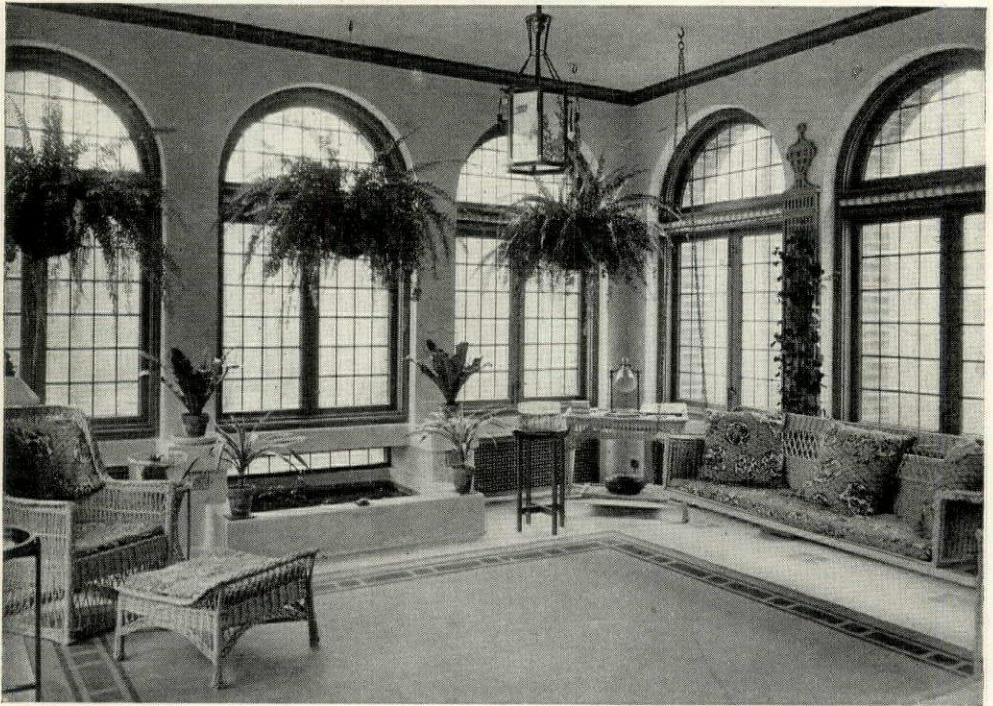
LIBRARY—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL.
Perkins, Fellows & Hamilton, Architects.



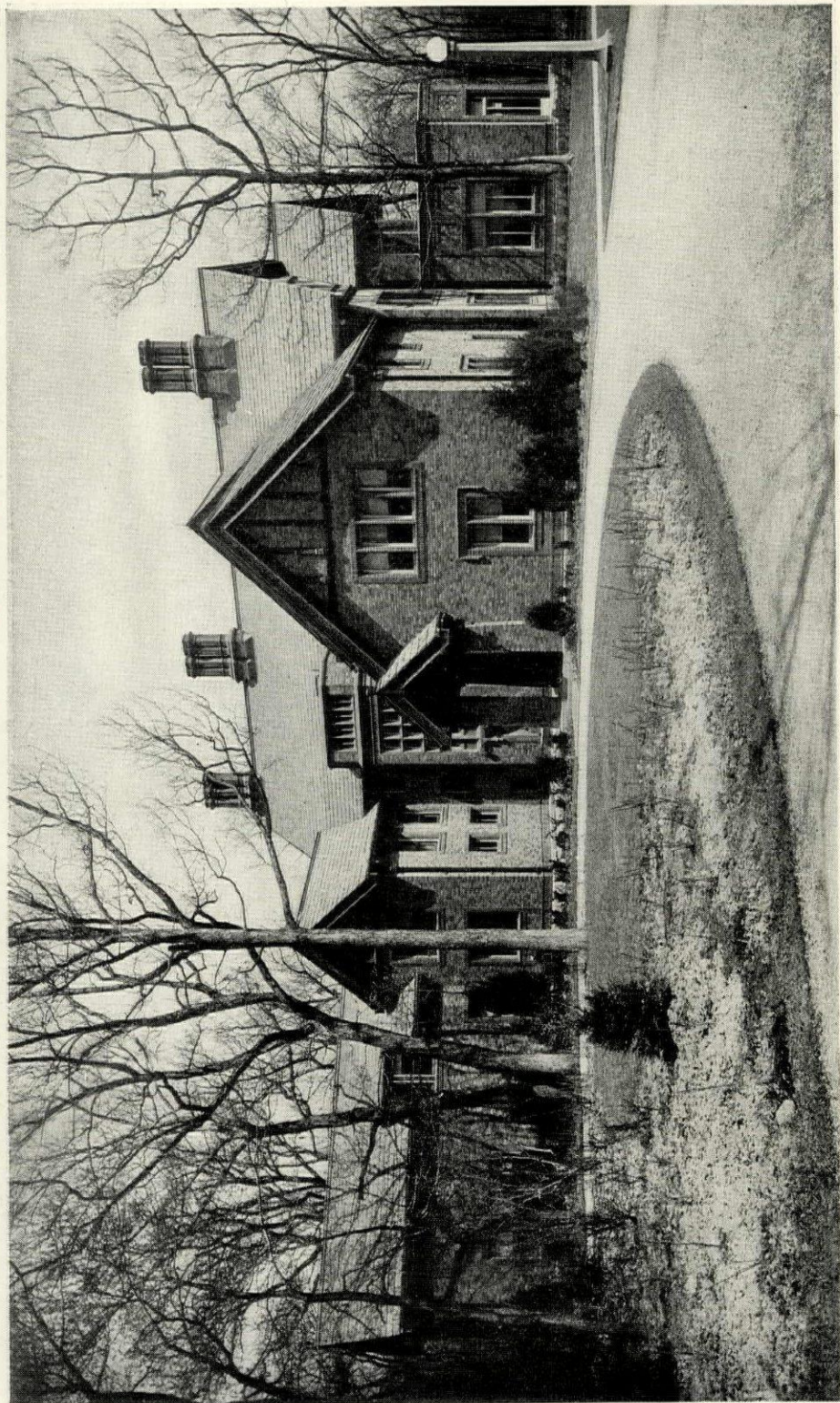
RECEPTION HALL—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL. PER-
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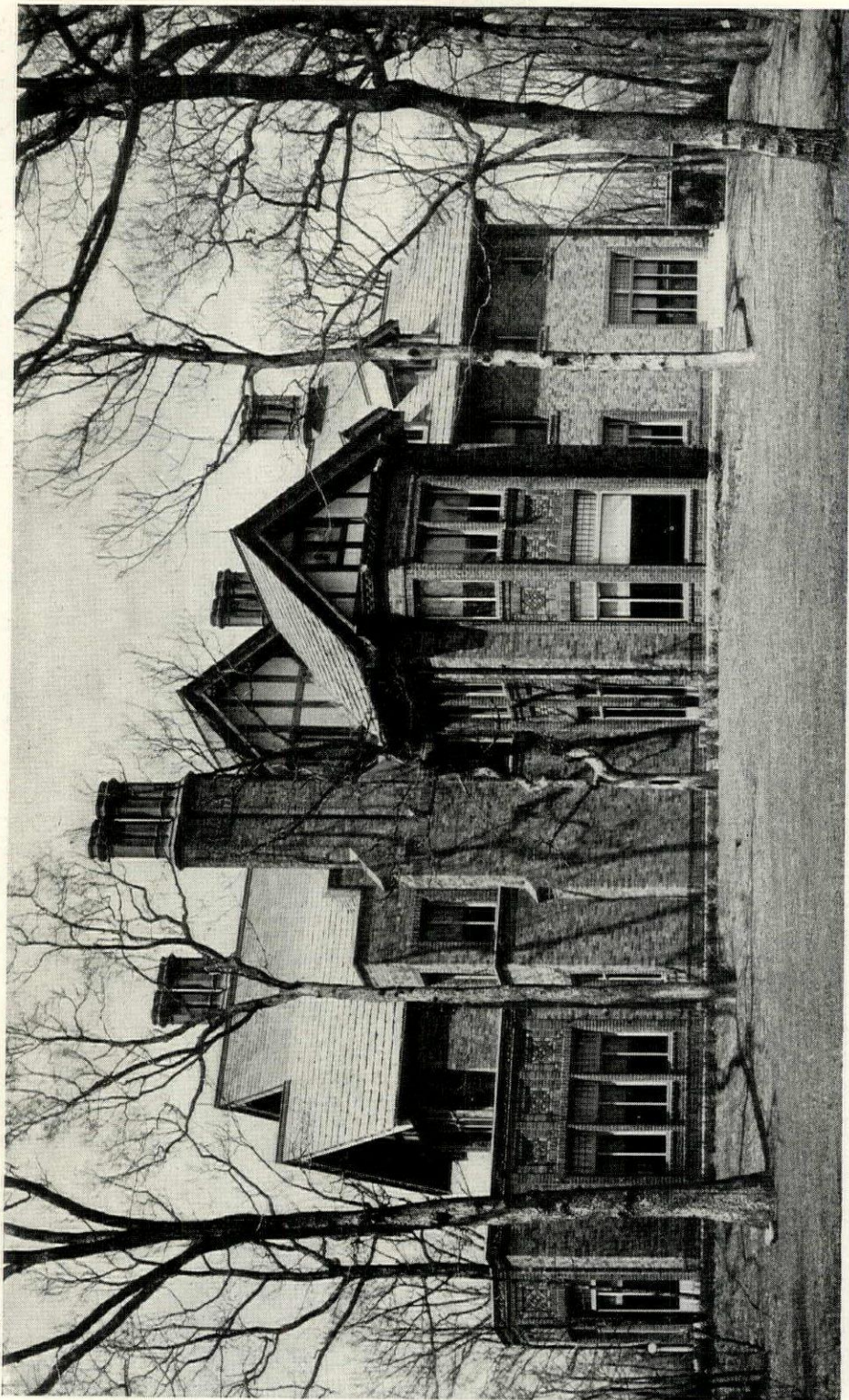
DINING ROOM—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL.
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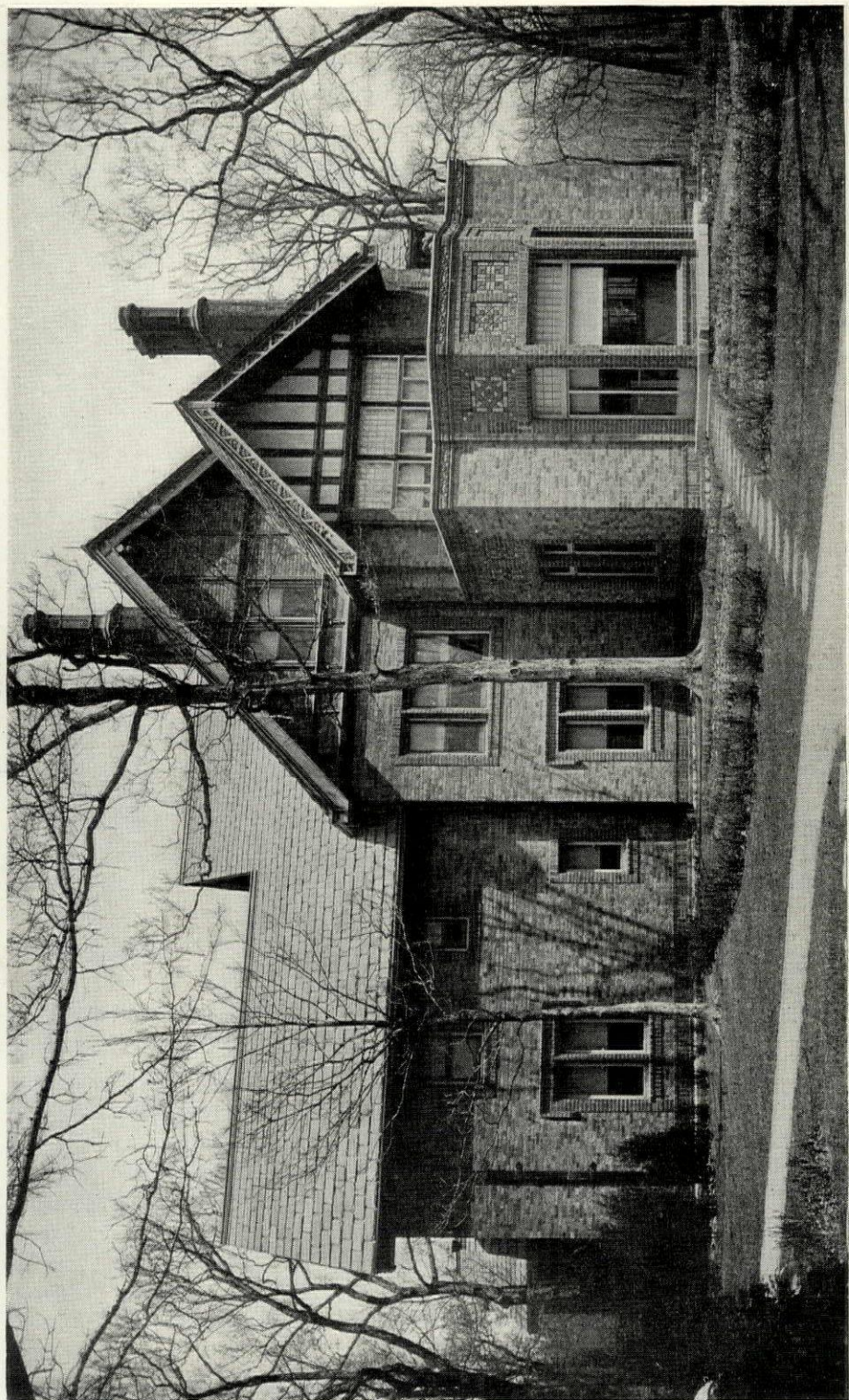
SUN PORCH—RESIDENCE OF HAROLD L. ICKES, ESQ., HUBBARD WOODS, ILL.
Perkins, Fellows & Hamilton, Architects.



ENTRANCE FRONT — RESIDENCE OF MRS.
CYRUS H. MCCORMICK, LAKE FOREST, ILL.
PERKINS, FELLOWS & HAMILTON, ARCHITECTS.



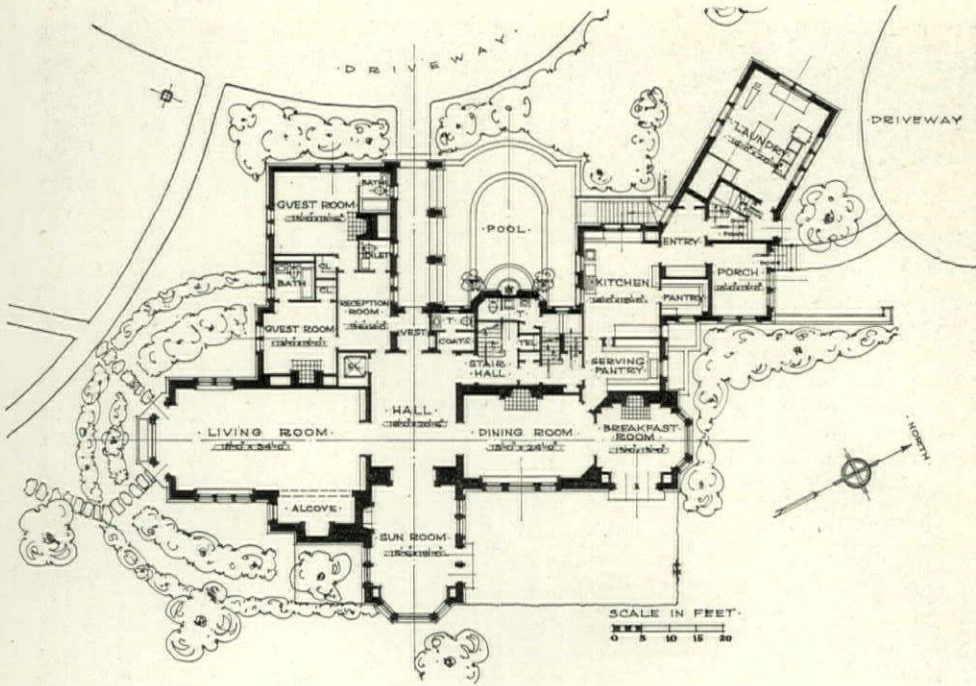
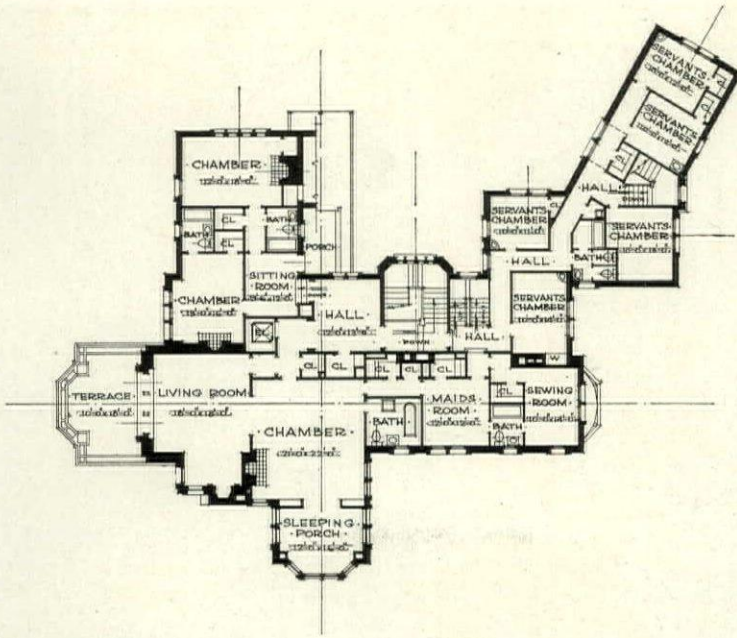
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VIEW FROM THE SOUTHWEST—RESIDENCE OF
MRS. CYRUS H. MCCORMICK, LAKE FOREST, ILL.
PERKINS, FELLOWS & HAMILTON, ARCHITECTS.



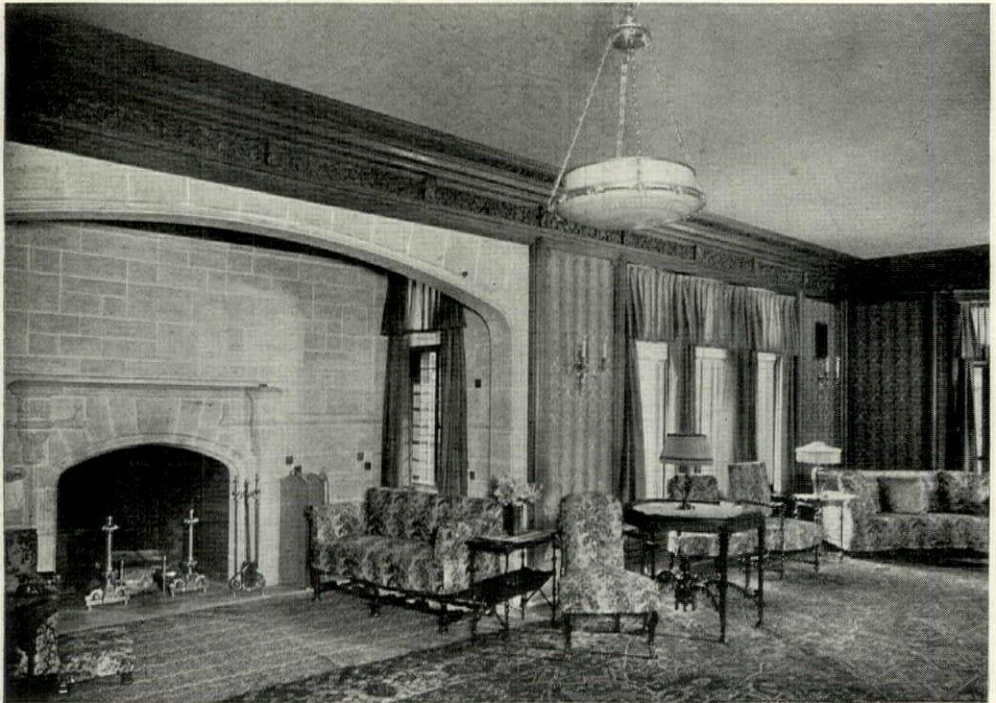
MAIN STAIRCASE—RESIDENCE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL. PERKINS, FELLOWS & HAMILTON, ARCHITECTS.



FIRST AND SECOND FLOOR PLANS—RESIDENCE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL. PERKINS, FELLOWS & HAMILTON, ARCHITECTS.



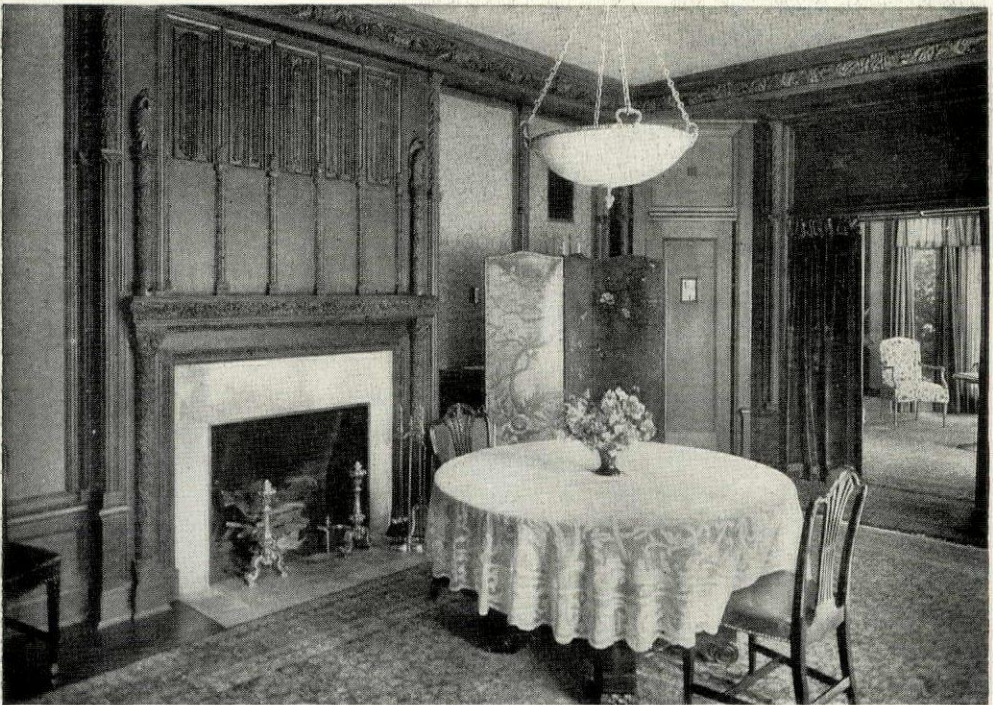
LIVING ROOM ON SECOND FLOOR—RESIDENCE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.



LIVING ROOM ON FIRST FLOOR—RESIDENCE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.



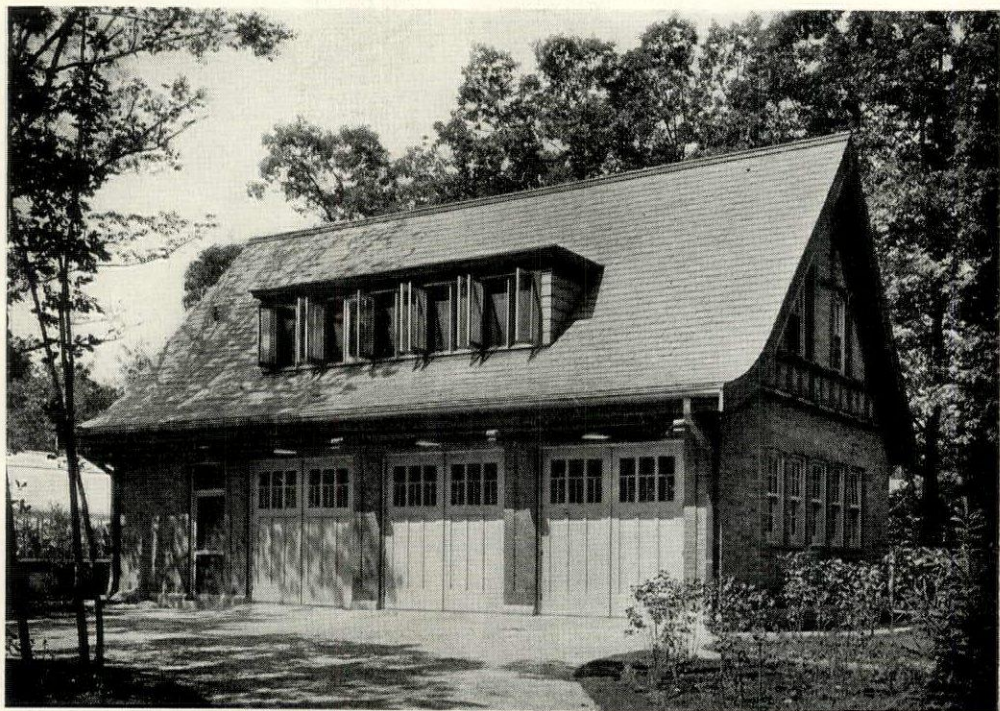
BREAKFAST ROOM—RESIDENCE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.



DINING ROOM—RESIDENCE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.



POWER HOUSE—ESTATE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.



GARAGE—ESTATE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.



TEA HOUSE—ESTATE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.



GARDENER'S COTTAGE—ESTATE OF MRS. CYRUS H. McCORMICK, LAKE FOREST, ILL.
Perkins, Fellows & Hamilton, Architects.

all the walls of the house and all the inside partitions. The bricks are of many shapes and very rough in surface. The second story window sills and water-tables and the flower boxes around the sun porch are of terra cotta of rough surface to match the bricks. There are many very finely sculptured gargoyles and other projections made to match the bricks, the details of which are not sufficiently prominent to be seen in the photographs. The eaves are provided with hanging gutters of copper. The gables are finished with barge boards having much interesting detail, of carved cypress with a dark stain. The roof is slated. The barge boards and the timber work of the gables have no connection with the interior of the house, an arrangement which precludes any possible communication of fire.

The view of the garden front from the south shows the windows and doors of the principal rooms of the first story giving upon the lawn; the low flat terrace is only one step above the graded ground. The entrance hall and the sun porch can be thrown open to the terrace by three doors in each. The effect of the exterior is one of quiet but harmonious color in contrast with the green and brown of the foliage which surrounds the house everywhere.

II.

In the McCormick house, at Lake Forest, is found a charming expression of the predilections in architectural design of the firm of Perkins, Fellows and Hamilton; a strong leaning toward Gothic motives in details, without any disposition to produce an out-and-out Gothic building. In all of its construction the most modern and best tried system of building has been used. Nothing in it is employed as Gothic buildings were built, not even the early Elizabethan manor houses, which it most resembles,

but from which no details of decoration have been copied. It is built of wire-cut brick and much of the exterior decoration is with brick panels laid in the mosaic manner, and with terra cotta consistently modeled.

The entire interior of the first story is trimmed with French walnut. The woodwork is carefully detailed and is extensively carved. The ornament was detailed by the architects, and from these details full sized plaster casts for the carvers were made by the sculptor, Emil Zeitler.

The great merit of the McCormick house is its expression of domesticity, both within and without. There is nothing grandiose about it; nothing to impress you with the idea that it was built regardless of cost. But nothing has been omitted that could make it convenient and comfortable, even to the point of providing it with filtered air, both in winter and summer, at any temperature and degree of moisture.

Reverence for the beauty of the forest which surrounds the house was such that before anything else was done all the trees that were to remain were platted, and they had a controlling influence on the position of the house and the arrangement of its various parts. Thus it was owing to the trees that the kitchen extension was thrown out on an angle. The house cannot be seen from any public road, and is approached by two private roads through the woods from different directions. The estate contains several subsidiary buildings, including a tea house, a garage, a gardener's cottage, and a power house. The tea house is built in accordance with Chinese detail and construction. There is also an evidence of Chinese influence in the sun room of the main house, but they are still original in design and not copies. The gardener's cottage serves as a gate lodge at one of the entrances.



THE ART OF THE MIDDLE AGES

BY ARTHUR KINGSLEY PORTER



PART II

ANOTHER indication of the intellectual calibre of the Middle Ages, of their passion for learning, is to be found in the representations of the Liberal Arts in iconography. These seven disciplines — Grammar, Dialectic, Rhetoric, Arithmetic, Geometry, Music and Astronomy — were merely the subjects included in the curriculum of the medieval universities. Few graduates of American colleges would be inclined to set up a statue to Latin, Greek or Trigonometry. And yet this was precisely what the Middle Ages did, and did repeatedly. For there is hardly a cathedral or an important building of the period that does not, or did not, contain somewhere a representation of the disciplines.

With the seven Liberal Arts was generally associated the figure of Philosophy. In the medieval conception, Philosophy included infinitely more than religion. It was the love of learning in the deepest sense of the word, and this learning included naturally the study of that eschatology which was so vital and living in the thirteenth century. To the medieval mind, Philosophy was at once the end and the consummation of all learning. It was through knowledge of the tangible that man rose to grasp the intangible. His finest mental endeavor, the best training, were necessary to fit him for the contemplation of the divine. Accordingly, Philosophy is always represented as the queen of the other arts. In the Ivrea mosaic she is seated in the centre — the position of honor — and wears a crown. This medieval conception of religion differs significantly from that of the present day. Instead of lifting man up to appreciate an intellectual religion, we have debased religion to bring it down to the level of the meanest understanding.

In the Ivrea mosaic it is also notable

that Dialectic occupies the second most important position to the left of Philosophy (for in northern Italy, the usual law of hierarchical precedence is often reversed, so that left, instead of right, is the side of honor). Dialectic is not taught in our American universities, and for an excellent reason. There are probably today very few students capable of studying such a course, and it is certain that there are no professors who could teach them. Our nearest substitute is Logic; but an inspection of a medieval textbook on Dialectic will suffice to show how infinitely more subtle, difficult and intellectual was the medieval subject. It is very significant that in the Ivrea mosaic the highest place should be given to Philosophy and Dialectic. The two great characteristics of the Middle Ages that we find reflected in all medieval thought and in all medieval art are the love of Philosophy and the love of Logic. It will be well to note how these passions are expressed in the Gothic cathedral — that consummate product of the medieval genius, for whose perfection the philosopher collaborated with the sculptor and the glass-painter, the dialectician with the architect.

The logical structure of the Gothic church has long been recognized. Every stone follows as a dialectic necessity. The foundations, with the buttress spurs, proclaim the rib-vault of the soaring nave. Given the buttresses, the design of the entire church is in a measure determined. Contrast with this logic of the Gothic construction the dome of St. Peter's at Rome, where (as Professor Moore has shown) we see buttresses formed of coupled columns vigorously applied to the drum where there is no thrust, and where we see ribs appliquéd on the surface of the cupola itself in such a manner that, far from gathering



THE DOME OF ST. PETER'S, ROME.

or relieving the structural strain, they merely increase it by so much added weight.

In the Gothic church the ground plan announces that the weight of the structure is carried on a skeleton frame; that the wall surface has been removed and replaced by glass, adding little extra weight to the points of support and requiring but a thin screen of masonry beneath. The section of the piers is determined by the size of the archivolt and of the ribs. The size of the buttresses even gives the height of the church. For the medieval masons did not waste stone. They experimented until they discovered how much was necessary to support the weight of the vaults; and they would have considered it a violation of that strict principle of logic, to which they were so bound, to employ more than was needed. If the plan of a modern building, say of the Boston Public Library, be compared with that of Amiens, it will be seen what the study of logic did for medieval art. From the plan of the modern edifice, it would be impossible to determine what system of roofing was to be employed, what were the dispositions of the interior, how many stories there were to be, where the windows were to be placed, or even the purpose of the edifice. The medieval building shows a strictly unified conception growing out of a mind trained by the practice of dialectic. The modern structure shows the aimless rambling of an untutored intellect. Yet planning is considered the forte of present-day architects.

The central fact, the postulate of a Gothic church, is the rib-vault. As a necessary conclusion follows, not only the peculiar type of plan, but the entire edifice with its forests of columns and pinnacles, its varied and rich ornament. From the vault were derived by a logical necessity those pointed arches which lead us, as Suger remarked in the twelfth century, into a region which, if not heaven, is neither yet entirely of this world. From the rib-vault followed the long vertical lines of the system, shooting upward like sky-rockets, carrying the eye and the emotions toward the serenity

of the ether. From the rib-vault came the blazing windows of stained glass, filled with harmonies of purple and red and blue. From the rib-vault came the tracery of ever-varied design, vining the windows and even the arches. From the rib-vault came the buttresses, which give strong, powerful lines to the exterior design and introduce an ever-changing play of light and shadow. From the rib-vault came the flying buttresses with their rugged power and grandeur, Alpine in majesty. From the rib-vault, in short, came the entire Gothic cathedral; and there was nothing adventitious about this development. Step by step the evolution was accomplished—necessarily, logically, dialectically. Given the rib-vault, everything else followed because it was logical that it should follow. It was through the training in dialectic, in reasonableness, in rationalness, that the Middle Ages produced Gothic architecture.

