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To create a large country residence in the historic English styles and make it seem part of an American landscape, is an achievement. So rarely is the feat accomplished—though often attempted—that it arouses interest apart from its merit as a work of art; one is curious to know by what process it was done.

As a work of art, this residence is unusual. It maintains the fine standards set by Walker & Gillette in other designs. Its long mass lies beautifully amid the slopes of the landscape, enframed by tree tops and, in the foreground, by garden terraces and lawns. The surfaces and forms are broad, in beautiful color, with the sunlight playing over the whole, and the colors of the house vibrating in key with it. The site is the flat top of a hill—one of a ridge which forms a long, low rampart a mile or two back from the shores of Long Island—a landscape of low, swelling knolls and valleys, of fields and woods and pastures, and, down towards the shores, wide tidal flats. All is of that peculiarly luxuriant green of Long Island which is as soft as the moist sea-air that causes it.

Such is the landscape around Oyster Bay, and on a day of clear sunshine the house stands out in low, irregular, bow-shaped proportions—whitish walls, tinged slightly golden here and there, and surmounted by long roofs of a clear, rich golden brown, their ridges melting into the dazzling blue sky. The masses of trees and lawns below it are enlivened by contrast of balustrade or seat.
or curb of garden pool, clear white against the various greens.

The projecting gables and peaks of the house, particularly the three-sided court on the south, perfect in proportion and charming in detail, are wonderfully picturesque, yet without disturbing the harmony of the whole. Against the whitish wall, wood beams and details show russet brown, lighter and grayer than the roof; and the stone details of architecture are brought out by the play of big luminous shadows and crisp light and shade of belt courses, moldings and decorations. Arches of cloister and porch give depth and shadow to the white walls; and leaded windows reflect the sky, in a profounder blue, as of the sea.

It is all an effect of clear, strong color, harmonious in key and luminous in the light of the brilliant, slightly mellow Long Island sunlight. To the north the view is down, over the lower reaches of the landscape, to the waters of Long Island Sound, where the soft green islands and promontories lie in the brilliant blue waters, showing occasional streaks of white shores. Just such a splendid effect of color in the mellow sunlight of the sea did the architects create in the Rogers house at Southampton, Long Island, though there the colors were different—even richer, their key heightened, as became the setting right on the edge of the ocean beach, on top of the sand dunes, in a more vivid light and outdoor coloring.

Through this effect of color chiefly, the English forms have been made to look real in an American setting. They have been subtly transformed—in some cases transfigured. In this process of design there has been simplification, emphasis, and heightening of contrast between broad wall surfaces and centers of interest. The delicate scale has been kept perfectly, and the details of the architecture have been refined, and often invested with greater purity of shape and outline, as in the case of the balustrade. Moldings have been cut with flatter and thinner profiles, all bulges or surplus of changing surfaces—that might be charming in England—carefully eliminated. In this way the northern forms seem to acquire lightness and clearness and vividness—a more perfect beauty—which is native to an art created in brilliant sunshine, as in the art of Latin countries.

Such a transformation is the secret of much of Walker & Gillette’s success in this house—that, and the organization which they employed to create it. It is well to remember the spirit they have shown wherever it is proposed to adapt motives of north European origin to American scenes. For wherever in such forms there occur those faults of English or Teutonic origin—complexity which obscures centers of interest, or heaviness, dourness, dull muddy colors; or that intellectual taint, sometimes noted, which causes art to be abstract or pedantic; or that spiritual twist which may render it sentimental, or naturalistic, or cold or harsh or even crude or barbarous—all such faults should be eliminated from the forms, and their shape and lines perfected, and they should be vivified with color to make them count in a brilliant sunshine. If all this can be done without losing the fine qualities of northern art—its romance, its mystic turn, its poetry and imagination, and its homely, domestic spirit—then indeed the success may be striking. It is not saying too much to speak thus of this work of Walker & Gillette.

Meeting with such an achievement, one may well ask: How did the architects go about this feat of making the forms of Elizabethan England seem real in Oyster Bay?

They performed the feat in the only way possible; namely, by working absolutely in the old way, as leaders of a group of craftsmen, skilled in design and workmanship, who knew the old forms so well that they were able to design freely in the spirit, but careless of the letter, and all cooperating in the design as set before them by the architects. Part of this organization already existed in the architects’ office, notably an English designer who had absorbed his native forms from birth, been trained in them, and, equally important, who had worked long enough in this country to understand the subtle ways
PROPERTY PLAN—RESIDENCE OF WILLIAM R. COE, ESQ., OYSTER BAY, L. I. WALKER & GILLETTE, ARCHITECTS.
ENTRANCE DOOR—RESIDENCE OF WIL- LIAM R. COÉ, ESQ., OYSTER BAY, L. I. WALKER & GILLETTE, ARCHITECTS.
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LIVING ROOM FIREPLACE—RESIDENCE OF WILLIAM R. COE, ESQ., OYSTER BAY, L. L. WALKER & GILLETTE, ARCHITECTS.
GALLERY—RESIDENCE OF WILLIAM R. COE, ESQ., OYSTER BAY, L. I. WALKER & GILLETTE, ARCHITECTS.
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VIEW FROM GARDEN—AN EARLY STUDY FOR THE RESIDENCE OF WILLIAM R. COE, ESQ., OYSTER BAY, L. I. WALKER & GILLETTE, ARCHITECTS.
in which they must be changed to meet American conditions of brighter light. Much of the work done by the contractors was also handicraft. Particularly was this true of the interior details of woodwork, even the plasterwork of walls in certain parts of the house, also the metal-work details, the hardware, the glass, and much of the finish and the painting. The fine stonework was laid under the direction of a Scotch foreman who gathered masons of Scotch and English birth to assist him. All of them were familiar with the medieval British stonework and easily understood the purposes of the architects. Nothing was spared to make a perfect whole and to give it the spirit of craftsmanship. Even the usual electrical details of switch plates and panel boxes are specially designed ornamental hardware, hand-wrought. Throughout the house at every turn is thus evident that final touch which brings perfection to art—the touch of the human hand. Such effort is really not extreme. It is the only way in which the art of medieval forms can be made real to us. For this medieval art was, as almost no other art, an art of craftsmanship, of charm, of quaintness, of personality. Take craftsmanship out of it and you have left only a corpse—unreal, exotic, a pedantic affectation.

However, such work as this is not solely craftsmanship. It must be done under a guiding hand, and in modern times the leadership of the architect is essential. He must supply the fundamental design, must maintain the coordination of the design among the various craftsmen who are working on it, and he must firmly insist upon the taste. He, too, must be bred in the atmosphere, not only of the art itself, but of the idea which it is to express. That is, he must know instinctively the letter and spirit of the great country house, and be steeped in the American type of the Anglo-Saxon manners of which it is the symbol. In this way, the house he creates is a durable, livable home of people of breeding, and not an effect of the theatre.

I have attempted thus to convey some-thing of the spirit of the design before proceeding with a description of its characteristics. There is such a variety of detail, particularly in the interior, that only a few features of technical interest may be emphasized.

The scheme of the design may be seen from the plan. The house replaces an old one which had been destroyed by fire, and of which the gardens and landscape treatment had been well carried out. The house, therefore, was planned to fit the estate. This requirement of meeting particular conditions already existing on the site does not seem to have hampered the design; on the contrary, it afforded a fairly complete setting of planting which, in a new house, would have taken years to obtain. Sometimes, in fact, such a process may be of advantage, because to create in a landscape a masterpiece like this large country residence is a complicated task, and it is often more successful when arrived at by stages, in which experiment and elimination play a part.