This spirit of logic did not stop with the main lines of the edifice; it was carried into the most minute details. The gargoyles, of such charming decorative effect that they have been frequently copied in modern buildings in a perfectly meaningless way, were evolved in the Gothic structure for a definite and specific end; that is, to throw the water of the gutters far from the walls, so that it might not corrode the stone. The pinnacles which crowned the buttresses, and which modern architects (at St. Patrick's in New York, for instance) have reproduced for purely decorative reasons, were invented by the Gothic builders as a means of stiffening the outer buttresses by the addition of extra weight. Even the moldings, far from being purely ornamental, were so profiled as to prevent the water from trickling down the exterior walls. A Gothic capital is a very different thing from a classical capital. The architrave that rests on the latter would be quite as secure if placed directly on the shaft. The Gothic builders, however, gave the capital a structural function, which was that of adjusting a larger load to a more slender support. If we remove the capital the entire building comes crashing

about our heads. This feeling for logic and unity led the Gothic architects of the best period strictly to subordinate all detail to the demands of architecture. The sculptures, far from disturbing, are an integral and essential part of the architectural composition. The figures are intrinsically beautiful and full of content. Indeed, in such a work as the western portal of Chartres, the Gothic artist produced sculpture, which, considered for itself alone, is unexcelled, I do not hesitate to say, by any ever executed by the hand of man. These statues combine the "singing line" of Botticelli, the tenderness of the Sienese, with a certain sincerity that is purely Gothic. Yet such beauty and significance are never attained at the expense of the repose of the entire edifice. In the sculpture, as in the glass, the Gothic artist expressed ideas, ideas so big that they are not infrequently beyond the grasp of us degenerates of the twentieth century; but, nevertheless, he has never for an instant sacrificed to his detail the unity of the building as a whole. A modern artist, having infinitely less to express, would still have been unable to say it without ruining the architecture. The medieval artist, on the other hand, contrived to give to his glass and to his sculpture just that decorative character which was required to lend the past perfection to the Gothic building.

Although Logic was the favorite art of the Middle Ages, it was still only the handmaiden to the super-art, Philosophy. It was in the service of Philosophy that the cathedral was primarily built; and it is of Philosophy that it is primarily an expression.

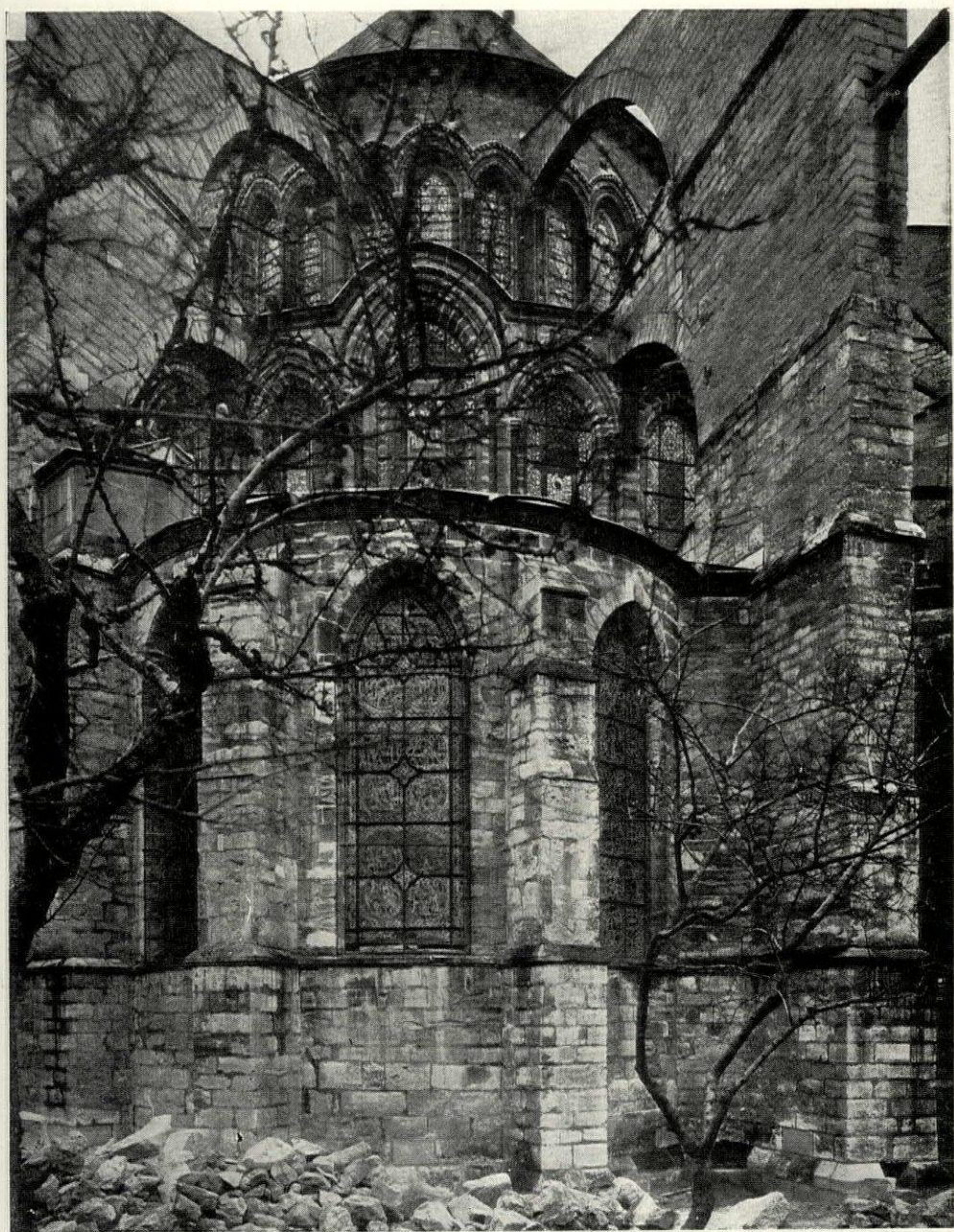
This philosophical content was conveyed largely by means of symbolism. It is necessary to draw a sharp distinction between allegory and symbolism. By allegory I mean the use of figures which in themselves have no reality, but are merely personifications of abstractions. By symbolism, on the other hand, I mean that infinitely more subtle and intellectual system by which figures that in themselves have a perfectly definite and tangible reality still are made to shadow forth or suggest some other idea. Alle-

gory of the most bald and obvious kind is the plague of modern art. Everywhere, for example, we see dry and uninspired figures of Electricity, Progress, Autumn, Industry, and the like. Symbolism, on the other hand, we find in the plays of Ibsen; where a character in the drama is perfectly real and logical and self-consistent in itself, but also suggests to our minds another reality. Now, medieval philosophy is expressed in the cathedral through a peculiarly subtle system of symbolism. Allegory is rarely used. The example of the Liberal Arts, cited above, is one of the few I recollect, and even that is by a variety of expedients given a subtlety and intellectual character quite at variance with modern allegorical conceptions.

It was the profound conviction of the Middle Ages that the Bible was a book of double meaning; that, in addition to the actualities narrated, each event foreshadowed or reflected another greater event connected with the life and passion of Christ.* This same system was applied not only to the Bible, but to the entire visible and material universe. Thus, to the medieval mind, reality was but a symbol of unreality; matter but a reflection of the immaterial. Our earth became only a shadow of heaven. Everywhere in the things and objects about us God had implanted the image of eternal truth. It is a thought of singular beauty that grips one the more the longer one dwells on it. But the medieval philosophers did not stop there. They were tempted to read in this book a double meaning and to interpret its symbolism and significance. Studying nature with the aid of the Bible and their own poetic imagination, the medieval sages arrived at results strange but hauntingly beautiful. By their musing each least object in the world was vested with meaning. Profound mysteries were concealed in every flower, in every tree, in every cloud that chanced to float across the sky.

Especially was this mystic interpreta-

*This aspect of medieval art has been made comprehensible to the modern age by Emil Mâle in his immortal work—I almost wrote poem—*L'Art Religieux du XIII^e Siècle en France*, a book now happily available also in an English translation.



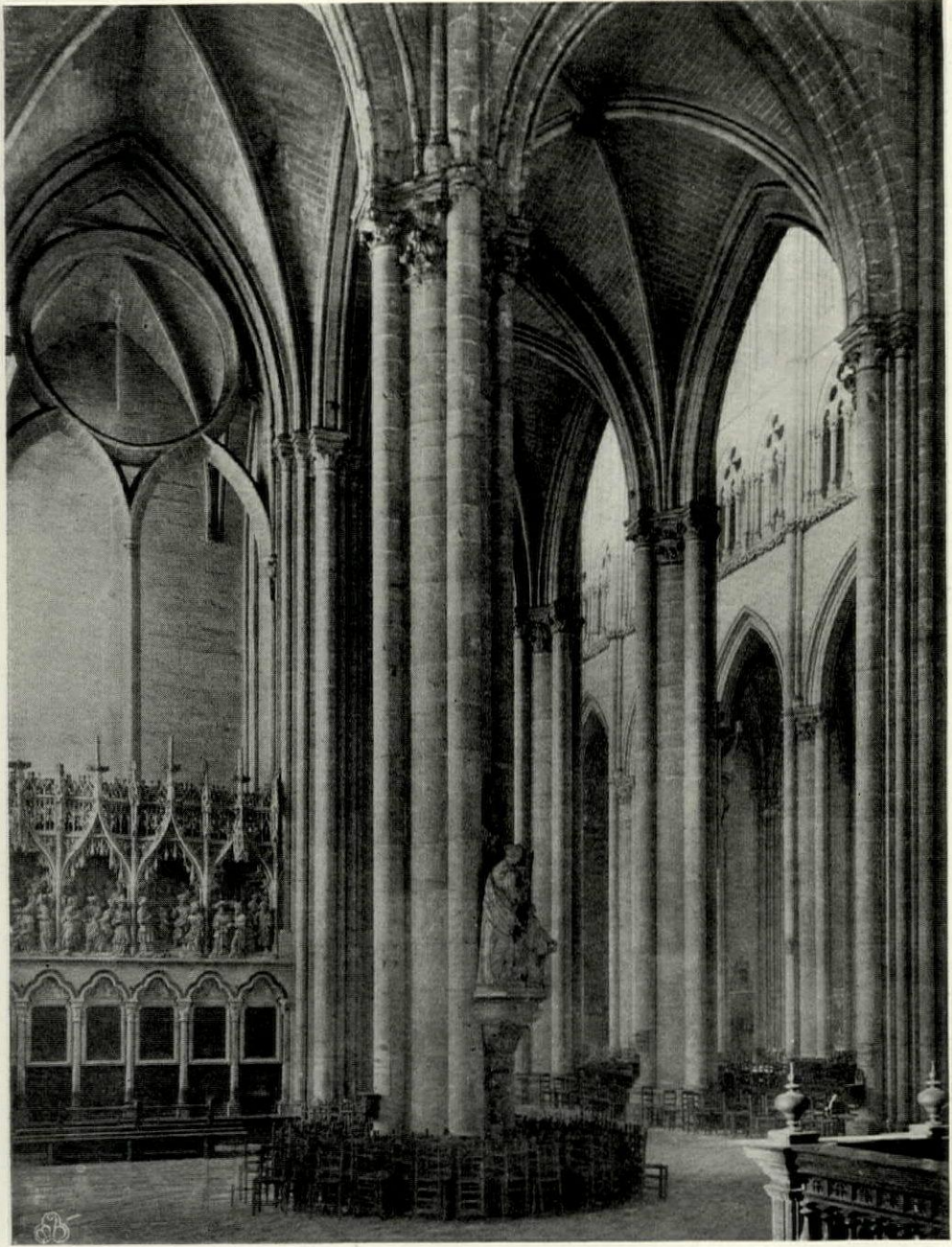
CHEVET OF ST.-REMI, REIMS.

tion applied to the most profound of books, the Bible. If God had implanted symbolism in every form of the material world, how much more must He have imparted it to His revelation, to the book in which was written all that man need know for his enlightenment and salvation? And so, for the Middle Ages, the Bible became the mystery of mysteries. In every word lurked a hidden meaning; in every phrase a double significance. And this mystical interpretation was carried over into the imagery of the cathedral. Thus when we see represented in the stained glass or in the sculpture some personage or scene from the Old Testament, we may be very sure the artist intended to suggest to our minds also another idea of which this scene was but the symbol. When on a capital of the cathedral of Verona we see Jonah vomited forth by the whale, we are to think of Christ who descended into Limbo and on the third day arose from the dead. When we see Melchisedech, we must think of another Priest and another King who offered bread and wine to His disciples. When we see Adam, we must recall that Christ is the new Adam, who redeemed the world as the first Adam had lost it. When in the cathedral of Laon we see, in a superb stained-glass window, Gideon collecting upon his fleece extended on the earth the rain of heaven, the glass painter wishes to remind us that the Virgin was that fleece on which fell the dew from on high. When, in the scenes of the Crucifixion, we see Mary and John standing at either side of the cross, we are to think, not only of the Mother of God and the beloved Apostle, but of the Church, which, by means of the Crucifixion of Christ, supplanted the Synagogue. In the exquisite relief of the Deposition by Antelami, the figures of the Church and the Synagogue are actually introduced, like persons living and present at the scene. The Synagogue, with shattered lance, is pushed down into the dust by an archangel. The Church holds a chalice in her hand. In this relief there are introduced on either side of the cross also figures of the sun and moon, other symbols of the Church and the Syna-

gogue. In Gothic representations of the Crucifixion, Mary and the Church are commonly identified, and the Virgin holds a chalice in which she catches the blood that flows from the side of Christ. In the prophet of Carpi, who holds his head in his hand, and whose features express so eloquently the strength and power of his prophetic vision—a vision of hope and ultimate salvation not untinged by a comprehension of the sadness and tragedy of the world—we are to see not only that Isaiah who had proclaimed *Ecce Virgo concipiet*, but we may recognize the features of the Apostle to the Gentiles. In a window of the cathedral of Chartres the four Evangelists are represented standing on the shoulders of the four major prophets. The glass-painter clearly wished to indicate that the Evangelists found their points of support in the prophets, but that they saw farther and more clearly. The medieval artists never wearied of placing in parallel the four Evangelists, the four rivers of Paradise and the four cardinal Virtues; and the twelve Apostles and twelve Prophets. In the archivolt of the lunette in the baptistery of Parma we see seated the twelve apostles, each bearing a medallion with the figure of a prophet.

One of the conceptions which most powerfully weighed upon the spirit of the Middle Ages was the mysterious property of numbers. The Greek philosophers had long meditated upon the subject, and Pythagoras had sought to find in numbers the explanation of the entire universe. The Middle Ages adopted the idea with passion. The great Isidore of Seville wrote a long treatise on the subject. Of all numbers the most mystic were four and three; their sum seven and their multiple twelve. Throughout the medieval cathedral, as throughout the medieval philosophy, these numbers and their mystic significance echo back and forth like a returning cadence in a piece of music.

In all medieval imagery the law of hierarchical precedence plays an important part. The centre is the place of honor; right has precedence over left, the upper over the lower. It is, there-



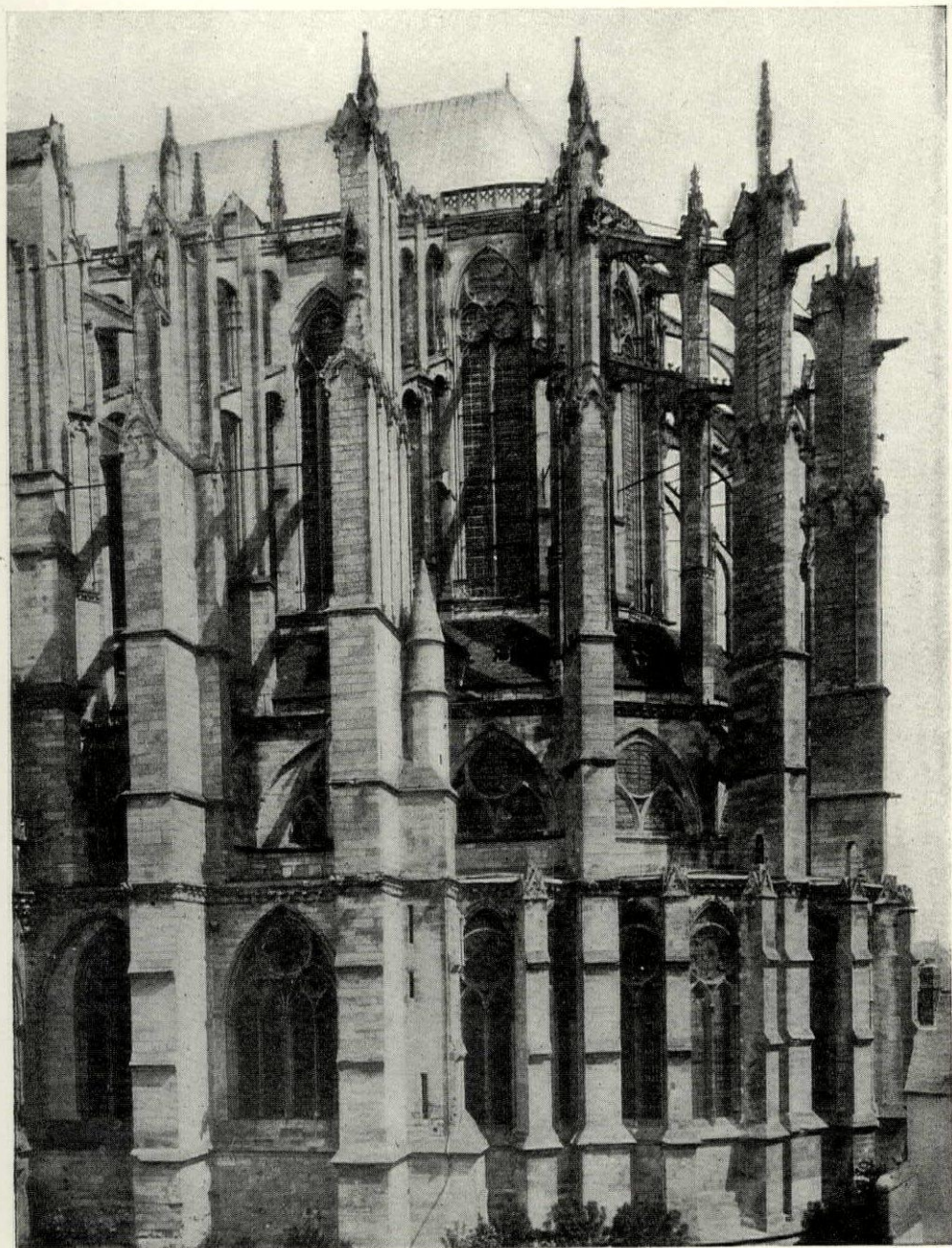
THE NAVE, SEEN FROM THE
TRANSEPT, CATHEDRAL OF AMIENS.

fore, never by chance that a particular subject is represented in a particular place in the cathedral. If the story of St. John is depicted in one window and the story of St. Peter in another, we may be certain that there is a definite reason why one is placed here and the other there.

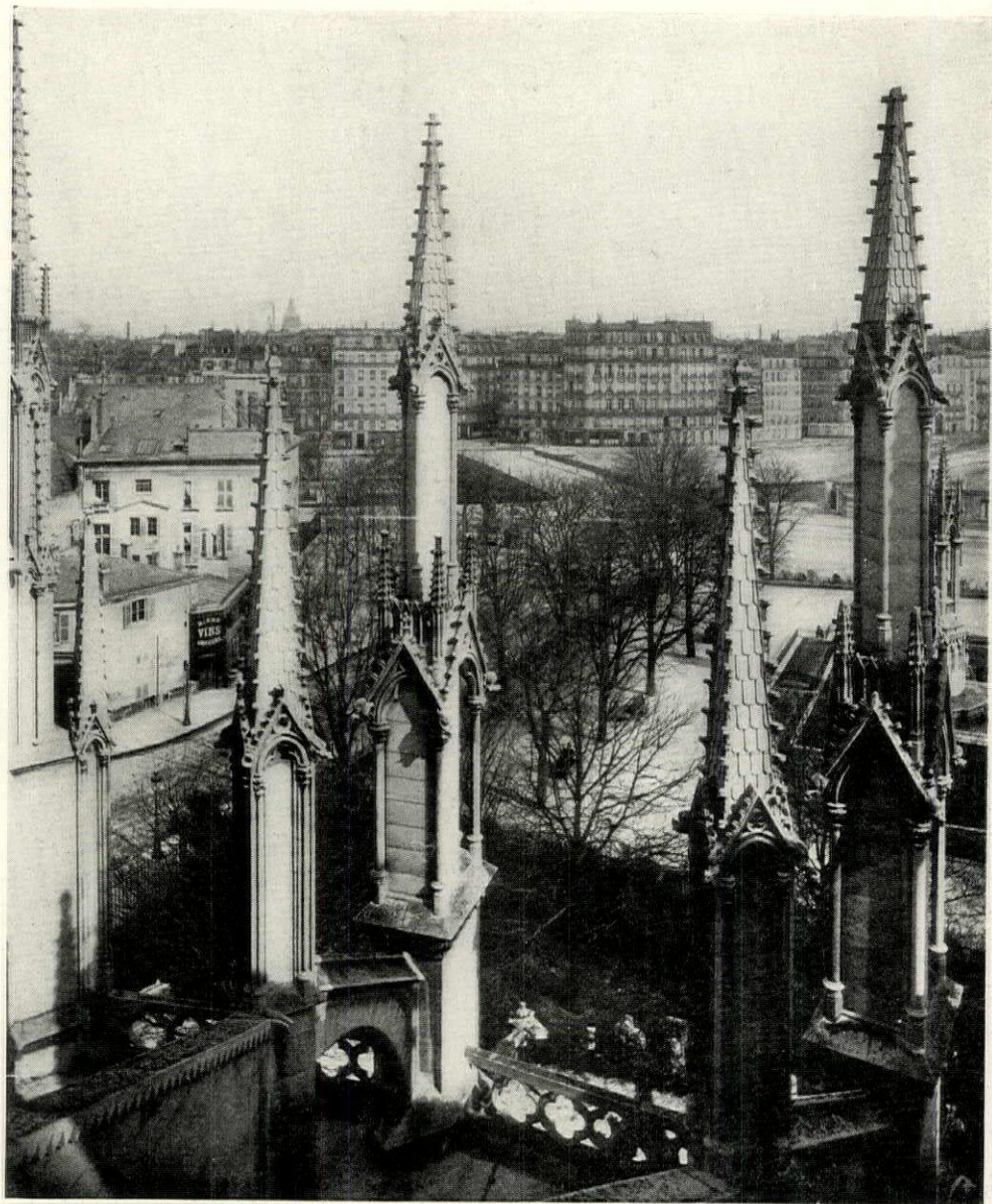
The centre of the principal portal, the post of greatest honor, was generally given to the figure of the Redeemer. To illustrate the wealth of thought bestowed upon every detail in Gothic art let us study the two little animals which are placed under the feet of the Beau Dieu at Amiens. A careful examination will reveal that these figures, which at first sight might be taken to be purely decorative, are, in reality, the aspic and basilisk. Now, in the bestiaries—those strange, unnatural histories composed by the united imaginations of Antiquity and of the Middle Ages, and which combined a complete ignorance of scientific truth almost as profound as that displayed in some of the books on natural history until recently in use in our public schools, with a poetry such as only the Middle Age could have read into such a subject—there is a great deal about the aspic and the basilisk. The aspic is a kind of dragon that one can charm with songs, but who is on his guard against the charmers, and, when he hears them, places one ear against the ground and closes the other with his tail, so that he can hear nothing. Thus he escapes being charmed. The Middle Ages found no difficulty in understanding this strange animal. For them the aspic was the image of the sinner who shuts his ears to the words of life—that is, the Gospel. The basilisk, on the other hand, has such a nature that when he has passed the seventh year of his age he feels an egg grow in his stomach. Thereupon he is amazed at himself and suffers the greatest pain that a beast can suffer. The toad, another bestiary animal, has such a nature that he smells the egg which the basilisk carries, and as soon as it is laid he goes to cover it. The young basilisk hatches out with the head, neck and breast of a cock and the tail of a serpent. He then goes to live in a crack in

a cistern. He is of such a nature that if a man sees him first, *he* dies; but if he see the man first, the *man* dies. He has, moreover, such a nature that he throws his venom and kills birds. He who wants to kill the basilisk must cover himself with a vessel of glass, for the beast throws his poison with his eyes, and if it strikes against the glass it rebounds on the beast himself and kills him. The basilisk is the symbol of the devil, and is the very one who tempted Adam and Eve, for which he was banished from Paradise into the cistern of Hell. The vessel of glass is the Virgin, in whose womb Christ enclosed himself. Therefore, when we see the Beau Dieu of Amiens standing upon the aspic and the basilisk, it is evident that we have represented in reality the triumph of Christ over Sin and Satan. If you will turn, not to your Revised Version, but to the Vulgate, you will find that the Psalmist says: "Thou shalt trample on the aspic and the basilisk, and the dragon and adder shalt thou cast under foot." Indeed, a close examination of the Amiens pillar will reveal the adder and dragon carved not far from the aspic and basilisk. The medieval artist has represented in this sculpture the profound dogma of human sin and redemption. It is with peculiar fittingness that this fundamental and primary conception of the Church is placed in the most important position of the cathedral. This is the meaning of the two little animals, one of the smallest of the myriad details with which the Gothic church is covered.

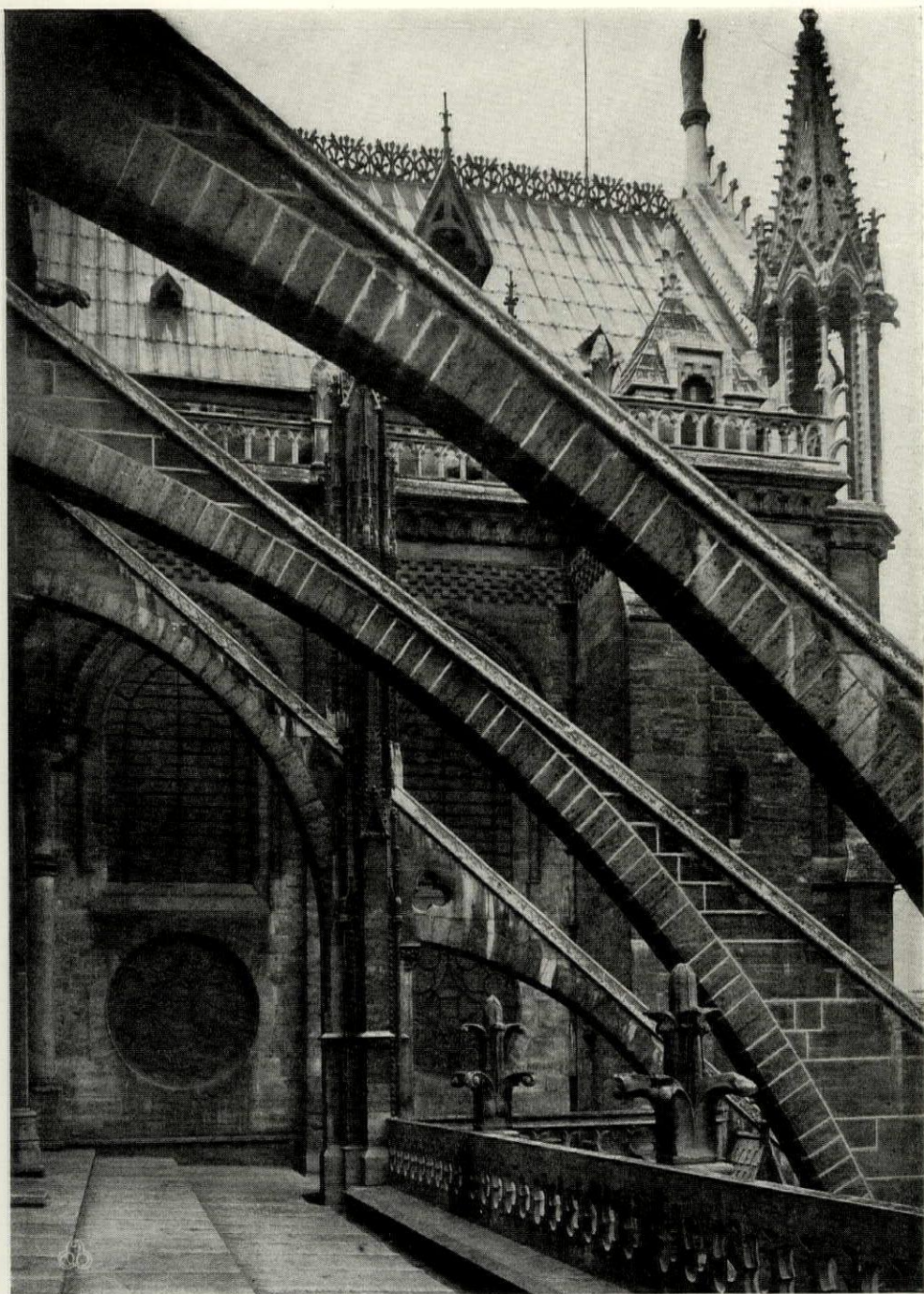
The same sense of propriety, the same sense of order and of unity pervades the iconography of the entire cathedral. M. Mâle has proved that the medieval church in its imagery is as essentially and as vitally unified as in its structure. The four great mirrors of Nature, of Science, of Morals and of History, into which Vincent de Beauvais divides his work upon human knowledge, and which in the medieval conception reflected the manifestations of the glory of God on earth, each finds in the cathedral imagery its appropriate, logical and fitting place. At Chartres, for example, on the north side (the region of darkness and cold)



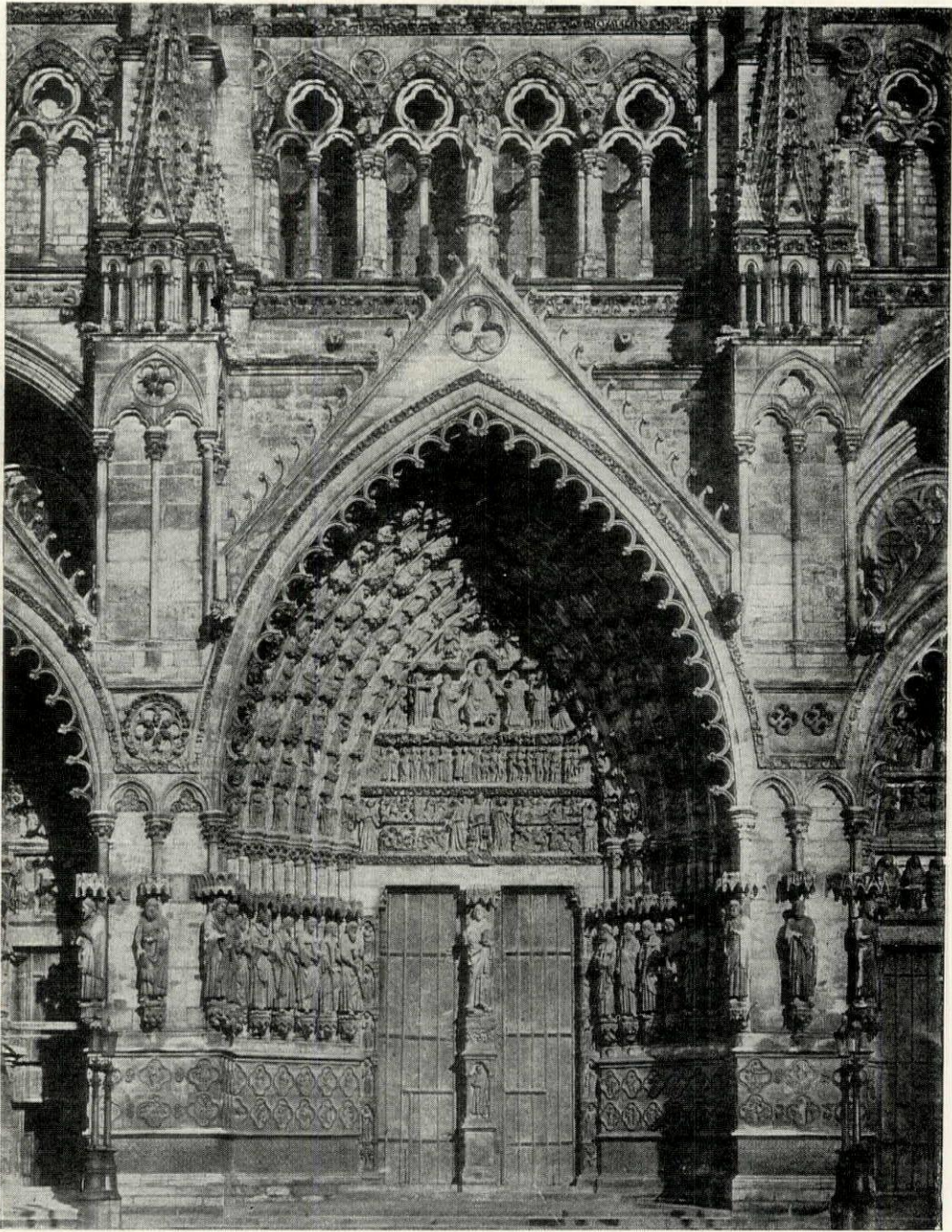
CHEVET OF THE CATHE-
DRAL OF BEAUVAIS.



PINNACLES OF THE CHE-
VET, NOTRE-DAME, PARIS.



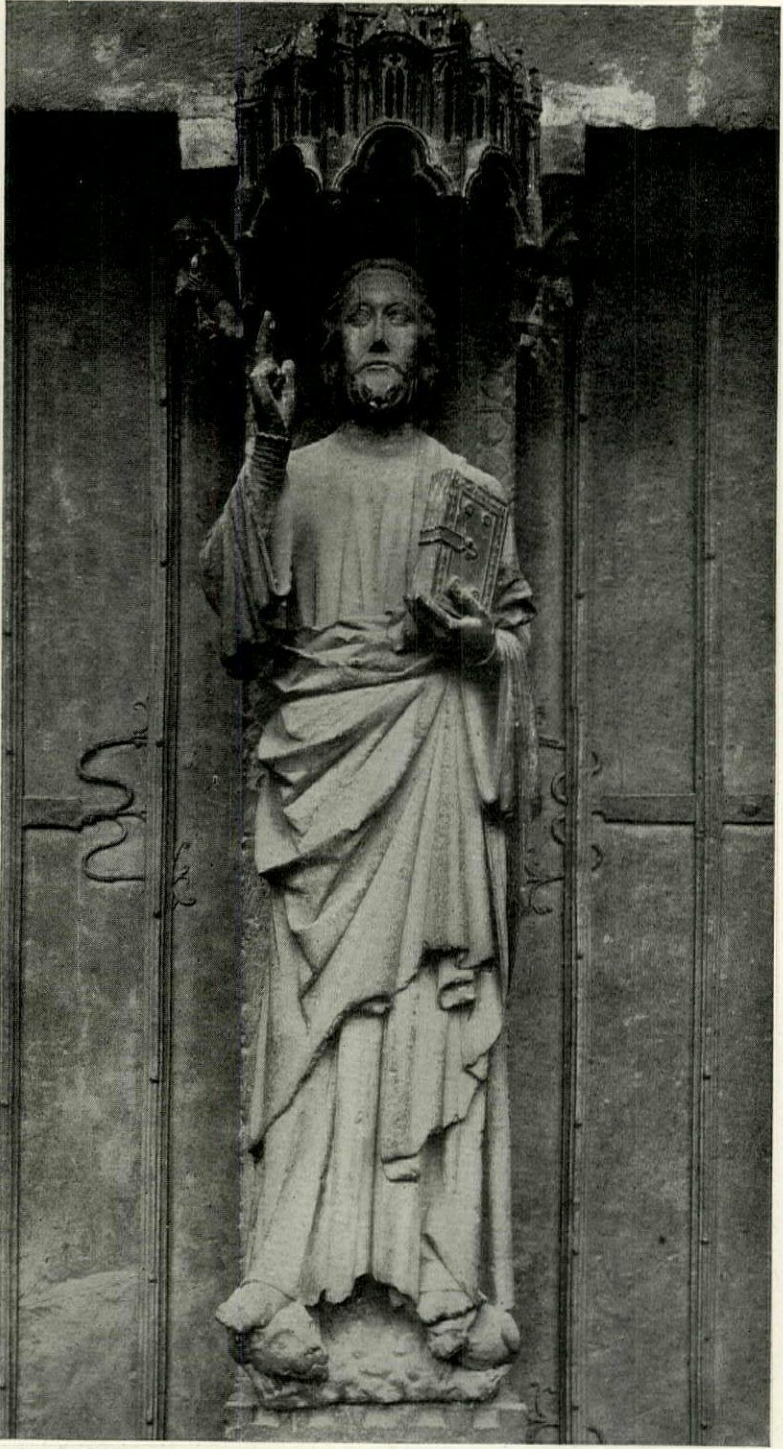
FLYING BUTTRESSES OF THE
CHOIR, NOTRE-DAME, PARIS.



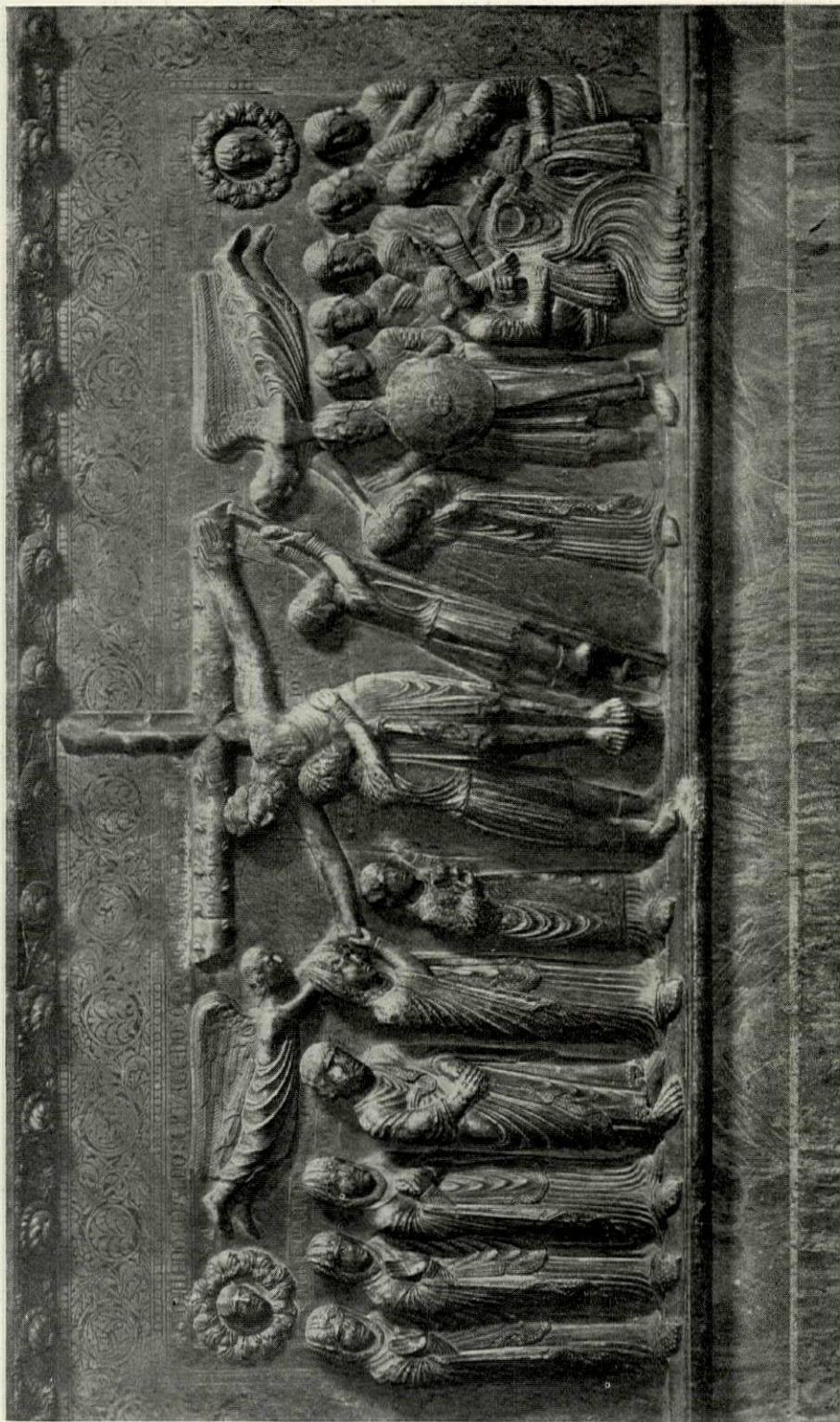
WESTERN PORTAL OF THE
CATHEDRAL OF AMIENS.



AMBULATORY OF THE
CATHEDRAL OF SENLIS.



BEAU DIEU, CATHEDRAL OF AMIENS.



DEPOSITION FROM THE CROSS (BY BENEDETTO, MISCALLED ANTELAMI), CATHEDRAL OF PARMA.

were displayed subjects drawn from the Old Testament, from those ages which awaited the coming of the Sun of Christ. On the south (the region of sunshine and warmth) were told the solemn stories of the life of Christ and the Christian saints. Over the western portal was unrolled the dreadful drama of the Last Judgment, so placed that the last rays of the setting sun might illumine this terrible scene of the final evening of the world.

I am sensible how inadequate are these few lines to convey an impression of the beauty and poetry of medieval iconography. Happily M. Mâle's admirable study is within the reach of all. What I have said may be sufficient to indicate in some measure the type of symbolism used by the Gothic artists. It is through the imagery in Gothic architecture that Philosophy is made to sit crowned, a queen over all the arts, harmonizing and combining them into a mighty unity. It is through the imagery that Gothic architecture acquires its supreme intellectuality; that it becomes not only decorative, but illustrative.

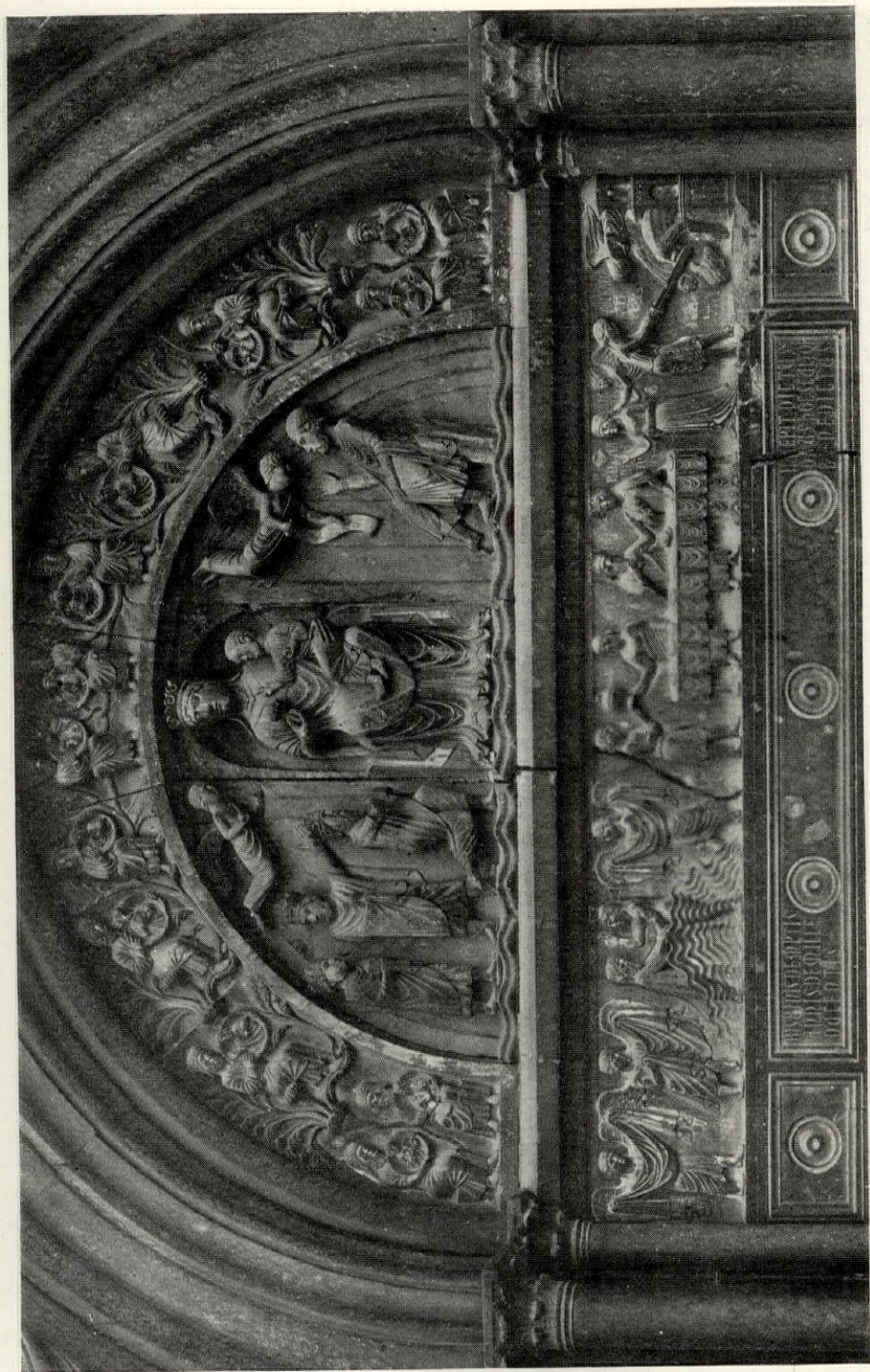
As I use these two words "decorative" and "illustrative" in a special sense, it will be well to define the meaning I seek to convey by them. Mr. Berenson has already acclimated them to painting. By "decoration" I mean to indicate all the *intrinsic* merits of a work of art; all the intellectual qualities that make it in itself pleasing to us. These would include in painting and sculpture: form, color, line, movement; in architecture: proportion, scale, massing; in literature: style, the choice of words, verse; in music: harmony, rhythm, modulations. "Illustration" on the other hand indicates all the *extrinsic* merits of a work of art, those intellectual qualities that make it pleasing to us by outside suggestion. Character drawing is an example of illustration applicable to the three arts of painting, sculpture and literature. By means of the sculpture and glass, Gothic architecture became highly illustrative; it conveys to us ideas and pleasurable emotions quite outside of the material building itself.

I think there can be no doubt that an

art depends far more than is commonly recognized upon its illustrative quality. Over-emphasis of decoration has been a disastrous mistake of the modern age. What one says matters far more than how one says it. The ability for expression, technique—in the last analysis decoration is hardly more—is indeed a necessary pre-requisite; but if art stops here, it has essentially failed. *Decoration is merely a means to the supreme end—illustration.* This is the whole gospel of art.

Modern criticism is beginning to perceive at last the value of illustration. Mr. Berenson after having seen importance only in decoration has now reversed his opinion. Knowledge of Oriental art has opened our eyes to the fact that the artist who sets himself illustration as his ultimate aim is alone capable of reaching the greatest heights. The decadence of modern art appears to be largely due to the abandonment of all ideals of illustration. Nothing contributes so largely to the feeling of depression caused by an academy exhibition as the fact that most of these painters, for all their technique, have nothing to express. It is only illustration that can lift art to the highest level.

That this statement be not misunderstood, I hasten to add that I attach to the word "illustration" an even broader meaning than that given it by Mr. Berenson. I should make it include not only the conveying of a concrete idea, but also the conveying of an emotion. It was this that Cézanne meant when he spoke of the *petite sensation* he tried to fix upon his canvas. Thus an andante of Beethoven or Brahms would be as completely illustrative as a piece of program music by Strauss or Debussy. An Asia Minor rug may have a strong illustrative element—the good ones in fact do, even when the forms are least realistic. Mr. Berenson would doubtless judge Giotto a very poor illustrator, because he is not successful in interpreting the finer and more subtle aspects of the subjects he depicts; I should call him a great illustrator, because he conveys to me a very definite *mood*, although not the same mood as that evoked by the legends of



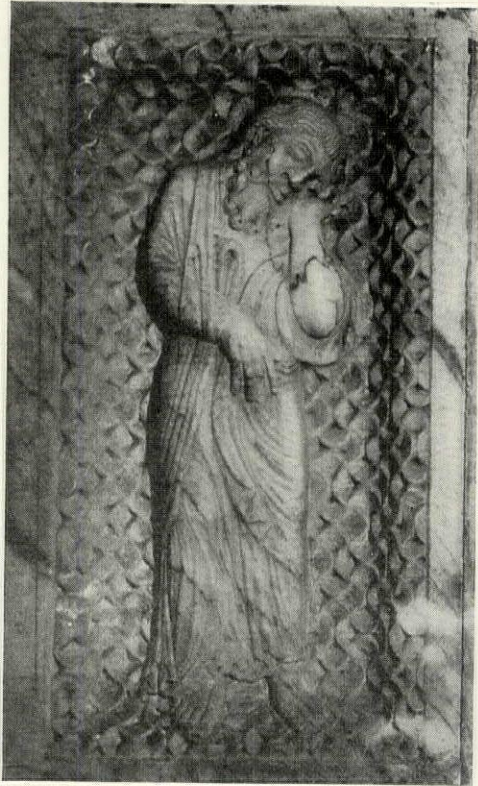
LUNETTE OF THE PORTAL (BY BENEDETTO,
MISCALLED ANTELAM, BAPTISTERY OF PARMA.

St. Francis or of Christ or of the Virgin which he paints.

Thus all architecture that is of significance is in a manner illustrative. Surely none conveys an emotion more powerfully than Gothic. But medieval art is illustrative also in the Berensonian sense. It unites the qualities of a Sassetta with those of a Giotto.

It is a curious though by no means incomprehensible fact that a race of men is capable of producing more finely artistic thought than any individual. Folk-art has almost invariably possessed greater vitality than the art of any individual. This is, perhaps, another direction in which the highly individualistic modern age has gone astray. It can hardly be doubted that the use of traditional material was a great source of strength to Homer and the tragic poets of Greece. Shakespeare drew his plots from what really was the equivalent of a folk tradition. The Renaissance painters found in subjects of a tradition-

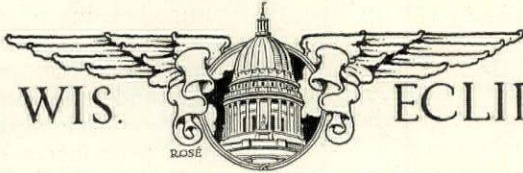
al character (although the conventions were already in precipitate decline) an inspiration which is lacking to our modern painters, free to paint what they will. Now of all legends none was so refined by passing through countless hands, none so full of life, none so imbued with intellectuality of the highest type as the religious legend of the Middle Ages. The world for twelve centuries had brought its best to the elaboration and perfection of the scholastic system. The straightforwardness and human sympathy of the people, the imagination of the poet, the deepest thought of the philosopher were there blended and combined. By comparison, the myths of the Hebrews seem crude; even those of Greece appear lacking in subtlety. It is the possession of this supreme legend that raises the *Divina Commedia* above all other epics. It is the possession of this supreme legend that places on the brow of Gothic art its highest intellectual crown.



CARPI (MODENA), PROPHET OF AMBO.

INDUSTRIAL HOUSING DEVELOPMENTS IN AMERICA

By LAWRENCE VEILLER
Secretary of the National Housing Association



I- BELOIT, WIS.

ECLIPSE PARK

*A Development by Geo. B. Post & Sons
Architects & Town Planners*

ONE of the reproaches often heard against the architectural profession has been that the average architect's ideal has been to build monumental buildings, great public structures or skyscraping office buildings or hotels, and that the better class architect has had little interest in the humble dwelling of the workingman. The result has been that the workingman has been left, as a rule, to the tender mercies of the speculative builder or the jigsaw catalogue.

It is especially interesting, therefore, to find a firm of architects, long established and of national reputation, after having achieved the splendid monument of the new Capitol of the State of Wisconsin, whose dome is indeed a glory, now turning their attention to the homes of the mechanics and workingmen in that same State.

It is perhaps an unconscious admission that no matter how gloriously the State's civic responsibilities may be symbolized by that soaring dome, its foundations rest upon the great mass of the plain people.

There are today in the United States, in round figures, some 230 improved housing developments. Some are good, some are bad; some are old, some are recent. Many are employers' enterprises built for their employees; others are so-called "model" housing schemes. There is not one of them, however, of which one could say to an employer wishing to

do the right thing, "Copy that"; though in many of them there is much that is meritorious.

From the days of ill-fated Pullman to the present there have been many brave attempts at solving the problem of housing the workingman.

The old way was for the manufacturer who wanted to house his employees to go ahead and hire a local builder and build houses. As a rule, he consulted neither architect nor city planner nor housing expert. The result in many cases has been the "mill village," with its depressing rows of hideous barracks—usually with little or no architectural effect, often indeed with all the houses painted the same color and looking for all the world like a row of institution children.

But times have changed. With the war there has come a great shortage of labor supply—not only of skilled mechanics, but even of so-called "common labor"; and the problem of reducing labor turnover has become the problem of the moment. In casting about for some method by which the workers will not only be attracted to a given plant, but will be induced to stay there after they have once been employed, a few employers of labor have suddenly discovered the value of improved housing and have begun to realize that the best way in which to make the job attractive to the right kind of worker and to hold him

there is to make his home life attractive; that there is something more than mere shelter; that the better-class laborer is entirely human and craves the same things in life that the employer does; that he even wants beauty in his life, and quiet, and grass, and trees, and privacy, and space, as well as the essentials of light and air and water.

The realization of the desirability of such developments is too recent in this country for us to have as yet anything to compare with those of England, notably the famous employers' developments at Port Sunlight and Bourneville. Nor have we anything to compare, in either architectural style or attractiveness, with the garden villages of Hampstead and Wavertree.

In this series of articles we shall seek to describe some of the leading developments in this field in America.

One of the most recent is that at Beloit, Wisconsin, known as "Eclipse Park," undertaken by the Eclipse Home Makers, Inc., for the employees of the Fairbanks Morse Company, manufacturers of internal combustion engines and steam pumps, and employing about 3,600 men.

This is a garden village composed entirely of single-family, detached, free standing houses for mechanics earning \$20 a week and up; in addition to mechanics, there are to be a few clerks and foremen.

This enterprise has especial interest because the manufacturer had the wisdom to seek expert advice at the very beginning; and for the further reason that the architect has been unusually free from the embarrassing limitations which a client often seeks to impose. In this case he has had as free a hand as architects ever have.

The result is a well-ordered and charmingly developed community of pleasant and attractive homes, enjoying the amenities of life in houses of artistic merit, skilfully diversified, free from monotony and yet harmonious in style and distinctively American—for the whole development is Colonial in treatment. There has been no attempt to transplant to America a style of architecture that is essentially English or

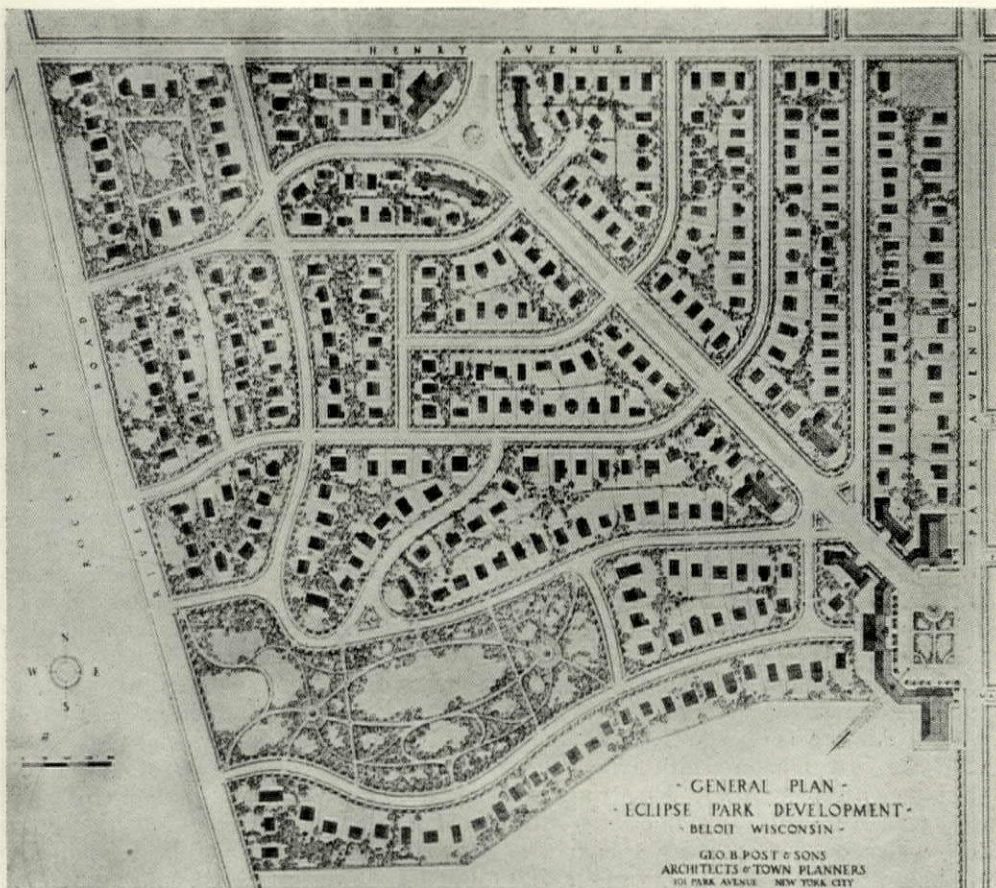
French, but the architects have wisely chosen to give the country a typically American Garden Village.

Beloit is a city of about 18,000 people of diversified industries, of which the largest is that of the Fairbanks Morse Company. This company had the foresight some years ago to locate their plant on what was then the outskirts of the city and to acquire at that time and hold enough adjacent land to provide for the future housing of their employees. The result has been that they have avoided the payment of an excessive price for their land—the rock on which so many housing developments founder. Allowing for the increase in values which has come since the land was originally purchased and for the interest charges on holding it unproductive through that period, it is estimated that the land cost is less than \$1,200 an acre, undeveloped.

On a tract of about fifty-three acres, located about one and a half miles from the heart of the city, "Eclipse Park" is situated. On the south, this tract immediately adjoins the Athletic Field and works of the Fairbanks Morse Company, in which the residents of the Park are practically all employed; so that for most of them it is no more than a five-minute walk from their homes to their work, and not more than a fifteen-minute walk for those persons living in the most distant part of the Park.

To the west is Rock River, from which the Park is separated by an attractive pleasure boulevard, River Road. To the north is the open country, the adjacent land being held by the company for a future development of the same kind. On the east the town is spreading out, developing with residences in the usual commercial way. Along the eastern boundary trolley lines lead directly to the heart of the city. The site is thus very accessible.

In its topography the land is especially advantageous. It is partly level, partly undulating. For about one-third of a mile it spreads along the river front. Here the land rises somewhat abruptly to a height of about twenty feet above the River Road, then slopes gradually to level country. About two-thirds of the



GENERAL PLAN, PROVIDING FOR 350 HOUSES—ECLIPSE
PARK DEVELOPMENT, BELOIT, WIS. GEO. B.
POST & SONS, ARCHITECTS AND TOWN PLANNERS.

whole tract is level. All of the property fronting the river is heavily wooded with trees of unusual beauty and the natural beauties are being preserved throughout the development and heightened by the reservation of a tract of about eight acres as a park for the use of the residents. The level portion of the tract is being developed first, thus insuring no difficulty in marketing the remnants, a problem which frequently gives trouble to land developers. In this case the most attractive lots are being reserved till the last.

The whole area has been carefully laid out with city planning principles in view. The streets follow the natural contours, and steep grades have thus been avoided. The customary gridiron or checker-board plan will not be found here. The whole tract is divided into seventeen blocks or parcels, each one quite different in area and in shape. A reference to the general plan indicates how well this has been done. Nor has money been wasted, as is so often the case, in streets of too great width. All streets except the main boulevard are fifty feet in width (the boulevard is eighty feet wide). Roadways are eighteen feet wide, and sidewalks four feet wide; on the roadway side of the walk is a grass planting-strip four feet wide and on the house side of the sidewalk another grass strip eight feet wide. In addition, every house is set back at least twenty feet from the front line, thus insuring an effect of grass and shrubs and trees, and making a park-like appearance for the whole section.

No special recreation features have been provided inside this residential section other than the natural park, for the reason that the Athletic Field of the plant, in which the residents are employed, immediately adjoins it outside the Park.

One of the very attractive features is the way in which the entrance to the Park has been treated. Here, it is proposed to construct a group of two-story buildings of good design and of irregular outline. The first story is to be treated as an arcade extending continuously around the enclosed portion of the entrance square, and will thus not only add

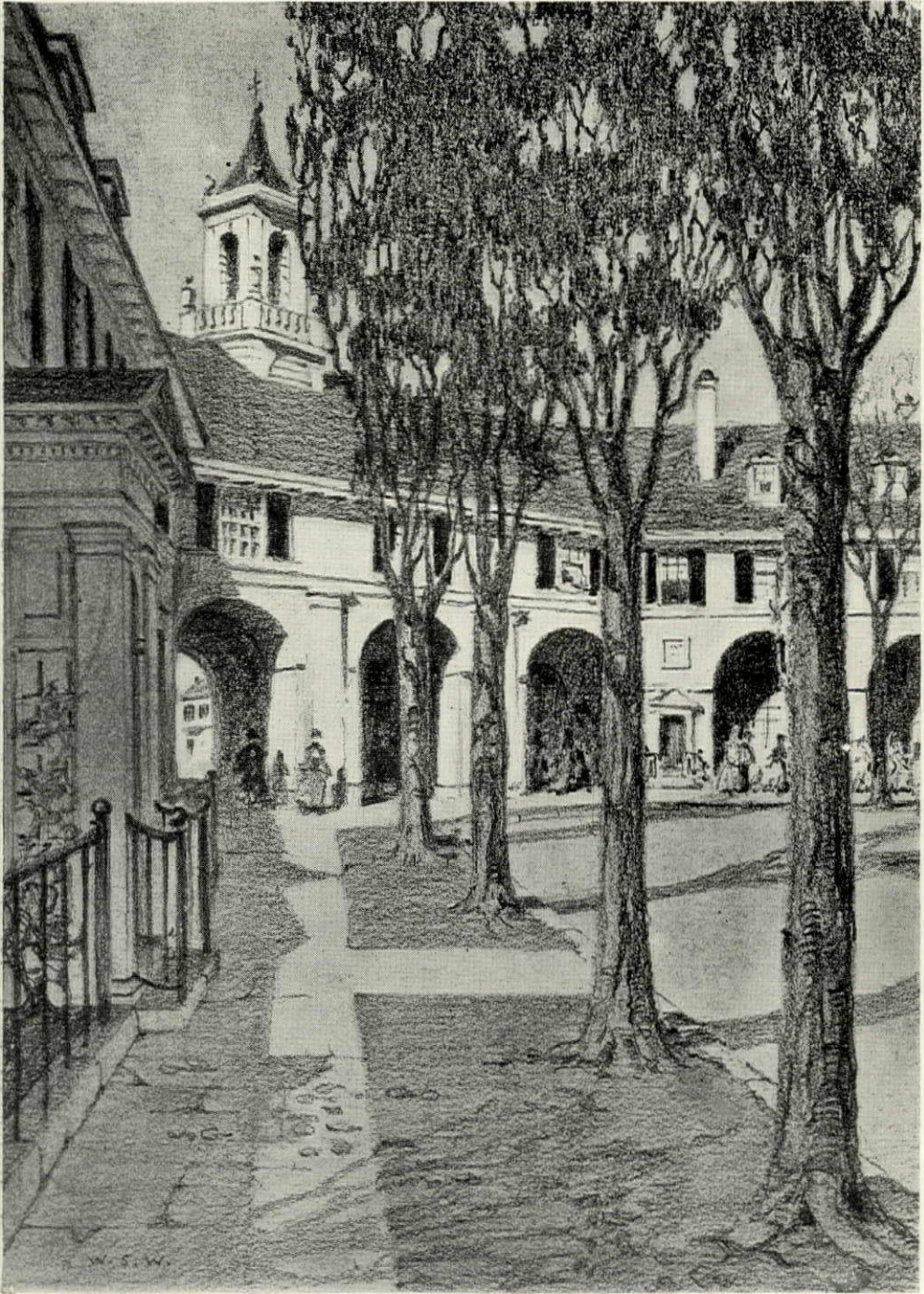
to the attractiveness of the entrance, but will provide shelter for persons waiting for cars. The ground floor is to be used for stores of various kinds, a motion picture theatre, as well as quarters for a branch library, club rooms for civic organizations and the like. The second story will be used for apartments and offices.

In addition, provision is made inside the park for sites for churches and club houses and other public and semi-public buildings. These are located along the main boulevard at conspicuous points.