The style of architecture of the exterior is a modified Elizabethan. The modifications are slight, and chiefly concern the methods described above. The north front, with its triple motive of gable and two-storied bay windows, is one of the best, and does not, as the photograph seems to show, have too much glass. In reality there is plenty of broad wall space to enframe these big windows. The east porch is particularly successful and it is one of the most difficult motives to incorporate in a design of this type. Its detail of arches, moldings, and sculptured sun dial deserve attention as a very striking instance of medieval forms modified to suit bright sunlight without losing their old spirit.

The stonework and the tile roof are remarkable. The stonework is all limestone, dressed white Indiana limestone for the architectural details, and a less regular stone for the walls. This wall stone is composed of odd, often discarded pieces, of all sorts of tooling, some weathered, some not, some very white, others of a faint gray yellow, which
SOUTH ELEVATION—RESIDENCE OF WILLIAM R. COE, ESQ., OYSTER BAY, L. I. WALKER & GILLETTE, ARCHITECTS.
EAST WALL OF COURT, LOOKING TOWARD DINING ROOM—RESIDENCE OF WILLIAM R. COE, ESQ., OYS-TER BAY, L. I. WALKER & GILLETTE, ARCHITECTS.
LIVING ROOM GABLE, FROM GARDEN—RESIDENCE OF WILLIAM R. COE, ESQ., OYSTER BAY, L. I. WALKER & GILLETTE, ARCHITECTS.
causes the golden play or vibration of light over the surface. The stone was picked up in the dealers’ yards around New York. It is laid in a fine variety of sizes, with joints also varied, many of them raked out, the rest left even with the face of the stone. The roof has flat tiles, about an inch thick, scored vertically for texture, and resembling shingles. Its warm, glowing brown color is obtained by a variety of shades, in which there are a few tiles of yellowish color, or light green, or bluish, and the rest are brown. The color of this roof is in large part responsible for the success of the whole, because it places a very rich, warm color between the brilliant color of walls and sky. Too often our roofs are dead and lifeless in color, and stifle the walls instead of crowning them.

One can only hint at the interest of the interior, with its wealth of detail, of odd spaces, motives, alcoves, and the like, too many to be shown here in photographs. How many of them there are may be guessed from a study of the first floor plan, where one will see that it is loosely composed of large chambers, not opening directly into one another, but separated by links. Each of these links is a point of interest itself and by its smallness emphasizes the spaciousness of the greater elements. This “looseness” is harmonized by a unity of light gray plaster walls and dark oak in most of the house. The decorations and the color are excellent, and they too evidence a cheerful arrangement of color in bright light.

A feature of interest is the variation of styles in the interior. In this it partakes of the spirit of historic English country houses which have been built gradually over the space of centuries, beginning with old feudal times. The entrance hall is Norman, as if it were the remains of an old feudal keep; the bulk of the house is Elizabethan, as if the place had been extended and made more habitable later; and the dressing rooms and den are eighteenth century, as if they had been added in later and more formal days.

Of the larger rooms the dining room is as fine as any, in its big proportions, historic fireplace, and its splendid bay windows in shallow alcoves. The plasterwork has almost the texture of stone, and is only the “brown” coat with sand-ed finish particularly well executed. Its wood ceiling is perfect in design and in the profiling of the moldings, recalling the best of the old English Gothic churches, the smaller churches of Somerset, like Sherborne Abbey, St. John’s at Yeovil and Bishop’s Lydeard, that little masterpiece in stone, almost hidden in a charming glen on the road from Taunton north to the sea.

The consistency of all this variety and interest and color is astonishing. It has been carefully harmonized to the smallest detail, until it expresses a single consistent purpose. As an example, the hardware is carefully designed iron, hand hammered and tooled for the most part, and brass in the den, where an exquisite doorknob in the form of a horse’s head is to be seen. Where the stonework appears too different in color from the plaster walls, or else too striking on the floors, it has been treated to harmonize it with the rest of the room. Thus great attention has been given to finish, in order to eliminate all trace of the machine, or of perfunctory, machine-like methods of workmanship.

Such, in brief, are the salient features of this latest work of Walker & Gillette’s. They have recreated the old, in the old spirit of craftsmanship, yet adapting it to an American setting. In no other way could they have been successful.
OCCASIONALLY it falls to the lot of those who travel the less frequented bypaths in Western Europe to happen upon some old building possessing an interest for which they are unprepared. Many such structures have escaped the literary recorders of shrines, owing to lack of pretension or of historic interest, or to independence of the architectural conventions. Yet some of these exercise a strong appeal; they endure as the perpetuation of spontaneous impulses of simple folk, revealing a passing phase of social evolution; they are the result of a contribution of the unlettered skill and toil whereby a former generation sought to dignify an exalted association or to create an enduring memorial glorifying a conviction.

Buildings that have arisen through such impulses possess a peculiar, austere form of moral beauty, sometimes almost unesthetic in nature, which is rarely discernible in structures of greater architectural pretension and purity of stylistic expression; an architectonic quality is sensed which parallels a moral attribute of the builders. Aesthetic aspirations are secondary to an independent spiritual objective, and the impulse which actuated manual labor asserts itself prominently in the result achieved. Before such structures we feel ourselves in the presence of an active sentiment, intimately associated with humanity—an entirely different impression from that conveyed by works of far superior artistic importance.

St. Mary’s Episcopal Church, which is here under analysis, belongs to the minor or more intimate class. Though it is impossible deliberately to reproduce the full effect of a compelling impulse that has left its impress on structural treatment in a past generation, there are nevertheless certain physical evidences which are capable of duplication; these have been carefully observed by the architect of this modern church, who has been at pains to modify accordingly his manner of building and his manipulation of material, thereby imparting the general scenic idea.

The extreme simplicity of this little church makes it appear to be for, and by, the villagers; with just sufficient ornamentality in its ecclesiastical accessories to dignify its function. An appearance of ingenuous craftsmanship precludes any suggestion of standardized methods in construction. It is one of a type—fortunately rapidly increasing in number—where necessary limitations in expenditure have caused the designer to create interest apart from decoration, by developing the innate decorative possibilities latent in inexpensive material. For example, in many brick buildings of comparatively recent date bricks have been used which, judged by commercial standards, were unfit for a wall facing; these, when laid with a certain degree of freedom, an appropriate bonding to give unity to wide tone variation, and that color of mortar which gives the best effect in jointing, often give a result unattainable with a material technically superior. In the rough quality of the walls, apparently built of stone to hand in adjacent pastures, a character has been developed thoroughly in keeping with an unpretentious building. This new standard of scenic value in material gives great latitude to the architect in buildings where cost precludes extreme refinement in structural detail.

Whether this expedient originated through an appreciation of the great aesthetic values of texture and tone quality found in ancient buildings of minor pretension, is a moot point; perhaps it evolved in reaction from the stereotyped technique of the skilled workman, trained
to correct variation in any form; whose mechanical uniformity in execution was formerly accepted without question as the highest grade of service; or perhaps it may prove to be an emergency method, bridging the old standards of craftsmanship to the new. It has not, in any case, been confined to building methods only, but has influenced technique in wood, ceramics, and many of the minor arts accessory to architecture and its decoration.