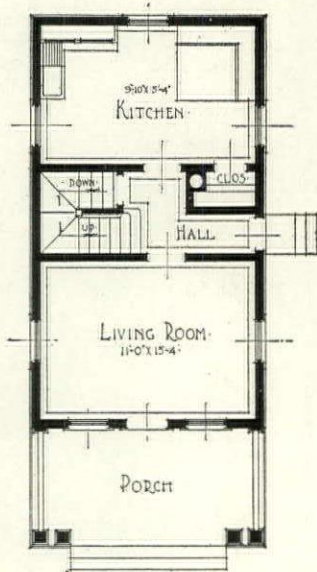
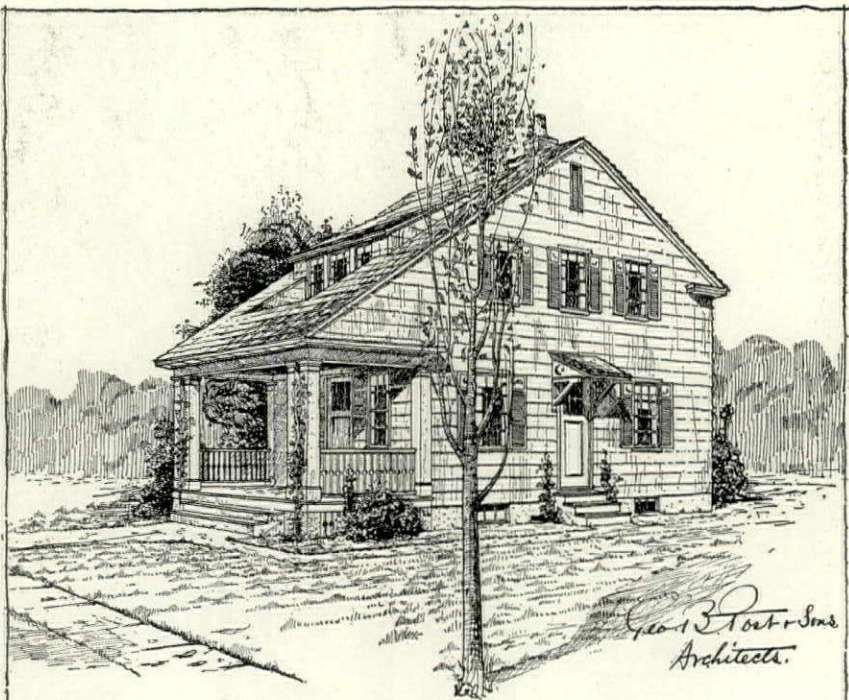
The company contemplates the building of 350 houses. Thus far fifty have actually been constructed and the foundations of a second fifty are now being laid. Five different types of houses have been used, namely, four-room houses, five-room houses, six-room houses, seven-room houses and eight-room houses. When the development is completed it is contemplated that there will be fifty houses of four rooms each, fifty-four of five rooms each, one hundred and ten of six rooms each, eighty-eight of seven rooms each, twenty-nine of seven and eight rooms each, and nineteen of eight and nine rooms. Although there are five types of houses, the architects with very great skill and much ingenuity have developed about forty different designs or styles of houses, all architecturally harmonious.

Of those of the A type, namely, the four-room type of house, there are ten variants; of the five-room type of house, there are eleven variants; of the six-room type of house, there are nine variants; of the seven-room type of house, there are eleven variants; and of the eight-room house, two variants, with additional designs in preparation.

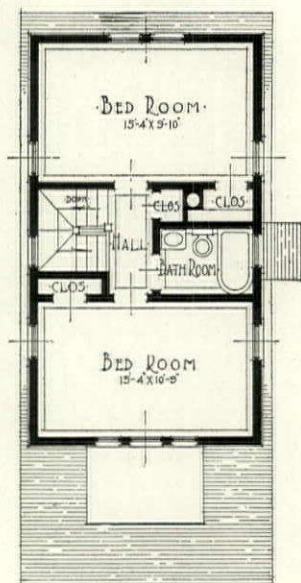
The most distinctive achievement has been the skill with which this variety and individuality of treatment has been reached without sacrificing the harmony of the entire development and yet preserving a sense of individuality to each house. Not only have the architects shown great skill in this treatment of the project, but in applying the houses to the land this consideration has equally been borne in mind, so that while the houses



PROPOSED VILLAGE SQUARE ARCADE WITH SHOPS—ECLIPSE PARK DEVELOPMENT, BELOIT, WIS.



FIRST FLOOR PLAN.



SECOND FLOOR PLAN.

FOUR-ROOM CLAPBOARD HOUSE
(A-7). SALE PRICE, \$2,400—ECLIPSE
PARK DEVELOPMENT, BELOIT, WIS.

are all harmonious there is not the effect of a row of houses all alike that one so often finds even in the best thought-out developments of this country. To illustrate: In one block, where all the houses are of four rooms, the arrangement has been so varied as that the following different types have been placed on the lots in the following order—A-2, A-7, A-3, A-5, A-9, A-5, A-10, A-6, A-7, A-8, A-3, A-9, A-5 and so on. It is thus seen that there is no danger of monotony resulting.

Every house is a single-family detached house. Every house has concrete foundations, with paved cellar seven feet in height in the clear, extending under the entire house. The cellar is equipped with a hot-air furnace, with flues and registers to all rooms. Each house has a bathroom on the second floor, with bathtub, modern toilet and wash basin. The houses are provided with electric lights in every room, and with ample closets in all bedrooms. No kitchen has an area of less than ninety square feet and some have as much as one hundred and fifteen square feet of floor area. Every kitchen is equipped with a modern sink and drainboard, dresser, gas range and closets for supplies. The latter are equipped with six rows of shelves for storage of supplies in bulk and of kitchen utensils. In the lowest priced houses—namely, the four-room houses intended for small families and persons of comparatively low-earning capacity—a separate dining room is not provided. The kitchen, however, is treated as a combined kitchen and dining room. The room is made larger and buffet corner seats are built in. In all the other houses there are dining rooms. The largest houses have a space at the kitchen entrance to accommodate a refrigerator. All houses have either back entrances or side entrances to the kitchen. Every house is provided with a piazza or porch.

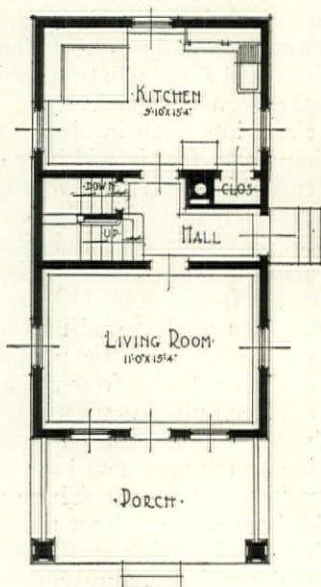
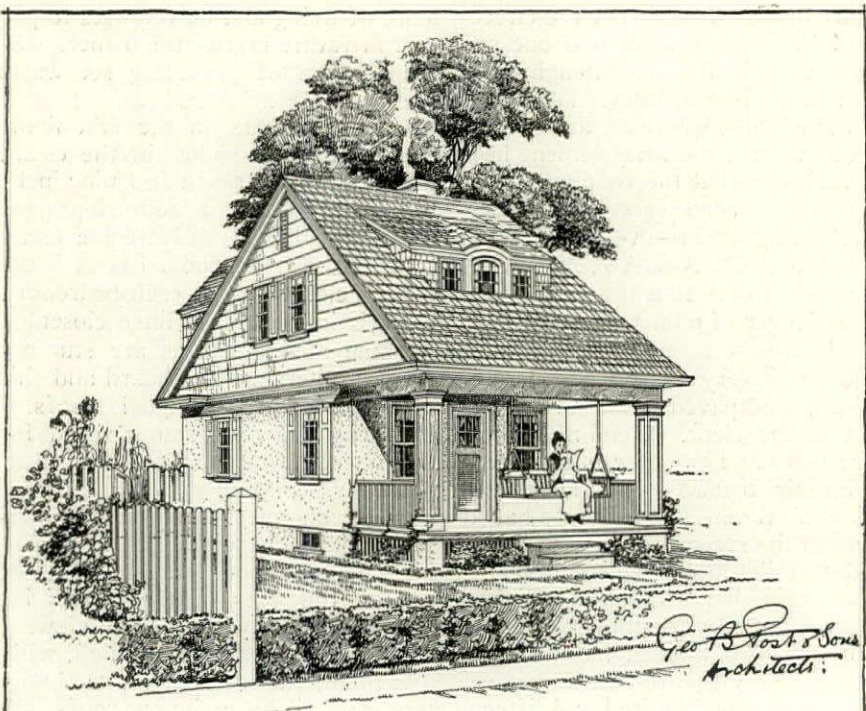
Owing to the character of the water supply in Beloit, it being very hard, set wash-tubs have been omitted in practically all the houses except a few of the larger and more expensive ones, where wash-tubs are placed in the cellar. This, to the mind of the writer, is a very serious defect from the point of view of conven-

ience of living and he ventures to predict that in future houses the owners will see the wisdom of providing set wash-tubs for all houses.

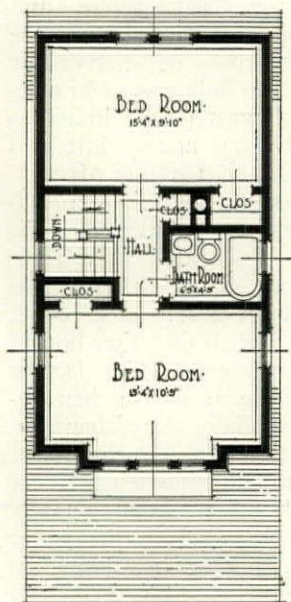
Ceiling heights on the first floor are eight feet four inches in the clear; on the second floor seven feet nine inches in the clear. Where a roof slopes near a floor level there is at least five feet head room. Every bedroom has at least one clothes closet and on each bedroom floor there is in addition a linen closet.

Some of the houses are stucco over frame; others are clapboard and shingle. The roofs are shingled roofs. The plumbing has been standardized for all the houses, thus reducing the cost appreciably. Similarly, wherever possible, other economies have been practiced, with minimum waste resulting through intelligent methods employed in cutting timber, the sizes of the houses having been designed with this in view. The houses are all two stories high, with one exception, there being one bungalow type, and all have sloping roofs. While the sloping roof has been employed to secure architectural effect, great care has been taken at the same time that it should not result in unlivable rooms in the upper story. A study of the plans and elevations will show what attractive bedrooms have been designed.

The lots vary in size. None are less than forty feet in width or eighty feet in depth. The various frontages employed have been forty feet, forty-five feet, fifty feet, fifty-five feet and sixty feet. The various lots depths are eighty feet, ninety feet, 100 feet and 110 feet. An effort has been made to adjust the size of the lot somewhat to the pocketbook of the purchaser. The four-room houses thus have been placed on lots forty by eighty; the five-room houses on lots forty-five by ninety; the six-room houses on lots fifty by 100, and so on. There are no alleys. All houses are at least fifteen feet apart; that is the minimum distance between buildings. In many cases they are set with greater space between adjacent houses. There are about seven families to the gross acre. The buildings occupy about twelve and one-half per cent. of the whole area; the rest is devoted to

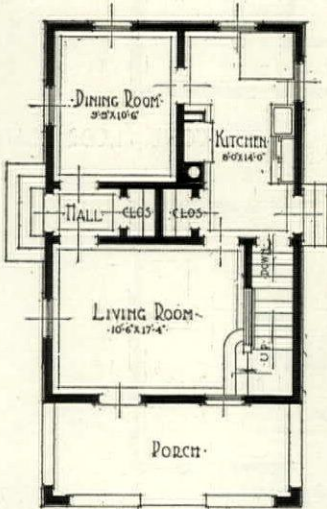
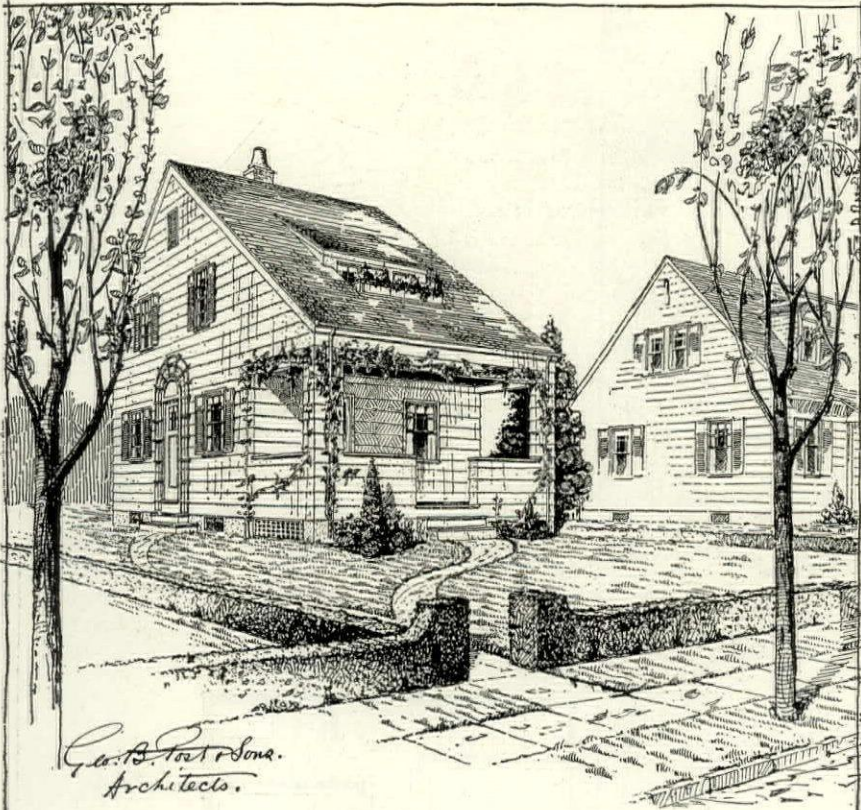


-FIRST FLOOR PLAN-

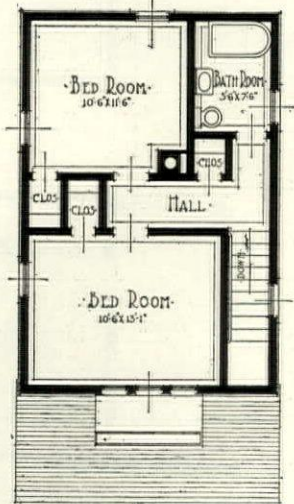


-SECOND FLOOR PLAN-

FOUR-ROOM STUCCO AND CLAPBOARD HOUSE (A-6). SALE PRICE, \$2,400—ECLIPSE PARK DEVELOPMENT, BELOIT, WIS.

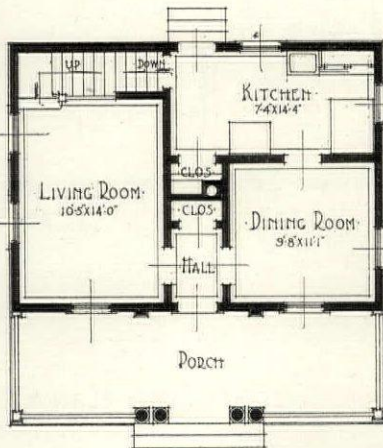
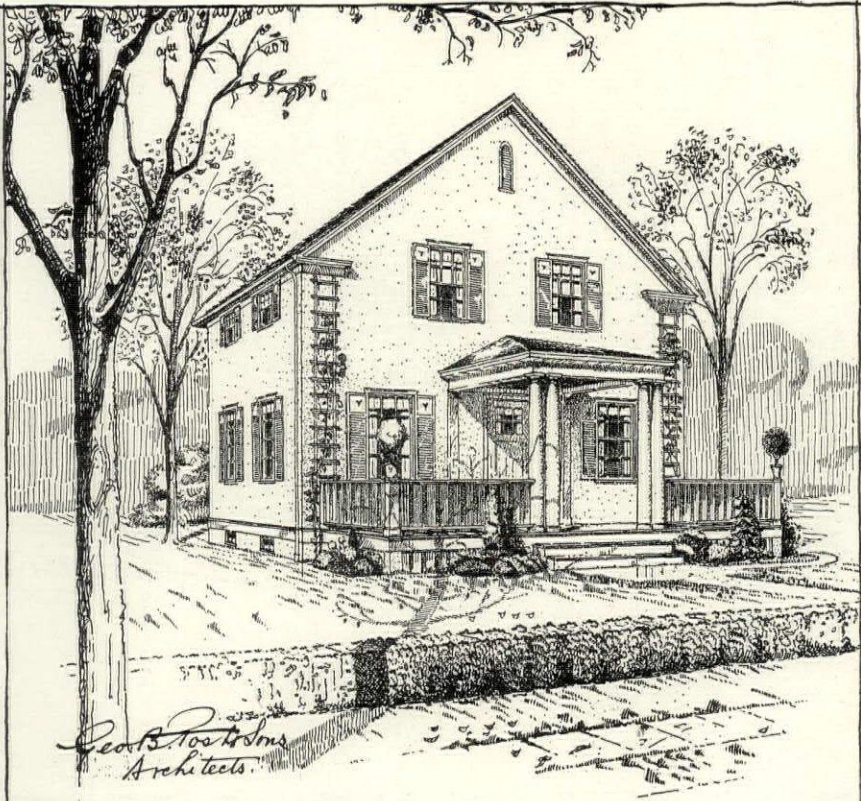


-FIRST FLOOR PLAN-

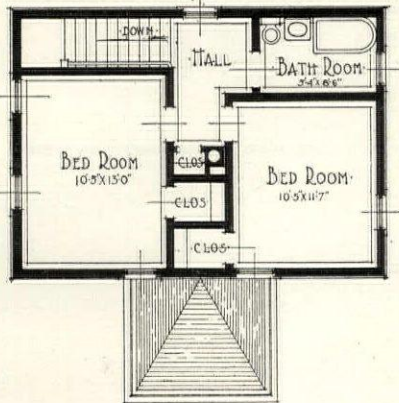


-SECOND FLOOR PLAN-

FIVE-ROOM CLAPBOARD HOUSE
(B-4). SALE PRICE, \$2,500—ECLIPSE
PARK DEVELOPMENT, BELOIT, WIS.

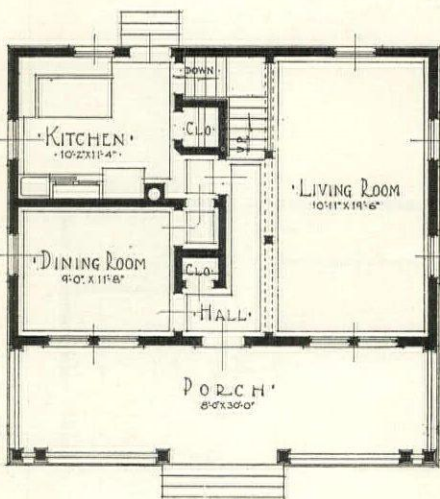
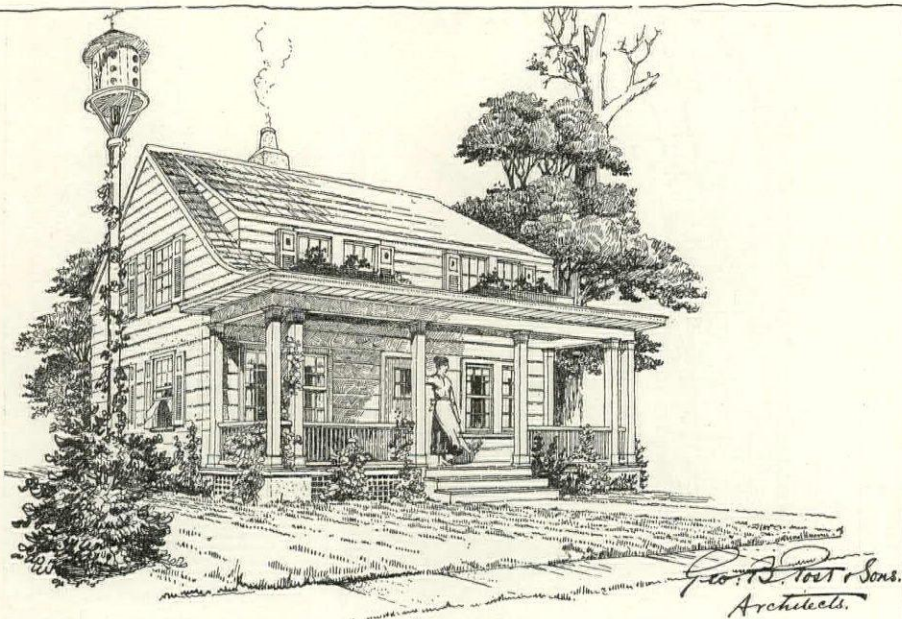


- FIRST FLOOR PLAN -

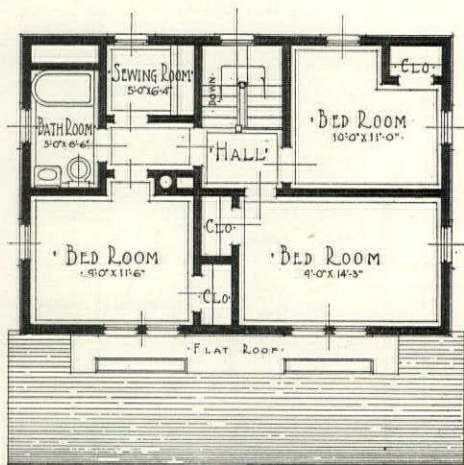


- SECOND FLOOR PLAN -

FIVE-ROOM STUCCO HOUSE (B-9).
 SALE PRICE, \$2,750—ECLIPSE PARK
 DEVELOPMENT, BELOIT, WIS.



' FIRST FLOOR PLAN '



' SECOND FLOOR PLAN '

SEVEN-ROOM CLAPBOARD HOUSE
 (C-5). SALE PRICE, \$2,750—ECLIPSE
 PARK DEVELOPMENT, BELOIT, WIS.

streets and open spaces. Every house is set back at least twenty feet from the front line and some as much as thirty-eight feet.

The development is a complete one; for, the company is not only making the streets, sidewalks and curbs, installing sewers and water supply, but also contemplates carrying out a complete garden scheme, planting trees and shrubs as well as lawns.

Great care and study has been given to the orientation of the houses and to a consideration of the prevailing winds, which come from the west, off the river. A study of the general plan will show to what extent this has been carried out. Types of houses in one case front with the narrow dimensions on one street with the piazza in the front; and in other cases, where it was necessary to get the most desirable exposure, the same house has been turned around so as to have the long dimension of the house facing upon the front with a broad piazza, securing in that place the best exposure.

The architects' drawings and floor plans, accompanying this article, will well repay careful study. Photographs of the actual houses are not presented, for the reason that the development is still too raw, hardly any of the houses being entirely completed, to make such presentation possible.

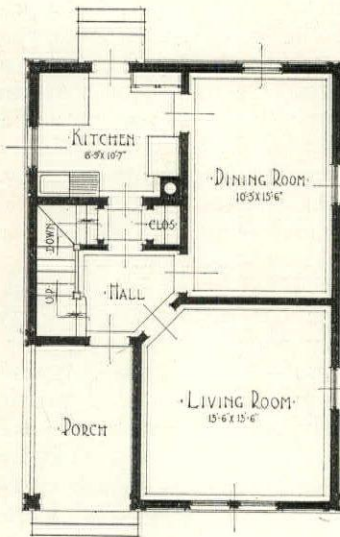
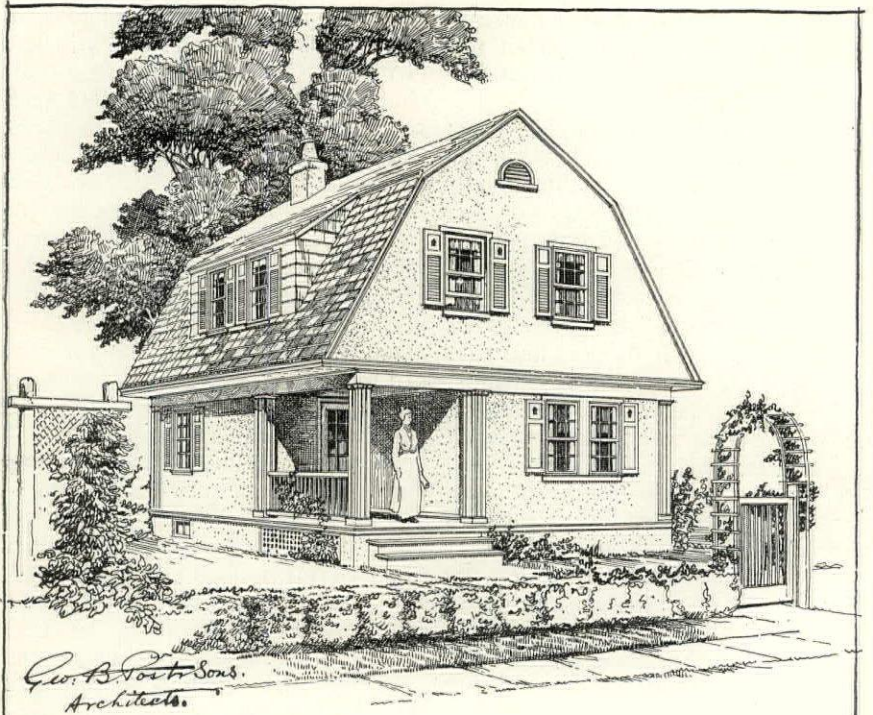
Scrutiny of these floor plans shows that the architects have employed unusual skill in eliminating waste space; in making rooms of attractive shapes as well as of ample size; in grouping the rooms with regard to the greatest convenience of access and at the same time always having an eye to economy of construction and keeping the building as near the square as possible, thus reducing cubage.

While no provision has been made anywhere in the development for the housing of single workers in boarding houses or hotels (the most desirable and satisfactory way), consideration has been given to the possibility of some of the residents desiring to take roomers; and while it has not been the intention or desire of the company to encourage this bad practice, it has recognized it as a

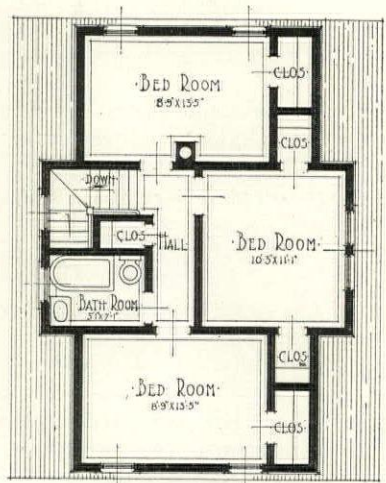
probable and necessary evil and the architects have accordingly drawn their plans with this in view. Rooms suitable for lodgers have been provided in such manner as to insure privacy to the family. The scheme is thus a flexible one. Where a family is large and it is not desired to take in roomers, the house fits the family. Where the family is small and roomers are desired, the same house is equally suitable. The architects have been unusually successful in their treatment of the bedroom accommodations. In nearly every case cross ventilation has been obtained, not only from one room to another, but in every room. This is of great importance. Moreover the beds and other furniture have been planned so as to avoid having a bed pushed up against a window, with the result that the window is kept closed when it should be open. It is a common experience in workingmen's dwellings to find that, when the furniture is put in the room, the occupant either has to forego the use of the windows or access to the clothes closet. All of this has been thought out and overcome. All bathrooms not only have been standardized so that the fixtures and sizes are alike in practically all of the houses, but in every house the plumbing has been likewise concentrated, the bathroom being immediately over the kitchen; in fact, the lines and fixtures are directly over each other, thus insuring considerable economy.

As illustrative of the care with which the architects have studied their problem and sought to avoid monotony and secure variety of treatment, may be cited the ingenious variations in the style of outside shutters used on the different houses—eight different types of shutter designs have been thus provided. Similarly, with regard to the treatment of the chimney caps—seven different types of chimney caps have been evolved and five different types of window flower boxes, each one suited to the particular house on which it is to be used.

It is to be regretted that it has not been possible to obtain from the company exact figures as to the cost of each type of house. The company quotes the following selling prices on the vari-

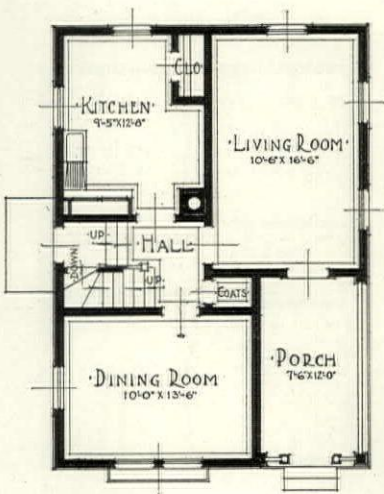
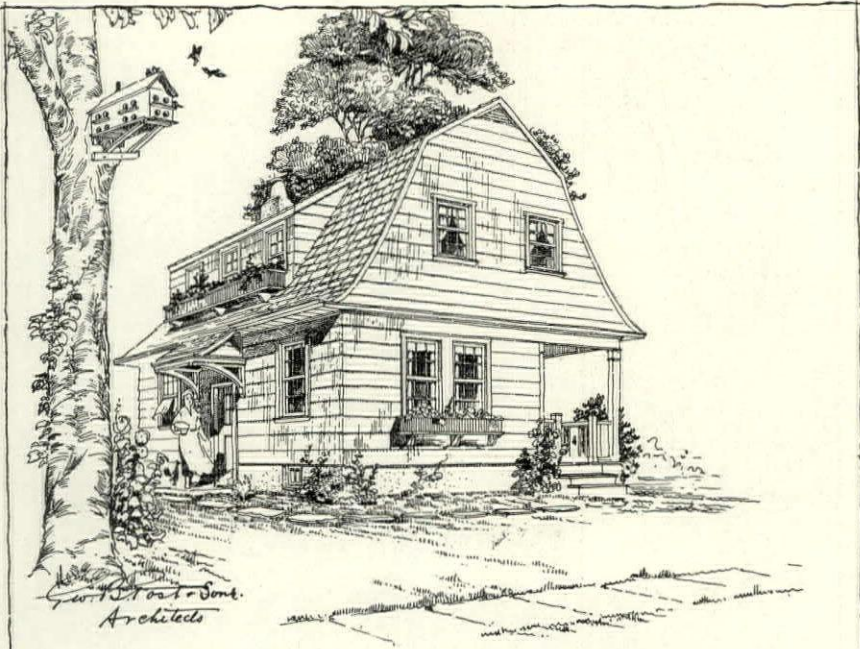


-FIRST FLOOR PLAN-

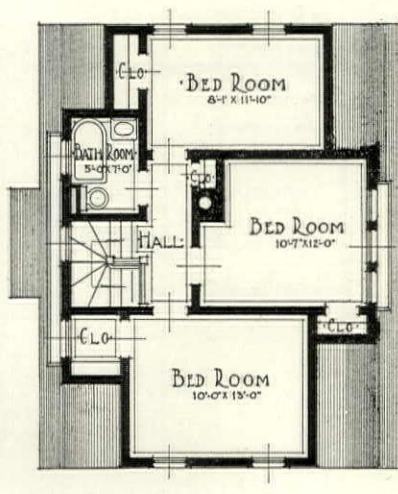


-SECOND FLOOR PLAN-

SIX-ROOM STUCCO HOUSE (C-9).
SALE PRICE, \$2,750—ECLIPSE PARK
DEVELOPMENT, БЕЛОИТ, WIS.

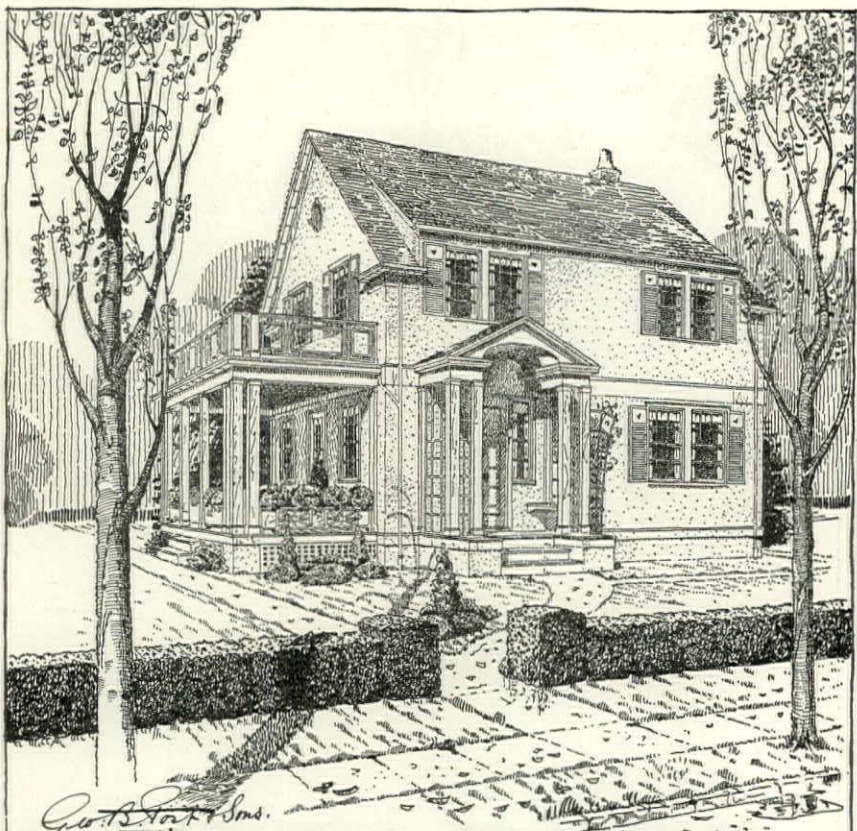


· FIRST FLOOR PLAN ·

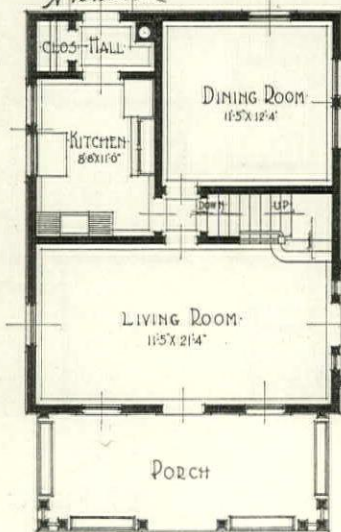


· SECOND FLOOR PLAN ·

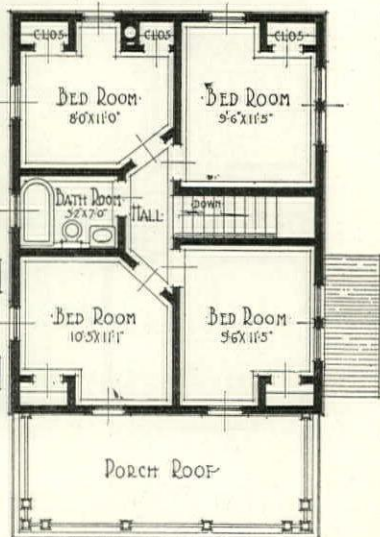
SIX-ROOM CLAPBOARD HOUSE
(C-8). SALE PRICE, \$2,750—ECLIPSE
PARK DEVELOPMENT, BELOIT, WIS.



*Geo. B. Post & Sons.
Architects*

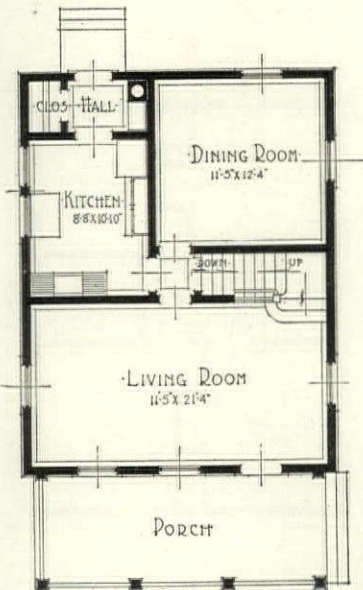
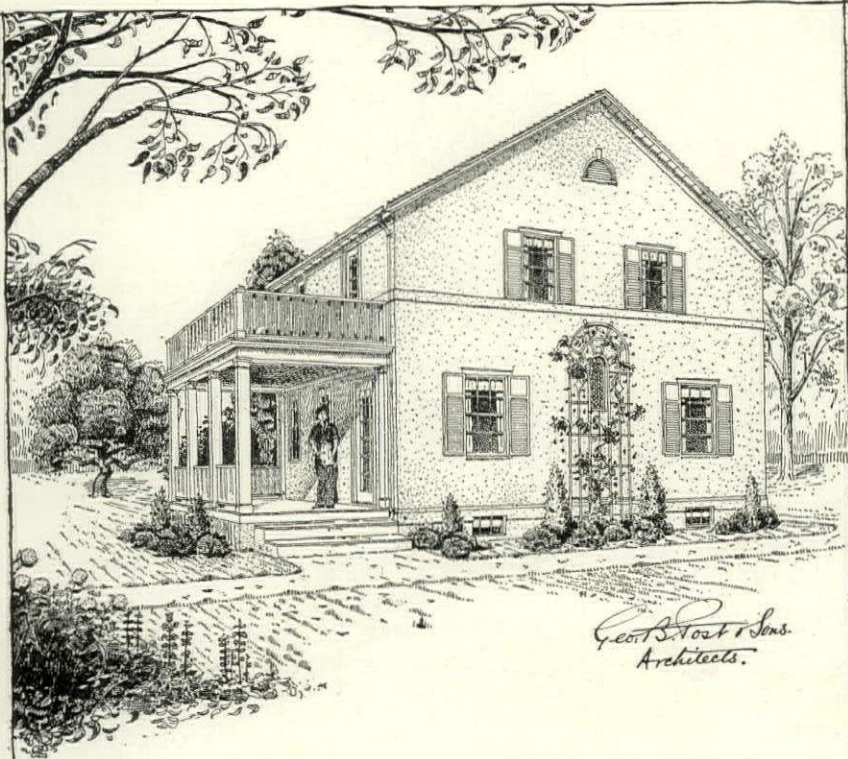


FIRST FLOOR PLAN-

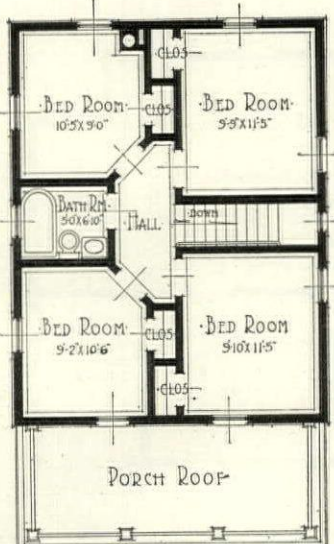


-SECOND FLOOR PLAN-

SEVEN-ROOM STUCCO HOUSE (D-5).
SALE PRICE, \$2,850—ECLIPSE PARK
DEVELOPMENT, BELOIT, WIS.

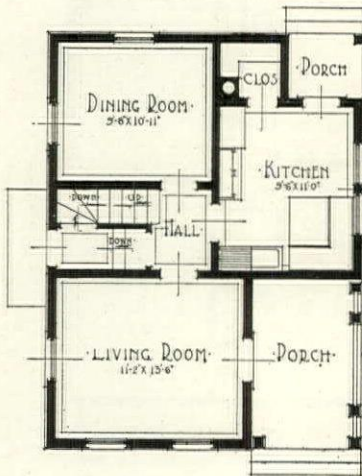
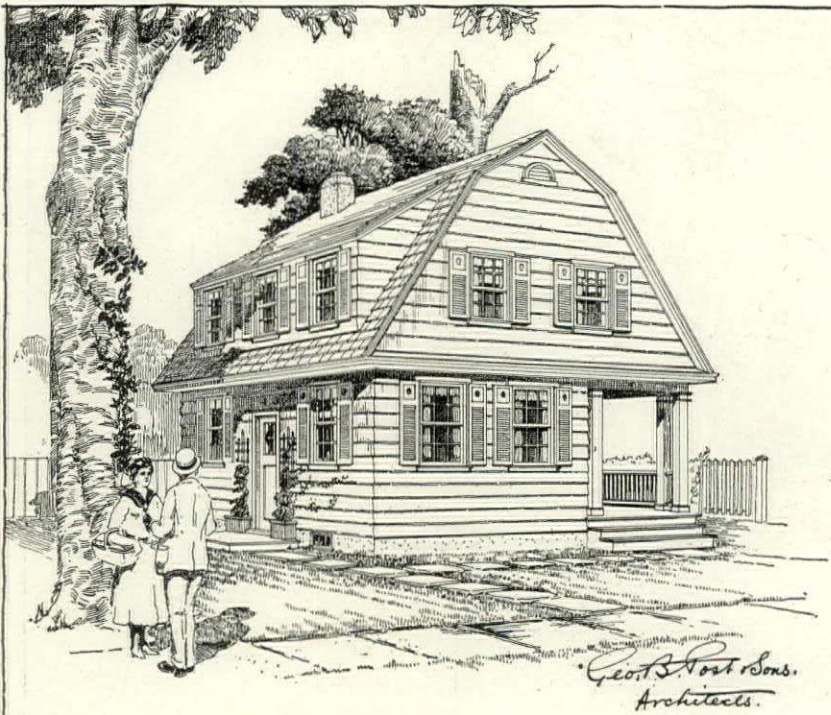


-FIRST FLOOR PLAN-

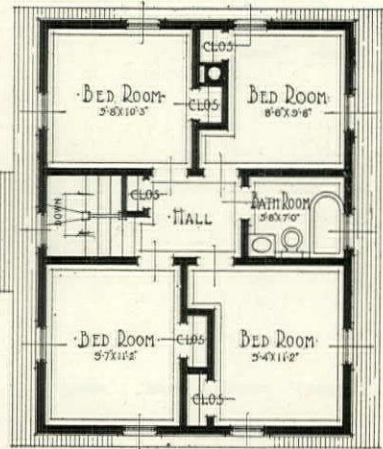


-SECOND FLOOR PLAN-

SEVEN-ROOM STUCCO HOUSE (D-4).
 SALE PRICE, \$2,850—ECLIPSE PARK
 DEVELOPMENT, BELOIT, WIS.

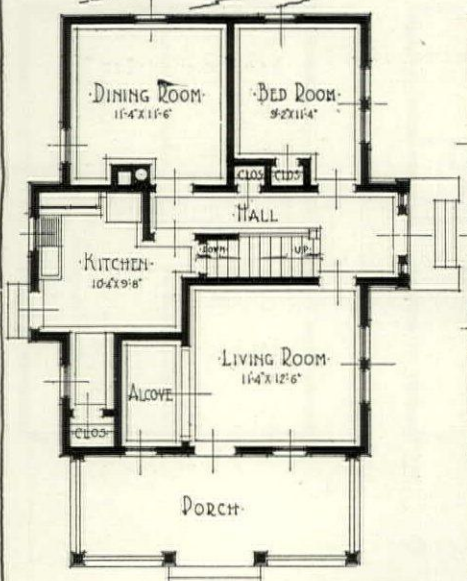
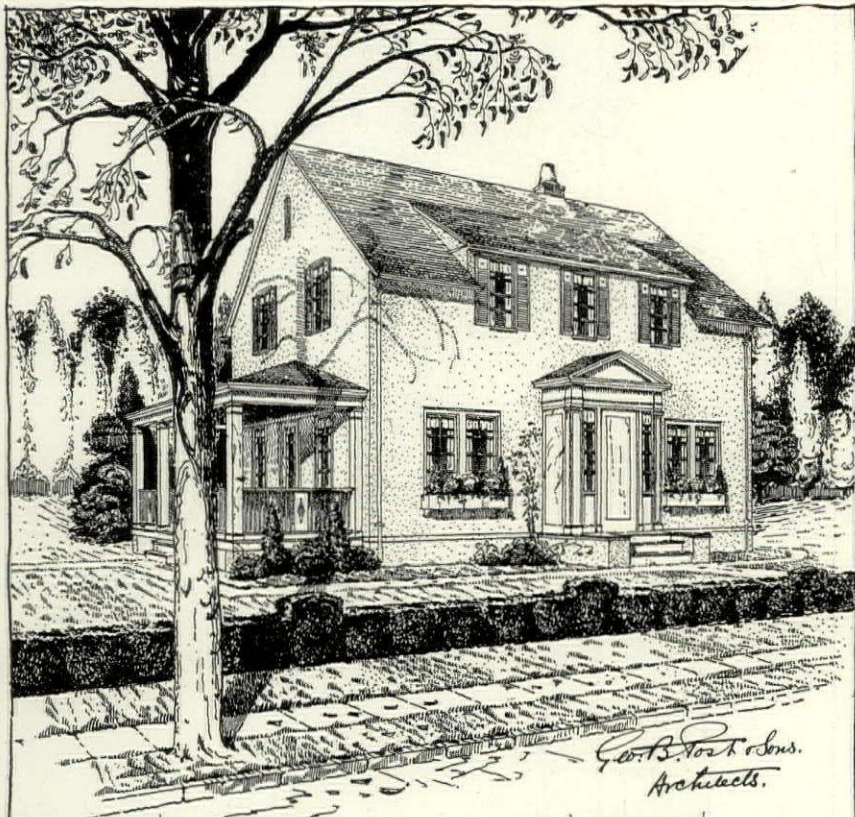


-FIRST FLOOR PLAN-

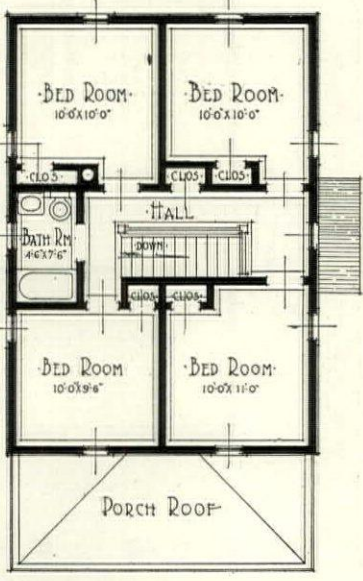


-SECOND FLOOR PLAN-

SEVEN-ROOM CLAPBOARD HOUSE
(D-2). SALE PRICE, \$2,850—ECLIPSE
PARK DEVELOPMENT, BELOIT, WIS.

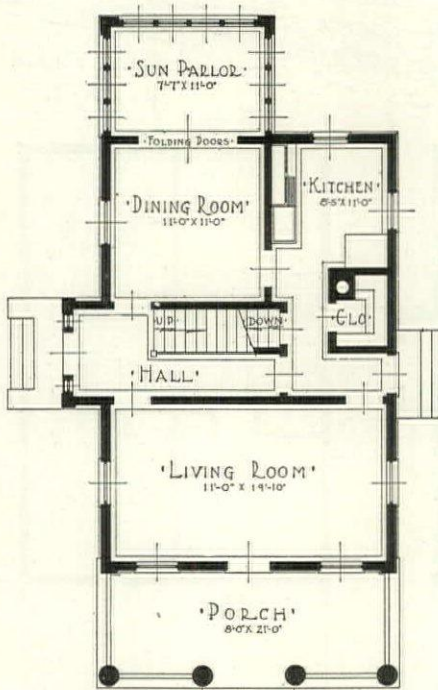
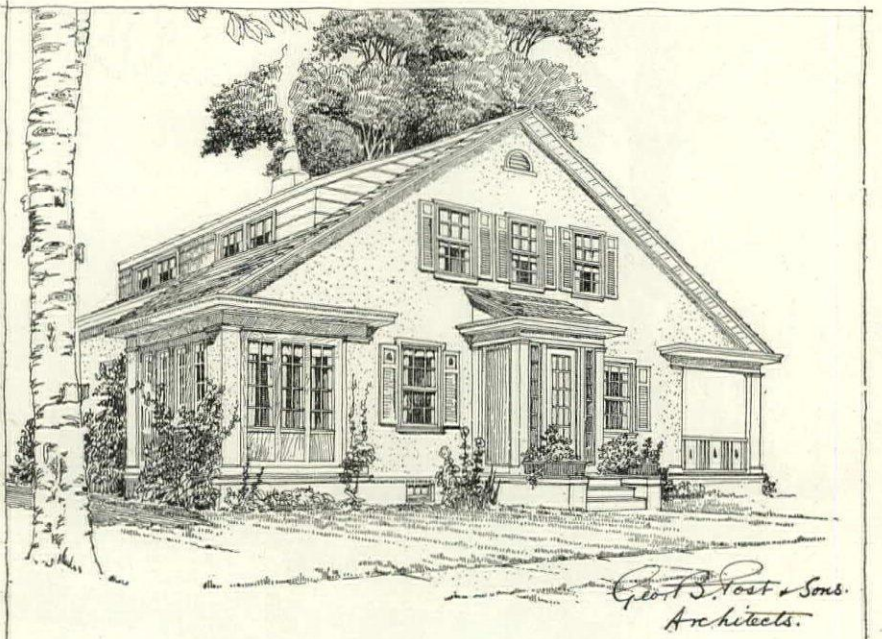


-FIRST FLOOR PLAN-

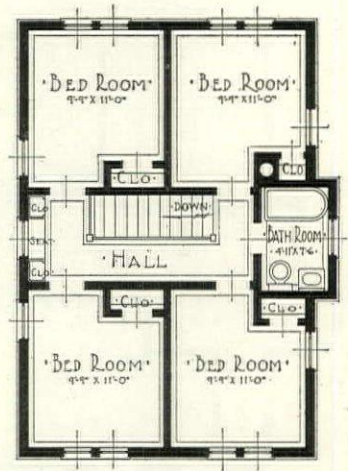


-SECOND FLOOR PLAN-

EIGHT-ROOM STUCCO HOUSE (D-3).
 SALE PRICE, \$2,850—ECLIPSE PARK
 DEVELOPMENT, BELOIT, WIS.

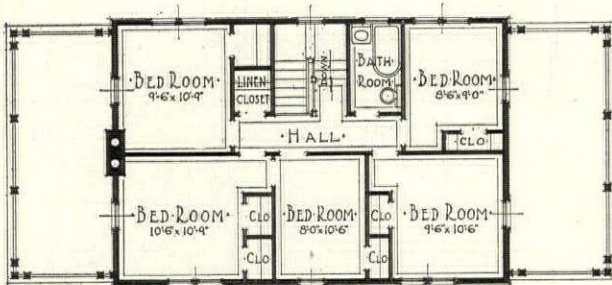
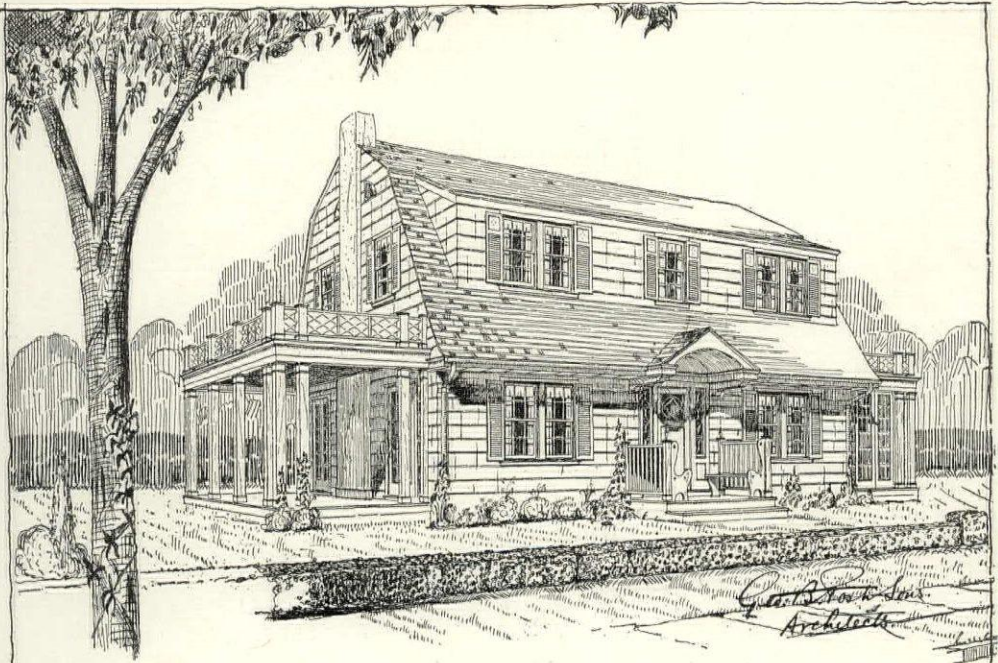


FIRST FLOOR PLAN

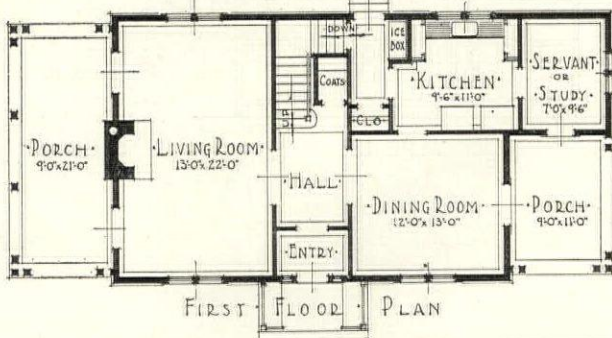


SECOND FLOOR PLAN

SEVEN-ROOM STUCCO HOUSE WITH SUN PARLOR (D-8). SALE PRICE, \$2,850—ECLIPSE PARK DEVELOPMENT, BELOIT, WIS.



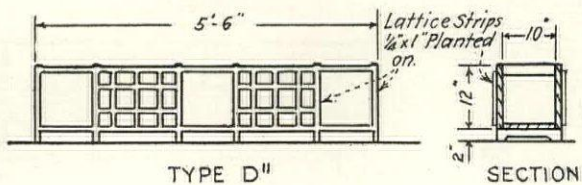
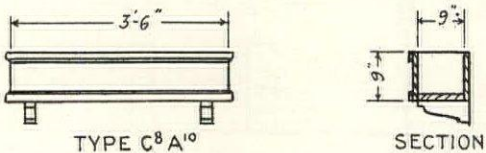
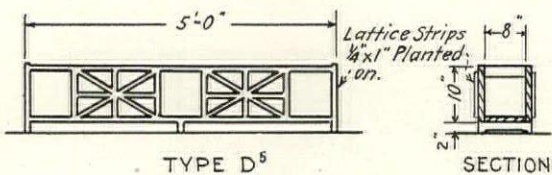
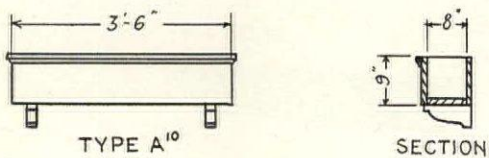
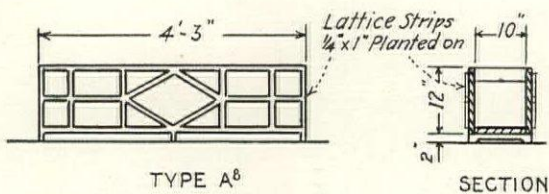
SECOND FLOOR PLAN



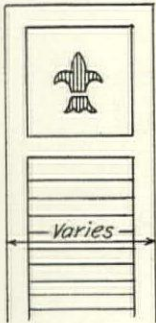
FIRST FLOOR PLAN

SUPERINTENDENT'S HOUSE,
 NINE ROOMS—ECLIPSE PARK
 DEVELOPMENT, BELOIT, WIS.

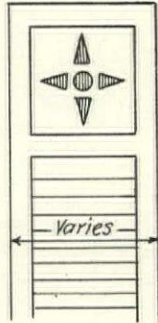
FLOWER BOXES



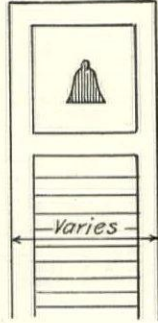
SHUTTERS



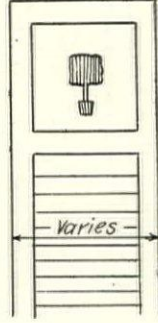
TYPE D⁷



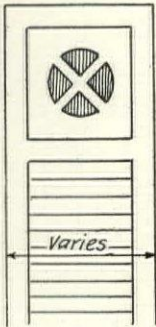
TYPE D¹¹



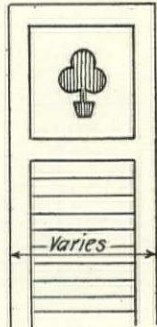
TYPE D⁸ D⁹



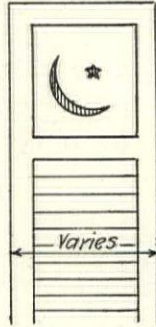
TYPE D⁵ D¹⁰



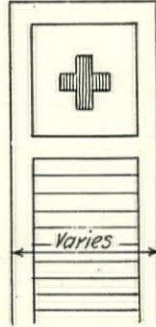
TYPE A⁶



TYPE A⁹



TYPE A⁷ A⁸

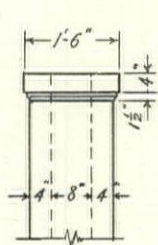


TYPE D⁶

SHUTTER DESIGN FOR A¹⁰ SIMILAR TO C⁵ SEE SHEET NO. 204

" " " C⁹ " " B¹ " " " "

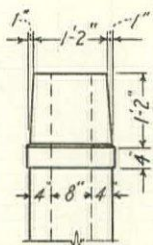
CHIMNEY CAPS



TYPE A⁶



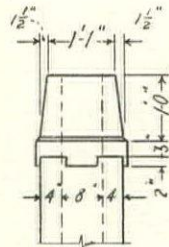
PLAN



TYPE A¹⁰



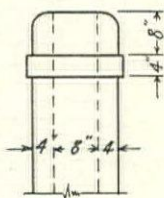
PLAN



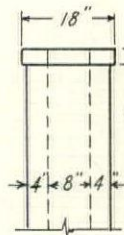
TYPE D⁵D¹⁰D¹⁰



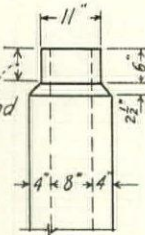
PLAN



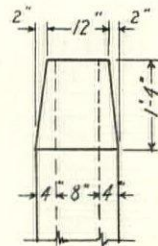
TYPE A⁹



TYPE D⁸D⁹C⁹

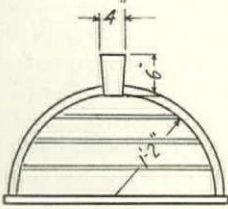


TYPE A⁸C⁸

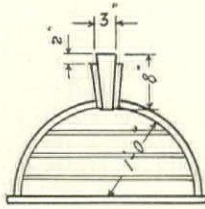


TYPE A⁷D⁷D⁷

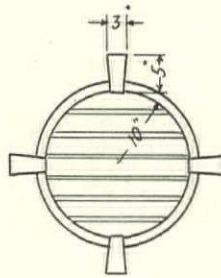
LOUVRE FRAMES



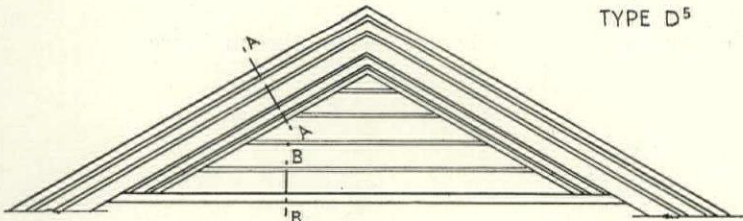
TYPE D¹¹



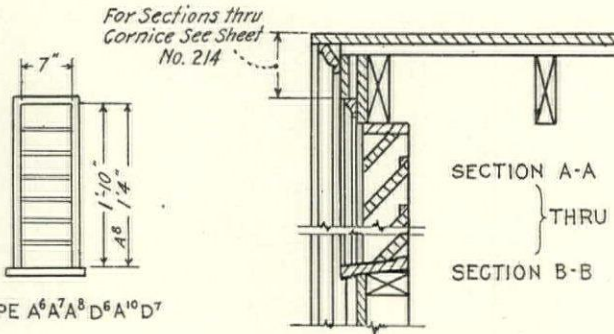
TYPE D⁸A⁹



TYPE D⁵



TYPE C⁸



SECTION A-A

THRU LOUVRE "C⁸"

SECTION B-B

TYPE A⁶A⁷A⁸D⁶A¹⁰D⁷

ous types of houses: Four-room house, \$2,400; five-room house, \$2,500; six-room house, \$2,750; seven-room house, \$2,850; eight-room house, \$3,100. All houses are to be sold; none rented. A plan of sale on easy terms to the purchaser on the basis of ten per cent. down and the balance at so much a month is now being worked out. The houses that have already been built have been immediately gobbled up, the demand being extremely great.

Summing up: This development is one which marks real progress in the housing of America's working people. While it cannot compare in beauty with the best developments of England, it gives promise of being one of the most artistic and attractive thus far evolved in this country. In the planning of the houses, it possesses unusual merit. The houses

have been produced at a price well within the purchasing power of the workingmen for whom they are intended, and yet they possess architectural charm, and style. Great skill and ingenuity have been shown in producing many varieties of various types, thus avoiding monotony and yet not disturbing the architectural harmony of the entire scheme. The needs of the people living in the houses have been closely consulted and met. The stereotyped checkerboard or grid-iron plan has been avoided, natural contours have been followed, natural beauty preserved, and a real Garden Village developed with its curved streets, its narrow roads discouraging heavy traffic, its irregular shaped blocks varied in outline, its community centre and its group of public and semi-public buildings along its main thoroughfare.

OUR WAR HOSPITALS IN FRANCE



BY
EDWARD F STEVENS

THE time has come when our United States troops are taking their places on the firing line, in the trenches and in the various activities at the front; and the Nation's thought centers on the transportation, the housing and the feeding of these men in the vigor of their health and strength and growing manhood and on the providing of munitions and equipment for aggressive warfare. We forget, for the moment, that with victory comes also terrible suffering from the injuries and sickness caused by this winning of victory, and that proper and adequate housing and provision for all emergencies must be provided. We cannot, however, take the view of the good lady of a children's hospital committee who, when the plans for a new hospital were being considered and when the architect was discussing the location of the operating room and the morgue, said: "Why, these children mustn't be operated upon, and they are not going to die." We must have adequate facilities for expert care of our injured soldiers, for every soldier returned to the trenches adds to the fighting power of the army by just that much, and every day that can be gained in early convalescence adds toward victory.

When we consider what our two allies, England and France, have already provided in hospitals, we realize what we must do. In the spring of 1916 France had six hundred thousand beds and England five hundred and fifty thousand beds in field, base, private and public hospitals, for the army alone. The statistics go to show that there are twenty-five per cent. of casualties and sickness needing hospital care; so it is easy to see what we shall need in our hospital divisions. How is our Government meeting this demand? Hospital unit after

hospital unit is being sent over; the best surgeons, medical specialists, and nurses of our land are offering their services and are going to the front. The Government must provide proper housing, wards, operating rooms, laboratories and equipment for accomplishing the necessary work; much material must be shipped from this country, not only the portable equipment, but many of the buildings themselves, so that upon arrival the erection can be accomplished with the minimum amount of labor.

The planning of these hospital buildings was placed in the hands of Mr. Charles Butler and the writer by the General Engineer Depot, U. S. Army, of which Lieutenant Colonel W. H. Rose is the head, and the plans have been approved by the office of the Surgeon General, U. S. Army. A brief description follows:

These units consist of eighty-seven buildings each, and comprise all the essential departments of an up-to-date hospital, all of "demountable" portable construction. The type of construction used is similar to that employed by Mr. Butler for the Rockefeller Demonstration Hospital in New York.

The block plan (Fig. 1) shows the ideal grouping of buildings; but the actual layout on the ground must depend on the available site, on the contour of the land, on the local surroundings, etc. The orientation of certain buildings must always be considered in every hospital group; thus, to obtain the ideal lighting of the ward buildings the wards should run north-south, and the ideal condition for operating buildings is to have the operating rooms face the north, and the aim should always be to approximate this.

In the war hospital, especially in one near the front, greater facilities must be

made for the reception of the patients; thus, the Receiving Building (Fig. 2) will accommodate a large number of stretchers at one time, and will allow for proper segregation and classification of the patients, the taking of the histories, etc. The Bathing Room adjoining is provided with high slab tubs. In this room the patient's clothes and effects are removed, which, after washing and fumigating, are deposited in the adjoining Patients' Effects Building, No. 3 on general plan.

As all buildings are connected by enclosed corridors, the patient can be taken, by stretcher or otherwise, to the operating building or to the ward, according to his condition.

The Operating Buildings (Fig. 3), two in number, for the general operating service, consist of thoroughly equipped suites of rooms with every convenience of a modern operating unit in a surgical hospital. The rectangular shaped building, made necessary by the type of construction adopted, does not interfere with the efficiency of the plan except, perhaps, that there is a superabundance of corridor. The operating rooms are provided with abundant light, by means of both windows and skylights. Between the two main operating rooms is the sterilizing room, and sterile water is brought to the scrub-up sinks in each operating room. The scrub-up sinks, while they are simple enameled sinks, are provided with the most approved elbow-action scrub-up devices. Steam sterilizers and blanket warmers, a complete X-ray suite, a plaster room and general utility are all provided.

For the units placed near the front, the two buildings, Nos. 4 and 5, would be needed, providing for ten operating tables.

The walls of the operating rooms are rendered smooth by an additional surface of enameled canvas, while the floors are cement.

A separate operating and treatment building is provided for the ear, nose and throat (Fig. 4); another for the eye (Fig. 5); and another for the dental and laboratory work (Fig. 6).

The Ward Building (Fig. 7), of which

there are thirty-two in each unit, is much the same as that adopted by the French and English army. It consists of the ward of thirty-two beds and of a twenty-foot airing balcony at the south end. The ward itself is 22 feet wide, 102 feet long, and has twenty-four windows. These windows, occupying about thirty per cent. of the wall surface and opening from the top, afford the maximum of light and air.

In each ward there are six emergency exits. The side wall panels, hinged at bottom and opening out, form a ramp, down which the beds can be run in case of fire or other cause for quick exit. The walls, doors and roofs being double, these ward buildings are comfortable in both winter and summer.

The utilities consist of a linen room, a nurses' office, a toilet room, a surgical dressing room, a small serving kitchen, a small office for the military attendant, and an isolation room for a delirious or moribund patient.

In each group there are three Isolation Buildings (Fig. 8) for the care of communicable or contagious diseases. These provide for twenty-six patients each, and are planned on the so-called "Pasteur" or single room system. The ten single or isolation rooms are entered from the outside. Each room is self-contained, having a water closet and a sink with special elbow faucets, so that it will not be necessary for a patient to leave the room until he is convalescent. The service of food and attendance to the patient are from the inside corridor. Provision is made for linen, serving kitchen, utility room and discharge bath. The discharge bath is approached from the outside as well as from the inside. For convenience in bathing, a portable "slab" bath, which can be wheeled into any room, is provided, with water served from the sink and drained into the water closet bowl. The attendant can readily give the bath, clean the slab, and it will then be ready for the next patient.

There are two convalescent wards in each building.

For the care of the psychopathic and neurologic patient, two buildings, called the Neuro-Psychiatric Wards (Figs. 9 and 10), are provided. The more violent

cases are confined in the portion set apart for them, consisting of isolation rooms, a day room, and a room with continuous-flow baths. This portion of the building is protected by wire guards to prevent the escape of patients. The milder cases of insanity are cared for in a different section of the building.