The exterior design of St. Mary's Episcopal Church is of the greatest simplicity. The wall surface is of stucco, applied with studied irregularity, and the little buttresses are obviously decorative incidents, rather than structural necessities; they might have been almost doubled in width, to add a measure of conviction to their presence, or they might have been omitted without detriment to the elevation. The simple gray slate roof conforms to the general decorative scheme. A small square tower flanks the northeast angle, decorated at the corners with gargoyles representing the symbols of the evangelists. The floor of the body of the church is made of medium sized flags of gray stone laid in random fashion, giving a valuable decorative interest, which the regulation uniformly sized flags would lack. The focal point of interest is naturally the chancel, centered on an interesting altar and reredos. The altar is built of English oak, paneled with polychrome moldings. The tester over the altar is also of English oak, painted in heraldic colors. The crucifix fills the center panel of the reredos; right and left are figures representing St. Mary, the patron saint, St. John, St. Stephen, St. James, St. Peter and St. Paul; both figures and crucifix are decorated with gold and color after the mediaeval fashion. Four circular inlays with cruciform motifs relieve the plainness of the altar front. Two rather unfortunate iron bars protrude from the two top corners of the reredos, serving the double purpose of

ST. MARY'S EPISCOPAL CHURCH, GOOD GROUND, L. I.
F. B. & A. Ware, Architects.
ST. MARY'S EPISCOPAL CHURCH, GOOD GROUND, L. I. F. B. & A. WARE, ARCHITECTS.
ALTAR AND REREDOS—ST. MARY'S EPISCOPAL CHURCH,
GOOD GROUND, L. I. F. B. & A. WARE, ARCHITECTS.
curtain rods and candle brackets; the method of hanging the draperies, which causes them to appear too short, is equally open to criticism. The floor of the chancel is relieved with quaint handmade tiles. Mr. W. Anthony is responsible for the interior fixtures.

The nave windows are of the casement type; leaded glass is used, made to resemble that of the early glassmakers and varying in thickness, quality of color and degree of transparency; many accidents of fusion occur, which are the despair of the mechanical technician and the joy of the artist. The sanctuary windows represent St. Mary, St. Anne and St. Joseph. In pursuance of the mediæval custom and traditional practice of glass-painters of that age, Mr. Heinike has idealized the head of the founder’s mother, to whose memory the church is dedicated; a likeness of her son in infancy has served for the head of the divine child.

A rood-screen, which is very necessary to the completeness of the ultimate effect, is now under preparation; without it, the massiveness of the roof rather overpowers the interior; the screen will add apparent height to the roof, to which a restrained illumination with color could not fail to be advantageous. It is to be hoped that such a feature will be included in the many schemes which the donor, Mrs. Charles Hardy, has under consideration for beautifying her gift.

The lighting fixtures, though extremely simple, have individual interest. A model of an ancient watchman’s lantern illuminates the main entrance. An amusing device has been contrived for the lighting of the body of the church; from wrought-iron hoops, horn bowls are suspended, as they were in olden times when a wick floating in oil was the method of lighting; the wick, however, has retired here in favor of Mr. Edison’s more con-
BAPTISMAL FONT—ST. MARY'S EPISCOPAL CHURCH, GOOD GROUND, L. I.
F. B. & A. WARE, ARCHITECTS.
venient substitute. An object of interest has thus been developed with the simplest means, in place of the hackneyed parodies of primitive craftsmanship which so frequently offend us in such structures. A quaint little baptistery figures at the west end, in which a marble font of Renaissance character makes a piquant note—an anachronism of style, if such it be, but with unlimited precedent; its silhouette is a charming incident in the vista down the aisle.

The church is well placed among a group of shapely trees; the unbroken meadow immediately surrounding the building makes one realize the degree to which the picturesqueness of many country churches is enhanced by their closely grouped and variously designed tombstones.
DOORWAY OF TRINITY LUTHERAN CHURCH, READING, PA., 1791.
EARLY ARCHITECTURE OF PENNSYLVANIA

THE doorway, from the very nature of its function as an entrance, soon became for Pennsylvania the object of studied attention and careful design. The owner and the builder seem to have combined efforts to produce an effect which, if not rich, was at least expressive of the social standing of the householder. William Penn set an example in this respect, for in 1686 he wrote to his agent, James Harrison, concerning the house which was being erected for the founder at Pennsbury, "Pray don't let the front be common;" and when the result proved not to his liking, he ordered a new front door because the "present one is more ugly and low."

The doorway of the Pennsylvania style is noteworthy for its simplicity and reserve in design. It partakes of a Quakerish modesty—a primness and restraint—that reflects the well ordered and circumspect life of the eighteenth century. It is less ornate than the contemporary entrances of either Boston or Charleston, and not so ambitious. There is, in addition, a readily recognized generic appearance that is discovered upon carefully examining the large group of extant examples. It helped to make up the family likeness that pervaded the houses of Colonial Philadelphia, which we are told were "as much alike as the sea-gods' daughters." Not that there was only one accepted form, but that the few types which became popular were repeated so frequently as to imply unusual circumstances surrounding their origin and development.

There are two circumstances in particular that exerted an influence and that gave a distinctive character to the doorway of the central colony. The first of these was the presence of trade gilds that had a flourishing existence in Pennsylvania and that bore a close relationship to the trade or art of building. The other significant incident or circumstance potent in the molding of the style was the early and regular acceptance of brick and stone, instead of wood, as the material for building.

The existence of builders' gilds or societies of skilled workmen in Pennsylvania is known, as is also their aim in banding together for mutual assistance and for the improvement of the crafts; but the effect which they had upon the architecture of the region has not heretofore been considered.

Pennsylvania was better supplied with skilled artisans than any of the sister colonies, largely because of the unusual circumstances under which the colony was founded. In sending forth the plea for followers to join him in his "Holy Experiment," William Penn particularized upon the need for "carpenters, masons and other mechanics—industrious spirits that are oppressed about a livelihood."* The ship lists that follow vouch for the success of the call, for many artisans were included on the ship rosters. Frequently these artisans were classified as "redemptioners" who were bound for a period, often of years, to work out the worth of their passage into the new world.

The Irish—of whom so many migrated to Penn's colony that James Logan, the secretary of the founder, soon complained that "it looks as if the whole of Ireland is to send its inhabitants hither"—were largely of the skilled mechanic class. One of the causes which led to this eighteenth century emigration from Ireland to America was the prohibitory discrimination against the trades and manufactures.

ENTRANCE TO THE EPHRAIM BLAINE HOUSE, CARLISLE, PA.
of Ireland in favor of those of England.†
Organization frequently follows any gathering of workers who, with common interests, live together in numbers. Two organizations in particular held an important place in the early history of Pennsylvania. The first of these, known as "The Carpenters' Company of Philadelphia," was founded in 1724. The other was the "Company of Masons and Stone Cutters," the date of whose origin is not known with certainty. The Carpenters' Company, we are informed, composed a guild large enough and sufficiently prosperous to be patterned after "The Worshipful Company of Carpenters of London." In time it attained a considerable importance and erected a place for gathering known as "Carpenters' Hall."