The building for the strictly neurological cases provides special bath and medical treatment rooms, as well as wards, day room and rest rooms.

For sick officers, two Officers' Ward Buildings are provided (Fig. 11)—one with wards and semi-private room, and one with private rooms and mess.

For the convalescent patients, about fifty per cent. of whom are ambulatory or walking patients, dining rooms or mess halls are planned; also, a central bath house. For recreation, the assembly hall or post exchange is provided.

So much for the buildings for the patients.

The administration and mechanical buildings occupy a most important part in each group.

In the Administration Building (Fig. 12) are, of course, the offices for administration, and they are much the same as in a civilian hospital. Headquarters for the commanding officer, secretaries, matron and pharmacist are provided, as well as postal and telegraph offices.

The commanding officer and chief surgeon are given a small house; the other officers are in a separate building. The female nurses have separate buildings, with single rooms for each nurse. Hospital Barracks house the enlisted men.

The Kitchen Building (Fig. 13) is worked out with great care, and contains the bakery, the bread room, the main kitchen and the scullery; also a complete ice plant for cooling refrigerators in this building and for the making of ice for the hospital. High pressure steam is used largely for cooking, and this is obtained from a nearby boiler plant.

The dish washing is accomplished in a small building (Fig. 14), situated between the kitchen and mess halls; this building serving as well for the housing of the food carts.

The process of serving food is simple;

the orderly starting with his food cart first obtains his quota of hot dishes; then goes through the closed corridors to the kitchen, where he first picks up the bread required; next to the hot table to get the hot food, then for the dessert, and then through a closed corridor to the ward, where the food cart is used as a serving table, and the patient is reasonably sure of getting hot food.

The Laundry Building (Fig. 15) has been planned in reference to efficient work. The soiled clothes are entirely at one end, where, with modern machinery, they are sterilized, washed, dried, ironed, and folded, and then taken to a general storage room for distribution.

The construction of these buildings is simple—all of one story, built up of standard five-foot units. Notwithstanding that they will be of portable construction, with double walls, floors, and roofs, built in shops, transported to the war section and erected, they will be hygienic, easily cleaned, comfortable in winter and summer, and painted both inside and outside. The elevations and sections (Figs. 16 and 17) show the general type. Connections to these buildings are through enclosed corridors. The general appearance of the interior will be like the Rockefeller, a view of which is here shown (Fig. 18). The reproduction of a few detail drawings will show the construction adopted and the simple standards used for plumbing fixtures.

The construction of the trusses is worthy of special study. The utilizing of available material, like the gusset plates at the junction of wall and roof and the section of channel iron in place of the usual turn buckle; the simplicity of erection; and the general pleasing appearance in the wards will be noted. The standard valve, which will be used on all sinks, bowls, and slop hoppers, is adapted for the surgeons' scrub-up with elbow valves and spray head, for bathing slabs with hose extension, and for general sinks throughout.

The heating system is so laid out, with several small heating plants, that no large pipes will be required; in fact, a 3-inch pipe is the largest used outside the boiler houses.

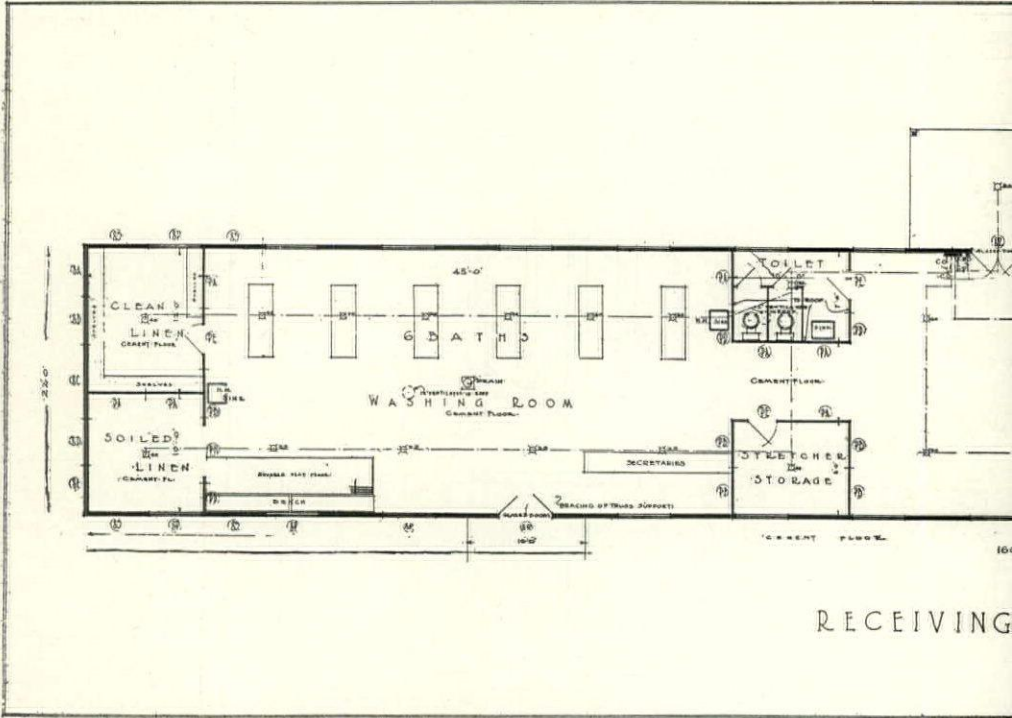


FIG. 2.

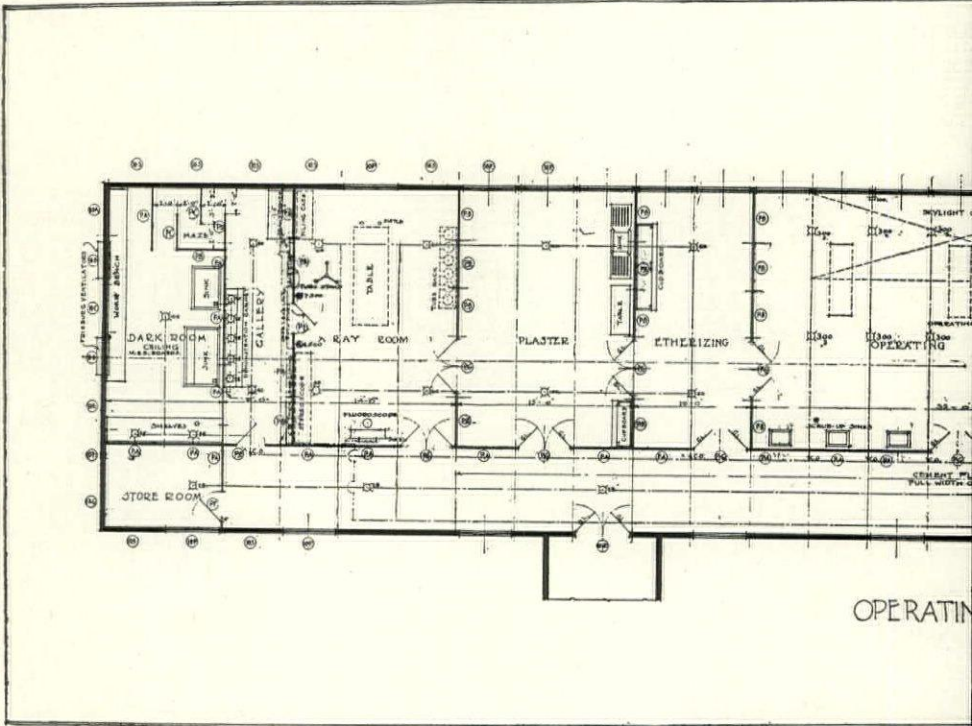
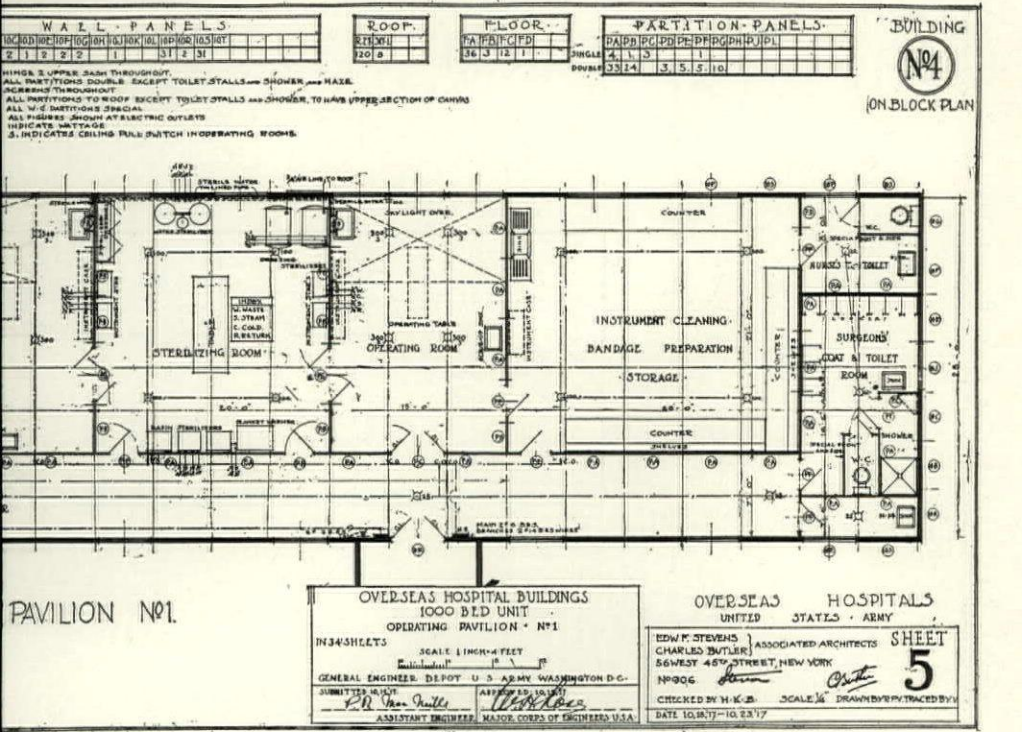
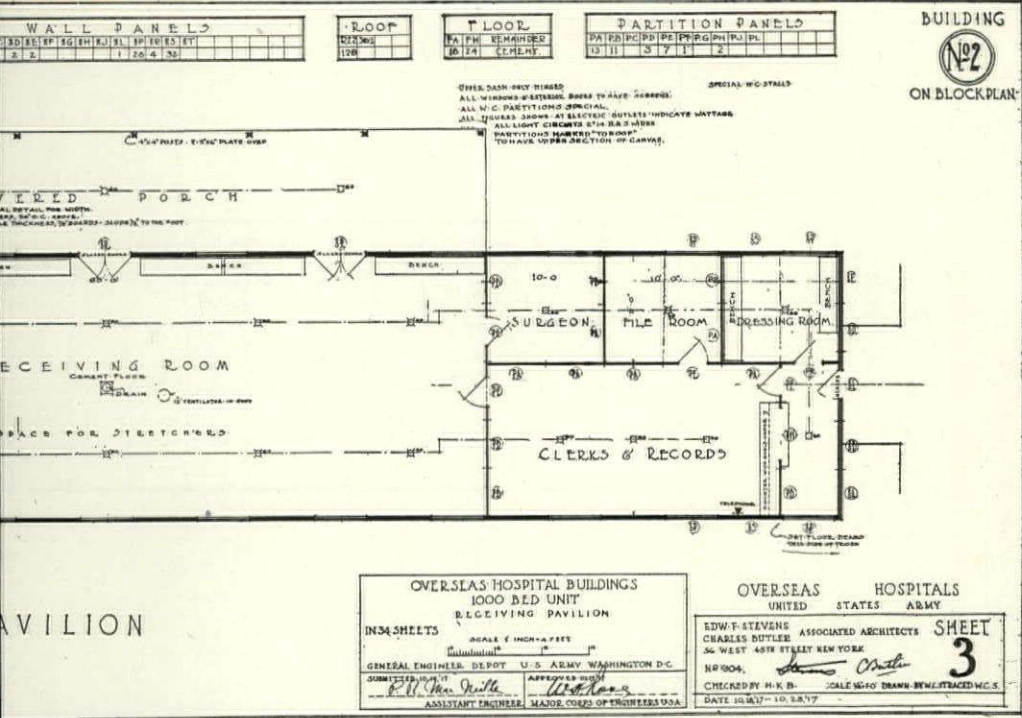


FIG. 3.



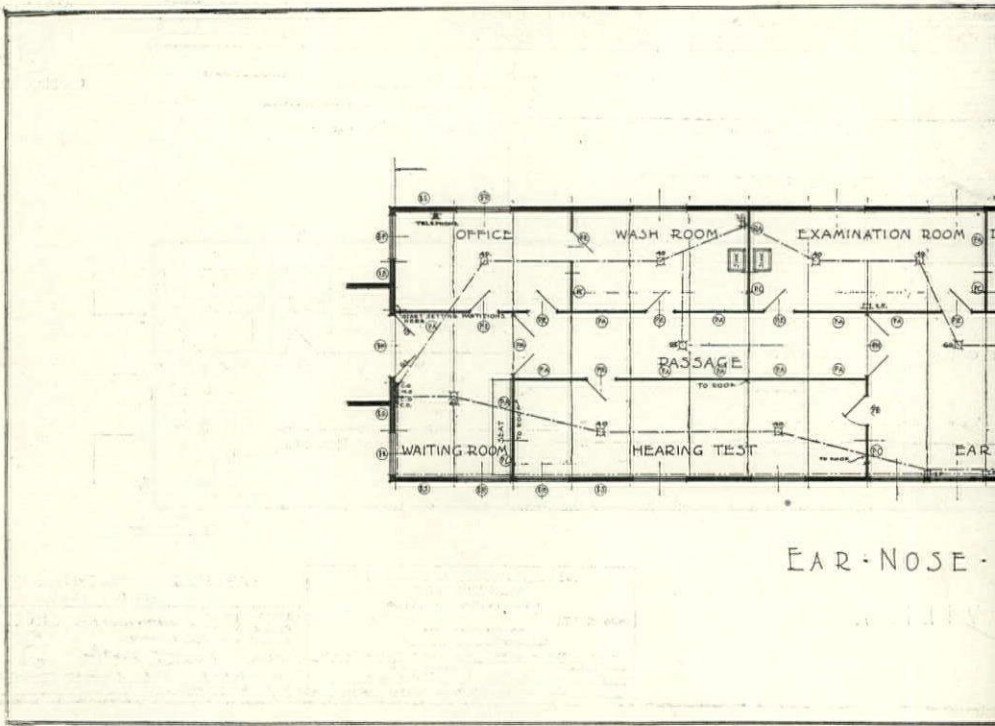


FIG. 4.

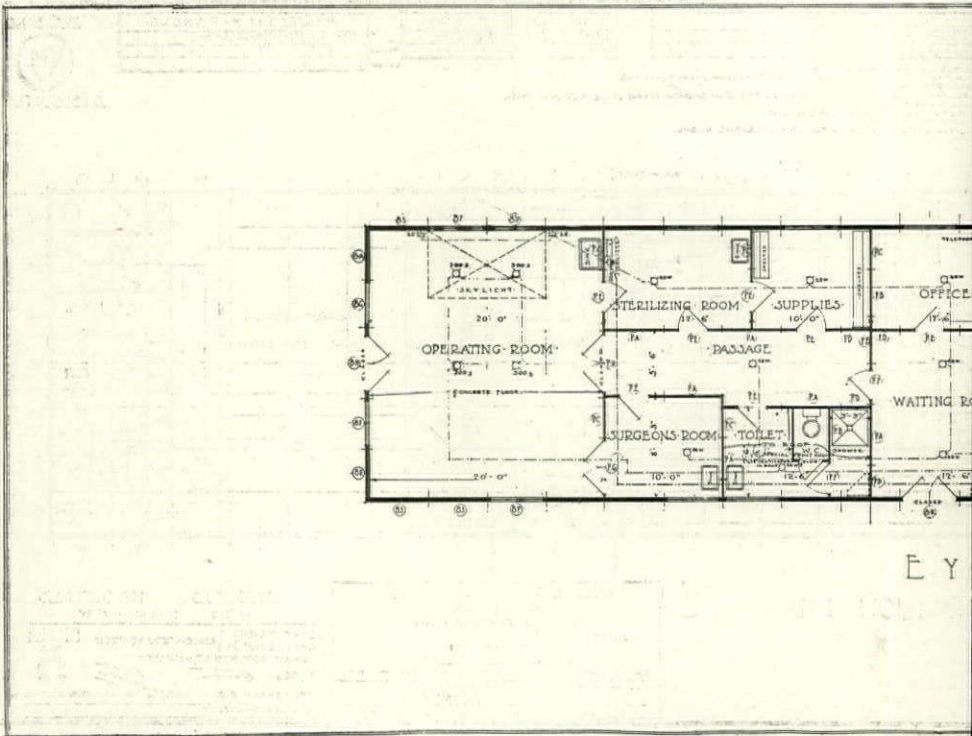
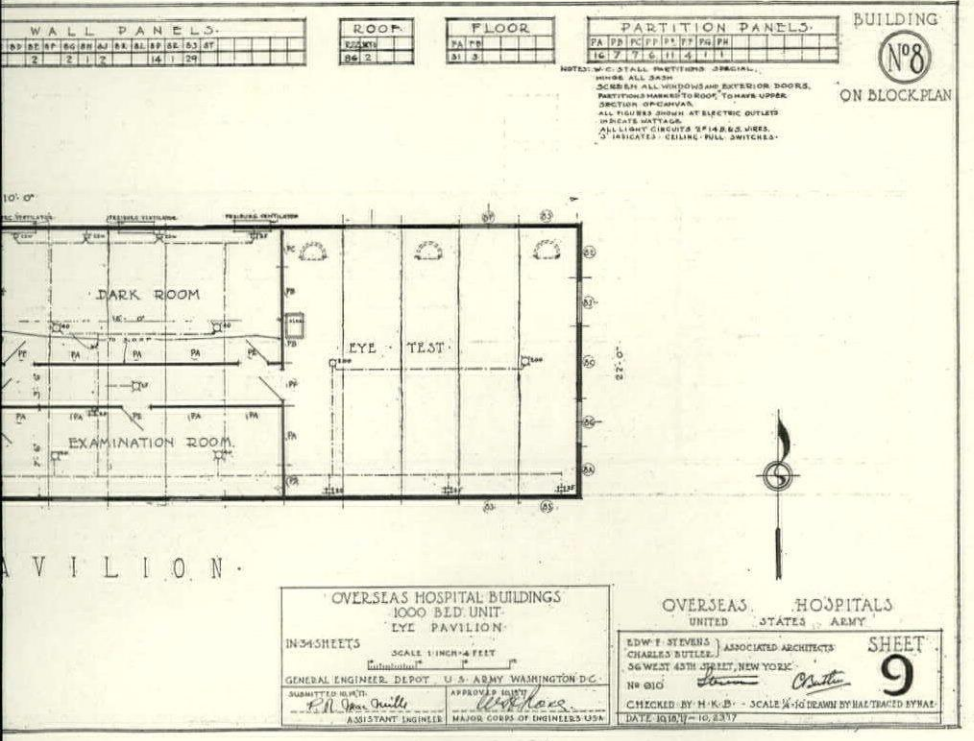
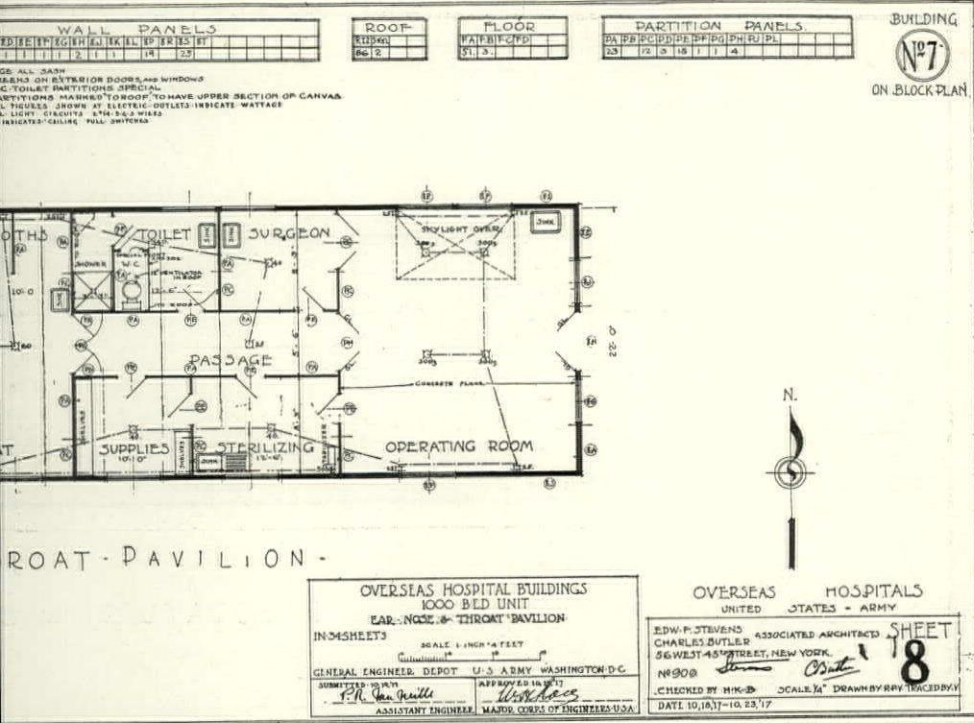
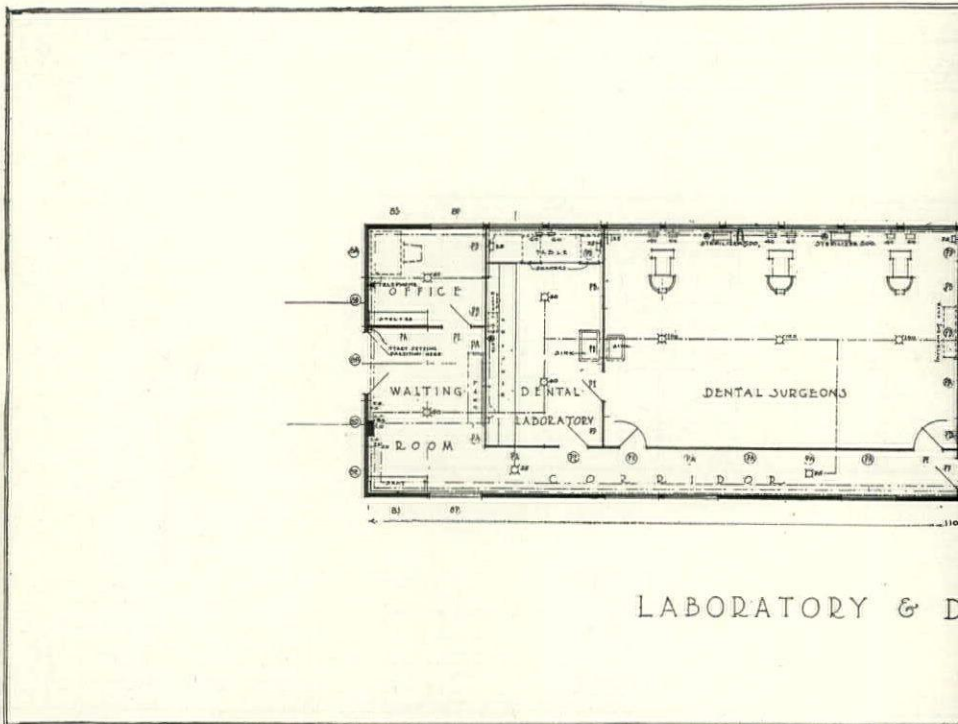


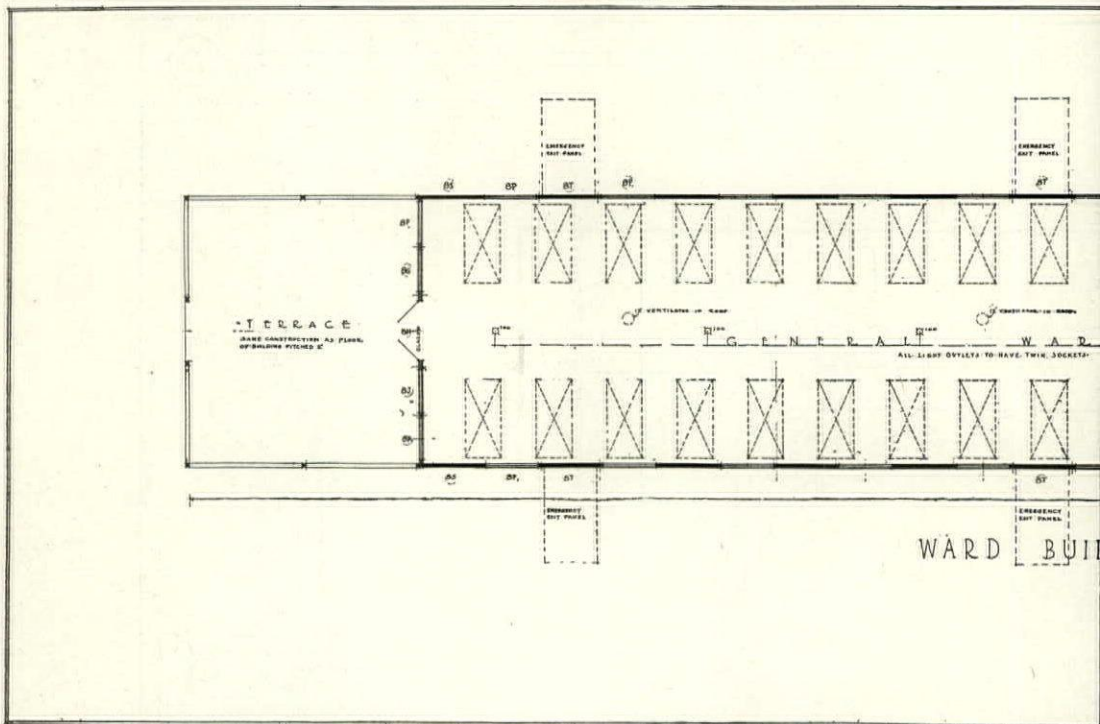
FIG. 5.





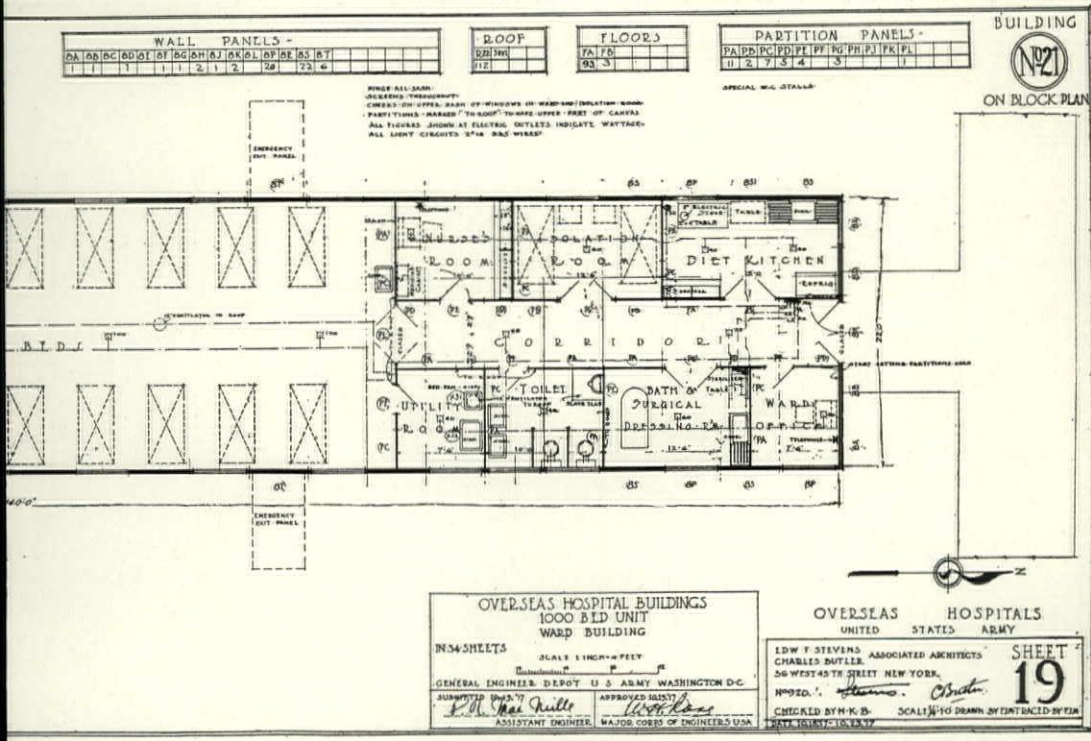
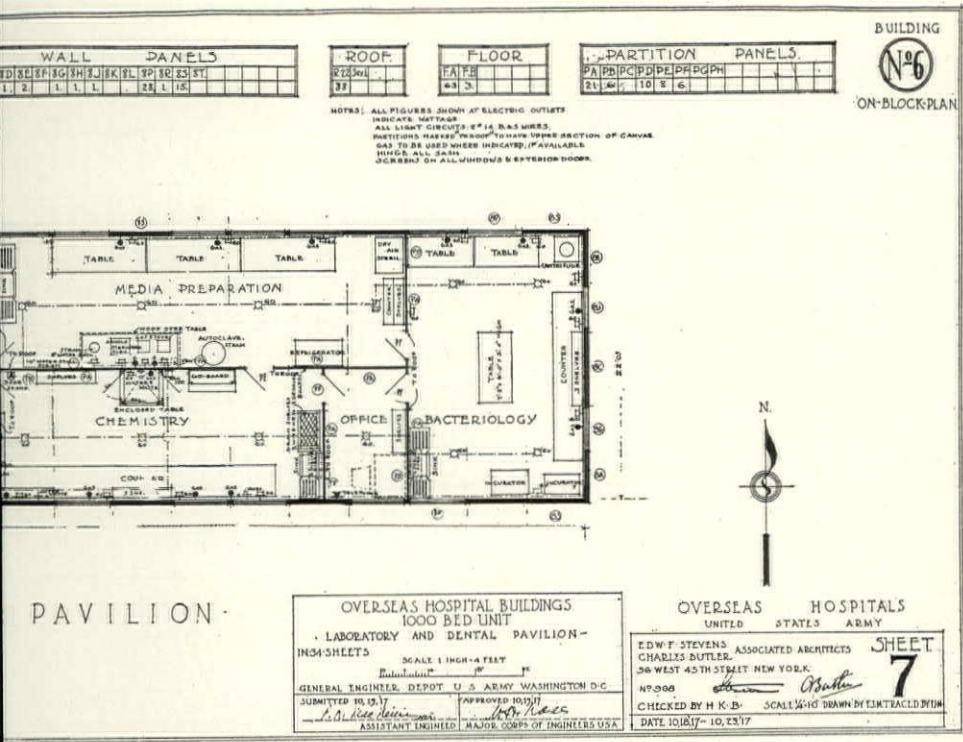
LABORATORY & D

FIG. 6.



WARD BUILDING

FIG. 7.



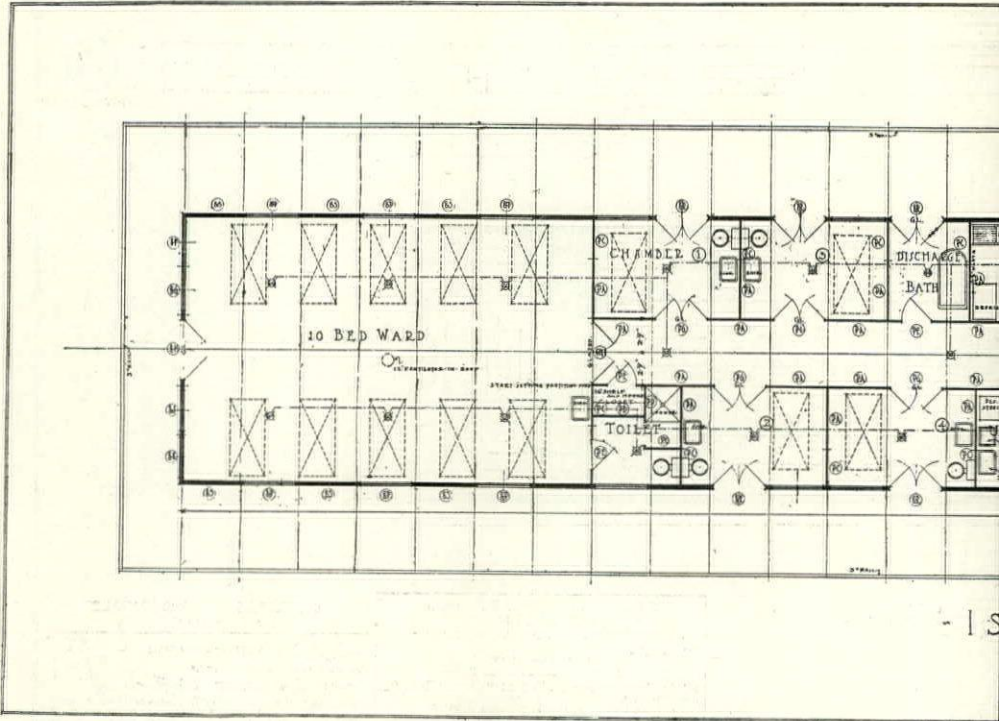
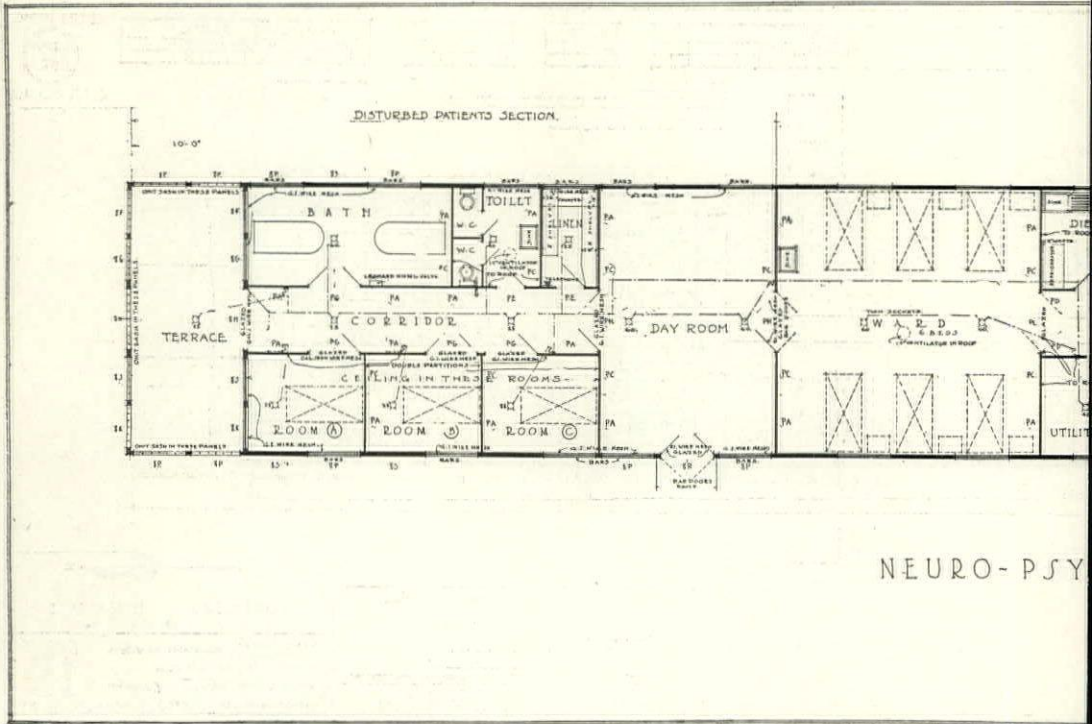
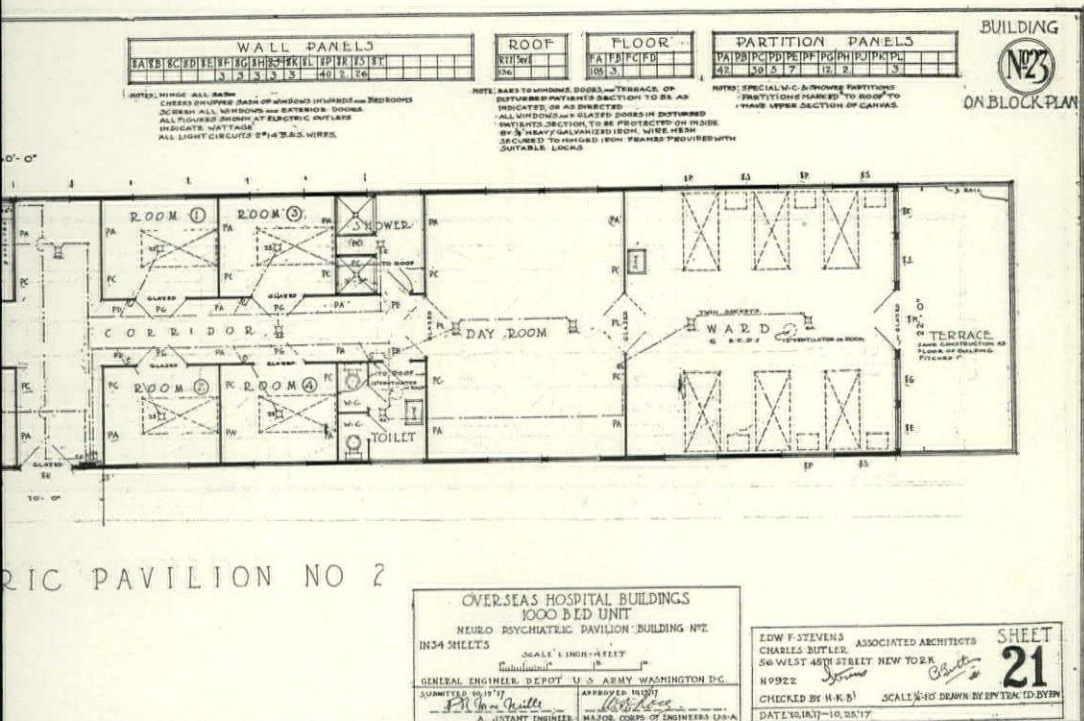
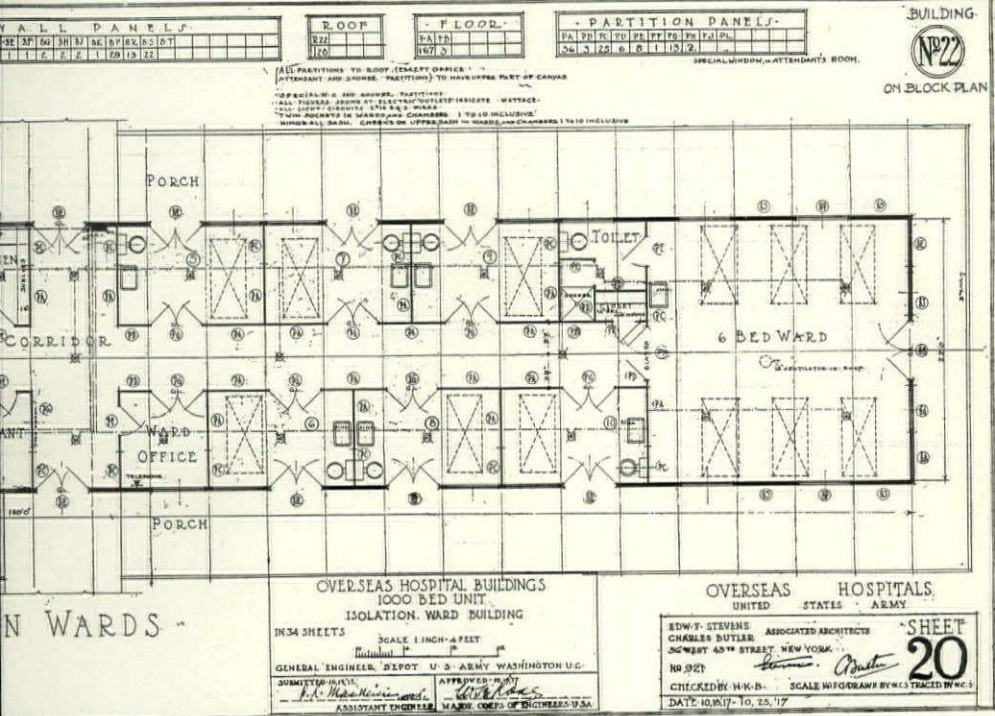


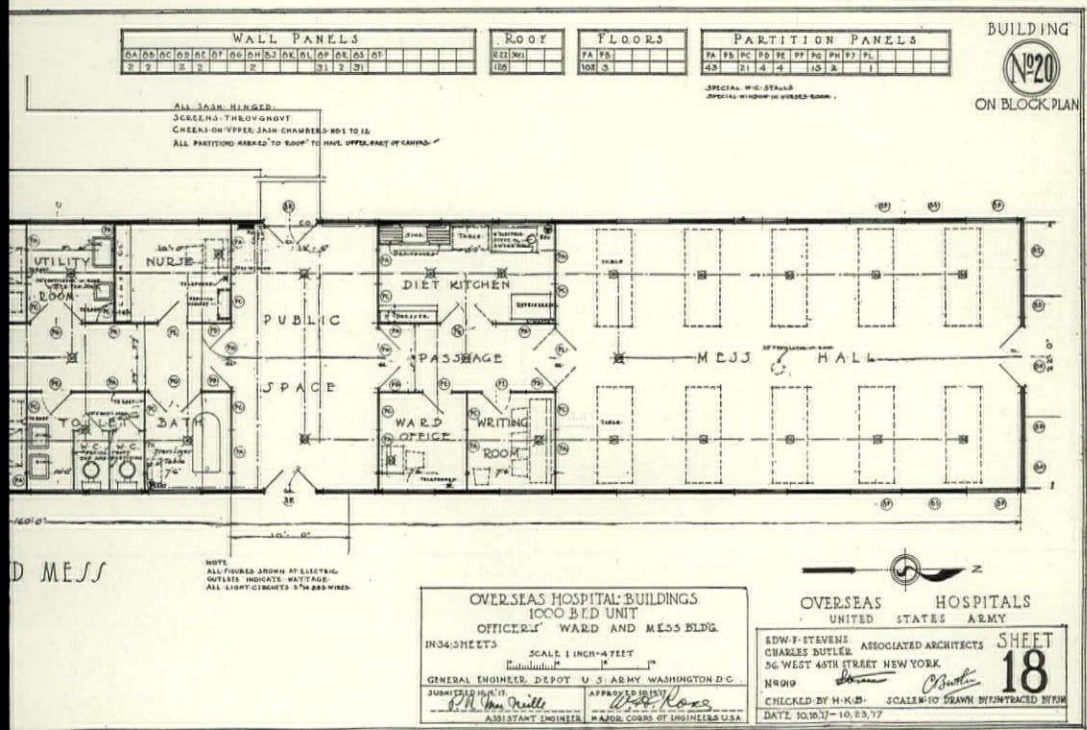
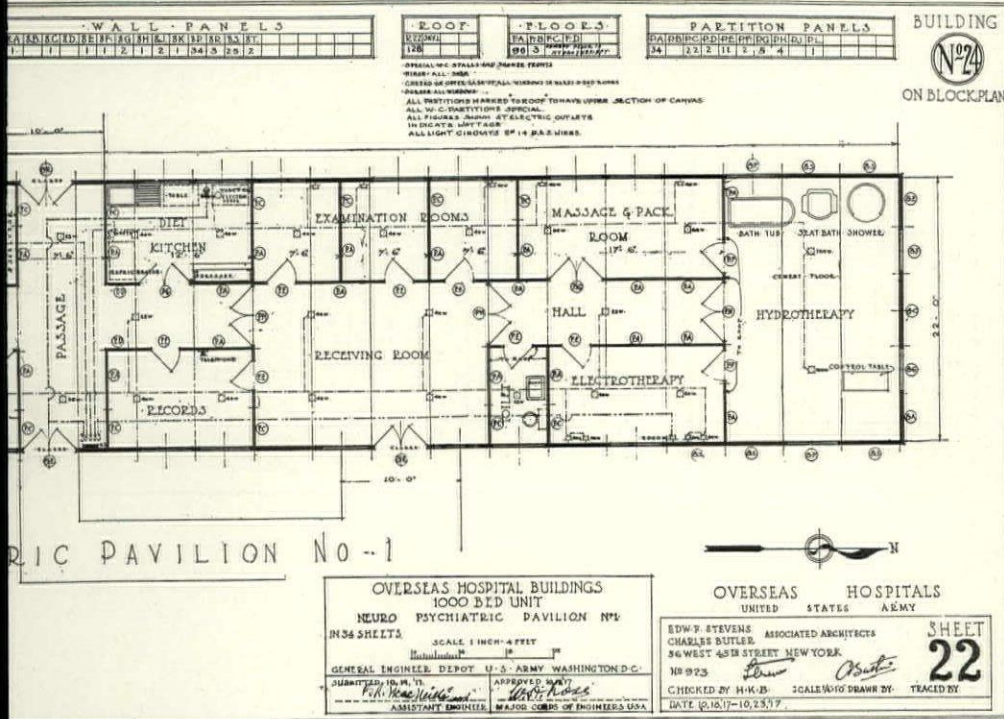
FIG. 8.



NEURO-PSY

FIG. 9.





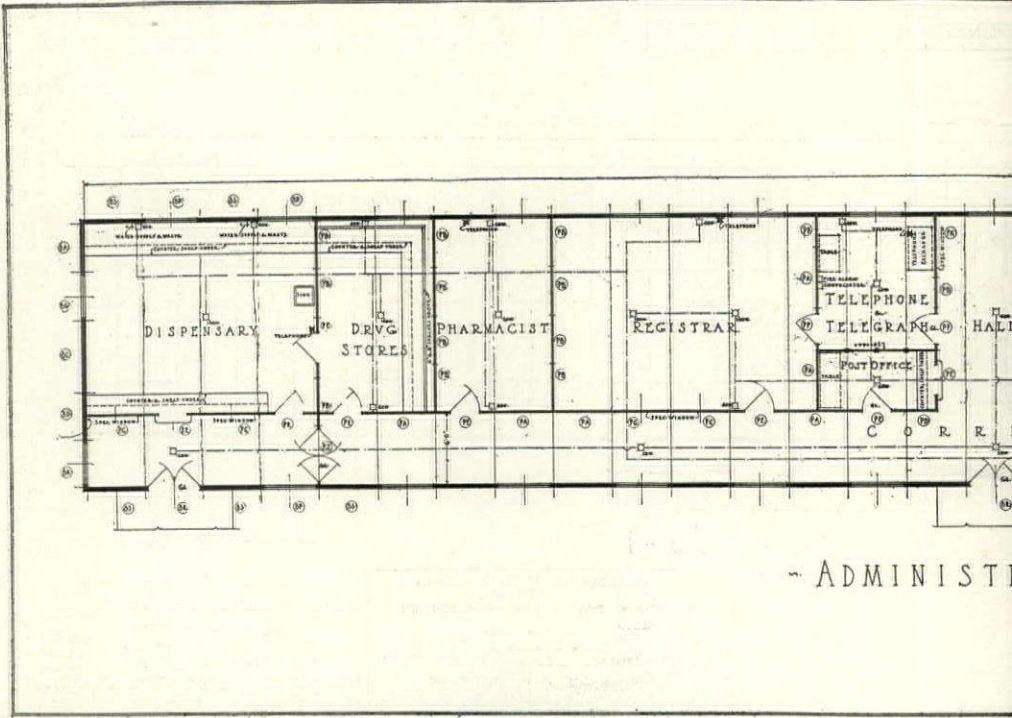


FIG. 12.

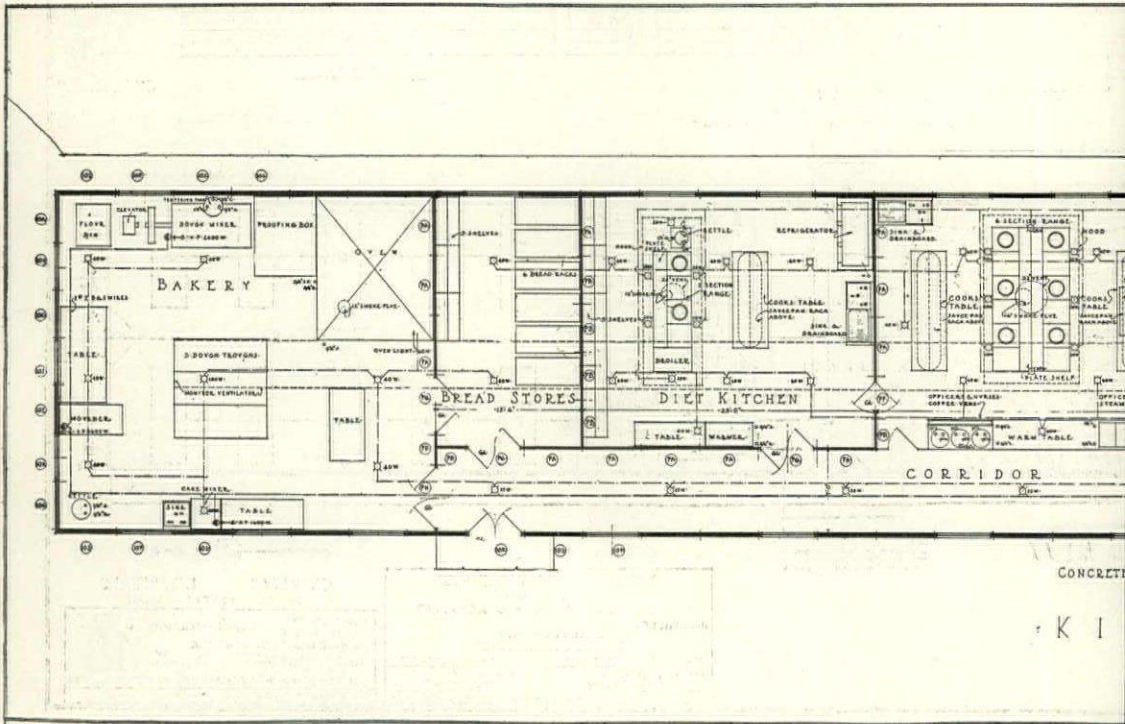


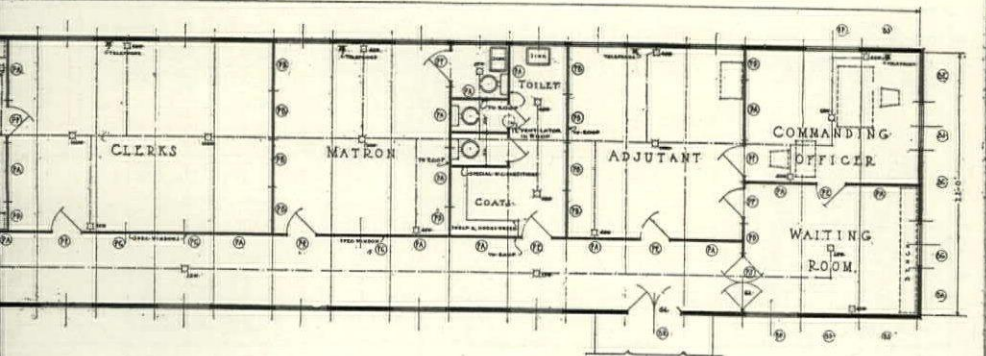
FIG. 13.

WALL PANELS														ROOF			FLOORS			PARTITION PANELS									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
2	1	1	2	1	1	3	3	3	4					12	12	12	4	3	3	1	1	1	1	1	1	1	1	1	1

BE ALL DAM

BUILDING - **No 1** ON BLOCK PLAN

PARTITIONS MARKED TO ROOF TO HAVE UPPER SECTION OF CURVAD - SPECIAL W.C. INSTITUTIONS ALL FIGURES SHOWN AT ELECTRICAL OUTLETS - INDICATE WATERS - ALL LIGHT CIRCUITS 15' 14-000 WIRE



BUILDING -

OVERSEAS HOSPITAL BUILDINGS
1000 BED UNIT
ADMINISTRATION BUILDING

IN 3 SHEETS

SCALE: 1/8" = 1'-0"

GENERAL ENGINEER, DEPOT, U.S. ARMY, WASHINGTON, D.C.

APPROVED: 10/17/17

ASSISTANT ENGINEER, MAJOR, CORPS OF ENGINEERS, U.S.A.

OVERSEAS HOSPITALS
UNITED STATES ARMY

EDW. F. STEVENS ASSOCIATED ARCHITECTS SHEET
CHARLES BUTLER
36 WEST 43RD STREET NEW YORK

NO 909

CHECKED BY H.K.B. SCALE 1/8" = 1'-0" DRAWN BY H.C. TRACED BY B.S.B.

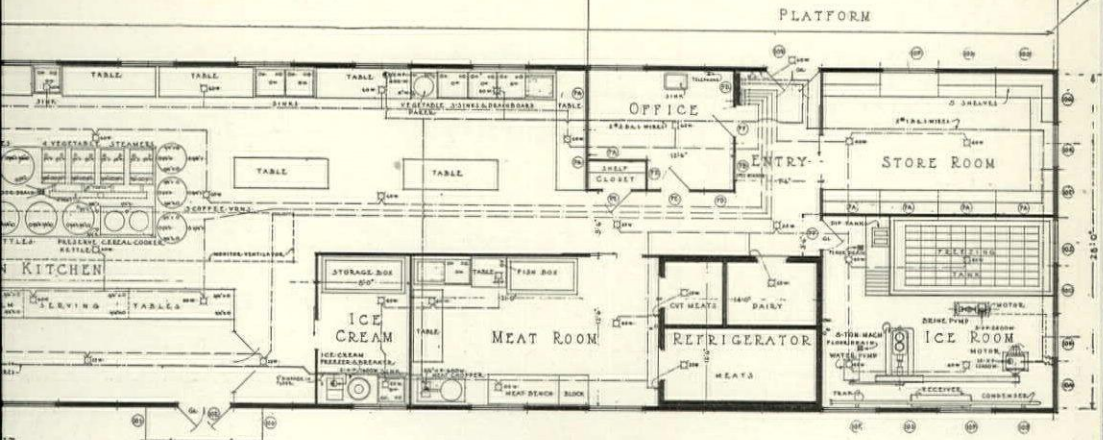
DATE: 10/17/17

WALL PANELS														ROOF			FLOORS			PARTITION PANELS									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	12	12	4	3	3	1	1	1	1	1	1	1	1	1	1

ALL WINDOWS HINGED SHOUT

BUILDING - **No 9** ON BLOCK PLAN

STEAM SUPPLY
HOT WATER
COLD WATER
WASTES
ELECTRIC POWER OUTLETS
LIGHT 20 WATTS
CIRCUITS
POWER 4
ALL LIGHT CIRCUITS 15' 14-000 WIRE



OVERSEAS HOSPITAL BUILDINGS
1000 BED UNIT
KITCHEN BUILDING

IN 3 SHEETS

SCALE: 1/8" = 1'-0"

GENERAL ENGINEER, DEPOT, U.S. ARMY, WASHINGTON, D.C.

APPROVED: 10/17/17

ASSISTANT ENGINEER, MAJOR, CORPS OF ENGINEERS, U.S.A.

OVERSEAS HOSPITALS
UNITED STATES ARMY

EDW. F. STEVENS ASSOCIATED ARCHITECTS SHEET
CHARLES BUTLER
36 WEST 43RD STREET NEW YORK

NO 911

CHECKED BY H.K.B. SCALE 1/8" = 1'-0" DRAWN BY H.C. TRACED BY B.S.B.

DATE: 10/17/17

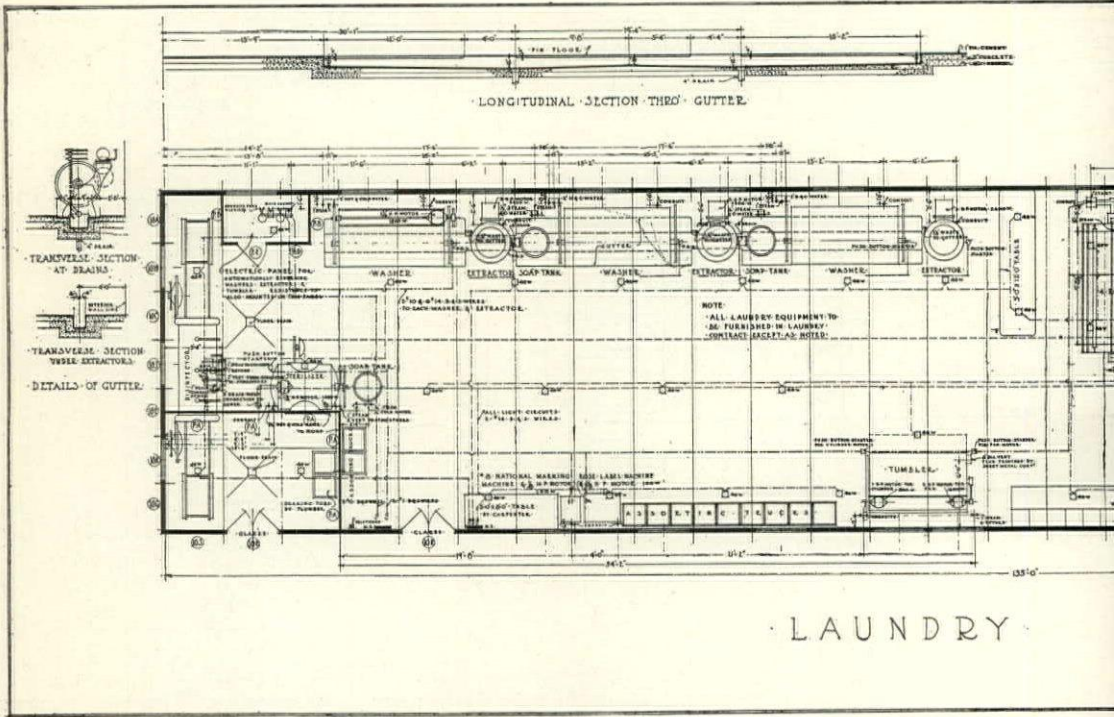


FIG. 15.

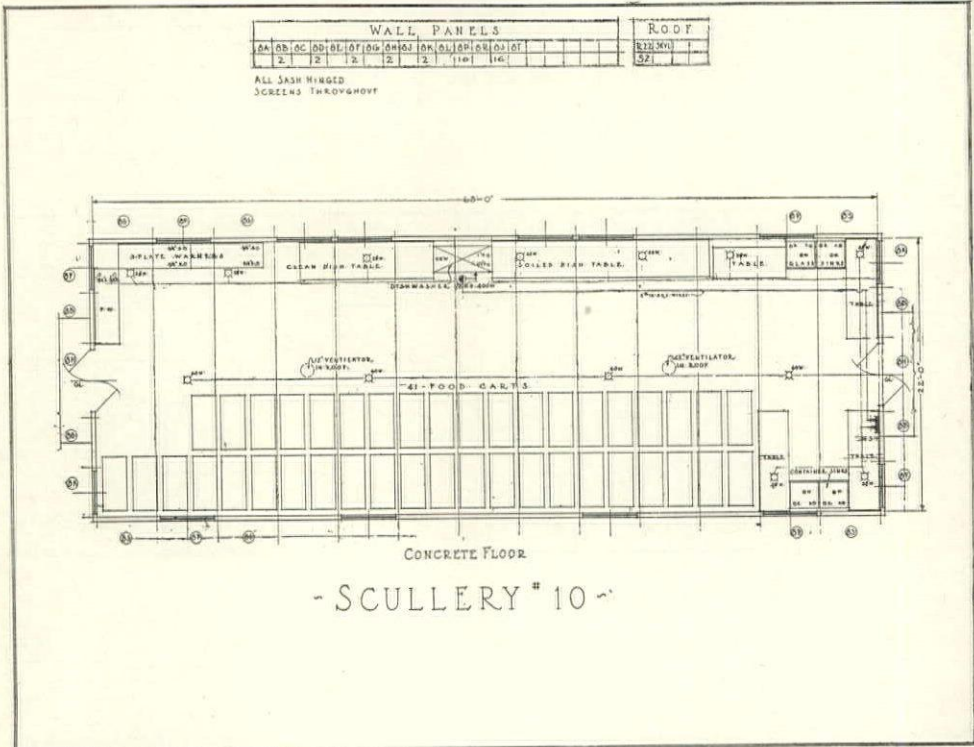


FIG. 14.

WALL PANELS											
1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	9	10	11	12

ROOF	
1	2
1	2

FLOORS	
1	2
1	2

PARTITION PANELS					
1	2	3	4	5	6
1	2	3	4	5	6

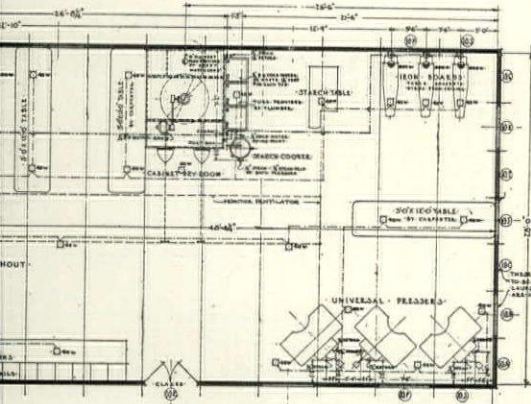
BUILDING

No. 12

ON BLOCK PLAN

NOTES: 1 UPPER JASH HINGED.
PARTITIONS MARKED TO ROOF TO HAVE UPPER SECTION OF GLASS.
ALL FIGURES SHOWN AT ELECTRIC OUTLETS INDICATE WATTAGE

12 300 MONITORS



SCHEDULE OF CONNECTIONS		ELECTRIC CURRENT 220 VOLTS DC FOR POWER & HEAT			
NO.	DESCRIPTION	AMPERES	WATTS	SIZE OF WIRES	REMARKS
1	WASHING MACHINES	10	2200	10/0	TO CONTROL BOARD
2	IRON BOARD	10	2200	10/0	
3	STARCH TABLE	10	2200	10/0	
4	WASH COOPER	10	2200	10/0	
5	UNIVERSAL PRESSER	10	2200	10/0	
6	SOFT IRON BOARD	10	2200	10/0	
7	WASHING MACHINES	10	2200	10/0	
8	TUBS	10	2200	10/0	
9	IRON BOARD	10	2200	10/0	
10	STARCH TABLE	10	2200	10/0	
11	WASH COOPER	10	2200	10/0	
12	UNIVERSAL PRESSER	10	2200	10/0	
13	SOFT IRON BOARD	10	2200	10/0	
14	WASHING MACHINES	10	2200	10/0	
15	TUBS	10	2200	10/0	
16	IRON BOARD	10	2200	10/0	
17	STARCH TABLE	10	2200	10/0	
18	WASH COOPER	10	2200	10/0	
19	UNIVERSAL PRESSER	10	2200	10/0	
20	SOFT IRON BOARD	10	2200	10/0	
21	WASHING MACHINES	10	2200	10/0	
22	TUBS	10	2200	10/0	
23	IRON BOARD	10	2200	10/0	
24	STARCH TABLE	10	2200	10/0	
25	WASH COOPER	10	2200	10/0	
26	UNIVERSAL PRESSER	10	2200	10/0	
27	SOFT IRON BOARD	10	2200	10/0	
28	WASHING MACHINES	10	2200	10/0	
29	TUBS	10	2200	10/0	
30	IRON BOARD	10	2200	10/0	
31	STARCH TABLE	10	2200	10/0	
32	WASH COOPER	10	2200	10/0	
33	UNIVERSAL PRESSER	10	2200	10/0	
34	SOFT IRON BOARD	10	2200	10/0	
35	WASHING MACHINES	10	2200	10/0	
36	TUBS	10	2200	10/0	
37	IRON BOARD	10	2200	10/0	
38	STARCH TABLE	10	2200	10/0	
39	WASH COOPER	10	2200	10/0	
40	UNIVERSAL PRESSER	10	2200	10/0	
41	SOFT IRON BOARD	10	2200	10/0	
42	WASHING MACHINES	10	2200	10/0	
43	TUBS	10	2200	10/0	
44	IRON BOARD	10	2200	10/0	
45	STARCH TABLE	10	2200	10/0	
46	WASH COOPER	10	2200	10/0	
47	UNIVERSAL PRESSER	10	2200	10/0	
48	SOFT IRON BOARD	10	2200	10/0	
49	WASHING MACHINES	10	2200	10/0	
50	TUBS	10	2200	10/0	
51	IRON BOARD	10	2200	10/0	
52	STARCH TABLE	10	2200	10/0	
53	WASH COOPER	10	2200	10/0	
54	UNIVERSAL PRESSER	10	2200	10/0	
55	SOFT IRON BOARD	10	2200	10/0	
56	WASHING MACHINES	10	2200	10/0	
57	TUBS	10	2200	10/0	
58	IRON BOARD	10	2200	10/0	
59	STARCH TABLE	10	2200	10/0	
60	WASH COOPER	10	2200	10/0	
61	UNIVERSAL PRESSER	10	2200	10/0	
62	SOFT IRON BOARD	10	2200	10/0	
63	WASHING MACHINES	10	2200	10/0	
64	TUBS	10	2200	10/0	
65	IRON BOARD	10	2200	10/0	
66	STARCH TABLE	10	2200	10/0	
67	WASH COOPER	10	2200	10/0	
68	UNIVERSAL PRESSER	10	2200	10/0	
69	SOFT IRON BOARD	10	2200	10/0	
70	WASHING MACHINES	10	2200	10/0	
71	TUBS	10	2200	10/0	
72	IRON BOARD	10	2200	10/0	
73	STARCH TABLE	10	2200	10/0	
74	WASH COOPER	10	2200	10/0	
75	UNIVERSAL PRESSER	10	2200	10/0	
76	SOFT IRON BOARD	10	2200	10/0	
77	WASHING MACHINES	10	2200	10/0	
78	TUBS	10	2200	10/0	
79	IRON BOARD	10	2200	10/0	
80	STARCH TABLE	10	2200	10/0	
81	WASH COOPER	10	2200	10/0	
82	UNIVERSAL PRESSER	10	2200	10/0	
83	SOFT IRON BOARD	10	2200	10/0	
84	WASHING MACHINES	10	2200	10/0	
85	TUBS	10	2200	10/0	
86	IRON BOARD	10	2200	10/0	
87	STARCH TABLE	10	2200	10/0	
88	WASH COOPER	10	2200	10/0	
89	UNIVERSAL PRESSER	10	2200	10/0	
90	SOFT IRON BOARD	10	2200	10/0	
91	WASHING MACHINES	10	2200	10/0	
92	TUBS	10	2200	10/0	
93	IRON BOARD	10	2200	10/0	
94	STARCH TABLE	10	2200	10/0	
95	WASH COOPER	10	2200	10/0	
96	UNIVERSAL PRESSER	10	2200	10/0	
97	SOFT IRON BOARD	10	2200	10/0	
98	WASHING MACHINES	10	2200	10/0	
99	TUBS	10	2200	10/0	
100	IRON BOARD	10	2200	10/0	

OVERSEAS HOSPITAL BUILDINGS
1000 BED UNIT
LAUNDRY BUILDING
IN 34 SHEETS
SCALE 1/4" = 1'-0"
GENERAL ENGINEER, DEPOT U.S. ARMY WASHINGTON D.C.
SUBMITTED BY: *E. H. Van Dulle*
ASSISTANT ENGINEER, MAJORS, CORPS OF ENGINEERS USA

OVERSEAS HOSPITALS
UNITED STATES ARMY
EDW. F. STEVENS ASSOCIATED ARCHITECTS
CHARLES DUTLER
36 WEST 46TH STREET NEW YORK
NY 913
CHECKED BY: *H. M. D.*
DATE: 10/17-10, 1937

SHEET
12

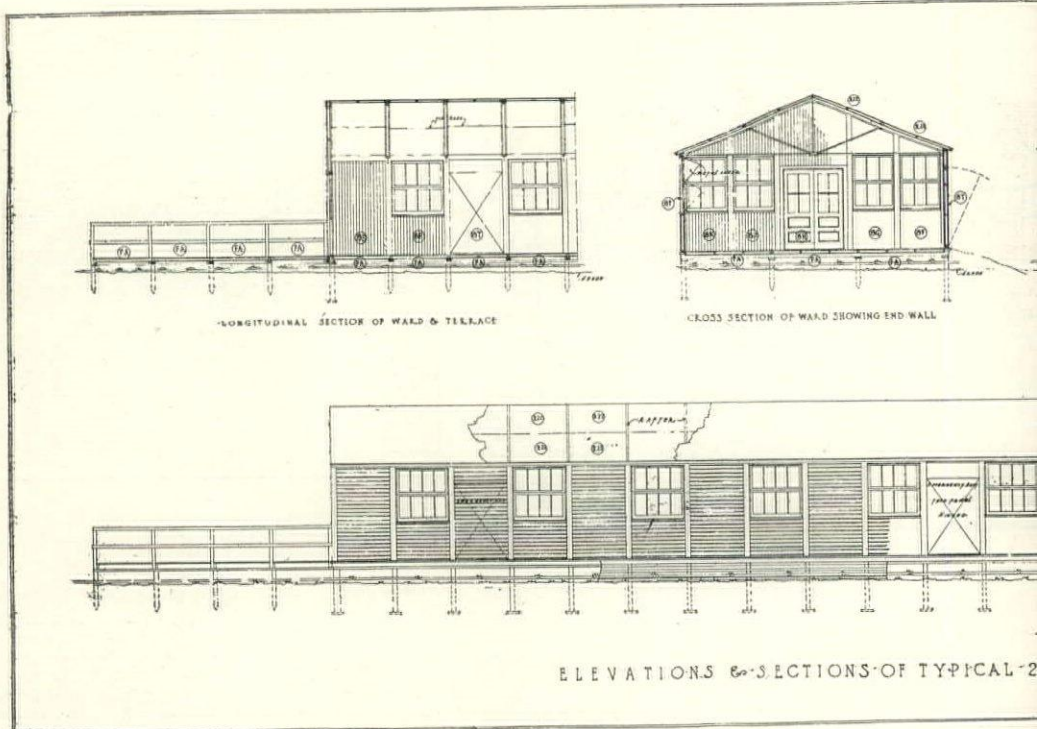


FIG. 16.