An important result can be recognized as following the organization of the trade guilds, a result that was destined to alter the prevailing method of building and to change the manner of design. While the guilds tended to encourage a certain unity of interests as well as a conformity of aims and fellowship, they nevertheless inaugurated the age of specialization or division of labor within the colony. The guild made possible the special craftsman in various departments of trade activity, and under this system the individual workman was master of his own time and worked for himself alone. There resulted a period of pure craftsmanship, when the carpenter, the cabinetmaker, and others took a genuine creative pleasure in their work. The worker himself was the originator of his executed design, whether a doorway, a wrought iron balustrade or an article of furniture. There was no capitalistic employer, or even architect, to dictate the output of his shop. There was an integrity in the architectural art of the workman, because his art was unhindered by compulsion or restriction, and the result was the free expression of the pleasure taken in craftsmanship. It was the time when the best in Colonial architecture for the American colonies was produced; the highest point attained by American craftsmen.

Experience has taught us that no amount of knowledge in the science and art of building, nor a complete acquaintance with the architectural achievement of past ages, can compensate for an indifferent attitude of workmen in executing carefully conceived plans. Today the skill of the architect cannot take the place of the very necessary thinking on the part of the workman, his joy in creating, his proud interest in the welfare of his efforts, the freedom of mind and of hand which is the basis of the success of Colonial architecture.

It is important, in attempting a clear understanding of the Pennsylvania style, to bear in mind that these craftsmen were specialists in separate branches of the building trade. There was the master-carpenter, responsible for the arrangement of plan and for the general ordnance of elevations; and there were the specialists in workshops who created the individual features such as doorways, windows and mantels.

The attainment of the condition that amounted to a division of labor was not sudden but extended over the first half of the century. It was fully developed in Philadelphia before 1750 and continued in effect until the end of the century. In what ways can this division of the building forces be recognized? Briefly, by the fact that labor became a group and not a single man: that is, by the separation of the varied branches of the building trade—the mason, the rough carpenter, the skilled woodworker, the metal craftsman and the plasterer.

It has been said that the coming of the architect, who sprang into being at the end of the eighteenth century, was responsible for putting an end to this ideal society of craftsmen. It is more probable that his coming followed the decay of the guilds and that the decay was due to other causes. The end of the guild system was an inevitable result of the changed order of life that followed close upon the American Revolution. The broadened horizon after the Federation, the rise of the school of historical criticism, the growth of individualism, the greater hurry of life, and the expansion of command over the forces of nature, all

DOORWAY OF SOLITUDE, PHILADELPHIA. BUILT BY JOHN PENN, 1785.
contributed materially to the new system of life. The architect's place was found ready for him.

With the passing of the craftsman, skilled workmanship disappeared. The architect became the important entity and earlier work there is freshness, sincerity and virility. In the latter there is a prevalence of shams, a thinness of parts and a lack of vigor, as well as a use of inappropriate motives and a lack of integrity that must be associated with the epoch of

architecture a matter of scholarship. The architect filled the role of critic and designer, at whose commands the work was performed. Because the inspiration of original creation was lacking, the results proved cold and perfunctory. A comparison of a house built before the Revolution with one executed in the early nineteenth century will convincingly reveal the extent of the degeneration. In the Greek Revival. It is true that our record of the worth-while buildings dwindles with the passing away of the gilds.

Our adherence to the prevalent supposition that the early builders were complete masters of their trade, participating in the designing of buildings, the rearing of walls, and in the leisurely fashion of the times altering and rechanging the
MAIN ENTRANCE, DICKINSON COLLEGE, CARLISLE, PA. DESIGNED BY BENJAMIN H. LATROBE, 1804.
proportions of parts until a complete and satisfactory whole was attained, does not bear careful examination.

The doorways and windows, in general, cannot be said to have been designed and thought out by the builder for their relation to surrounding masses; nor were their proportions the final result of careful study and needed correspondence to the height of walls and the sizes of adjoining parts. It was here that the influence of the separate craftsmen was evident; windows and doors were objects of design in themselves and were made in the workshops of the cities.

The presence of these workshops in Philadelphia is made known to us by the newspapers of the day, which frequently advertised their wares. The following item appeared in Benjamin Franklin's *Pennsylvania Gazette*, published in Philadelphia in 1741:

This is to give Notice, That John Boyd, of Philadelphia, carpenter (if health permits) will have a large Quantity of Door-Cases, Window-Cases with shutters and Sashes, fit for either Stone, Brick or Frame Houses; any Person may be Supplied with what Quantity he may have Occasion for, or some at present that is already finished, in Mar-
ket-Street, opposite the Sign of the Conestoga-Waggon, on reasonable Rates, by me, JOHN BOYD.*

The American Weekly Mercury of April, 1724, contained the following notice:

There is to be sold at Thomas Chalkley’s Store, Sash-Window ready painted, Glazed and Hung with Choicest Lines and Pullies just fit to put into Buildings.†

The similarity of glass sizes in existing buildings, the repetition of door proportions and the correspondence in door-way designs indicate that little time was lost by the builder in deliberating over subtlety in the relation of areas, and that the shops played an important part in the supply of stock parts.

This would seem to put a new light on our understanding of how the carpen-


ENTRANCE OF HOUSE AT CHESTER SPRINGS, PA. BUILT BEFORE THE REVOLUTION.
DOORWAY AND IRONWORK OF THE F. E. BELTZHOOVER HOUSE
CARLISLE, PA.
ERECTED THREE YEARS AFTER 1800.

KEY TO SCALE
ELEVATION
PLAN
SECTION
DETAILS

PLAN ELEVATION ABOVE

SECTION OF DOORWAY

DETAIL OF MARBLE ARCHITRAVE

KEY TO SCALE
ELEVATION
PLAN
SECTION
DETAILS

A. LOOMES
ENTRYWAY OF BELTZHOOVER HOUSE, CARLISLE, PA. EARLY NINETEENTH CENTURY.
DOORWAY OF HESS HOUSE, BOALSBURG, PA.
DOORWAY OF THE HARRIS HOUSE (WILLOW BANK), BELLEFONTE, PA., 1795.

MAIN ENTRANCE TO STENTON, PHILADELPHIA (18TH AND COURTLAND STREETS), 1728.
THE ROXBOROUGH DOORWAY, PHILADELPHIA.
whole; and the subject of proportion was not an aim in itself but was partly cared for by the very simplicity of the programme.

The choice of brick or stone for building exerted a controlling influence in the design of the doorway in Pennsylvania. In the case of the house constructed of wood throughout, the doorway was a part of the entire design, while with the adoption of more permanent materials, the doorway was subordinated and became an accessory. To make clear this influence that material had upon the doorway, let us contrast the erection of the characteristic New England house of wood with one of masonry. The house of wood, for example, of Newburyport or Salem, would naturally be conceived and constructed in a different manner from one in which stone and brick walls were used. The house of wood was conceived as a complete whole, and the entire building was erected by the same individual. The doorway was made an intimate part of the design. The use of wood for walls led logically to the use of wood pilasters and a full-membered cornice in the treatment of the façade. The decorative possibilities of wood were stressed in the New England house, and by so doing a distinctive character was given to the style.

With the brick or stone house, the method was different. Here there was not so close a relation between the wooden doorway and the masonry walls. Doorways, windows and cornices were adjuncts to the design. In other words, they were added to the stone or brick shells and were made in ways that were appropriate to the material of which they were a part. They were also, as has been shown, frequently the conceptions of individuals other than the builder, and certainly not of the mason. Windows and doors were usually conceived as frames for solid openings, and, as such, assumed the form of a "slip-frame." Woodwork was used almost entirely in a functional way and was an integral part of the construction. An instance of this is the doorway of the Governor Keith Mansion at Graeme Park. Another example of the constructed opening treated with a subordinate border of woodwork to serve as

"finish," is the doorway at Chester Springs illustrated on page 241. The arched door opening appealed to the builders because of its appropriateness and safety. Its popularity was a direct consequence of the regular acceptance of stone and brick.

The elliptical arched doorway of the Harris house at Bellefonte is a case where construction and design are closely related, although the shape is unusual for Pennsylvania, where the semicircular arch was almost always found. This particular door, with the adjoining window, reveals an oddity in the fact that both door and window are false, having been built into the outside face of the wall and being a purely external treatment.

The simple doorway of Stenton with its low arch was suited to a brick wall, so it could not reasonably have been used with wood. The entrance at 5933 Main Street, Germantown, shown on page 246, is an admirable example of appropriateness of design to material; first in the simplicity of woodwork which enframes the opening, and secondly in the lightness of touch which we associate with the surface of stucco.

It was from these primary and functional forms that the more elaborate but never excessively ornate examples were evolved. The characteristic pilastered door with slight projection, of which the one known as "The Roxborough Door" in Philadelphia is an example, indicates the commendable desire to adorn construction with simple and restrained means. Here is the Pennsylvania door par excellence, one which from the frequency of its use is typical.

It is exceedingly interesting to trace the circumstances surrounding the development of architectural design in any single feature, as has been done in this account. The modification of design by the presence of special craftsmen, whose close attention confined to the doorway aided the high degree of perfection which the feature achieved, is of uncommon importance. Not less potent was the influence of the chosen materials. The classification of the readily recognized kinds of doorways will be the subject of the following article.
The fame of the English Georgian cabinetmakers has been so long and so firmly established with us that all too little attention has been paid to our native craftsmen. It is only within a very few years that the name of Duncan Phyfe has meant anything even to collectors, and he is about the only one today whose work has received definite recognition. Nevertheless, fine furniture was made in this country during the late eighteenth and early nineteenth centuries, and not all of it by slavish copyists of the English styles. Now and then a fine piece comes to light that is undeniably American and undeniably original in conception and beautiful in execution. There are the block-front desks and secretaries of Rhode Island, for example. It is a great pity that in so many cases the names of the makers have been irrevocably lost.

One name, however, has recently come to light—that of William Savery of Philadelphia. Fortunately his work is comparatively easy to identify, and in some cases still bears his pasted advertisement. He preceded Phyfe by a quarter century or more, and though his work is less exquisite than that of the best of the New York cabinetmakers, it is far and away ahead of most of the ornate productions of his time and city.

The first reference to Savery that I recall appears on page 110, volume 1, of the 1913 edition of Luke Vincent Lockwood’s “Colonial Furniture in America.” It is brief and worth quoting in full. “It is a surprise to many,” he writes, “that beautiful pieces, such as these which are described and the dressing tables following, could have been made in this country. They were certainly the work of cabinetmakers of the first rank, and not only are such pieces found, but chests on chests, desks, and tables with pie-crust edges of the same quality are to be found, all traceable to Philadelphia. Who the cabinetmaker was, or whether there was more than one, is not known, but a dressing table of this type has been found (illustrated) in which is pasted an advertisement of the maker, which reads as follows: ‘William Savery, at the Sign of the Chair, near the market on Second...”
MAHOGANY LOWBOY BY SAVERY. FOUND NEAR PHILADELPHIA.

MAHOGANY SECRETARY OR BOOK-CASE DESK OF SUPERB WORKMANSHIP, BY SAVERY. FOUND BY MR. PALMER IN CAMDEN, N. J.

MAHOGANY LOWBOY BY SAVERY. A COMPANION PIECE TO THE HIGHBOY ON THE PRECEDING PAGE. FROM THE CANFIELD ESTATE.

MAHOGANY HIGHBOY BY SAVERY, FROM THE ESTATE OF RICHARD CANFIELD. NOTE THE FINE CARVING OF THE CARTOUCHE.
Triad Stand attributed to Savery. Found near Philadelphia.

Street. He, at least, was one of these cabinetmakers.

This last mentioned dressing table is the property of Mr. John J. Gilbert of Baltimore. The corners of the top are cut in the usual curves. The ends are recessed, with quarter-fluted columns inserted, and on the knees and center of the skirt are carved shells. The center drawer has the usual shell, but the streamers are more feathery than usual.

Certain other pieces illustrated and described in Mr. Lockwood's book are unquestionably the work of Savery, but it was not until Mr. George S. Palmer began his famous collection, now the property of the Metropolitan Museum of Art, New York, that connoisseurs began to observe a family resemblance in some of these pieces and at last to attribute them to the Philadelphia cabinetmaker.

Collectors and students of American furniture styles are indebted to Mr. R. T. Haines Halsey for the special study he has made of this subject for the museum. His findings were published in a bulletin which, I believe, is now out of print.

Most of the pieces in the Palmer collection which bore this family likeness were obtained in the vicinity of Philadelphia, but the identity of the maker remained a puzzle until William Savery's label was discovered on a lowboy in the Manor House Museum at Van Cortlandt Park, New York. By a process of comparison, then, the identification of the rest of Savery's work became possible.

Mr. Halsey was able to learn a few facts regarding the Philadelphia cabinetmaker. He was a Quaker and his marriage to Mary Peters was recorded in 1746. He died in 1787 at the age of sixty-five. He held one or two minor offices and was active in the management of public charities. Mr. Alfred C. Prime has unearthed other facts which lead to the conclusion that Savery became a man of considerable means; in 1780 he was taxed on a property valuation of $46,000. That his business was successful is evident.

Savery specialized, apparently, on the finer kinds of drawing room and dining room furniture, and his trade was probably with the well-to-do. Most of that which has been identified is of mahogany or fine Virginia walnut.

Where he learned his trade is not
known, but it is evident that he had access, like Duncan Phyfe and Samuel McIntire, to the best books of English design of his period. Though his personal touch is always in evidence, his style shows strongly both the Chippendale and the French rococo influence. One can easily discover details evidently inspired by the designs of Chippendale, Manwaring and Langley. In general, Savery's work belongs to the Chippendale school.

While the family resemblance that I have mentioned can better be felt than described, Savery employed certain favorite motives and forms which aid in identifying his work. He nearly always made use of the cabriole leg with the ball-and-claw foot. Sometimes he ornamented these legs with a shell at the knee, or with rococo and acanthus motives. He employed quarter columns at his corners, either fluted or otherwise carved. The carving on the skirts of highboys and lowboys, and their shape in general, were Savery's inventions. He was fond of the intaglio shell with feathery foliations. At the tops of his highboys and secretaries he employed urn and flame finials with square, fluted bases; carved foliated scrolls on the pediment; a bust or pierced cartouche for the central ornament. In general the treatment of shells, rococo, and fretwork carving was peculiarly his own.

In criticizing Savery's work and comparing it with Phyfe's, for example, it must be remembered that he lived in the Chippendale era when the tendency to ornament was difficult to overcome. At first glance there is something to be wished for in this furniture. One feels that in some cases it would be better if part of the ornament were removed. The rococo and foliations of the applied carving are sometimes a bit overdone, in some instances having almost the cheap look of nineteenth century machine-made stuff.

On closer inspection, however, this feeling is likely to disappear. The hand carving is so beautifully executed and so well balanced, and the proportions of the whole are so nearly perfect that one can forgive apparent redundancy. The workmanship is superb—quite evidently that of a master craftsman. This is all the more remarkable in view of Savery's time and country. Compared with the best English work of the period, it would be difficult to find anything to surpass it save the finest productions of Chippendale himself.