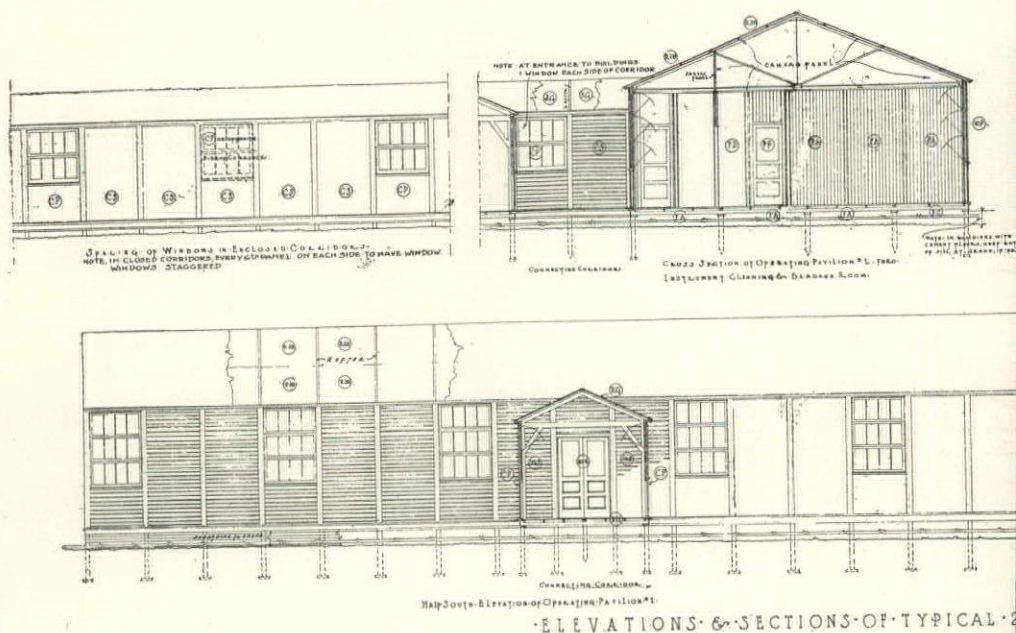
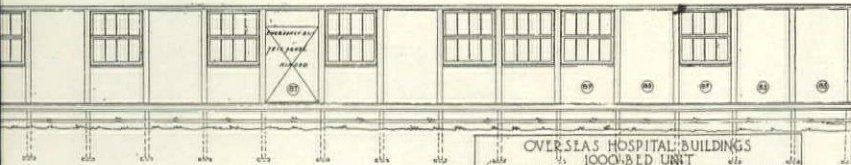
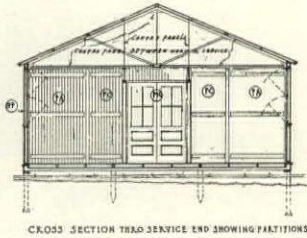


FIG. 17.

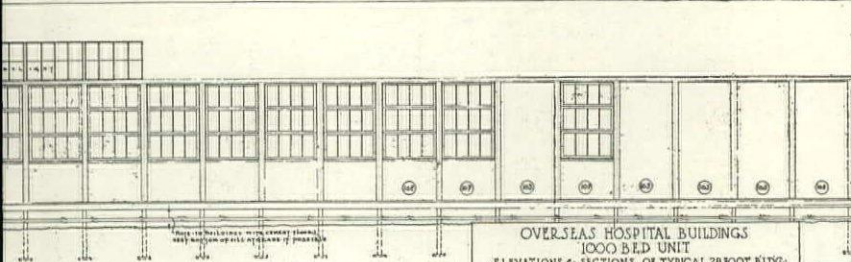
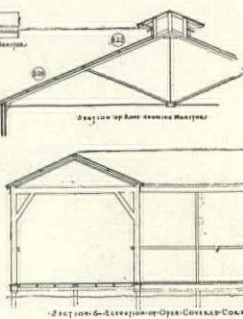
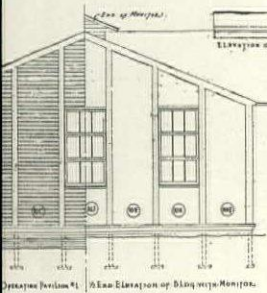


OVERSEAS HOSPITAL BUILDINGS
 1000-BED UNIT
 ELEVATIONS & SECTIONS OF TYPICAL 22' FOOT BLDG.
 WARD BUILDING
 IN 34 SHEETS SCALE 1/8" = 4'-0"

GENERAL ENGINEER DEPOT U. S. ARMY WASHINGTON D. C.

APPROVED: *[Signature]*
 MAJOR, CORP. OF ENGINEERS U. S. A.

PREPARED BY: *[Signature]*
 ASSISTANT ENGINEER



OVERSEAS HOSPITAL BUILDINGS
 1000-BED UNIT
 ELEVATIONS & SECTIONS OF TYPICAL 28' FOOT BLDG.
 COMMUNICATING CORRIDORS
 IN 34 SHEETS SCALE 1/8" = 4'-0"

GENERAL ENGINEER DEPOT U. S. ARMY WASHINGTON D. C.

APPROVED: *[Signature]*
 MAJOR, CORP. OF ENGINEERS U. S. A.

PREPARED BY: *[Signature]*
 ASSISTANT ENGINEER

OVERSEAS HOSPITALS
 UNITED STATES ARMY

EDW. F. STEVENS ASSOCIATED ARCHITECTS
 CHARLES BUTLER
 36 WEST 45th STREET - NEW YORK

NO. 934
 CHECKED BY: *[Signature]*
 SCALE: AS SHOWN
 DRAWN BY: *[Signature]*
 DATE: 10-10-17 - 10-25-17

33

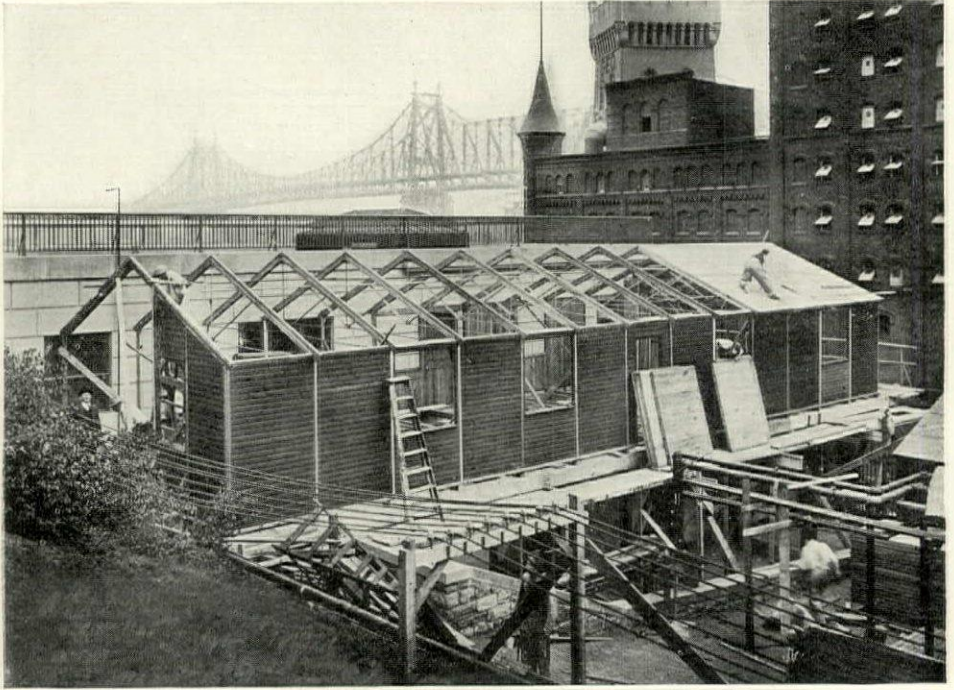


FIG. 18. ROCKEFELLER INSTITUTE BASE HOSPITAL WARD.
Butler & Rodman, Architects.

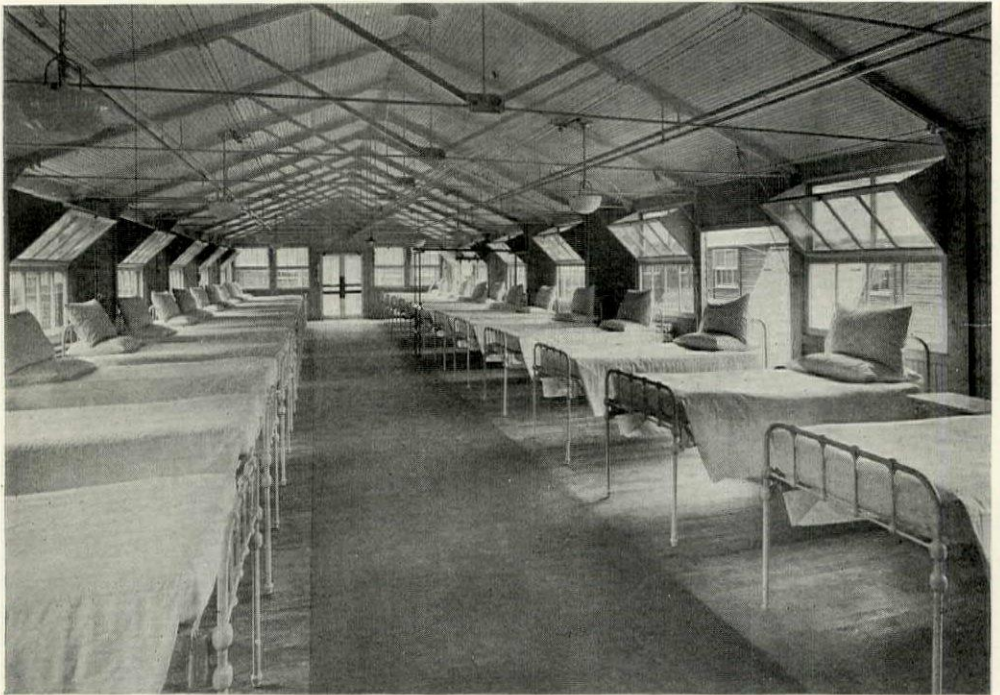
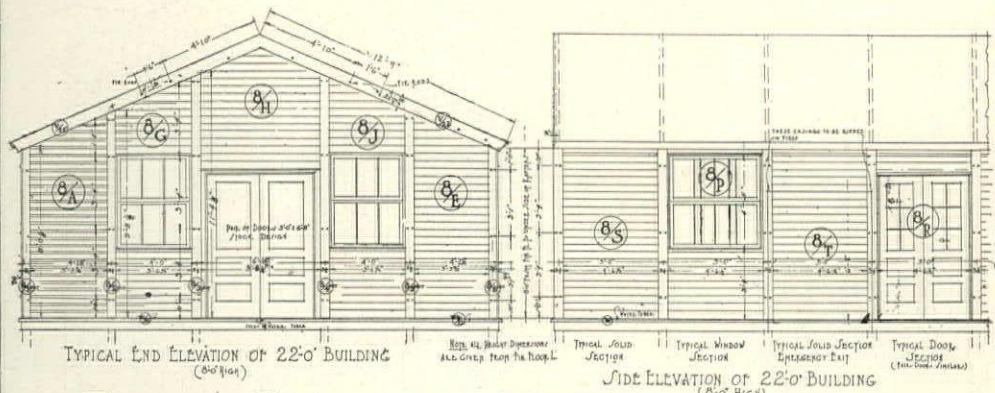


FIG. 18a. EXTERIOR VIEW. ROCKEFELLER INSTITUTE BASE HOSPITAL WARD.
Butler & Rodman, Architects.



TYPICAL END ELEVATION OF 22'-0" BUILDING
(8'-0" HIGH)

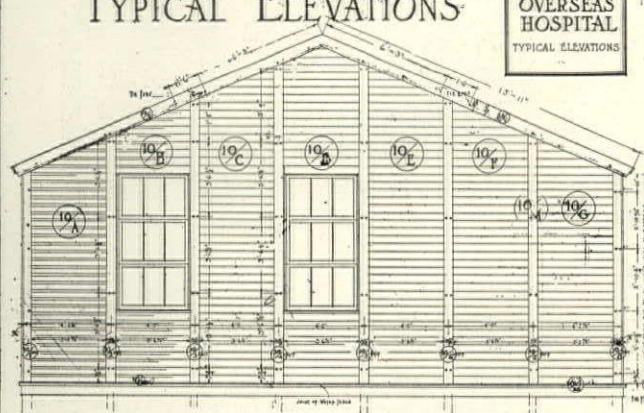
SIDE ELEVATION OF 22'-0" BUILDING
(8'-0" HIGH)

TYPICAL ELEVATIONS

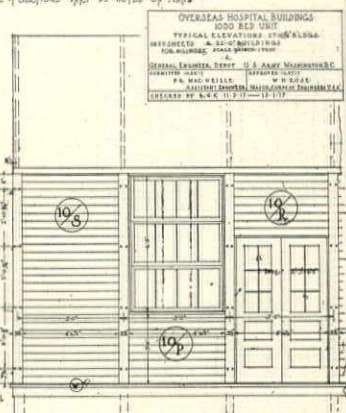
OVERSEAS HOSPITAL
TYPICAL ELEVATIONS

TYPE OF SECTIONS VARY AS NOTED ON PLANS

OVERSEAS HOSPITAL BUILDINGS
WOOD RED UNIT
TYPICAL ELEVATIONS OF OVERSEAS HOSPITAL BUILDINGS
DESIGNED BY W. H. H. HILL FOR BUILDINGS PLANS DIVISION
GENERAL ENGINEER, BUREAU OF ARMY ENGINEERING
WASHINGTON, D. C.
P. H. HILL DRAWN BY
ASSISTANT ENGINEER, BUREAU OF ARMY ENGINEERING
CHECKED BY W. H. H. HILL 11-17-17

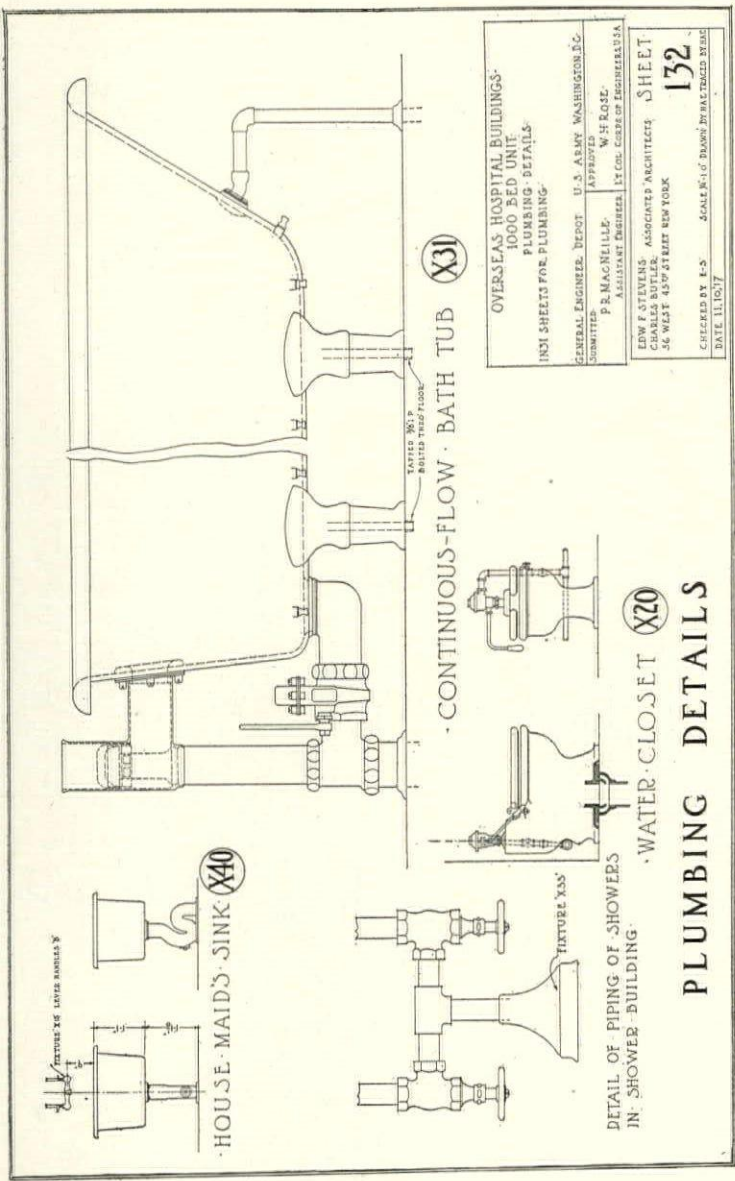


TYPICAL END ELEVATION OF 27'-10" BUILDING
(10'-0" HIGH)



SIDE ELEVATION OF 27'-10" BUILDING
(10'-0" HIGH)

880



OVERSEAS HOSPITAL BUILDINGS-
1000 BED UNIT.
PLUMBING - DETAILS
1001 SHEETS FOR PLUMBING.

GENERAL ENGINEER, DEPOT U.S. ARMY, WASHINGTON, D.C.
SUBMITTED BY P. R. MACNEILLE, APPROVED BY W. H. ROSE,
ASSISTANT ENGINEER, U.S. CORPS OF ENGINEERS, USA.

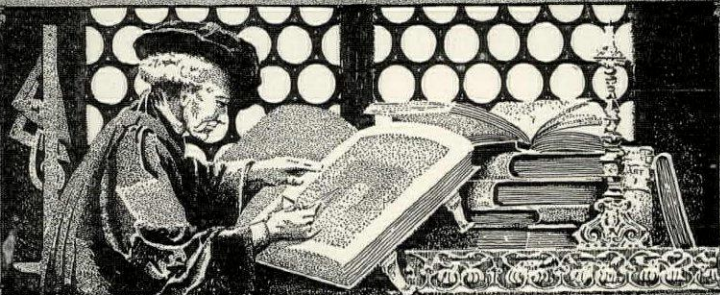
EDW. F. STEVENS ASSOCIATED ARCHITECTS SHEET 152
36 WEST 45th STREET NEW YORK

CHECKED BY R-S SCALE 1/4" = 1'-0"
DATE 11.10.27

PLUMBING DETAILS

FIG. 23.

THE ARCHITECT'S LIBRARY



BOOKS FROM UNIVERSITY PRESSES

By RICHARD F. BACH

Curator, School of Architecture, Columbia University

HERE should be no difficulty in discerning the even tenor of good quality maintained by at least three of our University presses in their recent works on architecture and the allied arts. It is, in fact, an unalloyed benefit that, in a country in which the federal or state governments do not themselves see fit to subsidize publications of great scientific, artistic or even popular value—but which, because of their necessarily limited appeal, are doomed to find but a limited sale—several great institutions have undertaken to issue such works through their University presses. In this respect, at least, the institutions have assumed certain responsibilities which in countries across the Atlantic are often taken under the mantle of a ministry of public instruction or of fine arts or under that of some branch of the government charged with the care of museums, collections, libraries, and the like. One might aver that under a system of government liberally democratic the great university or museum or other individual institution of educational or research purposes is distinctly a fit source for learned works, and especially for such of these as would win

but little favor or comment, not to mention sale, because of their frequently somewhat abstruse or exotic subject matter. What is more, there are not a few valuable productions that now receive full recognition, but that under other conditions could never see the light because their publication would have to be assumed by the author as a personal responsibility or else financed by a private benefaction. It is to the undying credit of that becoming modesty so rarely the accompaniment of great wealth, that there have been persons willing to bequeath or donate to universities large sums of money for such purposes, sometimes with restrictions as to the character of the works to be financed out of their gifts, but always with the good of the community sufficiently at heart to make it seem to the donors quite feasible to subordinate their own names to those of the university in question.

The most momentous undertaking on the part of any of our university presses in the field of fine arts is beyond question the remarkable work by Arthur Kingsley Porter on *Lombard Architecture*, the result of as painstaking and continuous

research as has ever graced the fruit of an archeologist's labors and a most salutary indication of the progress of American scholarship in the history of art. This product of the Yale University Press, amply vindicating the level of good quality so well illustrated by Goodyear's *Greek Refinements* (see The Architectural Record for March, 1915), is a study in four volumes of Romanesque art in northern Italy from the sixth to the thirteenth century, and has already been considered adequately and at length in the excellent review by Professor Hamlin published in this place in the May and September, 1917, issues of this journal.

* * * * *

The medieval field is again considered in Clarence Ward's *Mediaeval Church Vaulting* (Small Quarto; pp. xi + 192, ill. Princeton, N. J.; Princeton University Press; 1915. \$4.), which is number five of the Princeton Monographs in Art and Archeology. Acting on the assumption that the student of medieval architecture, especially of the Gothic era, finds perhaps its strongest appeal in the peculiar structural character which it possesses, Mr. Ward has prepared a treatise of enviable detail and accuracy. There are four long and thoroughly well illustrated chapters, dealing respectively with nave and aisle vaults, with transept and crossing vaults, with apse vaults, and with ambulatory vaults. There is an excellent index and bibliography that will be a blessing to students, for what is such a study without a good bibliography? There are no less than eighty-nine photographic illustrations, chiefly taken by the author, and four plates of carefully drawn plans. Mr. Ward's book will take its place as a thoroughly useful work in its field, by the side of other recent studies of germane character, namely, Bond's studies in English church vaulting, Moore's in French church vaulting and Porter's in Italian church vaulting.

To the list of works on Roman mosaics, chief among which are those by Gerspach, Frothingham and Barbier de Montault, the Princeton University Press has added a monograph by Charles R. Morey entitled *Lost Mosaics and Frescoes of Rome of the Me-*

diaeval Period. A Publication of Drawings contained in the collection of Cassiano dal Pozzo, now in the Royal Library, Windsor Castle. (Small Quarto; pp. 70, with 7 pl. and numerous text ills. Princeton, N. J.; Princeton University Press; 1915. \$2.) Mr. Morey's book is a study of a selected number of plates included in the great collection of drawings and prints which has been one of the most precious possessions of the library of Cardinal Albani, then under the custodianship of the renowned Winckelmann, and which had been purchased by George the Third through the agency of James Adam. The drawings selected for publication in the present monograph, number four of the Princeton Monographs in Art and Archeology, are copies of mosaics and frescoes which once decorated the churches of Rome but which are now destroyed either wholly or in part, or are so much changed by restoration or repainting as to bear little resemblance to their original appearance. A most interesting chapter is that dealing with Pietro Cavallini, the thirteenth century painter mosaicist, one of those pale personalities in the world of Vasari-inspired fictional biographies of artists, that is by infinitesimal steps assuming some definition.

* * * * *

As painter, sculptor, scientist, mechanician, musician, engineer or finally as architect, Leonardi da Vinci offers a subject of alluring fascination to the biographer. Realizing that Leonardo's painting and sculpture and architecture formed only a few of the many and varied facets from which his versatility reflected so consistent a radiance, a fragment only of the great soul's almost universal range of activity and thought—Professor Osvald Sirén of the University of Stockholm has prepared a fairly detailed life of the artist, entitled *Leonardo da Vinci, the Artist and the Man* (Imperial octavo; pp. xviii+235, over 200 illus. New Haven, Conn.; Yale University Press; 1916. \$6.), containing most of the facts known about him and depicting with remarkable clearness and in the inestimably valuable light of expert criticism the *milieu* out of which grew the

masterpieces with which we are familiar and whose inscrutability in some cases has been the prompter for endless conjecture and an acceptably justifiable cause for much confusion in the inkpots of critics of both high and low degree. As an art critic Professor Sirén's authority is undisputed and his masterly handling of esthetic analysis in the present work is good evidence of his ability. As viewed from the standpoint of its very readable text, this volume is again a notable performance, readily taking its place with A. J. Anderson's remarkable book, *The Admirable Painter*; while the superior quality of the illustrations leaves nothing to be wished for.

It is beyond the necessarily limited scope of the present one volume work to mention all that Leonardo prepared and planned as a creative artist. The author has confined himself mainly to paintings and sculptures and other efforts which were finally carried to execution wholly or at least in part, and to such drawings as were made in preparation for important works. Professor Sirén has directed particular attention and interest to Leonardo's chief qualities and has with good judgment relegated to a subordinate place all subjective hypotheses and questions of moot authenticity involving discussion of pros and cons on minor points. Priority has likewise been given to the study of the artist's mode of expression and to the course of his steady development in the light of his authentic works. To bring out this purpose effectively, so far as his paintings and sculpture are concerned, comparisons between Leonardo's works and earlier and later representations of similar subjects by other artists have been included, since the master's position in the history of art, and the epoch-making character of his contributions both in line and in form, can be realized most forcibly in the light of such a comparative method of treatment.

Most interesting for us at the moment, of course, is the chapter dealing with Leonardo's architectural occupations, which have not by any means approximated his accomplishments in the fields of painting or sculpture, but which have

been studied to such extent and with such good results that the artist has definitely taken his place as an architect of high ideals and sound execution; witness his studies for the dome of Milan Cathedral, and numerous specific problems, undertaken chiefly from a purely theoretician viewpoint, represented in extant original drawings, not to mention suggestions for an ideal city which, though formidable as a project, nevertheless contains hints at civic improvement then undreamed of and even now not conceived in such a grand manner. No great amount of attention needed to be granted in Sirén's book to da Vinci's architectural work, since any detailed study of this could be but a pendant to von Geymüller's systematic account or to Solmi's monograph giving detailed information as to actually executed buildings by Leonardo. We sincerely feel that Professor Sirén has done a great work in the present biography of this many-sided artist, a character of consummate versatility such as has not been so generally characteristic of our great men since the Renaissance.

* * * * *

An excellent study in a field not by any means adequately understood in this country is that by Mr. T. P. Bennett entitled *The Relation of Sculpture to Architecture*. (Large Octavo; pp. xii + 204, with 210 ills. Cambridge, England: Cambridge University Press; 1916. New York; G. P. Putnam's Sons. \$4.50.) An introductory chapter of the volume presents a discussion of the intimate relation of sculpture to architecture, noting the subservience of sculpture to surrounding architectural forms, the character of monuments of different types, the attraction and importance of architectural sculpture, the use of lettering, and gives some brief note of the character of modern design in this art in France, Germany and America. Then follows a chapter on the treatment and placing of sculpture in the historic periods, carrying the study from the Nile of 4000 B. C. to the English Renaissance. This is followed by two chapters on decorative sculpture in the sense of motives distinctly applied to architectural forms and those more closely related in the guise of carved orna-

mental forms. Four ensuing chapters are more theoretic in their nature, discussing the placing and environment of monuments, the limitations and ideal character of both small and large monuments, the nature of egregious monumental layouts involving large areas of adjoining territory as in the case of the proposed Robert Fulton Memorial in New York; while a concluding section is taken advantage of to urge a better understanding of sculpture by architects and of architecture by sculptors, the conditions to control the commissioning of a sculptor for architectural work and the consequent apportionment of responsibility. A most interesting feature of the volume is the number of well drawn plans showing the location of well-known monuments with regard to the position they occupy in reference to their environment, their scale and the observance of axes. A study of these plans brings an illuminating appreciation of basic facts easily lost in the perspective. Unfortunately the remainder of the illustrations are in too many cases not sufficiently clear; this is due, no doubt, at least in part, to the particular kind of paper stock used. In general it may be said that Mr. Bennett has made a valuable contribution to the understanding of a subject granted far too superficial an interest in many places.

* * * * *

The rich nature of the large amount of recent evidence furnished by discoveries in Crete, in Greece proper, and in Asia Minor, on the interesting subject of the Greek house, has given fresh impetus to the study and numerous articles have appeared written by English, German, French and Italian authorities and scattered throughout a host of archeological periodicals in various foreign languages; most of these periodicals are not as a

rule accessible to the student, and since nothing in the form of a continuous history or summary of the evidence and of the deductions based upon it has been generally available, we are glad to welcome the appearance of Miss Bertha Carr Rider's *The Greek House, Its History and Development from the Neolithic Period to the Hellenistic Age*. (Octavo; pp. xii+272, ill. Cambridge, England; Cambridge University Press; 1916. New York; G. P. Putnam's Sons. \$3.25.) The aim of the author has been to collect, collate, and present succinctly all the monumental evidence of importance from the Neolithic period onwards, as well as to give a summary of all the principal criticism to which it has been possible to obtain access, so that by this means the student of classic architecture may be given a broad purview of a most interesting domestic growth. From the nature of the work, the volume is not supposed to contain any new material; it is distinctly a compilation, but in the guise of a rewriting, and the result is surely worth while in the light of the vast amount of material which has thus been made available and in a sense consolidated. Harassed by a welter of bibliographic research that has driven us to most abstruse articles in out of the way corners, we naturally welcome with open arms any effort to reduce the number of possible places in which information upon a given subject might have to be sought, and usually the problem is not one of finding but of extricating the facts. Miss Rider has struck at one of the greatest weaknesses to which a noble profession can fall heir, and it is our fond hope that many another will be inspired to undertake in other widely trodden fields of research a similar task of simplification; if there is such a thing as efficiency in archeology, Miss Rider has hit upon it.