It is to be hoped that patriotic American collectors will profit by Mr. Palmer's discoveries and unearth more of this Savery furniture, as they have begun to unearth that of Duncan Phyfe of the Sheraton period.
The Villa Madama, just a little way outside the walls of Rome, is one of those buildings that might be called epochal because of the influences exerted by them upon both contemporary and subsequent architectural development. However, anyone expecting to find the Villa Madama a finished production of Renaissance art, or an architectural monument reverently maintained in a state of preservation, will be grievously disappointed. It is but a fragment of what it was intended to be and until recently, when the enthusiasm and intelligent efforts of a private owner intervened to stay the ravages of time, it was at the mercy of the elements and rapidly falling into decay.

The Villa Madama has exercised a profound influence by virtue of what was actually achieved in its construction and in the making of its gardens. It has exercised a still more profound influence through the plans of what the building and gardens were intended to be when completed. Those plans, unfortunately, were never even half carried out. Not more than a third of the princely pile devised by Raphael for the main structure was brought to a state of partial
completion. The various stables, garden houses, and other subsidiary buildings were either never finished or, for the most part, as a matter of fact, never even begun. The garden plans fared no better in their fulfillment. What was actually accomplished in the way of garden making was but a scant moiety of the magnificently ambitious scheme the ablest designers of the time had contrived on paper, a scheme fully in accord with and taxing to its full capacity the daring spirit of reckless and lavish expenditure that dominated the fore part of the sixteenth century.

But though so small a portion of this gigantic project was ever realized, the plans for the villa and its environment of gardens, wherein were all manner of delights that fertile Renaissance invention could compass, were known, and shown, and talked of throughout the length and breadth of Italy, and other princely builders and their architects failed not to draw therefrom suggestions that they forthwith put into effect in the several undertakings of villa building or garden designing on which they then chanced to be embarked. Thus the unfulfilled plans for the Villa Madama provided a substantial stimulus in an age prolific in villa building.

Not later than the year of grace 1517, Giulio de' Medici, cousin to Giovanni de' Medici, who is better known to history as Pope Leo X, began to build the villa or, at least, to prepare the site. In 1513 Giulio had received a cardinal's hat and it was in order with the spirit of the day that he should build himself, not too far from the papal court, a residence befitting the dignity of a prince of the Church, Archbishop of Florence and Vice-Chancellor of the Holy See.

To design and execute a splendid villa agreeably to the exalted notions conceived by the Cardinal it was but natural that he should turn to the architect who then most filled the public eye and enjoyed the height of current renown. And that architect was Raphael d'Urbino. Before he died, in March, 1514, Bramante, his sponsor and devoted friend, had made special request that Raphael be appointed his successor as chief architect of St. Peter's. Accordingly, by a papal brief dated August 1, 1514, Leo X designated Raphael to this extremely important post.

Raphael had already experienced the friendship, favor, and lavish patronage of Julius II and had redecorated for him with frescoes a series of stanzé above the Appartamenti Borgia in the Vatican. He had executed many frescoes and designed buildings for the Sienese financier and patron of the arts, Agostino Chigi. For Leo X, quite apart from his work as an architect in charge of St. Peter's, he had designed the cartoons for the "Acts of the Apostles" tapestries and had painted a portrait of the Pope with the Cardinals de' Rossi and de' Medici (Cardinal Giulio himself).

In working out the plans for Cardinal de' Medici's villa, Raphael doubtless drew freely upon his store of archaeological knowledge, and in this respect the Villa Madama may be regarded in a certain sense as an important link between the Villa traditions of ancient Rome and of Renaissance Italy. In addition to his notable pre-eminence in other attainments, Raphael was an antiquary of the highest rank. In 1515 Leo had appointed him inspector of excavations in Rome and in the region immediately round about the city. He was steeped in all the lore to be gained from an intimate acquaintance with the works of the Classic Age brought to light by digging and research, had a profound respect for them, and did not hesitate to make his own applications of what he thence derived. Nor by so doing did he surrender any of his own native force but rather intensified the individuality of his work.

In carrying out a large commission it was Raphael's wont to use the help of his ablest pupils, oftentimes entrusting them with wide discretionary powers and responsibilities of creation, he himself in such instances acting in little more than a supervisory capacity. Thus it was that Giovanni da Udine was invited to design many of the decorations of the Villa Madama. Owing to this method of intimate collaboration in which, amongst others, the brothers Battista and Antonio
da Sangallo also participated, as evidenced by the various drawings left by them, it is sometimes exceedingly difficult to say with any degree of certainty just how much is to be attributed to each of the masters working under the leadership of Raphael.

The general design, however, on the evidence of an extant portion of the plan by Raphael's own hand, the distinct statement of Serlio, and the incidental testimony of sundry contemporaries, seems unquestionably attributable to Raphael, although Giulio Romano, his favorite pupil and heir, to whom fell the task of completion, after Raphael's death in 1520, is probably to be credited with the design of much of the detail.

Work on the building, so far as it was ever completed, seems to have been finished in 1521. In 1523, Cardinal Giulio was raised to the Papal Throne as Clement VII and appears to have been too much occupied thereafter, by affairs of state and thickening political troubles, to push forward the completion of his villa on Monte Mario, and it was allowed to remain as Giulio Romano had left it. In 1527, during the sack of Rome by the Constable de Bourbon, the villa was damaged by fire, the attempt at destruction being doubtless prompted by the well-known fact that it was part of the Pope's personal property. Fortunately, no very great havoc was wrought and the work of restoration, which was shortly afterward entrusted to Antonio da Sangallo, put the building in substantially its former condition. Subsequently the villa passed through sundry vicissitudes of ownership, none of which seems to have been much to its advantage until the advent of the present owner.

Hitherto the Villa Madama has been known chiefly by its loggia and the decorations in it wrought by Giovanni da Udine in fresco, in a delicate relief of stucco duro, and also partly in a combination of stucco modeling in higher relief along with color. Several of the accompanying illustrations show enough of this work to convey a fairly adequate impression of the whole composition, saving the actual diversity of color. But wonderful and inspiring as these decorations are, it is as a complete whole, buildings and gar-
RESTORED PLAN IN PERSPECTIVE, ELABORATED FROM A COMPARISON OF THE ORIGINAL DRAWINGS. R. M. KENNEDY, FELLOW IN ARCHITECTURE, AMERICAN ACADEMY IN ROME, 1919.
Perspective by Raphael—Villa Madama, Rome.
dens together, that the Villa Madama is of most significance to us.

It was devised at a time when men were beginning to think and to plan with an hitherto unwonted breadth of conception and bigness of scale, and in a manner that found its precedent only in the days of Imperial Rome. Indeed, as previously intimated, it is more likely that Raphael was not a little influenced in his determination of a princely scheme by what contemporary researches and his own experience as an inspector of excavations in Rome had taught him of villa building in the time of the Caesars. Thus the Villa Madama, as a forerunner of the lavish magnificence bestowed by the nobility of Italy in creating country seats, in a notably lavish age, was really a strategic point in villa planning, and no one can hope thoroughly to understand the history of the Italian villa without a knowledge of the work of Raphael and his collaborators on the slopes of Monte Mario. The enterprise marked the early dawn of the Baroque period, a stage of Baroque development distinguished by noble breadth of scale and a symmetrical balance of plan, but not yet exhibiting the vagaries and whimsical mannerisms that so often characterized the later manifestations of this marvellously prolific era. The treatment was gorgeous and yet restrained.

A detailed and intelligent study of the Villa Madama must start with the plans, some of which it is possible here to reproduce in fairly complete form. The first shown are two renderings by R. M. Kennedy, Fellow in Architecture at the American Academy in Rome, for 1919. Both the ground plan of the villa and its gardens, and also the plan in perspective, represent a careful and thorough collation of all the plans and sketches, and their alternatives, either in complete or fragmentary form, now to be found. From these sources Mr. Kennedy's plan and perspective have been reconstructed. Following these are portions of Raphael's plan and perspective, and then alternatives prepared for Raphael by Battista da Sangallo.

The plan reconstructed by Mr. Kennedy shows the structure of the villa (as designed) in dark color, with a cir-
NORTHEAST FRONT, WITH TWO BAYS OF LOGGIA, FROM THE GARDEN—VILLA MADAMA, ROME.
THE GARDEN FROM THE LOGGIA—VILLA MADAMA, ROME.
SECTION OF GARDEN WALL AND ELEPHANT FOUNTAIN—VILLA MADAMA, ROME.
circular cortile in the center; a semi-circular theatre, for the open air performance of masques and comedies, hollowed out from the steep slope of the hill and entered by a passage from the cortile; a broad grass terrace on the level next below the villa; beneath this a long array of stables; again, below the stables, the orchards and kitchen gardens; to the northeast the gardens on the same level with the villa; beneath this, and facing toward the Ponte Molle, the triple-arched grotto and pool; stretching away to the northeast and southeast, a series of geometrically planned pleasure gardens—square, circular and elliptical—with appropriate buildings, colonnades, and arbors; and a boscoage with paths and vistas on the steep slope. A comparison with the perspective makes all these features of the plane plan sufficiently clear.

The alternative plans of Sangallo, which were never executed at all, show an oblong instead of a circular cortile, with a screen separating it from the large end of the hillside open air theatre. The loggia and the stanze adjacent are virtually the same as in Raphael's plans and the garden plan is perhaps less varied, less broken with diversities the lie of the land invites, and more regularly geometrical.

The Raphael plan shows in heavy lines what part of the villa was actually built and its present condition corresponds fairly well therewith. An examination of the garden plan shows that it formed the basis of Mr. Kennedy's restoration. For the rest, the plans speak so fully for themselves that further detailed discussion seems hardly necessary.

It appears to have been originally intended to cover the exterior with stucco and then decorate the surface with bold geometrical patterns in color or in slight relief. The failure to carry out this part of the plan has left exposed to view some interesting details of construction, especially in the entablature. The retaining wall of the upper garden—broken by three arched niches, in one of which is the elephant fountain—deserves study.
ALTHOUGH examples of excellent Colonial architecture are plentiful in South Carolina, accurate data pertaining to them are scarcely to be found. Especially is this true of Beaufort, which, although rather out of the way of modern travel, had in its time an important place in the life of this section. It was to such watering places as this that the well-to-do repaired for the summer months, and the spirit of sheer enjoyment which obtained there is strongly reflected in its architecture. One observes in the design a noticeable letting down of the barriers of formality. While the construction is substantial, there is a certain apparent crudeness in the execution of the carving and molded details. The paneling is apt to be handled in a haphazard fashion, the very debonair character of which adds a charm not to be found in the more nearly perfect sort.

More attention has perhaps been given to the details of the interior than to those of the exterior of the house, where the interest is concentrated on the entrance doorway. The accompanying drawings illustrate two interiors of widely different character, yet both showing the vitality and gaiety peculiar to this phase of early American architecture. The treatment of the end walls is typical—a fireplace, with a door on either side, and paneling worked out without regard for the other architectural features. These rooms are fairly lofty and give a decided feeling of airiness. The proportions of the fire openings are generous and remind one that even so far south roaring fires were not unwelcome at the beginning and end of the summer season.

The room from the Calhoun house is quite suggestive of the contemporary work in New England. The simplicity and delicate scale of the moldings would indicate that its inspiration may have been derived from that locality. Then, too, the conventionalization of the dentil course decoration in the mantel shelf is not strictly in keeping with its classic prototype, recalling rather the more crude, unlettered versions of the early work in the northern colonies.

Typical of Georgian influence in the work of South Carolina is the room from the Onthank house, with its richly ornamented moldings imbued with classic feeling but treated in a most novel manner. In the mantel cornice the dentils are alternated with carved pine cones and topped with a dog-tooth ornament; also, the usual round beading has taken an oval form. Here the absence of the customary raised panels is noticeable; instead, a very slight reveal is given the panels by the use of a simple bead. The simplicity of the door is offset by a rich and unusually graceful brass latch.

While, for the most part, these interior details are based on time-honored examples, they are treated in a manner peculiar to South Carolina.
THE GARDENS OF ROBERT GOELET, ESQ.
AT GLENMERE, CHESTER, N. Y.

The house is on top of a hill with a wide outlook over a lake and the surrounding country, while the gardens are down below, in the sheltered lowland.

The walls of the gardens are a warm rose-pink, with piers, copings, balustrades and steps in limestone coloring. The warmth of tone of these accessories confirms the intimate homey feeling imparted by the planting and furnishings—tubs and urns, troughs and vases, figures and sculptured reliefs.

A shrubbery-bordered path leads from the house through iron-work gates to a small balustraded upper terrace or garden with ornamental beds of low bedding plants. All the gardens are on different levels, which, of course, adds much to their charm. The centre garden is rich in flower bloom, especially with phlox and lilies in August. The east garden has beds of low-spreading roses, with climbers upon the walls—a gracious, rambling rose garden without stiffness. Again there are the same charming gates as at the western entrance.

Along the whole northern length of the main garden is a raised grass terrace, partly covered with a pergola; on the south is another lawn garden with two wall pools and a path across its centre that leads straight from the pergola through the main garden to a tea-nook under a great spreading tree beyond.

PLAN OF THE GARDENS OF ROBERT GOELET, ESQ., AT GLENMERE, CHESTER, N. Y.
STEPS TO UPPER GARDEN—THE GARDENS OF ROBERT GOELET, ESQ., AT GLENMERE, CHESTER, N. Y. BEATRIX JONES FARRAND, LANDSCAPE ARCHITECT.
FROM THE STEPS OF THE PERGOLA—THE GARDENS OF ROBERT GOELET, ESQ., AT GLENMERE, CHESTER, N. Y.
WALL POOLS OF SOUTHERN GARDEN—THE GARDENS OF ROBERT GOELET, ESQ., AT GLENMERE, CHESTER, N. Y.
THE PROSPECT FOR BUILDING

BY MICHAEL A. MIKKELSEN

ANY one who undertakes to construct a mental picture of the condition of the building industry must exclude so far as possible impressions derived from crowd psychology. It is a characteristic of the crowd that it forms exaggerated conclusions based upon a narrow complex of facts, blindly disregarding others. At present—early in February—the crowd-mind exaggerates the consequences of falling prices, and without looking for objective evidence concludes that building is practically at a standstill. If building is assumed to be nearly at a halt because of falling prices, the further assumption is readily accepted that it will not strike a brisker pace until the downward trend of prices has been checked.

But the facts are quite different. In the first place, prices are not a determining factor; they may be, and frequently are, offset by other considerations. In the second place, building is not practically at a standstill; on the contrary, it is relatively active. The capital represented by the contracts let in January of this year in the territory north of Ohio and east of the Missouri, according to statistics compiled by the F. W. Dodge Co., has been exceeded in the same month only twice in the last ten years, namely, in 1920, when the wave of industrial expansion was at its crest, and in 1918, when government war work was at high tide.

CONTRACTS LET IN JANUARY.

<table>
<thead>
<tr>
<th>Year</th>
<th>Valuation</th>
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<tbody>
<tr>
<td>1921</td>
<td>$111,806,900</td>
</tr>
<tr>
<td>1920</td>
<td>226,116,175</td>
</tr>
<tr>
<td>1919</td>
<td>54,104,940</td>
</tr>
<tr>
<td>1918</td>
<td>152,065,000</td>
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<tr>
<td>1917</td>
<td>90,849,000</td>
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<tr>
<td>1916</td>
<td>62,784,500</td>
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<tr>
<td>1915</td>
<td>43,257,000</td>
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<tr>
<td>1914</td>
<td>51,102,000</td>
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<td>1913</td>
<td>62,810,500</td>
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<tr>
<td>1912</td>
<td>38,910,000</td>
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<td>1911</td>
<td>66,892,000</td>
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Despite fluctuations in the purchasing power of the dollar, this table effectually disposes of any assertion that the construction industry is hopelessly stagnant. Not only is it fairly active, but it is evidently being carried forward by an undercurrent of optimism, inasmuch as the January contracts lead the December contracts by more than $11,000,000.

For those whose impressions are essentially reactions to crowd psychology there will be further surprises in the classified list of contracts awarded in January. The distribution of capital between public and private work is normal; all classes of buildings are well represented; there is a wholesome increase in the percentage of residential building, compared with January of last year, without any inordinate slump in the percentage of business buildings and industrial plants. The activity is properly balanced, indicating sound economic motives and conditions.

CONTRACTS AWARDED IN JANUARY, 1921.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Number of Projects</th>
<th>Valuation</th>
<th>Per Cent.</th>
</tr>
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<tbody>
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<td>$20,561,100</td>
<td>18</td>
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<td>Educational Buildings</td>
<td>73</td>
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<td>Hospitals and Institutions</td>
<td>31</td>
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<td>Industrial Buildings</td>
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<td>15,428,700</td>
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</tr>
<tr>
<td>Military and Naval Buildings</td>
<td>12</td>
<td>1,427,400</td>
<td>1</td>
</tr>
<tr>
<td>Public Buildings</td>
<td>27</td>
<td>1,070,000</td>
<td>1</td>
</tr>
<tr>
<td>Public Works and Public Utilities</td>
<td>237</td>
<td>24,186,100</td>
<td>22</td>
</tr>
<tr>
<td>Religious and Memorial Buildings</td>
<td>56</td>
<td>2,261,000</td>
<td>2</td>
</tr>
<tr>
<td>Residential Buildings</td>
<td>1,575</td>
<td>30,756,200</td>
<td>28</td>
</tr>
<tr>
<td>Social and Recreational Buildings</td>
<td>70</td>
<td>4,423,500</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,838</strong></td>
<td><strong>$111,806,900</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

What is perhaps most instructive about the table is that nearly one-third of the capital is going into business and industrial buildings. It will not do to assume that this large investment is ill-considered. Those who make it had at least six months to think it over in a state of mind unprejudiced by the psychology of the feverish industrial activity which prevailed early in 1920.
Another outstanding fact is that 28 per cent of the capital is allocated to residential building, including private dwellings and apartment houses. In 1920 this class received only 22 per cent of the total. Evidently rents bear a more normal relation to the cost of improved real estate and to the cost of operation than they did last year.

The two classes, residential buildings and business buildings, are particularly interesting; it is in these that rental income is most often the sole motive for building. These absorbed 46 per cent of the capital.

Finally, it is to be observed that the total number of projects of all classes this January (2,838) is 71 per cent of the biggest January in ten years—that of 1920 (3,979). In one respect only is the January investment of this year small. It is small in proportion to the need for building—to the work contemplated but not undertaken.

What were the considerations which impelled a minority of prospective investors to take action in contravention of the psychology which induced the majority to refrain from action?

One consideration no doubt had to do with the cost of construction, which is composed of two nearly equal parts—the cost of labor and the cost of materials. Prices of the latter may come down further, but not enough to equal the loss of having to take second choice of labor. A vast deal of inefficiency and cost of labor is due to scarcity of trained teams or gangs. Team-work is not acquired in a week or a month, and a contractor makes every effort to keep at work a body of men who have grown used to each other's and to their employer's methods. He can make a low bid on a job for which his permanent "team" of men is available; if he has to employ a new team for a second building, his bid on the second building will have to be very considerably higher.

Furthermore, the cost of carrying va-
Late in March there will be opened the annual Own Your Home Exposition in Chicago, lasting from March 26 to April 2; and this will be followed by the one in New York, from April 16 to 30. This year the organizers of these undertakings are planning them on a broader scale than ever before.

Any means of stimulating ownership in homes deserves support. The steady growth of tenantry in the United States and the reasons for it (see "Recent Developments of Housing Finance," Architectural Record, November and December, 1920), should convince anyone of the pressing need of patiently teaching the public how to invest safely in homes. The home ownership policy is largely a matter of protecting unsuspecting investors, untrained in building methods, from the unscrupulous—or at least unenlightened—operations of those who would seek to take advantage of their inexperience.

Hence the organizers of the expositions do well to emphasize the educational side of their program. Such expositions would be most successful, as well as most interesting, when they are as little commercial as possible. Exhibits of designs, of handiwork, of interior furnishings, of methods and ways and appliances in building, and the proper use of materials—how not to build as well as how to build—all these are of true, durable value. Wherever things are sold directly, the promoters of the exposition should hold themselves responsible for seeing that the buyers obtain a fair product at a fair price. Particularly is it necessary to see that the irresponsible land speculator, who perhaps is the worst evil in the small building field, should be kept out.

For architects, the expositions this year have an especial value, because in them will be shown the results of a competition in small house designs, open to all architects in the country. It is approved by the American Institute of Architects and is conducted by Henry K. Holsman, president of the Illinois Chapter. The prize plans will be sold, with compensation made to the designer for every reproduction.

This provision offers an excellent opportunity to architects, particularly the young architect, of entering the field of small houses. Architects of established practice can be of service as consultants; the opportunity is primarily for the young architect, on whom, after all, will devolve the chief burden of the design of small homes. A complete list of prize winners and those receiving honorary mention follows:

**Frame**

**Brick**
1st, Edgar and Vernon Salomonsky; 2d, John Barnard; 3d, Henry F. Stanton, and Charles Crombie; 4th, Ainslie M. Ballantyne.

**Stucco**
1st, Louis Justement; 2d, Amedo Loone; 3d, Montgomery and Nibecker; 4th, Theodore Vischer and James Burley.

**Mention**
John Floyd Yowell, Paul Hyde Harbach, James A. Parke, Robbins Louis Conn.

**Brick**
Mention: Johnson and Ford, Chauncey Hudson, Richard W. Powers, Isador Richmond.

**Stucco**

**Group Prizes**
4-Room, Richard W. Powers; 5-Room, John Floyd Yowell; 6-Room, J. Ivan Dise and E. J. Maier.

Robert Imlay.